



## *ORD Publications Announcement*

### **May-June-July 1982**

The Environmental Protection Agency's Office of Research and Development announces the availability of printed publications on a wide range of environmental topics. As a part of EPA's efforts to make available better information for environmental decision making, we are offering the following types of publications at no charge.

**Project Summaries** are short synopses of key findings of project reports. These reports present the results of recently completed research, development and engineering work. The summaries convey the essence of a project in terms comprehensible to the technical community at large. The complete reports are available only from the National Technical Information Service.

**Research Summaries** are issue- or problem-oriented summaries of EPA's research activities in a particular area. They include distilled descriptions of all of our major research projects which address the subject of the booklet.

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**Program Summaries and Plans** go into significantly more programmatic detail than the above-mentioned reports and are intended to convey both the substance and the organizational

structure of the research program. They are designed to satisfy those whose interest in our program requires a greater level of detail.

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The following pages list titles of publications that are available in each category; Project Summaries are subdivided by subject area. Publications announced for the first time are displayed in **bold type**. To order any publication, circle the corresponding order number on the order form at the back of this *Announcement* and return the entire back page, with your mailing label attached, to:

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# Announcement for Publication Material

## Project Summaries

### Environmental Health Effects Research

- 10001 Pesticide Effects on Prenatal Cardiovascular Physiology (Mirex-Exposed Rat Fetuses and Newborns) (EPA-600/S1-80-032)
- 10002 Study of Pathogenic Free-Living Amebas in Fresh-Water Lakes in Virginia (EPA-600/S1-80-037)
- 10004 Chromosome Aberrations in Peripheral Lymphocytes of College Students as a Response to Photochemical Air Pollution (EPA-600/S1-81-007)
- 10005 Effects of 2% Venous Carboxyhemoglobin on Exercise-Induced Angina Pectoris (EPA-600/S1-81-012)
- 10007 Effect of Industrial Particulate Samples on Alveolar Macrophages (EPA-600/S1-81-003)
- 10009 Effect of Chlorine Dioxide, Chlorite and Nitrite on Mice with Low and High Levels of Glucose 6 Phosphate Dehydrogenase (G6PD) in their Erythrocytes (EPA-600/S1-81-014)
- 10010 Assessment of Mutagenic Potential of Mixtures of Organic Substances in Renovated Water (EPA-600/S1-81-016)
- 10011 Air Pollution and Health Effects in Children Residing in Akron, Ohio (EPA-600/S1-81-004)
- 10013 Mutagenesis Screening of Pesticides Using *Drosophila* (EPA-600/S1-81-017)
- 10014 Epidemiological Study of *Klebsiella pneumoniae* Among Pulp and Paper Mill Workers (EPA-600/S1-81-023)
- 10015 Investigation of Effects of Prolonged Inhalation of Nickel-Enriched Fly Ash in Syrian Golden Hamsters (EPA-600/S1-81-009)
- 10016 *Tradescantia* MCN-In-Tetrad Mutagen Test for On-Site Monitoring and Further Validation (EPA-600/S1-81-019)
- 10018 Effects of Halogenated Aromatic Compounds on the Metabolism of Foreign Organic Compounds (EPA-600/S1-81-010)
- 10022 Mutagenic Activity and Chemical Characterization for the Palo Alto Wastewater Reclamation and Groundwater Injection Facility (EPA-600/S1-81-029)
- 10024 Potential Health Effects from Viable Emissions and Toxins Associated with Wastewater Treatment Plants and Land Application Sites (EPA-600/S1-81-006)
- 10025 Determining Effect of Pollutants on the Immune System (EPA-600/S1-81-020)
- 10026 Tracheal Organ Culture as Air Pollution Damage Indicator (EPA-600/S1-81-021)
- 10027 Pilot Program for the National Environmental Specimen Bank-Phase I (EPA-600/S1-81-025)
- 10028 Effects of Etiologically Defined Respiratory Infection on Lung Function and Its Growth in an Area of Low Air Pollution-Spirometry in Young Children When Illness-Free (EPA-600/S1-81-022)
- 10030 Health Effects of Sewage Aerosols: Additional Serological Surveys and Search for *Legionella pneumophila* in Sewage (EPA-600/S1-81-032)
- 10031 Effects of Ozone on Leukocyte DNA (EPA-600/S1-81-031)
- 10032 Teratology and Postnatal Studies in Rats of the Propylene Glycol Butyl Ether and Isoctyl Esters of 2,4-Dichlorophenoxyacetic Acid (EPA-600/S1-81-035)
- 10033 Carcinogenic Potential of Rotenone: Subchronic Oral and Peritoneal Administration to Rats and Chronic Dietary Administration to Syrian Golden Hamsters (EPA-600/S1-81-037)
- 10034 Effect of Conventional and Advanced Coal Conversion By-Products on the Pulmonary System (EPA-600/S1-81-038)
- 10035 Effects of Particulate Air Pollution on Asthmatic Subjects (EPA-600/S1-81-033)
- 10036 Skeletal Variants as an Indicator of Biological Effects of Environmental Contaminants (EPA-600/S1-81-034)
- 10037 Report of Workshop on Epidemiologic Studies of Airborne Particles (EPA-600/S1-81-039)
- 10038 Interaction of Acid Sulfates and the Respiratory System (EPA-600/S1-81-036)
- 10039 Hematologic and Immunologic Studies of Humans Exposed to SO<sub>2</sub> (EPA-600/S1-81-047)
- 10040 Development of an In Vitro Neurotoxicity Assay (EPA-600/S1-81-043)
- 10041 The University of Akron Urban Air Pollution and Human Health Study (EPA-600/S1-81-050)
- 10042 Microwaves, Hyperthermia and Human Leukocyte Function (EPA-600/S1-81-041)
- 10043 Determinants of Cancer and Cardiovascular Disease Mortality in Asbestos Mining Counties of California (EPA-600/S1-81-042)
- 10044 Potency Ranking of Chemicals Based on Enhancement of Viral Transformation (EPA-600/S1-81-045)
- 10045 Temporal Variability of Toxic Contaminants in Animal Diets (EPA-600/S1-81-040)
- 10046 Effects of Sulfuric Acid Mist Exposure on Pulmonary Function (EPA-600/S1-81-044)
- 10047 Ultrastructure and X-Ray Microanalysis of Macrophages Exposed to Non-Criteria Pollutants with Emphasis on Certain Metals (EPA-600/S1-81-018)
- 10048 Improved Scoring of Chemical Transformation of C3H/10T1/2 Cells (EPA-600/S1-81-046)
- 10049 Sensitive Biochemical and Behavioral Indicators of Trace Substance Exposure, Part II. Platinum (EPA-600/S1-81-015)
- 10050 Epidemiological Studies of Otitis Externa: Report of a Prospective and of a Retrospective Study of Otitis Externa Among Swimmers (EPA-600/S1-81-053)
- 10051 Effects of Post-Implantation Exposure to Selected Pesticides on Reproductivity in Rats (EPA-600/S1-81-048)

- 10052 New Approaches to Quantitating the Pulmonary Effects of Inhaled Pollutants (EPA-600/S1-81-052)
- 10054 Development of Methodology for Determining Risk Assessment When Sludge is Applied to Land (EPA-600/S1-81-058)
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- 10056 Association Between Birth Defects and Exposure to Ambient Vinyl Chloride (EPA-600/S1-81-057)
- 10057 Recreational Water Quality and Health (EPA-600/S1-81-059)
- 10058 Respiratory Carcinogenicity of Diesel Fuel Emissions (EPA-600/S1-81-054)
- 10059 Sewage Sludge Pathogen Transport Model Project (EPA-600/S1-81-049)
- 10060 Study of Chlorine Dioxide and Its Metabolites in Man (EPA-600/S1-81-068)
- 10061 Studies in Children Exposed to Low Levels of Lead (EPA-600/S1-81-066)
- 10062 Health Implications of Coal Related Energy Development: Mining Impacts (EPA-600/S1-81-060)
- 10063 Evaluation of the Tentative Standard Method for Enteric Virus Concentration and Detection (EPA-600/S1-81-061)
- 10064 Organic and Organotin Compounds Leached from PVC and CPVC Pipe (EPA-600/S1-81-062)
- 10065 Mechanisms of Cadmium Absorption in Rats (EPA-600/S1-81-063)
- 10066 Community Health Associated with Arsenic in Drinking Water in Millard County, Utah (EPA-600/S1-81-064)
- 10067 Determination of the Effects of Material from Alternate Energy Sources on the Upper Respiratory Tract Clearance Mechanism: Part I and Part II (EPA-600/S1-81-067)
- 10068 Development and Evaluation of an Ambient Viable Microbial Air Sampler (EPA-600/S1-81-069)
- 10069 Effects of Short-Term Intermittent Air Pollutants on Incidence and Severity of Acute Respiratory Disease: Data Collection and Quality Assurance (EPA-600/S1-81-065)**
- 10070 Chronic Toxicity of Lead and Cadmium III. Effects of Chronic Intoxication on the Reproductive Function of the F<sub>1</sub> Generation and on the Central Nervous System of the F<sub>2</sub> Generation of Rats (EPA-600/S1-82-006)**
- 10071 Toxicology of Pesticides (EPA-600/S1-82-001)**

### **Environmental Protection Technology**

- 20001 The Revised Organic Chemical Producers Data Base System (EPA-600/PS2-80-164)
- 20003 Source Assessment: Dry Bottom Utility Boilers Firing Pulverized Bituminous Coal (EPA-600/S2-80-042C)
- 20005 Collection and Interpretation of Level 1 IR and LRMS Data (EPA-600/S2-80-177)
- 20006 GC/MS Methodology for Measuring Priority Organics in Municipal Wastewater Treatment (EPA-600/S2-80-196)
- 20007 Evaluation and Application of SO<sub>x</sub> Measurement Procedures for Kraft Recovery Furnaces (EPA-600/S2-80-186)
- 20008 Predicting Cattle Feedlot Runoff and Retention Basin Quality (EPA-600/S2-80-192)
- 20009 Innovative Destruction of Complex Industrial Wastes—Auto Oxidation of Tannery Beamhouse Wastewater (EPA-600/S2-80-210)
- 20011 Development of a Chemical Toxicity Assay for Pulp Mill Effluents (EPA-600/S2-80-206)
- 20012 Process Spill Monitoring, Control and Recovery in the Pulp and Paper Industry (EPA-600/S2-80-211)
- 20013 Assessment of Organic Emissions in the Flexible Packaging Industry (EPA-600/S2-81-009)
- 20014 The Cost of Alternative Flue Gas Desulfurization (FGD) Sludge Disposal Regulations (EPA-600/S2-80-178)
- 20015 Cost Comparisons of Treatment and Disposal Alternatives for Hazardous Materials. Volumes I and II (EPA-600/S2-80-188)
- 20016 GC/MS Analysis of Ambient Aerosols in the Houston, Texas Area (EPA-600/S2-80-194)
- 20017 Modified Factor Analysis of Selected RAPS Aerosol Data (EPA-600/S2-80-195)
- 20018 Polynuclear Aromatic Compounds-Synthesis and Purification (EPA-600/S2-80-204)
- 20021 Chlorination of Aquatic Humic Substances (EPA-600/S2-81-016)
- 20022 Concentration Technologies for Hazardous Aqueous Waste Treatment (EPA-600/S2-81-019)
- 20023 Field Tests of Corrosion Control to Protect Asbestos-Cement Pipe (EPA-600/S2-81-023)
- 20026 Metal Particulate Emissions from Stationary Sources. Volume 2. Characterization of Collection Filters (EPA-600/S2-80-203)
- 20027 Nationwide Assessment of Receiving Water Impacts from Urban Stormwater Pollution. Volume 1: Summary (EPA-600/S2-81-025)
- 20028 Particle Size Variation Effects on Landfilled Solid Waste: Cold Climate Studies (EPA-600/S2-81-018)
- 20029 Helminth and Heavy Metals Transmission from Anaerobically Digested Sewage Sludge (EPA-600/S2-81-024)
- 20030 Evaluation of Powdered Activated Carbon for Removal of Trace Organics at New Orleans, Louisiana (EPA-600/S2-81-027)
- 20031 Evaluation of Solid Sorbents for Water Sampling (EPA-600/S2-80-193)
- 20033 Evaluation of Mixing Systems for Biogasification of Municipal Solid Waste (EPA-600/S2-81-031)
- 20034 Interrelationship of Bacterial Counts With Other Finished Water Quality Parameters Within Distribution Systems (EPA-600/S2-81-035)
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- 20058 Physical/Chemical Treatment of Blast Furnace Wastewaters Using Mobile Pilot Units (EPA-600/S2-80-107)
- 20059 Safe Disposal Methods for Agricultural Pesticide Wastes (EPA-600/S2-81-074)
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- 20061 Areal Prediction of Water and Solute Flux in the Unsaturated Zone (EPA-600/S2-81-058)
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- 20064 Filter Media for Collection Diesel Particulate Matter (EPA-600/S2-81-071)
- 20065 Engineering Assessment of Vermicomposting Municipal Wastewater Sludges (EPA-600/S2-81-075)
- 20066 Effectiveness of Activated Carbon for Removal of Toxic and/or Carcinogenic Compounds from Water Supplies (EPA-600/S2-81-057)
- 20067 Report of the Interagency Ad Hoc Work Group for the Chemical Waste Incineration Ship Program (EPA-600/S2-81-037)
- 20068 Lime Stabilization and Ultimate Disposal of Municipal Wastewater Sludges (EPA-600/S2-81-076)
- 20069 Irrigation Tailwater Management (EPA-600/S2-81-034a)
- 20070 Evaluation of the Effectiveness of Granular Activated Carbon Adsorption and Aquaculture for Removing Toxic Compounds from Treated Petroleum Refinery Effluents (EPA-600/S2-81-067)
- 20071 Development of Measurement Methodology for Evaluating Fugitive Particulate Emissions (EPA-600/S2-81-070)
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- 20073 Facultatus Lagoon Effluent Polishing Using Phase Isolation Ponds (EPA-600/S2-81-084)
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- 20075 Cropping Systems for Treatment and Utilization of Municipal Wastewater and Sludge (EPA-600/S2-81-065)
- 20077 Virus Inactivation in Wastewater Effluents in Chlorine, Ozone, and Ultraviolet Light (EPA-600/S2-81-088)
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- 20095 Evaluation of the Full-Scale Application Anaerobic Sludge Digestion at the Blue Plains Wastewater Treatment Facility—Washington, DC (EPA-600/S2-81-105)
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- 20098 Maintenance of the Organic Chemical Producers Data Base (EPA-600/S2-81-099)
- 20099 Physical/Chemical Treatment of Coke Plant Wastewater (EPA-600/S2-81-053)

- 20100 Ferrous Metals Recovery at Recovery 1, New Orleans, Louisiana (EPA-600/S2-81-102)
- 20101 Data Reduction Techniques for Aerosol Size Distribution Measuring Instruments (EPA-600/S2-81-104)
- 20102 Pilot-Scale Anaerobic Filter Treatment of Heat Treatment Liquor (EPA-600/S2-81-114)
- 20103 Physical Properties and Leach Testing of Solidified/Stabilized Flue Gas Cleaning Wastes (EPA-600/S2-81-116)
- 20104 Overland Flow Treatment of Poultry Processing Wastewater in Cold Climates (EPA-600/S2-81-093)
- 20105 Monitoring Techniques for Carbon Fiber Emissions. Evaluation A (EPA-600/S2-81-048)
- 20106 Modification of Optical Instrument for In-Stack Monitoring of Respirable Particle Size (EPA-600/S2-81-096)
- 20107 Characterization of Boliden's Sulfide-Lime Precipitation Plant (EPA-600/S2-81-081)
- 20108 Protein Recovery from Beef Packing Effluent (EPA-600/S2-81-112)
- 20109 High Altitude Testing of Residential Wood-Fired Combustion Equipment (EPA-600/S2-81-127)
- 20110 Securing Containerized Hazardous Wastes with Polyethylene Resin and Fiberglass Encapsulates (EPA-600/S2-81-138)
- 20111 Securing Containerized Hazardous Wastes with Welded Polyethylene Encapsulates (EPA-600/S2-81-139)
- 20112 Securing Containerized Hazardous Wastes by Encapsulation with Spray-On/Brush-On Resins (EPA-600/S2-81-140)
- 20113 Wood Preserving Industry Multimedia Emission Inventory (EPA-600/S2-81-066)
- 20114 Resource Recovery From Plastic and Glass Wastes (EPA-600/S2-81-123)
- 20115 VOC Emissions Control Technologies for Ship Painting Facilities (EPA-600/S2-81-131)
- 20116 Laboratory Studies of Priority Pollutant Treatability (EPA-600/S2-81-129)
- 20117 Removal of Heavy Metals and Suspended Solids from Battery Wastewaters: Application of Hydroperm Cross-Flow Microfiltration (EPA-600/S2-81-147)
- 20118 Nitrogen and Phosphorus Reactions in Overland Flow of Wastewater (EPA-600/S2-81-150)
- 20119 Investigation of New Techniques for Control of Smelter Arsenic Bearing Wastes (EPA-600/S2-81-049)
- 20120 Soil Filtration of Sewage Effluent of a Rural Area (EPA-600/S2-81-151)
- 20121 Response Factors of VOC Analyzers at a Meter Reading of 10,000 PPMV for Selected Organic Compounds (EPA-600/S2-81-051)
- 20122 Two-Stage Biological Treatment of Coke Plant Wastewater (EPA-600/S2-81-052)
- 20123 VOC Fugitive Emissions Data—High Density Polyethylene Process Unit (EPA-600/S2-81-109)
- 20124 Response of Portable VOC Analyzers to Chemical Mixtures (EPA-600/S2-81-110)
- 20125 Analysis of SOCMV VOC Fugitive Emissions Data (EPA-600/S2-81-111)
- 20126 Using Coherent Water Jets to Control Oil Spills (EPA-600/S2-81-141)
- 20127 Potential Environmental Problems of Enhanced Oil and Gas Recovery Techniques (EPA-600/S2-81-149)
- 20128 Ultraviolet Disinfection of a Secondary Wastewater Treatment Plant Effluent (EPA-600/S2-81-152)
- 20129 Performance Testing of the Soviet Oil/Debris Skimmer (EPA-600/S2-81-154)
- 20130 Inorganic Contaminant Removal from Drinking Water by Reverse Osmosis (EPA-600/S2-81-115)
- 20131 Group Treatment Evaluation for Metal Finishers (EPA-600/S2-81-143)
- 20132 Field Investigation of Contaminant Loss from Chemically Stabilized Industrial Sludges (EPA-600/S2-81-163)
- 20133 Critical Factors Controlling Vegetation Growth on Completed Sanitary Landfills (EPA-600/S2-81-164)
- 20134 Parallel Evaluation of Air- and Oxygen-Activated Sludge (EPA-600/S2-81-155)
- 20135 Characterizing Baghouse Performance to Control Asbestos Manufacturing Source Emissions (EPA-600/S2-81-126)
- 20136 Demonstration of Zinc Cyanide Recovery Using Reverse Osmosis and Evaporation (EPA-600/S2-81-132)
- 20137 Treatment of Metal Finishing Wastes by Use of Ferrous Sulfide (EPA-600/S2-81-142)
- 20138 Nickel Recovery from Electroplating Rinsewaters by Electrodialysis (EPA-600/S2-81-130)
- 20139 Assessment of Emerging Technologies for Metal Finishing Pollution Control: Three Case Studies (EPA-600/S2-81-153)
- 20140 Evaluation of Solvent Loss from Vapor Degreaser Systems Phases 2 and 3: Effect of Crosscurrent Air Velocity on Control System Performance (EPA-600/S2-81-072)
- 20141 Small Size-Range Extension of an Optical Particle Counter (EPA-600/S2-81-144)
- 20142 Monitoring Techniques for Carbon Fiber Emissions: Evaluation B (EPA-600/S2-81-145)
- 20143 Design Optimization of the Chlorination Process: Volume 1. Comparison of Optimized Pilot System with Existing Full-Scale Systems (EPA-600/S2-81-167)
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- 20145 Dispersant Application System for the U.S. Coast Guard 32-Foot WPB (EPA-600/S2-81-172)
- 20146 Effect of Halogens on *Giardia* Cyst Viability (EPA-600/S2-81-174)
- 20147 Literature Study of Biodegradability of Chemicals in Water: Volumes 1 and 2 (EPA-600/S2-81-175/176)
- 20148 Granular Activated Carbon Installations (EPA-600/S2-81-177)
- 20149 Evaluation of On-Site Wastewater Treatment and Disposal Options (EPA-600/S2-81-178)
- 20150 Production Engineering and Marketing Analysis of the Rotating Disk Evaporator (EPA-600/S2-81-179)
- 20151 Fundamental Considerations for Preparing Densified Refuse-Derived Fuel (EPA-600/S2-81-180)
- 20152 Revegetating Strip-Mined Land with Municipal Sewage Sludge (EPA-600/S2-81-182)
- 20153 Coal: dRDF Demonstration Test in an Industrial Spreader Stoker Boiler. Use of Coal: dRDF Blends in Stoker-Fired Boilers. Volumes I and II (EPA-600/S2-81-183/184)

- 20154 Performance Testing of Four Skimming Systems (EPA-600/S2-81-189)
- 20155 Treatment Effectiveness: Oil Tanker Ballast Water Facility (EPA-600/S2-81-192)
- 20156 Catalytic Incineration of Low Concentration Organic Vapors (EPA-600/S2-81-017)
- 20157 Density Levels of Pathogenic Organisms in Municipal Wastewater Sludge—A Literature Review (EPA-600/S2-81-170)
- 20158 Engineering and Economic Assessment of Autoheated Thermophilic Aerobic Digestion with Air Aeration (EPA-600/S2-81-171)
- 20159 Demonstration Physical Chemical Sewage Treatment Plant Utilizing Biological Nitrification (EPA-600/S2-81-173)
- 20160 Impediments to Energy and Materials Recovery Facilities for Municipal Solid Waste (EPA-600/S2-81-181)
- 20161 Densification of Refuse-Derived Fuels: Preparation, Properties and Systems for Small Communities (EPA-600/S2-81-188)
- 20162 Removal of Water Soluble Hazardous Materials Spills from Waterways by Activated Carbon (EPA-600/S2-81-195)
- 20163 Restoring Hazardous Spill-Damaged Areas: Technique Identification/Assessment (EPA-600/S2-81-208)
- 20164 Alternatives for Sodium Cyanide for Flotation Control (EPA-600/S2-81-157)
- 20165 Fate of Toxic and Nonconventional Pollutants in Wastewater Treatment Systems Within the Pulp, Paper and Paperboard Industry (EPA-600/S2-81-158)
- 20166 Development of a Multidetector Petroleum Oil-In-Water Monitor (EPA-600/S2-81-206)
- 20167 Techniques for Handling Landborne Spills of Volatile Hazardous Substances (EPA-600/S2-81-207)
- 20168 Hourly Diurnal Flow Variations in Publicly-Owned Wastewater Treatment Facilities (EPA-600/S2-81-218)
- 20169 Data Base for Influent Heavy Metals in Publicly Owned Treatment Works (EPA-600/S2-81-220)
- 20170 Parasites in Southern Sludges and Disinfection by Standard Sludge Treatment (EPA-600/S2-81-166)
- 20171 Wastewater Dechlorination State-of-the-Art Field Survey and Pilot Studies (EPA-600/S2-81-169)
- 20172 Attenuation of Polybrominated Biphenyls and Hexachlorobenzene by Earth Materials (EPA-600/S2-81-191)
- 20173 Options for Resource Recovery and Disposal of Scrap Tires—Volume I (EPA-600/S2-81-193)
- 20174 Detection and Mapping of Insoluble Sinking Pollutants (EPA-600/S2-81-198)
- 20175 Oil Slick Dispersal Mechanics (EPA-600/S2-81-199)
- 20176 Field Test Kit for Oil-Brine Effluents from Offshore Drilling Platforms (EPA-600/S2-81-200)
- 20177 Oil Content in Produced Brine on Ten Louisiana Production Platforms (EPA-600/S2-81-209)
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- 20180 A Hazardous Materials Spill Warning System (EPA-600/S2-81-212)
- 20181 Feasibility of Commercialized Water Treatment Techniques for Concentrated Waste Spills (EPA-600/S2-81-213)
- 20182 Modification of Spill Factors Affecting Air Pollution: Volume I. An Evaluation of Cooling as a Vapor Mitigation Procedure for Spilled Volatile Chemicals (EPA-600/S2-81-214)
- 20183 Modification of Spill Factors Affecting Air Pollution: Volume II. The Control of the Vapor Hazard from Spills of Liquid Rocket Fuels (EPA-600/S2-81-215)
- 20184 A Stress Function for Evaluation Strategies for Water Quality Management (EPA-600/S2-81-217)
- 20185 A Mobile Stream Diversion System for Hazardous Materials Spills Isolation (EPA-600/S2-81-219)
- 20186 Survey and Evaluation of Fine Bubble Dome Diffuser Aeration Equipment (EPA-600/S2-81-222)
- 20187 Areawide Stormwater Pollution Analysis with the Macroscopic Planning (ABMAC) Model (EPA-600/S2-81-223)
- 20188 Heavy Metal Sources and Flows in a Municipal Sewage System: Literature Survey and Field Investigation of the Kokomo, Indiana, Sewage System (EPA-600/S2-81-224)
- 20189 Assessment of Oil Production Volatile Organic Compound Sources (EPA-600/S2-81-197)
- 20190 Guidelines for the Use of Chemicals in Removing Hazardous Substance Discharges (EPA-600/S2-81-205)
- 20191 Treatability Studies of Pesticide Manufacturing Wastewaters (EPA-600/S2-80-077)
- 20192 Applying for a Permit to Destroy PCB Waste Oil. Volumes I and II (EPA-600/S2-81-033)
- 20193 Evaluation of a Treatment Lagoon for Combined Sewer Overflow (EPA-600/S2-81-196)
- 20194 Performance of Activated Sludge Processes: Reliability, Stability and Variability (EPA-600/S2-81-227)
- 20195 Performance Testing of the DiPerna Sweeper (EPA-600/S2-81-229)
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- 20198 The Tapered Element Oscillating Microbalance: A Monitor for Short-Term Measurement of Fine Aerosol Mass Concentration (EPA-600/S2-81-146)
- 20199 Evaluation of Abatement Alternatives Through the Use of Remote Sensing Devices (EPA-600/S2-81-185)
- 20200 Comparative Study of Air Classifiers (EPA-600/S2-81-221)
- 20201 Performance of Trickling Filter Plants: Reliability, Stability and Variability (EPA-600/S2-81-228)
- 20202 Physical and Chemical Characteristics of Synthetic Asphalt Produced from Liquefaction of Sewage Sludge (EPA-600/S2-81-242)
- 20203 A Water Vapor Monitor Using Differential Infrared Absorption (EPA-600/S2-81-162)
- 20204 Monitoring to Detect Groundwater Problems Resulting from Enhanced Oil Recovery (EPA-600/S2-81-241)
- 20205 Guide for Spill Prevention and Countermeasure Inspectors (EPA-600/S2-81-239)

- 22026 Source Resolution of Polycyclic Aromatic Hydrocarbons in the Los Angeles Atmosphere: Application of a Chemical Species Balance Method with First Order Chemical Decay (EPA-600/S2-81-161)
- 22027 Barrel and Drum Reconditioning Industry Assessment (EPA-600/S2-81-231)
- 22028 Survey of On-Going and Completed Remedial Action Projects (EPA-600/S2-81-246)
- 22029 HERL Biological Exposure Chamber Conceptual Design: Technical Note (EPA-600/S2-81-234)
- 220210 Possible Approaches to the Health Effects Testing of Fuels and Fuel Additives (EPA-600/S2-81-235)
- 220211 Organic Emissions Evaluation of a Paint Bake Oven with Catalytic Incineration (EPA-600/S2-81-244)
- 220212 Model Protocol for the Comprehensive Evaluation of Publicly Owned Treatment Works Performance and Operation (EPA-600/S2-82-015)
- 220213 Sodium Fluxing and *In-Situ* Glassification for Hazardous Materials Disposal (EPA-600/S2-82-021)
- 220214 Evaluation and Control of Sidestreams Generated in Publicly Owned Treatment Works (EPA-600/S2-82-016)
- 220215 Spreading Lagooned Sewage Sludge on Farmland: A Case History (EPA-600/S2-82-019)
- 220216 Increasing ARCAT® Test Sensitivity for Examination of Potable Waters (EPA-600/S2-82-025)
- 220217 Biological Processes in the Treatment of Municipal Water Supplies (EPA-600/S2-82-020)
- 220218 Autoheated, Aerobic Thermophilic Digestion with Air Aeration (EPA-600/S2-82-023)
- 220219 Portable Miniature Sampler for Potential Airborne Carcinogens in Microenvironments: Phase 2. Evaluation (EPA-600/S2-81-165)
- 220220 Full-Scale Demonstration of Industrial Wastewater Treatment Utilizing DuPont's PACT® Process (EPA-600/S2-81-159)
- 220221 Livestock and the Environment: A Bibliography with Abstracts—Volume VII (EPA-600/S2-81-225)
- 220222 Infiltration Land Treatment of Stabilization Pond Effluent (EPA-600/S2-81-226)
- 220223 Animal Waste Effects Upon Crop Production, Soil and Runoff Waters (EPA-600/S2-81-230)
- 220224 Receptor Models Relating Ambient Suspended Particulate Matter to Sources (EPA-600/S2-81-039)
- 220225 Tests of the Shell SOCK Skimmer Aboard USNS POWHATAN (EPA-600/S2-81-216)
- 220226 Urban Rainfall-Runoff-Quality Data Base (EPA-600/S2-81-238)
- 220227 An Investigation of Foreign By-Product Coke Plant and Blast Furnace Wastewater Control Technology and Regulation (EPA-600/S2-81-245)
- 220228 Engineering Assessment of Hot-Acid Treatment of Municipal Sludge for Heavy Metals Removal (EPA-600/S2-82-014)
- 220229 Evaluation of Foams for Mitigating Air Pollution from Hazardous Spills (EPA-600/S2-82-029)
- 220230 Sorbent Materials for Cleanup of Hazardous Spills (EPA-600/S2-82-030)
- 220231 Toxicity of Leachates: Comparison of Extraction Procedure Extracts and Landfill Leachates (EPA-600/S2-82-049)

## Ecological Research

- 30001 Biliary Excretion and Tissue Distribution of Cadmium-109 Administered to Rats (EPA-600/PS3-80-085)
- 30005 Phytoplankton Water Quality Relationships in U.S. Lakes, Part VIII: Algae Associated With or Responsible for Water Quality Problems (EPA-600/S3-80-100)
- 30006 Aerosol Formation from Diesel Exhaust and SO<sub>2</sub>: A Chamber Study (EPA-600/S3-80-095)
- 30007 Houston Aerosol Characterization Study (EPA-600/S3-80-098)
- 30009 Interlaboratory Comparison: Acute Testing Set (EPA-600/S3-81-005)
- 30010 Effects of Fluctuating Sublethal Applications of Heavy Metal Solutions Upon the Gill Ventilatory Response of Bluegills (*Lepomis macrochirus*) (EPA-600/S3-81-003)
- 30011 The Precision of the ASTM Bioconcentration Test (EPA-600/S3-81-022)
- 30012 Development of a Protocol for Testing Effects of Toxic Substances on Plants (EPA-600/S3-81-006)
- 30013 Experimental Protocol for Determining Ozone Reaction Rate Constants (EPA-600/S3-81-024)
- 30014 Production in Coastal Salt Marshes of Southern California (EPA-600/S3-81-023)
- 30015 Application of Fourier Transform Spectroscopy to Air Pollution Problems (EPA-600/S3-80-093)
- 30016 Development of Bioassay Procedures for Defining Pollution of Harbor Sediments (EPA-600/S3-81-025)
- 30017 Atmospheric Measurements of Trace Pollutants: Long Path Fourier Transform Infrared Spectroscopy (EPA-600/S3-81-026)
- 30018 State-of-the-Art of Structure Activity Methods Development (EPA-600/S3-81-029)
- 30019 Some Effects of Petroleum on Nearshore Alaskan Marine Organisms (EPA-600/S3-81-018)
- 30020 Natural Variation in Abundance of Salmonid Populations in Streams (EPA-600/S3-81-021)
- 30021 Behavior of DDT, Kepone, and Permethrin in Sediment-Water Systems Under Different Oxidation-Reduction and pH Conditions (EPA-600/S3-81-038)
- 30022 Historical Emission and Ozone Trends in the Houston Area (EPA-600/S3-81-030)
- 30023 Effect of Agricultural Land Development on Drainage Waters in the North Carolina Tidewater Region (EPA-600/S3-80-087)
- 30024 Microcosms as Test Systems for Ecological Effects of Toxic Substances: An Appraisal with Cadmium (EPA-600/S3-81-036)
- 30025 Evaluation of Remote Sensing Data for Input into Hydrological Simulation Program—FORTRAN (HSPF) (EPA-600/S3-81-037)
- 30026 Atmospheric Measurements of Selected Hazardous Organic Chemicals (EPA-600/S3-81-032)
- 30027 Water Temperature Dynamics in Experimental Field Channels: Analysis and Modeling (EPA-600/S3-81-008)
- 30028 Oxygen-Consuming Organics in Nonpoint Source Runoff (EPA-600/S3-81-033)
- 30029 Effects of Planform Geometry on Tidal Flushing and Mixing in Marinas (EPA-600/S3-81-039)
- 30030 Response of Phytoplankton Acidification in Experimental Streams (EPA-600/S3-81-042)

- 30031 Reduction of Toxicity to Aquatic Organisms by Industrial Wastewater Treatment (EPA-600/S3-81-043)
- 30032 Influence of Diet and Starvation on Toxicity of Endrin to Fathead Minnows (*Pimephales promelas*) (EPA-600/S3-81-048)
- 30033 Nutritional Requirements of Marine Larval and Juvenile Fish (EPA-600/S3-81-049)
- 30034 Characterization of Scrubbed and Unscrubbed Power Plant Plumes (EPA-600/S3-81-041)
- 30035 Modeling of SO<sub>2</sub> Oxidation in Smog (EPA-600/S3-81-040)
- 30036 Experimental Protocol for Determining Absorption Cross Sections of Organic Compounds (EPA-600/S3-81-051)
- 30037 Nearshore Marine Trace Metal Geochemistry (EPA-600/S3-81-050)
- 30038 Marine Fish Larvae Growth and Survival (EPA-600/S3-81-052)
- 30039 Dependence of Nephelometer Scattering Coefficients on Relative Humidity: Fronts, Nocturnal Disturbances and Wood Smoke (EPA-600/S3-82-006)
- 30040 Persistence in Model Ecosystems (EPA-600/S3-82-030)
- 30041 Validation of the EKMA Model Using Historical Air Quality Data (EPA-600/S3-82-015)
- 30042 Design, Fabrication and Testing of Ambient Aerosol Sampler Inlets (EPA-600/S3-82-039)
- 30043 Wake of a Block Vehicle in a Shear-Free Boundary Flow—An Experimental and Theoretical Study (EPA-600/S3-82-007)
- 30044 *In Situ* Aerodynamic Sizing of Aerosol Particles with the SPART Analyzer (EPA-600/S3-82-009)
- 30045 Meteorology and Air Quality Modeling in Complex Terrain—A Literature Review (EPA-600/S3-82-040)
- 30046 Feasibility of Developing Source Sampling Methods for Asbestos Emissions (EPA-600/S3-82-008)
- 30047 Effects of Soluble Fractions of Drilling Fluids and Hexavalent Chromium on the Development of the Crabs, *Rhithropanopeus harrisi* and *Callinectes sapidus* (EPA-600/S3-82-018)
- 30048 Measurement of Loblolly Pine Terpene Emissions (EPA-600/S3-82-010)
- 30049 Outdoor Smog Chamber Experiments to Test Photochemical Models (EPA-600/S3-82-016a)
- 30050 Microbiologically-Mediated Mutagenic Activity of Crude Oil (EPA-600/S3-81-053)
- 30051 Development of Techniques and Methodology for the Laboratory Culture of Striped Bass, *Morone saxatilis* (EPA-600/S3-82-017)
- 30052 Meteorology and Air Quality Patterns in St. Louis RAPS Program—Upper Level Analyses (EPA-600/S3-82-056)

## Environmental Monitoring

- 40001 Livermore Regional Air Quality (LIRAQ) Model (Transfer to EPA) (EPA-600/PS4-80-041)
- 40002 Thermal Analysis of the Manning S-4000 Portable Wastewater Sampler (EPA-600/PS4-80-045)
- 40003 Evaluation of Ozone Calibration Procedures (EPA-600/S4-80-050)
- 40004 Aerosol Analysis for the Regional Air Pollution Study: Final Report (EPA-600/S4-81-006)
- 40007 Optimum Meteorological and Air Pollution Sampling Network Selection in Cities. Volume III: Objective Variational Analysis Model. (EPA-600/S4-81-012)
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- 40010 Reaction Products from the Chlorination of Seawater (EPA-600/S4-81-010)
- 40011 Dependence of Nephelometer Scattering Coefficients on Relative Humidity: Evolution of Aerosol Bursts (EPA-600/S4-81-030)
- 40012 Evaluation of Sampling Techniques for Atmospheric Emissions from Sintering in the Iron and Steel Industry (EPA-600/S4-81-023)
- 40013 Evaluation of Molecular Sieves for Sampling NO<sub>x</sub> Emissions at Electric Utility Plants (EPA-600/S4-81-024)
- 40014 A Summary of the EPA National Source Performance Audit Program—1979 (EPA-600/S4-81-029)
- 40016 Development of Methods and Analysis of Particulate Sampler Data from RAPS (EPA-600/S4-81-021)
- 40017 Water Quality and Mangrove Ecosystem Dynamics (EPA-600/S4-81-022)
- 40018 Design of a Laboratory for Particulate Analysis (EPA-600/S4-81-032)
- 40019 Evaluation of the Procedures for Identification of Hazardous Wastes, Part 1. Sampling, Extraction, and Inorganic Analytical Procedures (EPA-600/S4-81-027)
- 40020 Geothermal Environmental Assessment Baseline Study—Vegetation and Soils of the Roosevelt Hot Springs Geothermal Research Area (EPA-600/S4-81-060)
- 40021 Evaluation of the Hewlett-Packard 5993B Gas Chromatograph-Mass Spectrometer (EPA-600/S4-81-043)
- 40022 Case Studies in the Application of Air Quality Modeling in Environmental Decision Making (EPA-600/S4-81-034)
- 40023 Sampling and Analysis of Wastes Generated by Gray Iron Foundries (EPA-600/S4-81-028)
- 40024 Tissue Assays and Population Characteristics of Roosevelt Hot Springs' Animals (1977-1978) (EPA-600/S4-81-072)
- 40025 National Performance Audit Program: 1979 Proficiency Surveys for Sulfur Dioxide, Nitrogen Dioxide, Carbon Monoxide, Sulfate, Nitrate, Lead and High Volume Flow (EPA-600/S4-81-025)
- 40026 Determination of Phthalates in Industrial and Municipal Wastewaters (EPA-600/S4-81-063)
- 40027 Determination of Haloethers in Industrial and Municipal Wastewaters (EPA-600/S4-81-062)
- 40028 Determination of Volatile Organics in Industrial and Municipal Wastewaters (EPA-600/S4-81-071)
- 40029 Impact of Topographic Circulations on the Transport and Dispersion of Air Pollutants (EPA-600/S4-81-068)
- 40030 Carbon Monoxide Commuter Exposure Data Base: A 5-Day Study in Los Angeles (EPA-600/S4-81-069)
- 40031 Long-Range Transport and Transformation of SO<sub>2</sub> and Sulfate: Refinement, Application and Verification of Models (EPA-600/S4-81-070)
- 40032 Air Quality Data for Nonmetallic Inorganic Ions: Nitrate and Sulfate for 1977 and 1978 from the National Air Surveillance Networks (EPA-600/S4-81-074)



- 40033 A Summary of the EPA National Source Performance Audit Program—1980 (EPA-600/S4-81-077)
- 40034 Analysis of Commercial Cylinder Gases of Nitric Oxide, Sulfur Dioxide, and Carbon Monoxide at Source Concentrations—Results of Audit 5 (EPA-600/S4-81-080)
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- 40036 Technical Assistance Document for the Calibration and Operation of Automated Ambient Non-Methane Organic Compound Analyzers (EPA-600/S4-81-015)
- 40037 Polynuclear Aromatic Hydrocarbons and Cellular Proliferative Disorders in Bivalve Molluscs from Oregon Estuaries (EPA-600/S4-82-026)
- 40038 Determination of an Empirically Derived IP/TSP Relationship (EPA-600/S4-82-034)
- 40039 Determination of Benzidines in Industrial and Municipal Wastewaters (EPA-600/S4-82-022)
- 40040 **The Continuous Flow Analyzer Automation System (EPA-600/S4-81-064)**
- 40041 **Determination of Nitrosamines in Industrial and Municipal Wastewaters (EPA-600/S4-82-016)**
- 40042 **Bulk Sample Analysis for Asbestos Content: Evaluation of the Tentative Method (EPA-600/S4-82-021)**
- 40043 **Flow and Dispersion of Pollutants Over Two-Dimensional Hills: Summary Report on Joint Soviet-American Study (EPA-600/S4-81-067)**
- 40044 **The Standard Calibration Instrument Automation System for the Atomic Absorption Spectrophotometer (EPA-600/S4-82-017)**
- 40045 **Determination of Pesticides and PCBs in Industrial and Municipal Wastewaters (EPA-600/S4-82-023)**
- 40046 **Determination of TCDD in Industrial and Municipal Wastewaters (EPA-600/S4-82-028)**
- 40047 **Determination of Nitroaromatic Compounds and Isophorone in Industrial and Municipal Wastewaters (EPA-600/S4-82-024)**
- 40048 **Analytical Methods for Hazardous Organics in Liquid Wastes from Coal Gasification and Liquefaction Processes (EPA-600/S4-82-038)**
- 40049 **Laboratory Evaluation of Nonmethane Organic Carbon Determination in Ambient Air by Cryogenic Preconcentration and Flame Ionization Detection (EPA-600/S4-82-019)**
- 40050 **Direct Measurement of Volatile Organic Compounds in Breathing-Zone Air, Drinking Water, Blood, Breath and Urine (EPA-600/S4-82-015)**

### **Socioeconomic Environmental Studies**

- 50001 Socioeconomic Analysis of Hazardous Waste Management Alternatives: Methodology and Demonstration (EPA-600/S5-81-001)

### **Interagency Energy-Environment Research and Development**

- 70002 Environmental Assessment of a Waste-to-Energy Process, Burlington Electric's Wood and Oil Co-Fired Boiler (EPA-600/PS7-80-148)
- 70003 Environmental Assessment of a Waste-to-Energy Process: Braintree Municipal Incinerator (EPA-600/PS7-80-149)
- 70004 Further Study of Adipic Acid Degradation in FGD Scrubbers (EPA-600/PS7-80-152)
- 70005 Demonstration of Debris Basin Effectiveness in Sediment Control (EPA-600/PS7-80-154)
- 70006 Support Studies in Fluidized-Bed Combustion—Annual Report, October 1978 - September 1979 (EPA-600/PS7-80-156)
- 70007 Fabric Filtration Analyses for Three Utility Boiler Flyashes (EPA-600/PS7-80-157)
- 70008 Fugitive Dust from Western Surface Coal Mines (EPA-600/PS7-80-158)
- 70009 Environmental Assessment of Waste-to-Energy Process: Union Carbide's Purox® Process (EPA-600/S7-80-161)
- 70011 Environmental Assessment of a Waste-to-Energy Process: GSA/Pentagon Co-Fired Boiler Tests (EPA-600/S7-80-170)
- 70012 Trace Metals and Stationary Conventional Combustion Processes (EPA-600/S7-80-155)
- 70013 Gaseous and Particulate Ammonia and Nitric Acid Concentrations, Columbus, Ohio Area—Summer 1980 (EPA-600/S7-80-179)
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- 70015 Reconnaissance Study of Leachate Quality from Raw Mined Oil Shale - Laboratory Columns (EPA-600/S7-80-181)
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- 70018 Environmental Effects of *In-Situ* Gasification of Texas Lignite (EPA-600/S7-81-035)
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- 70024 Impact of Resource Conservation and Recovery Act on FBC Residue Disposal (EPA-600/S7-81-011)
- 70025 Environmental, Operational and Economic Aspects of Thirteen Selected Energy Technologies (EPA-600/S7-80-173)
- 70026 Comparison of Relative Emissions from Double Mechanical Pump Seals to Other Types of Pump Shaft Seals (EPA-600/S7-81-019)
- 70027 Summary of Coal-Based Synthetic Fuel Initiatives (EPA-600/S7-81-023)
- 70028 Characterization of Two Core Holes from the Naval Oil Shale Reserve Number 1 (EPA-600/S7-81-024)
- 70029 Effect of Collisional Lifetime in Optoacoustic Detection of Pollutant Gases (EPA-600/S7-81-026)

- 70030 Asbestos/Asbestiform Research in EPA ORD (EPA-600/S7-81-032)
- 70031 Greenhouse Production of All Bedding and Foliage Plants with Industrial Heat (EPA-600/S7-81-034)
- 70032 Assessment of Oil Shale Retort Wastewater Treatment and Control Technology—Phases I & II (EPA-600/S7-81-081)
- 70033 Batch Pretreatment Process Technology for Abatement of Emissions and Conservation of Energy in Glass Melting Furnaces: Phase I. Process Design Manual (EPA-600/S7-81-038)
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- 70035 Water Pollution Potential of Coal-Slurry Pipelines (EPA-600/S7-81-082)
- 70036 Sulfur Dioxide Oxidation Reactions in Aqueous Solutions (EPA-600/S7-81-085)
- 70037 Methods for Level 2 Analysis by Organic Compound Category (EPA-600/S7-81-029)
- 70038 Facilities Evaluation of High Efficiency Boiler Destruction of PCB Waste (EPA-600/S7-81-031)
- 70039 Planning Study to Model and Monitor Coal Pile Runoff (EPA-600/S7-81-016)
- 70040 Second Survey of Dry SO<sub>2</sub> Control Systems (EPA-600/S7-81-018)
- 70041 Effect of Parameters of Filtration on Dust Cleaning Fabrics (EPA-600/S7-81-028)
- 70042 Ohio River Basin Energy Study (ORBES) (EPA-600/S7-81-008)
- 70043 The Analysis of Oil Shale Wastes: A Review (EPA-600/S7-81-084)
- 70044 Fabric Filter Systems Study: Second Annual Report (EPA-600/S7-81-037)
- 70045 Secondary Formation Products in Power Plant Plumes (EPA-600/S7-81-092)
- 70046 Technique for Measuring Reduced Forms of Sulfur in Ambient Air (EPA-600/S7-81-041)
- 70047 Evaluation of Emissions and Control Technology for Industrial Stoker Boilers (EPA-600/S7-81-090)
- 70048 Environmental Aspects of Synfuel Utilization (EPA-600/S7-81-025)
- 70049 Public Health Effects from Industrial Amines Production, A Preliminary Evaluative Approach (EPA-600/S7-80-174)
- 70050 Environmental Assessment: Source Test and Evaluation Report Koppers-Totzek Process (EPA-600/S7-81-009)
- 70051 Preliminary Environmental Assessment of Afterburner Combustion Systems (EPA-600/S7-80-153)
- 70052 Selective Catalytic Reduction and NO<sub>x</sub> Control in Japan (EPA-600/S7-81-030)
- 70053 Vapor-Phase Cracking and Wet Oxidation as Potential Pollutant Control Techniques for Coal Gasification (EPA-600/S7-81-096)
- 70054 Control of Emissions from Residential Wood Burning by Combustion Modification (EPA-600/S7-81-091)
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- 70058 Source Test and Evaluation Report: D. H. Mitchell Unit No. 11, Northern Indiana Public Service Co. (EPA-600/S7-81-104)
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- 70062 Disposal of Flue Gas Desulfurization Wastes: EPA Shawnee Field Evaluation—Final Report (EPA-600/S7-81-103)
- 70063 Coal and the Environment Abstract Series: Bibliography on Disposal of Mine and Cleaning Plant Refuse (EPA-600/S7-81-107)
- 70064 Mixing Phenomena in Industrial Fume Afterburner Systems (EPA-600/S7-81-110)
- 70065 Third Survey of Dry SO<sub>2</sub> Control Systems (EPA-600/S7-81-097)
- 70066 Assessment of Hazard Potential from Combustion of Wastes in Industrial Boilers (EPA-600/S7-81-108)
- 70067 Performance Evaluation of the Braintree Electric Light Department Dry Cooling Tower (EPA-600/S7-81-109)
- 70068 Use of Vegetative Filter Zone to Control Fine-Grained Sediments from Surface Mines (EPA-600/S7-81-117)
- 70069 Environmental and Economic Comparison of Advanced Processes for Conversion of Coal Biomass into Clean Energy (EPA-600/S7-81-133)
- 70070 Source Test and Evaluation Report: Cane Run Unit No. 6, Louisville Gas and Electric Co. (EPA-600/S7-81-134)
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- 70072 Environmental Hazard Rankings of Pollutants Generated in Coal Gasification Processes (EPA-600/S7-81-101)
- 70073 ENAMAP-1 Long-Term SO<sub>2</sub> and Sulfate Pollution Model: Further Application to Eastern North America (EPA-600/S7-81-102)
- 70074 Control of Hydrocarbon Emissions from Gasoline Loading by Refrigeration Systems (EPA-600/S7-81-121)
- 70075 Photoacoustic Detection of Particulate Carbon (EPA-600/S7-81-129)
- 70076 Final Report on the Workshop on Energy Development Issues Affecting Appalachia (EPA-600/S7-81-130)
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### "Special" Project Summaries

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### Miscellaneous Project Summaries

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- 90015 Proceedings: EPA/Industry Forum on Coal Liquefaction (October 1979) (EPA-600/S9-80-054)
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- 90019 Symposium Proceedings: Environmental Aspects of Fuel Conversion Technology, V (Sept. 1980, St. Louis, MO) (EPA-600/S9-81-006)
- 90020 Proceedings: Symposium on Flue Gas Desulfurization—Houston, October 1980 (EPA-600/S9-81-019)
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