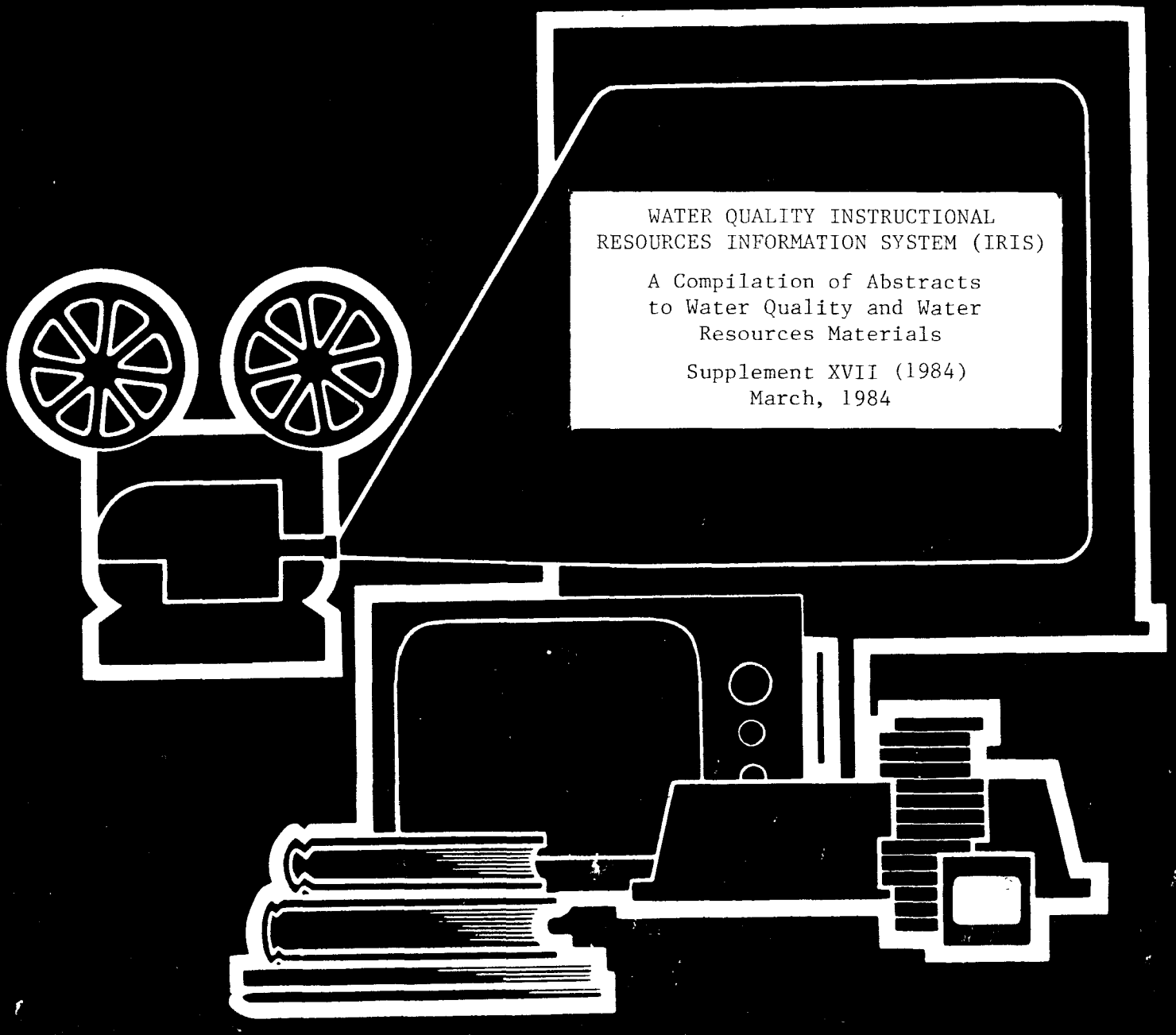
TD365
.W375

EPA Information Dissemination Project
1200 Chambers Road - Third Floor
Columbus, Ohio 43212

000R84004

Water

# Water Quality Instructional Resources Information System



WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS)

A Compilation of Abstracts to Water Quality and Water Resources Materials

Supplement XVII (1984)
March, 1984

TABLE OF CONTENTS


| Topic | Page |
|---|---|
| Preface | |
| I. General Information about Materials in IRIS | 1 |
| A. What Types of Materials are Included in IRIS | 1 |
| B. How Are Materials Entered in IRIS | 1 |
| C. How Can a User Locate Materials in IRIS | 1 |
| 1. All Materials Placed in IRIS (Water) Collection | 1 |
| 2. Materials Placed in the Educational Resources Information System (ERIC) | 2 |
| II. How to Use the Compilation | 4 |
| A. Description of Information in Resumes | 4 |
| B. How to Locate Desired Materials | 6 |
| 1. Subject Index | 6 |
| 2. Author Index | 7 |
| III. Correcting an Existing IRIS Record | 7 |
| IV. Requests to Receive Information about IRIS and the IRC Bulletin | 8 |
| V. Requests for Assistance in Using IRIS | 8 |
| VI. How to Locate Other Relevant Educational Materials | 9 |
| VII. How to Structure a Computer Search of IRIS | 15 |
| VIII. How to Order Materials | 17 |
| IX. Resume Section | 19 |
| X. Author Index | 91 |
| XI. Subject Index | 97 |

# Preface

This publication contains abstracts and indexes to selected materials related to wastewater treatment and water quality education and instruction. In addition, some materials related to pesticides, hazardous wastes, and public participation are included. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements in their programs.

Supplements to this publication will be issued periodically.

For further information about these materials contact:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

(614) 422-6717

I. General Information about Materials in IRIS.

A. What types of materials are included in IRIS?

The EPA Instructional Resources Center (water) acquires, reviews, indexes, and announces both print (books, modules, units, etc.) and non-print (films, slides, video tapes, etc.) materials related to water quality and water resources education and instruction.

Materials selected must be available from some source for announcement. When materials are not readily available we attempt to make the materials available through some national information service for easier acquisition. In a few cases the EPA Instructional Resources Center is the source of the materials.

B. How are materials entered into IRIS?

We request that people assist us in locating materials for the system. If you have materials you believe to be useful to others, please send two copies if possible to the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

Materials are reviewed by the project staff. Availability of the materials is checked, and the materials are abstracted and indexed. The abstract describes the contents of the material. The index terms (descriptors) are concepts or terms used to describe the contents and the form of the document. (See the Subject Index for a listing of those that have been used.) The index terms are useful for locating materials manually, such as with this compilation, and also by computer.

When items are processed they are entered on the IRIS (water) computer tape. This tape is maintained by the EPA Instructional Resources Center at The Ohio State University and is used for producing tapes for other information systems, publications, and for computer searches conducted at The Ohio State University.

C. How can a user locate materials in IRIS?

1. All materials placed in IRIS (water) collection.

Materials entered into the IRIS (water) collection can be located in two ways: (1) by manual search of this compilation and similar ones to follow and (2) by computer.

The first compilation contained resumes of selected materials processed for the previous IRIS (water) collection and resumes of selected materials of items added to the IRIS (water) collection. Copies are available for purchase from the EPA Instructional Resources Center for $5.00.

Quarterly updates of the compilation are available by subscription on a yearly basis beginning November, 1979. Information regarding an annual subscription to IRIS (water) Quarterly Compilations can be obtained by writing to the EPA Instructional Resources Center. A subscription to the quarterly supplements for 1984 is $12.00 (within the U.S.). Price to Canada and Mexico is $14.00. Prices in other Countries is $18.00. Separate quarterly supplements are $4.00 each.

The compilation and the quarterly supplements can be scanned and the subject index can be used for manual searches.

Computer tapes of the IRIS (water) collection can also be searched by both batch and on-line computer searches. The IRIS tapes are available for searching through Dialog and will be available through CompuServe. Any search service that currently subscribes to Dialog is able to search the IRIS database by on-line techniques. Individuals or agencies with computer terminals and telephone connection equipment can subscribe to Dialog or CompuServe and do their own searches if they desire.

Information regarding Dialog may be obtained by writing or phoning Dialog Information Retrieval Service, 3460 Hillview Avenue, Palo Alto, CA 94304, (415) 858-3775.

Information regarding CompuServe can be obtained from the EPA/IRC.

2. Materials placed in the Educational Resources Information System (ERIC)

A number of the materials processed for the IRIS (water) system are entered into the ERIC system and announced in Resources in Education (RIE). Resources in Education (RIE) is published monthly and is available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202) 783-3238

The current price is listed in the most recent issue of RIE. Check if a college or university library close to you has a copy. If they do not, contact the EPA Instructional Resources Center for assistance.

Many libraries subscribe to RIE. Materials announced in RIE can be searched manually each month by scanning RIE or by checking the index terms in the back of each issue. Materials announced in RIE can be searched by computer also. ERIC computer tapes may be purchased outright, but most users of the tapes gain access to them through two major

database vendors: Dialog and Systems Development Corporation (Orbit). For the addresses of search services in your state that can search these databases, contact the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Most of the materials announced in RIE are available on microfiche (microfilm) at over 700 sites throughout the United States and the world. Users can view these materials on site at many locations to identify what they believe will be useful to them at no cost. Microfiche copies (or in most cases Xerox copies) can be ordered through the ERIC Document Reproduction Service. The address and order information is in the back of each issue of RIE. Xerox copies of many items related to water quality and resource education and training can also be ordered through the EPA Instructional Resources Center for $0.06 per page plus $1.00 per document.

For information about locations of ERIC microfiche sites in your state, contact the EPA Instructional Resources Center.

A number of journal articles processed for the IRIS (water) system are entered into the ERIC system and announced in Current Index to Journals in Education (CIJE).

Current Index to Journals in Education is published monthly and is available from:

ORYX Press
2214 North Central at Encanto
Phoenix, Arizona 85004
(602) 254-6156

Many libraries subscribe to CIJE. Materials announced in CIJE can be searched manually each month by scanning CIJE or by checking the index terms in the back of each issue. Materials announced in CIJE can be searched by computer also. Refer to the previous discussion of RIE concerning computer searches.

Materials announced in CIJE can be located in journals at many university libraries.

Many of the articles can be obtained from University Microfilms. Current prices are $8.00 per article and $10.00 for articles dated prior to January 1981. For further information write to:

UMI Article Reprint Department
300 North Zeeb Road
Ann Arbor, Michigan 48106
(800) 521-0600

## II. How to Use the Compilation

### A. Description of Information in Resumes

Each resume is listed by EW number in numerical order in the resume section. Two samples of resumes are provided to explain the data fields in the resumes. Sample resume #1 is a sample resume of an item not entered into ERIC. Sample resume #2 is a sample resume of an item entered into ERIC; a few additional data elements are in these resumes and are explained.

1. Sample resume of materials not entered in ERIC

   a. IRIS NUMBER: EW006023
   b. PUBLICATION DATE: FEB 81
   c. TITLE: PROGRAMMED APPROACH TO WATER/MASS ANALYSES.
   d. PERSONAL AUTHOR: SPENCE, GEORGE R., JR.
   e. DESCRIPTOR: *DESIGN; *ENGINEERING; *EQUIPMENT; *MASS BALANCE; *PROJECT DESIGN; *POLLUTION ENGINEERING; *PIPES; *WATER RESOURCES

   f. DESCRIPTIVE NOTE: 30-33P.
   g. ABSTRACT: DURING THE ENGINEERING PHASE OF A PROJECT DESIGN, WATER REQUIREMENTS OFTEN CHANGE AS NEW INFORMATION BECOMES AVAILABLE. THIS ARTICLE DETAILS A PROGRAMMED APPROACH TO CALCULATION OF A WATER/MASS BALANCE WHICH PROVIDES THE USER WITH THE ABILITY TO READILY ASSESS THE IMPACT OF VARYING WATER QUALITIES, FLOW PATTERNS, AND FLOW RATES. THIS INFORMATION IS THEN USED IN DETERMINING PIPE AND EQUIPMENT SIZES.

   h. AVAILABILITY: POLLUTION ENGINEERING; V13 N2

   a. IRIS NUMBER -- this is the identification number sequentially assigned to materials as they are processed. Gaps in numbers mean that some items have been deleted, are being processed to add new information, or have been delayed in processing for some reason.

   b. PUBLICATION DATE -- date material was published according to information on the material.

   c. TITLE

   d. PERSONAL AUTHOR -- person or persons who wrote, compiled, or edited the material. Up to two personal authors can be listed.

   e. DESCRIPTOR -- subject terms which characterize substantive contents and form of the materials. The major terms are preceeded by an asterisk. Terms used to index all resumes in this compilation can be reviewed in the Subject Index.

f. DESCRIPTIVE NOTE -- various items of information may be contained in this section. For print materials the number of pages is usually listed. The price of the material quoted is the last time information was received from the source. Please note: Prices of nearly all materials are subject to changes and may not be accurate at the time a person orders a specific item.

g. ABSTRACT -- some early materials entered into IRIS did not have abstract information. All materials currently being entered into IRIS have an informative abstract that describes the contents of the item.

h. AVAILABILITY -- information in this field indicates where the material can be obtained.

2. Sample resume of material entered into ERIC (Resources in Education)

Items entered into ERIC (Resources in Education) will have a few additional data fields.

IRIS ACCESSION NUMBER: EW006664
PUBLICATION DATE: 80
TITLE: RESOURCE DEVELOPMENT OF WATERSHED LANDS: A SIX WEEK SHORT COURSE.
DESCRIPTOR: ADMINISTRATION; ECOLOGICAL FACTORS; ECONOMIC FACTORS; INSTRUCTIONAL MATERIALS; *LAND USE; NATURAL RESOURCES; *POST SECONDARY EDUCATION; *TECHNICAL EDUCATION; *WATER RESOURCES; HYDROLOGY; NATURAL RESOURCES MANAGEMENT; WATER QUALITY; *WATERSHEDS

b. DESCRIPTIVE NOTE: EDRS PRICE: MF01 PLUS POSTAGE-NOT AVAILABLE IN HARD COPY DUE TO MARGINAL LEGIBILITY OF ORIGINAL DOCUMENT.

ABSTRACT: THIS COURSE WAS DESIGNED TO PROVIDE THE WATER RESOURCE TECHNICIAN OR MANAGER WITH INFORMATION WHICH WILL AID IN THE IMPLEMENTATION OF IMPROVEMENTS OF PRESENT LAND USE PRACTICES AND TO ILLUSTRATE ALTERNATIVE CONCEPTS AND TECHNIQUES IN LAND AND WATER USE FOR INCREASING AND IMPROVING THE MULTIPLE PRODUCTS OF
a. WATERSHED LANDS. (ED 197 941)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P. O. BOX 190, ARLINGTON, VA 22210

a. ERIC NUMBER -- the ED number indicates the document has been processed and entered into Resources in Education. This identification number is the number to use when ordering a document or when requesting information about a document.

b. EDRS PRICE -- if material is available through the ERIC Document Reproduction Service, the price of the material when it was entered into the ERIC system and the form of the material is indicated. "MF" means microfiche; "HC" means Xerox copy. Prices are subject to change. Current prices of microfiche and paper copies are listed in the back of each issue of Resources in Education; consult the latest monthly issue for current prices. Information about ordering items can be obtained by contacting:

ERIC Document Reproduction Service (EDRS)
P. O. Box 190
Arlington, Virginia 22210
(703) 823-0500

Items that are available on microfiche (MF) are contained in microfiche collections at over 700 sites where they can be read. For information on the microfiche locations in your state contact the EPA Instructional Resources Center.

B. How to Locate Desired Materials

Users can identify materials of interest by scanning the resume listings, or using the Subject Index or Author Index.

1. Subject Index

The Subject Index is designed to enable the user to search for information on either a broad subject or a narrow information concern. An EW number is included for each item listed under the subject heading. The EW number refers to the abstract entry in the resume section where complete bibliographic information, an abstract of the item, and availability information can be found.

A user can also coordinate a search by checking EW numbers that appear under two or more subject headings. For example, you could check all the EW numbers under Water Treatment and all the EW numbers under Films. EW numbers included under both subject headings would include information relevant to Water Treatment that were films. EW numbers under wastewater treatment and laboratory techniques would provide a list of materials related to Laboratory Techniques and to Wastewater Treatment. Similar techniques could be used to identify other information desired.

Users with ERIC microfiche should check the resume entry. If the document is available on microfiche from the ERIC Document Reproduction Service, the availability will be indicated by "MF" on the resume by "EDRS Price." This means libraries with ERIC microfiche collections should have the document on microfiche.

If you want a document available through the ERIC Document Reproduction Service (EDRS) see the section on ordering documents.

2. Author Index

If you desire to locate a document by the name of the author, you can use the Author Index. EW numbers are provided under the author in the Author Index as in the Subject Index. Some documents do not have a listed author; hence, they are not listed in this index.

## III. Correcting an Existing IRIS Record

The IRIS data base will be updated on a quarterly basis. Corrections will be made to the data base at those times. You can help improve IRIS by sending corrections for items you find to be in error.

We request that you duplicate (copy) the resume from the compilation, mark the information you believe to be wrong (or incomplete), and send the marked resume to:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Corrections of errors will occur in the IRIS tapes at the next update after comments are received.

If you have difficulty obtaining materials from the listed source in the AVAILABILITY section of the resume, please let us know. We will contact the sources to verify whether the materials are available, but your assistance will provide corrections between annual availability checks.

If you are the supplier of materials in IRIS, please let us know if you remove a product from your list, modify a product on your list, or change the price of the product.

## IV. Requests to Receive Information about IRIS and the IRC Bulletin

Information regarding IRIS, materials in IRIS, and modifications in the system will be announced in the IRC Bulletin. The Bulletin is issued about six times a year as information is available.

If you are not on the mailing list write to the EPA Instructional Resources Center. Limited numbers of some back issues are still available.

If you need information about IRIS you can also phone (614) 422-6717 with your questions.

## V. Requests for Assistance in Using IRIS

A. Assistance in use of IRIS manuals
If you need help in using the IRIS manuals, phone (614) 422-6717 or write to the EPA Instructional Resources Center. Staff are normally available from about 8:30 a.m. to 4:30 p.m. Eastern time to answer your questions.

B. Assistance in accessing IRIS by computer

1. Conducting searches.

   See section VIII.

2. Subscribing to Dialog for computer searching of IRIS.

   Contact: Dialog Information Retrieval Service
   3460 Hillview Avenue
   Palo Alto, California 94304
   (415) 858-3775

3. Contacting a computer search service (an agency that will conduct a search for you, usually for a fee.)

   The EPA Instructional Resources Center maintains a list of agencies that can conduct searches. Most charge a fee, though some are free to qualified users in a limited geographical area.

   Phone or write to obtain information for your area.

## VI. How to Locate Other Relevant Educational Materials

A number of people have requested information related to such areas as management, basic skills (reading, mathematics, writing) human relations, contract negotiations, and other topics. The EPA Instructional Resources Center plans to develop some user service products in selected areas in 1982.

Another excellent source of information for many educational concerns is the ERIC System.

ERIC is a national information system designed and developed by the U.S. Office of Education, and now supported and operated by the National Institute of Education (NIE), for providing ready access to descriptions of exemplary programs, research and development efforts, and related information that can be used in developing more effective educational programs.

There are 16 Clearinghouses in the nationwide ERIC network. Each specializes in a different, multi-discipline, educational area. Each searches out pertinent documents.

The ERIC Clearinghouses have responsibility within the network for acquiring the significant educational literature within their particular areas, selecting the highest quality and most relevant material, processing (i.e., cataloging, indexing, abstracting) the selected items for input to the data base, and also for providing information analysis products and various user services based on the data base.

The 16 ERIC Clearinghouses are listed on the next few pages, together with addresses, telephone numbers, and brief scope notes describing the areas they cover. You can contact them for assistance in locating information relevant to their scope notes.

A. <u>ERIC Clearinghouse on Adult, Career, and Vocational Education</u>
The Ohio State University
National Center for Research in Vocational Education
1960 Kenny Road
Columbus, Ohio 43210
Telephone: (614) 486-3655

Career education, formal and informal at all levels, encompassing attitudes, self-knowledge, decision-making skills, general and occupational knowledge, and specific vocational and occupational skills; adult and continuing education, formal and informal, relating to occupational, family, leisure, citizen, organizational, and retirement roles; vocational and technical education, including new sub-professional fields, industrial arts, and vocational rehabilitation for the handicapped.

B. ERIC Clearinghouse on Counseling and Personnel Services
University of Michigan
School of Education, Room 2108
Ann Arbor, Michigan 48109
Telephone: (313) 764-9492

Preparation, practice, and supervision of counselors at all educational levels and in all settings, theoretical development of counseling and guidance, use and results of personnel procedures such as testing, interviewing, disseminating, and analyzing such information, group work and case work; nature of pupil, student, and adult characteristics; personnel workers and their relation to career planning, family consultations, and student orientation activities.

C. ERIC Clearinghouse on Elementary and Early Childhood Education
University of Illinois
College of Education
805 West Pennsylvania Avenue
Urbana, Illinois 61801
Telephone: (217) 333-1386

Prenatal factors, parental behavior; the physical, psychological, social, educational, and cultural development of children from birth through the primary grades; educational theory, research and practice related to the development of young children.

D. ERIC Clearinghouse on Educational Management
University of Oregon
Library, Room 108
Eugene, Oregon 97403
Telephone: (503) 686-5043

Leadership, management, and structure of public and private educational organizations; practice and theory of administration; preservice and inservice preparation of administrators, tasks and processes of administration, methods and varieties of organization, organizational change, and social context of the organization.

Sites, buildings, and equipment for education; planning, financing, constructing, renovating, equipping, maintaining, operating, insuring, utilizing, and evaluating educational facilities.

E. ERIC Clearinghouse on Handicapped and Gifted Children
Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091
Telephone: (703) 620-3660

Aurally handicapped, visually handicapped, mentally handicapped, physically handicapped, emotionally disturbed, speech handicapped, learning disabilities, and the gifted; behavioral, psychomotor, and communication disorders, administration of special education services; preparation and continuing education of professional and paraprofessional personnel; preschool learning and development of the exceptional; general studies on creativity.

F. ERIC Clearinghouse on Higher Education
George Washington University
One Dupont Circle, NW, Suite 630
Washington, DC 20036
Telephone: (202) 296-2597

Various subjects relating to college and university students, college and university conditions and problems, college and university programs; curricular and instructional problems and programs, faculty, institutional research; federal programs, professional education (medical, law, etc.), graduate education, university extension programs, teaching-learning, planning, governance, finance, evaluation, interinstitutional arrangements, and management of higher educational institutions.

G. ERIC Clearinghouse on Information Resources
Syracuse University
School of Education
Huntington Hall
150 Marshall Street
Syracuse, New York 13210
Telephone: (315) 423-3640

Management, operation, and use of libraries; the technology to improve their operation and the education, training, and professional activities of librarians and information specialists. Educational techniques involved in microteaching, systems analysis, and programmed instruction employing audiovisual teaching aids and technology, such as television, radio, computers, and cable television, communication satellites, microforms, and public television.

H. ERIC Clearinghouse for Junior Colleges
University of California at Los Angeles (UCLA)
Mathematical Sciences Building, Room 8118
405 Hilgard Avenue
Los Angeles, California 90024
Telephone: (213) 825-3931

Development, administration, and evaluation of public and private community junior colleges. Junior college students, staff, curricula, programs, libraries, and community services.

I. ERIC Clearinghouse on Languages and Linguistics
Center for Applied Linguistics
3520 Prospect Street, NW
Washington, DC 20007
Telephone: (202) 298-9292

Languages and linguistics. Instructional methodology, psychology of language learning, cultural and intercultural content, application of linguistics, curricular problems and developments, teacher training and qualifications, language sciences, psycholinguistics, theoretical and applied linguistics, language pedagogy, bilingualism, and commonly taught languages including English and speakers of other languages.

J. ERIC Clearinghouse on Reading and Communication Skills
National Council of Teacher of English
1111 Kenyon Road
Urbana, Illinois 61801
Telephone: (217) 328-3870

Reading, English, and communication skills, preschool through college. Educational research and development in reading, writing, speaking, and listening. Identification, diagnosis, and remediation of reading problems. Speech communication--forensics, mass communication, interpersonal and small group interaction, interpretation, rhetorical and communication theory, instruction development, speech sciences, and theater. Preparation of instructional staff and related personnel in these areas.

All aspects of reading behavior with emphasis on physiology, psychology, sociology, and teaching. Instructional materials, curricula, tests and measurement, preparation of reading teachers and specialists, and methodology at all levels. Role of libraries and other agencies in fostering and guiding reading. Diagnostic and remedial services in school and clinical settings.

K. ERIC Clearinghouse on Rural Education and Small Schools
New Mexico State University
Box 3AP
Las Cruces, New Mexico 88003
Telephone: (505) 646-2623

Education of Indian Americans, Mexican Americans, Spanish Americans, and migratory farm workers and their children; outdoor education; economic, cultural, social, or other factors related to educational programs in rural areas and small schools; disadvantaged of rural and small school populations.

L. ERIC Clearinghouse for Science, Mathematics and Environmental Education
The Ohio State University
1200 Chambers Road - Room 310
Columbus, Ohio 43212
Telephone: (614) 422-6717

All levels of science, mathematics, and environmental education; development of curriculum and instructional materials; media applications; impact of interest, intelligence, values, and concept development upon learning; preservice and inservice teacher education and supervision.

M. ERIC Clearinghouse for Social Studies/Social Science Education
Social Science Education Consortium, Inc.
855 Broadway
Boulder, Colorado 80302
Telephone: (303) 492-8434

All levels of social studies and social science; all activities relating to teachers; content of disciplines; applications of learning theory, curriculum theory, child development theory, and instructional theory; research and development programs; special needs of student groups; education as a social science; social studies/social science and the community.

N. ERIC Clearinghouse on Teacher Education
American Association of Colleges for Teacher Education (AACTE)
One Dupont Circle, NW, Suite 610
Washington, DC 20036
Telephone: (202) 293-2450

School personnel at all levels, all issues from selection through preservice and inservice preparation and training to retirement; curricula, educational theory and philosophy; general education not specifically covered by Educational Management Clearinghouse; Title XI NDEA Institutes not covered by subject speciality in other ERIC Clearinghouses; all aspects of physical education.

O. ERIC Clearinghouse on Tests, Measurement, and Evaluation
Educational Testing Service (ETS)
Rosedale Road
Princeton, New Jersey 08541
Telephone: (609) 734-5176

Tests and other measurement devices; evaluation procedures and techniques; application of tests, measurement, or evaluation in educational projects of programs.

P. ERIC Clearinghouse on Urban Education
Teachers College, Columbia University
Institute for Urban and Minority Education
Box 40
525 West 120th Street
New York, New York 10027
Telephone: (212) 678-3433

The relationship between urban life and schooling; the effect of urban experiences and environments from birth onward; the academic, intellectual, and social performance of urban children and youth from grade three through college entrance (including the effect of self concept, motivation, and other affective influences), education of urban, Puerto Rican and Asian American populations, and rural and urban black populations; programs and practices which provide learning experiences designed to meet the special needs of diverse populations served by urban schools and which build upon their unique as well as their common characteristics, structural changes in the classroom, school, school system, and community and innovative instructional practices which directly affect urban children and youth; programs, practices, and materials related to economic and ethnic discrimination, segregation, desegregation, and integration in education; issues, programs, practices, and materials related to redressing the curriculum imbalance in the treatment of ethnic minority groups.

Q. Educational Resources Information Center
Central ERIC
National Institute of Education (NIE)
Information Resources Division
1200 - 19th Street, NW
Washington, DC 20208
Telephone: (202) 254-5500

There are other sources of educational information in many states. Included are information dissemination units in the state departments of education, intermediate education units, and local education units. In many cases, a local school administrator or school librarian can help you locate assistance.

## VII. How to Structure a Computer Search of IRIS

This explanation relates to the IRIS data base that can be searched on-line through Bibliographic Retrieval Services, Inc. or Dialog. As IRIS becomes available through other sources, information relevant to those services will be provided.

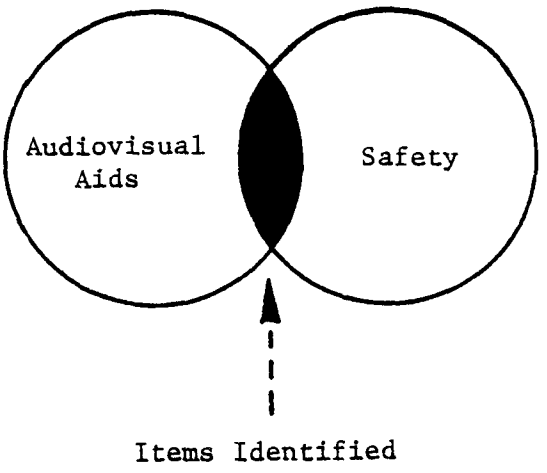
A few notes about the service are important. The following fields are searchable by computer: (1) IRIS Accession Number (EW Number), (2) ERIC Accession Number (ED Number), (3) Authors, (4) Institution, (5) Title, (6) Subject index terms, and (7) Abstracts.

If you submit a search of IRIS through Dialog, the program will search for the words you select in three fields unless the searcher requests to limit the search. These fields are: (1) title field, (2) subject index field, and (3) abstract. We recommend you use this feature especially for searches on specific terms. If you find more material than you want by this techniqu, you can narrow the search to items that may have the most information on the topic by limiting the search to the subject index field.

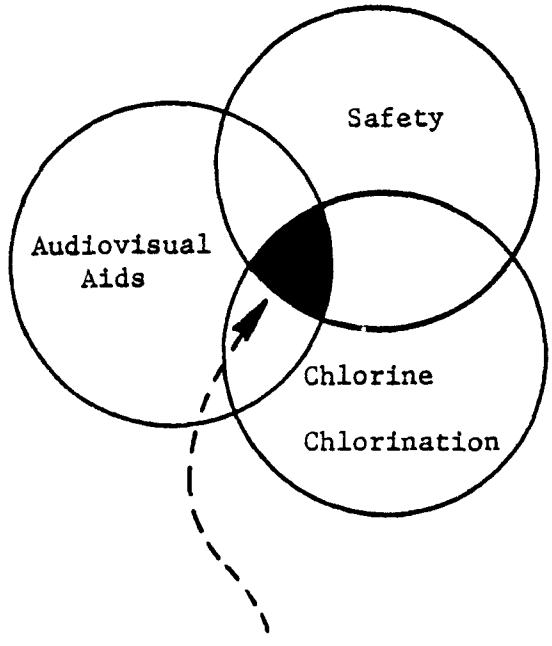
Several sample searches are listed below and on the following pages.

### A. Sample 1

If you want to locate audiovisual aids that relate to safety you would submit a search with audiovisual aids and safety. Materials that included the terms both audiovisual aids and safety in the title field, the abstract and the subject index field would be identified by computer.



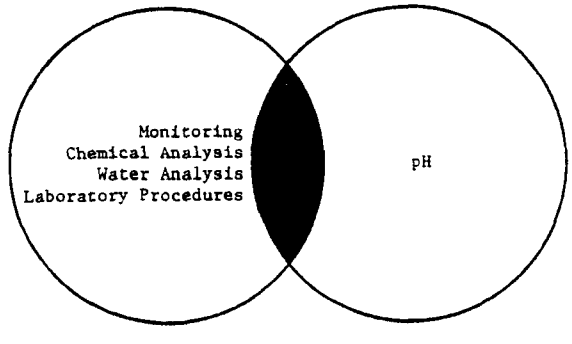
The computer program can tell you the number of items, the title of the items, or print the entire resume of each item. If you were primarily interested in audiovisual aids, safety, and chlorine you would submit a search of these three terms. You might want to include chlorides and chlorination as well as chlorine in the search. This search would identify materials that contained audiovisual aids, safety, and one or more of the words, chlorine and chlorination.




Items Identified

B. Sample 2

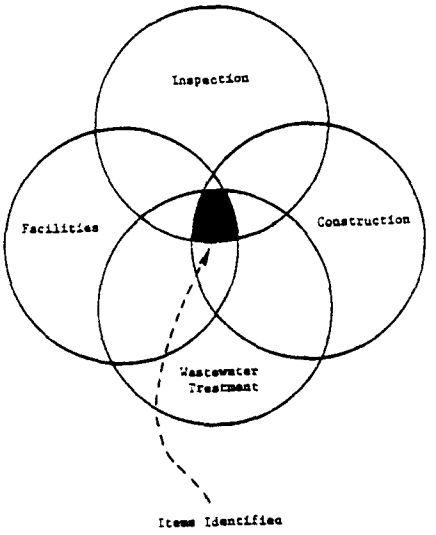
If you want to identify materials related to monitoring, you should include several related terms and the chemical, material, or situation that is being monitored. See the example below.




This search would identify all the items that included any of the terms on the left and pH.

C. Sample 3

If you are interested in materials related to inspection and construction you could conduct a search of these two terms. The search would identify all materials that included both terms. If you were interested in only wastewater treatment facilities you could construct a search as diagrammed.




This search would yield specific materials and demonstrates how a computer search can help you locate materials you want.

The subject index can also be used to help you select words to include in a search. Words listed in the subject index are certain to be in the searchable fields. Therefore, selecting these terms to use in structuring a search will increase the probability of locating materials. Some words will appear in the title or abstract that are not included in the subject term field. Such words can be used to check if any materials are in the data base. If, however, you conduct a search with such a word it is usually best to include a synonym that is in the subject index.

## VIII. How to Order Materials

The AVAILABILITY field in the resume indicates where materials can be obtained. A few of the sources are explained.

A. A number of audiovisual materials can be obtained on loan or purchased from the EPA Instructional Resources Center. Most items previously available from the NTOTC office are available from the EPA Instructional Resources Center at The Ohio State University. For further information write or call.

B. Some of the materials are available through the ERIC Document Reproduction Service. MF (microfiche) are 4" x 6" sheets of microfilm; up to 96 pages of text can be reproduced on one sheet. HC (paper copy) is a reproduction of the document in paper form at the original size.

Order forms for these materials can be obtained from:

ERIC Document Reproduction Service
P. O. Box 190
Arlington, Virginia 22210
(703) 823-0500

C. The EPA Instructional Resources Center will provide Xerox copies of materials that are not copyrighted for $1.00 per document plus $0.06 per page.

If you can not obtain materials that are listed or have difficulty obtaining materials, please contact the EPA Instructional Resources Center. We can provide assistance in obtaining materials from some sources. If materials become unavailable, we will remove them from the IRIS data base.

RESUME SECTION

RIS ACCESSION NUMBER: EW009267

ITLE: PRIMARY TREATMENT.

ESCRIPTOR: *AUDIOVISUAL AIDS; *BLUE PLAINS WASTEWATER REATMENT FACILITY; *FACILITIES; *INSTRUCTIONAL MATERIALS; OPERATIONS (WASTEWATER); *PRIMARY TREATMENT; *PROGRAM ESCRIPTIONS; *WASTEWATER TREATMENT

ESCRIPTIVE NOTE: RENTAL PRICE: $15.00; 10 MINUTE COLOR /4" U-MATIC VIDEOCASSETTE.

BSTRACT: OPENING WITH AN AERIAL VIEW OF THE BLUE PLAINS ASTE TREATMENT FACILITY, THIS TAPE GIVES A BRIEF HISTORY OF HE PLANT AND THEN SHOWS AND DESCRIBES THE STEPS IN THE RIMARY TREATMENT PROCESS. THE NARRATION IS CLEAR AND WELL ACED AND COMMUNICATES A GENUINE INTEREST IN AND CONCERN BOUT THE PROCESSES DESCRIBED. PICTURES CORRELATE WITH CRIPT AND CLEARLY SHOW WHAT THE NARRATION DESCRIBES.

VAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO TATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 3212

RIS ACCESSION NUMBER: EW009268

ITLE: WASTEWATER TREATMENT PLANT LABORATORY PRACTICES.

ESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; INSTRUCTIONAL MATERIALS; *LABORATORIES; *LABORATORY ROCEDURES; *FACILITIES; *OPERATIONS (WASTEWATER); WASTEWATER TREATMENT

ESCRIPTIVE NOTE: RENTAL PRICE: $15.00; 19 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE.

BSTRACT: THE ROLE OF THE LABORATORY IN RELATION TO THE LUE PLAINS WASTE TREATMENT FACILITY IS CAREFULLY EXPLAINED. NUMBER OF THE TESTS AND TESTING DEVICES ARE SHOWN AND XPLAINED, AND THE REASON FOR EACH TEST IS GIVEN. THE ELATIONSHIP BETWEEN THE TREATMENT PLANT, THE LAB, AND THE PA IS ALSO MENTIONED.

VAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO TATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 3212

IRIS ACCESSION NUMBER: EW009269

ITLE: SOLIDS PROCESSING-PART 1.

ESCRIPTOR: *AUDIOVISUAL AIDS; *BLUE PLAINS WASTEWATER REATMENT FACILITY; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *SLUDGE; *SOLID WASTES; *WASTEWATER TREATMENT

ESCRIPTIVE NOTE: RENTAL PRICE: $15.00; 17 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE.

BSTRACT: IN A FLOOD OF UNDEFINED AND SOMETIMES ISPRONOUNCED WORDS, THIS TAPE DESCRIBES AT THE GRADUATE ENGINEERING LEVEL THE PROCESSING OF SOLID WASTE IN THE BLUE PLAINS FACILITY. DURING THE TELLING, THE NARRATOR TAKES THE VIEWER AROUND MUCH OF THE PLANT, 2ND INTO A NUMBER OF THE PROCESSING UNITS. THE TAPE IS OVER-LOADED WITH GOOD INFORMATION, BUT ORGANIZATION AND DEFINITION ARE LACKING.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009270

TITLE: SLUDGE DISPOSAL.

DESCRIPTOR: *AUDIOVISIUAL AIDS; *COMPOSTING; *COSTS; *INSTRUCTIONAL MATERIALS; LANDFILLS; *OPERATIONS (WASTEWATER); *SLUDGE; SLUDGE DISPOSAL; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; 10 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE.

ABSTRACT: METHODS OF DISPOSING OF THE SOLIDS OUTPUT OF A WASTE TREATMENT PLANT ARE DISCUSSED IN THIS TAPE. TRADITIONAL LANDFILL TECHNIQUES ARE SHOWN AND LIMITATIONS ARE EXPLAINED. THE PROMISING FUTURE OF "COMPOSTING" IS SHOWN, CONTRASTING ITS SIGNIFICANTLY LOWER COST WITH THE COSTS FOR TRADITIONAL METHODS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW009546

PUBLICATION DATE: 72

TITLE: SOMEBODY AROUND HERE MUST BE DOING SOMETHING GOOD. A DEMONSTRATION OF A NEW TECHNOLOGY FOR PHOSPHORUS REMOVAL (MPV-4).

DESCRIPTOR: *AUDIOVISUAL AIDS; *CONSTRUCTION; *FACILITIES; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *PHOSPHORUS; *POSTSECONDARY EDUCATION; *TECHNOLOGY; *VIDEOCASSETTES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: RENTAL PRICE: $15.00; PURCHASE PRICE: $3/4 "@ $60; VHS @ $53 20 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE.

ABSTRACT: DESCRIBED IS A DEMONSTRATION PROJECT IN RICHARDSON, TX. THE PRESENTATION INDICATES WASTEWATER TREATMENT PLANT CAN BE UPGRADED IN PERFORMANCE IN A SHORT TIME AND AT A MINIMAL COST TO REMOVE ADDITIONAL BOD, SUSPENDED SOLIDS AND NUTRIENTS SUCH AS PHOSPHORUS. THE TREATMENT METHODS ARE SHOWN.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW010378
TITLE: LOVE CANAL - THE ISSUES AND CONTROVERSIES.

DESCRIPTOR: *CHEMICALS; *CONTROVERSIAL ISSUES; *DISASTERS; *ECONOMICS; *LOVE CANAL; *HEALTH; *LEGISLATION; *POLICIES; *PUBLIC HEALTH; *NEW YORK; *REGULATIONS; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: PURCHASE PRICE: $110.00; RENTAL PRICE $20.00 PER BOOKING. TWO-PART 35MM SLIDE/AUDIOCASSETTE PROGRAM.

ABSTRACT: THIS IS A PROGRAM ABOUT THE LOVE CANAL PROBLEM IN NIAGRA FALLS, NEW YORK. DESCRIBED ARE THE BACKGROUND OF THE LOVE CANAL SITUATION AND SOME OF THE MAJOR EVENTS THAT OCCURED IN THE ATTEMPT TO SOLVE THE HUMAN AND TECHNICAL PROBLEMS.

AVAILABILITY: MEDIA LIBRARY, EDUCATIONAL COMMUNICATIONS CENTER, 24 CAPEN HALL, STATE UNIVERSITY OF NEW YORK AT BUFFALO BUFFALO, NEW YORK 14260

IRIS ACCESSION NUMBER: EW010382

TITLE: THE OLD QUABBIN VALLEY - POLITICS AND CONFLICTS IN WATER DISTRIBUTION.

PERSONAL AUTHOR: HOTT, LAWRENCE R.

DESCRIPTOR: *POLITICS; *MASSACHUSETTS; *POLICIES; *NATIONAL PROBLEMS; *WATER DISTRIBUTION; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 30 MINUTE FILM.P. FILM RENTAL IS $50.00 FOR ONE DAY SHOWING, $25.00 EACH ADDITIONAL DAY.

ABSTRACT: THIS FILM IS CONCERNED WITH THE CONTROVERSY OF WATER RESOURCE USE. THE FILM TRACES THE HISTORY OF THE BOSTON, MASS. WATER SUPPLY, THE CONSTRUCTION OF THE QUABBIN RESERVOIR, THE PROPOSAL TO DIVERT THE CONNECTICUT RIVER, AND THE CONFLICT IN MASSACHUSETTS THAT AFFECTS POLICY DECISIONS ON WATER SUPPLY. IT HAS BEEN USED WIDELY IN NEW ENGLAND FOR PROGRAMS ON WATER RESOURCE ISSUES.

AVAILABILITY: THE OLD QUABBIN VALLEY FILM LIBRARY RENTAL DEPT., 779 SUSQUEHANNA AVE., FRANKLIN LAKES, NY 07471

IRIS ACCESSION NUMBER: EW010387

PUBLICATION DATE: 83

TITLE: LEARNING PACKAGED TO GO: A DIRECTORY AND GUIDE TO STAFF DEVELOPMENT AND TRAINING PACKAGES.

PERSONAL AUTHOR: CONROY, BARBARA

DESCRIPTOR: *AUDIOVISUAL AIDS; *DIRECTORIES; *INSTRUCTION; *INSTRUCTIONAL MATERIALS; *RECOMMENDATIONS; *STAFF DEVELOPMENT; *TRAINING; *TRAINING AIDS

DESCRIPTIVE NOTE: 224P. PRICE: $65.00.
ABSTRACT: THIS PUBLICATION PROVIDES ACCESS TO A VARIETY OF LEARNING AIDS THAT PROVIDE BOTH DEPTH AND SCOPE TO THE REPERTOIRE OF THE TRAINER, THE LEARNER, AND THE PROGRAM PLANNER. PART I PRESENTS THE ADVANTAGES AND DISADVANTAGES OF VARIOUS TYPES OF TRAINING MEDIA AND SUGGESTIONS FOR DEVELOPING YOUR OWN. PART II PROVIDES DESCRIPTIONS OF HUNDREDS OF TRAINING PACKAGES.

AVAILABILITY: ORYX PRESS, 2214 NORTH CENTRAL AT ENCANTO, PHOENIX, AZ 85004

IRIS ACCESSION NUMBER: EW010390

PUBLICATION DATE: 83

TITLE: GROUND-WATER RESOURCES OF THE UNITED STATES.

PERSONAL AUTHOR: TODD, DAVID KEITH

DESCRIPTOR: *BIBLIOGRAPHIES; *EVALUATION; *GEOLOGY; *GROUNDWATER; *HYDROLOGY; *MANAGEMENT; *SURVEYS; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 749P. PRICE: $39.00.

ABSTRACT: IN THE DECADE ENDING IN 1982 THE UNITED STATES GEOLOGICAL SURVEY UNDERTOOK TO APPRAISE THE GROUNDWATER RESOURCES OF THE UNITED STATES. THE COUNTRY WAS DIVIDED INTO TWENTY WATER RESOURCE REGIONS WITH A REPORT BEING PREPARED FOR EACH REGION. THE RESULTING SERIES OF REPORTS WAS PUBLISHED UNDER THE GENERAL TITLE SUMMARY APPRAISALS OF THE NATION'S GROUND-WATER RESOURCES AS U. S. GEOLOGICAL SURVEY PROFESSIONAL PAPERS. THESE REPORTS HAVE BEEN BROUGHT TOGETHER TO FORM THE CHAPTERS OF THIS BOOK. COLLECTIVELY, THE REGIONAL REPORTS PROVIDE A COMPREHENSIVE DESCRIPTION OF THE NATION'S UNDERGROUND WATER RESOURCES. A TYPICAL REGIONAL REPORT BEGINS WITH A DESCRIPTION OF THE AREA, INCLUDING HYDROLOGY AND GEOLOGY. THIS IS FOLLOWED BY A QUANTITATIVE EVALUATION OF THE AVAILABILITY OF GROUND WATER AND A DISCUSSION OF ITS CHEMICAL QUALITY. THE UTILIZATION OF GROUND WATER AND MANAGEMENT TECHNIQUES ARE THEN PRESENTED. FINALLY, REGIONAL PROBLEMS AND SPECIALIZED APPLICATIONS OF GROUND-WATER RESOURCES ARE DESCRIBED. EACH REPORT ENDS WITH A LIST OF REFERENCES FOR READERS WISHING MORE DETAILED INFORMATION IN A PARTICULAR LOCALITY.

AVAILABILITY: PREMIER PRESS, P.O. BOX 4428, BERKELEY, CA 94704

IRIS ACCESSION NUMBER: EW010460

PUBLICATION DATE: AUG 83

TITLE: ADDENDUM TO HANDBOOK FOR SAMPLING AND SAMPLE PRESERVATION, EPA-600/4-82-029.

DESCRIPTOR: *BIBLIOGRAPHIES; *DEFINITIONS; *AUTOMATIC SAMPLERS; *EQUIPMENT; *MANUFACTURERS; *SAMPLE PRESERVATION;

SAMPLING PROCEDURES; *SAMPLING; *WASTEWATER; *WATER; *WATER JALITY

ESCRIPTIVE NOTE: 28P. EPA-600/4-83-039.

BSTRACT: THIS PUBLICATION CONTAINS UPDATED MATERIAL TO JPPLEMENT THE MANUAL ENTITLED "HANDBOOK FOR SAMPLING AND AMPLE PRESERVATION OF WATER AND WASTEWATER." ITEMS CHANGED ERE (1) THE DEFINITIONS OF VARIOUS SAMPLING PROCEDURES, (2) JRRENT LITERATURE REFERENCES, AND (3) TABLE 2.3 IN THE ANUAL LISTS MANUFACTURERS OF AUTOMATIC SAMPLERS.

VAILABILITY: U.S. EPA, TECHNOLOGY TRANSFER, OFFICE OF ESEARCH AND DEVELOPMENT, CINCINNATI, OH 45268

RIS ACCESSION NUMBER: EW010461

JBLICATION DATE: SEP 83

ITLE: INNOVATIVE AND ALTERNATIVE TECHNOLOGY PROJECTS: A ROGRESS REPORT.

ESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *DIRECTORIES; EQUIPMENT; *FEDERAL PROGRAMS; *FACILITIES; *INNOVATIVE ECHNOLOGY; *FEDERAL FUNDING; *OPERATIONS (WASTEWATER); WASTEWATER TREATMENT

ESCRIPTIVE NOTE: 36P. PRICE: $2.50.

BSTRACT: THIS PUBLICATION PRESENTS A PROGRESS REPORT ON NNOVATIVE AND ALTERNATIVE (I/A) TECHNOLOGY WASTEWATER ROJECTS. INCLUDED IS AN OVERVIEW AND TABLES LISTING VARIOUS ROJECTS FUNDED THROUGH THE I/A PROGRAM.

VAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO TATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 3212

RIS ACCESSION NUMBER: EW010462

UBLICATION DATE: FEB 81

ITLE: THE 1980 NEEDS SURVEY - CONVEYANCE, TREATMENT AND ONTROL OF MUNICIPAL WASTEWATER, COMBINED SEWER OVERFLOWS, ND STORMWATER RUNOFF: SUMMARIES OF TECHNICAL DATA.

ESCRIPTOR: *ADVANCED SECONDARY TREATMENT; *ADVANCED ASTEWATER TREATMENT; *EQUIPMENT; *FACILITIES; INFILTRATION; *INFLOW; *NATIONAL SURVEYS; *NEEDS SSESSMENT; *OPERATIONS (WASTEWATER); *SECONDARY TREATMENT; SEWERS; *SURVEYS; *WASTEWATER COLLECTION; *WASTEWATER REATMENT

ESCRIPTIVE NOTE: 100P. $1.00 PER DOCUMENT PLUS $0.03 PER AGE.

BSTRACT: THIS REPORT IS A PART OF THE 1980 NEEDS SURVEY EPORT AND IS A SUPPLEMENT TO THE COST ESTIMATE REPORT TO ONGRESS (FRD-19), DATED FEB. 10, 1981. IT PROVIDES DETAILED UMMARIES OF THE TECHNICAL DATA COLLECTED DURING THE SURVEY FOR CATEGORIES I THROUGH VI. A DESCRIPTION OF THE 1980 SURVEY METHODOLOGY IS INCLUDED. CATEGORIES REPORTED ARE: CATEGORY I, SECONDARY TREATMENT; CATEGORY IIA, ADVANCED SECONDARY TREATMENT; CATEGORY IIB, ADVANCED WASTEWATER TREATMENT; CATEGORY IIIA, CORRECTION OF INFILTRATION/INFLOW; CATEGORY IIIB, MAJOR REHABILITATION OF SEWERS; CATEGORY IVA, NEW COLLECTOR SEWERS; CATEGORY IVB, NEW INTERCEPTOR SEWERS; CATEGORY V, CONTROL OF COMBINED SEWER OVERFLOW; AND CATEGORY VI, TREATMENT AND/OR CONTROL OF STORMWATERS. THE SURVEY CONTAINS THE MOST COMPLETE INVENTORY OF ALL KNOWN AND PUBLICLY OWNED WASTEWATER TREATMENT FACILITIES.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW010463

PUBLICATION DATE: JUN 83

TITLE: THE 1982 NEEDS SURVEY - CONVEYANCE, TREATMENT, AND CONTROL OF MUNICIPAL WASTEWATER, COMBINED SEWER OVERFLOWS, AND STORMWATER RUNOFF: SUMMARIES OF TECHNICAL DATA.

DESCRIPTOR: *ADVANCED SECONDARY TREATMENT; *ADVANCED WASTEWATER TREATMENT; *EQUIPMENT; *FACILITIES; *INFILTRATION; *INFLOW; *NATIONAL SURVEYS; *NEEDS ASSESSMENT; *OPERATIONS (WASTEWATER); *SECONDARY TREATMENT; *SEWERS; *SURVEYS; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 192P. $1.00 PER DOCUMENT PLUS $0.03 PER PAGE.

ABSTRACT: THIS SURVEY UPDATES EW10462. THE SURVEY CONSISTS OF INFORMATION OF ALL WASTEWATER CONVEYANCE AND TREATMENT, STORMWATER COLLECTION AND TREATMENT, AND COMBINED SEWER OVERFLOW ABATEMENT NEEDS FOR THE ENTIRE COUNTRY. THIS IS A SUPPLEMENT TO THE COST ESTIMATE REPORTED TO CONGRESS DATED DEC. 31, 1982. IT PROVIDES DETAILED SUMMARIES OF THE TECHNICAL DATA COLLECTED FOR CATEGORIES I THROUGH VI. A DESCRIPTION OF THE SURVEY METHODOLOGY IS ALSO INCLUDED. CATEGORIES INCLUDED ARE: CATEGORY I, SECONDARY TREATMENT; CATEGORY IIA, ADVANCED SECONDARY TREATMENT; CATEGORY IIB, ADVANCED TREATMENT; CATEGORY IIIA, CONNECTION OF INFILTRATION/INFLOW; CATEGORY IIIB, MAJOR REHABILITATION OF SEWERS; CATEGORY IVA, NEW COLLECTOR SEWERS; CATEGORY IVB, NEW INTERCEPTOR SEWERS; CATEGORY V, CONTROL OF COMBINED SEWER OVERFLOW; AND CATEGORY VI, TREATMENT AND/OR CONTROL OF STORMWATER.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, OHIO STATE UNIVERSITY, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW010464

PUBLICATION DATE: JUN 77

TITLE: TRICKLING FILTER OPERATION AND MAINTENANCE MANUAL.

'ERSONAL AUTHOR: NELSON, DWAYNE E.; ADAMS, J. THOMAS

'ESCRIPTOR: *ENVIRONMENTAL TECHNICIANS; *INSTRUCTIONAL IATERIALS; *MANUALS; *OPERATIONS (WASTEWATER); POSTSECONDARY EDUCATION; *TRICKLING FILTERS; *WASTE 'ISPOSAL; WATER RESOURCES; WATER POLLUTION CONTROL; WASTEWATER TREATMENT

'ESCRIPTIVE NOTE: 258P.

BSTRACT: THIS MANUAL PROVIDES THE TRICKLING FILTER 'PERATOR WITH A BASIC UNDERSTANDING OF WASTEWATER TREATMENT, ND IN PARTICULAR THE OPERATION OF TRICKLING FILTERS. IT ROVIDES A COMPREHENSIVE GUIDE FOR THE OPERATOR TO FOLLOW IN ORMAL OPERATION AND MAINTENANCE PROCEDURES. THE MANUAL IS RGANIZED TO FOLLOW THE NORMAL PATH OF WASTEWATER AS IT NTERS THE HEAD OF A TREATMENT FACILITY AND CONTAINS HAPTERS ON THE CHARACTERISTICS OF WASTEWATER, BACTERIOLOGY ND MICROBIOLOGY, FLOW MEASUREMENT, PRELIMINARY TREATMENT, EDIMENTATION, TRICKLING FILTERS, DISINFECTION, ANAEROBIC IGESTION AND SLUDGE HANDLING, SAMPLING AND LABORATORY NALYSIS, RECORDS AND REPORTS, AND SAFETY.

VAILABILITY: MINNESOTA POLLUTION CONTROL AGENCY, 1935 WEST OUNTY ROAD B2, ROSEVILLE, MN 55113

RIS ACCESSION NUMBER: EW010465

UBLICATION DATE: OCT 83

ITLE: DESIGN MANUAL - MUNICIPAL WASTEWATER STABILIZATION ONDS.

ESCRIPTOR: *COSTS; *DESIGN; *MANAGEMENT; *MANUALS; OPERATIONS (WASTEWATER); *PROCESS DESIGN; *PLANNING; STABILIZATION PONDS; *WASTEWATER TREATMENT

ESCRIPTIVE NOTE: 327P. EPA-625/1-83-015.

BSTRACT: THIS MANUAL PROVIDES A CONCISE OVERVIEW OF ASTEWATER STABILIZATION POND SYSTEMS THROUGH DISCUSSION OF ACTORS AFFECTING TREATMENT, PROCESS DESIGN PRINCIPLES AND PPLICATIONS, ASPECTS OF PHYSICAL DESIGN AND CONSTRUCTION, USPENDED SOLIDS (SS) REMOVAL ALTERNATIVES, AND COST AND NERGY REQUIREMENTS. CHAPTER 2 PROVIDES A REVIEW OF PHYSICAL ND BIOLOGICAL FACTORS ASSOCIATED WITH WASTEWATER TABILIZATION PONDS. EMPIRICAL AND RATIONAL DESIGN QUATIONS, AND THEIR ABILITY TO PREDICT POND PERFORMANCE, RE ALSO DISCUSSED. ACTUAL DESIGN EXAMPLES EMPLOYING THE ATIONAL EQUATIONS PRESENTED IN CHAPTER 2 ARE OUTLINED IN HAPTER 3. THESE EXAMPLES ENCOMPASS ESSENTIALLY ALL TYPES OF ASTEWATER PONDS CURRENTLY IN USE IN THE UNITED STATES. HYSICAL DESIGN AND CONSTRUCTION CRITERIA ARE DISCUSSED IN HAPTER 4. THESE CRITERIA ARE VITAL TO EFFECTIVE POND ERFORMANCE REGARDLESS OF THE DESIGN EQUATION EMPLOYED AND UST BE CONSIDERED IN FACILITY DESIGN. HIGH SS ONCENTRATIONS IN POND EFFLUENTS HAVE TRADITIONALLY EPRESENTED A MAJOR DRAWBACK TO THEIR USE. ALTERNATIVES FOR S REMOVAL AND CONTROL ARE PRESENTED IN CHAPTER 5. CHAPTER 6 ONTAINS COST AND ENERGY REQUIREMENTS INFORMATION TO AID IN 'OCESS SELECTION AND JUSTIFICATION. AN EVALUATION OF RIOUS FACULTATIVE AND AERATED POND DESIGN METHODS IS PRESENTED IN AN APPENDIX. THIS EVALUATION WAS PERFORMED USING DATA COLLECTED ON THE FOUR FACULTATIVE AND FIVE AERATED POND SYSTEMS PRESENTED IN CHAPTER 2.

AVAILABILITY: U.S. EPA, TECHNOLOGY TRANSFER, OFFICE OF RESEARCH AND DEVELOPMENT, CENTER FOR ENVIRONMENTAL RESEARCH INFORMATION, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW010466

PUBLICATION DATE: OCT 83

TITLE: PROCESS DESIGN MANUAL - LAND APPLICATION OF MUNICIPAL SLUDGE.

DESCRIPTOR: *AGRICULTURE; *CASE STUDIES; *FORESTRY; *LAND APPLICATION; *MANAGEMENT; *PROCESS DESIGN; *OPERATIONS (WASTEWATER); *PUBLIC PARTICIPATION; *RECLAMATION; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 435P. EPA-625/1-83-016.

ABSTRACT: THIS MANUAL PRESENTS A RATIONAL PROCEDURE FOR THE DESIGN OF MUNICIPAL SLUDGE LAND APPLICATION SYSTEMS. THE UTILIZATION OF SLUDGE IN AGRICULTURE, FORESTRY, THE RECLAMATION OF DISTURBED AND MARGINAL LANDS, AND DEDICATED HIGH RATE SURFACE DISPOSAL PRACTICES ARE DISCUSSED IN DETAIL, WITH DESIGN CONCEPTS AND CRITERIA PRESENTED WHERE AVAILABLE. A TWO PHASED PLANNING APPROACH TO SITE IDENTIFICATION, EVALUATION, AND SELECTION ALONG WITH INFORMATION ON FIELD INVESTIGATIONS ARE ALSO PRESENTED. THE MANUAL INCLUDES EXAMPLES OF EACH LAND APPLICATION OPTION AND CASE STUDIES OF SLUDGE UTILIZATION IN AGRICULTURE AND FOR RECLAMATION OF DISTURBED MINING LANDS.

AVAILABILITY: U.S. EPA, TECHNOLOGY TRANSFER, MUNICIPAL ENVIRONMENTAL RESEARCH LABORATORY, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW010467

PUBLICATION DATE: SEP 83

TITLE: ACID PRECIPITATION. JUNE, 1974-SEPTEMBER, 1983 (CITATIONS FROM THE INTERNATIONAL AEROSPACE ABSTRACTS DATA BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ACID PRECIPITATION; *ACID RAIN; *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *CONTROL TECHNIQUES; *MEASUREMENT

DESCRIPTIVE NOTE: 128P. PRICE CODE: PC N01/MF N01. PB83-872408.

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE MEASUREMENT AND ANALYSIS OF ACID RAIN AND ACIDIFICATION OF AREAS BY PRECIPITATION. BOTH GLOBAL AND REGIONALIZED AREAS OF ACID RAIN EFFECTS ARE EXAMINED. CONTROL TECHNIQUES APPLICABLE TO THE SOURCES AND CAUSES ARE DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 149 CITATIONS, 34 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

/AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 )RT ROYAL ROAD, SPRINGFIELD, VA 22161

IIS ACCESSION NUMBER: EW010468

JBLICATION DATE: SEP 83

ITLE: ACID PRECIPITATION: EFFECTS ON THE AQUATIC COSYSTEM. 1977-SEPTEMBER, 1983 (CITATIONS FROM THE ENERGY ATA BASE).

ESCRIPTOR: *ACID PRECIPITATION; *ACID RAIN; *ANNOTATED IBLIOGRAPHIES; BIBLIOGRAPHIES; *ENVIRONMENTAL IMPACT; LAKES; *STREAMS

ESCRIPTIVE NOTE: 230P. PRICE CODE: PC N01/MF N01. PB83-72242.

BSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING HE EFFECT OF ACID RAIN ON LAKES AND STREAMS, AND ON THE SSOCIATED AQUATIC PLANTS AND ANIMALS. INCLUDED ARE EXPOSURE ATHWAYS, NATURAL OR ARTIFICIAL BUFFERING, AND EFFECTS ON RODUCTIVITY WITHIN THE AQUATIC ECOSYSTEM. (THIS UPDATED IBLIOGRAPHY CONTAINS 242 CITATIONS, 90 OF WHICH ARE NEW NTRIES TO THE PREVIOUS EDITION.)

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010469

UBLICATION DATE: SEP 83

ITLE: ACID PRECIPITATION: EFFECTS ON TERRESTRIAL COSYSTEMS. 1976-SEPTEMBER, 1983 (CITATIONS FROM THE ENERGY ATA BASE).

ESCRIPTOR: *ACID PRECIPITATION; *ACID RAIN; *ANNOTATED IBLIOGRAPHIES; *BIBLIOGRAPHIES; *ENVIRONMENTAL IMPACT; TERRESTRIAL ECOSYSTEMS

ESCRIPTIVE NOTE: 269P. PRICE CODE: PC N01/MF N01. PB83-72424.

BSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING HE EFFECT OF ACID RAIN ON TERRESTRIAL ECOSYSTEMS. INCLUDED RE EFFECTS ON SOILS, FORESTS, AND OTHER VEGETATION. TRENDS N GEOGRAPHICAL DISTRIBUTION OF ACID RAIN DEPOSITION ARE LSO COVERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 274 ITATIONS, 94 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS DITION.)

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010470

TITLE: ACID PRECIPITATION: LEGAL, POLITICAL, AND HEALTH ASPECTS. 1976-SEPTEMBER, 1983 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: *ACID PRECIPITATION; *ACID RAIN; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *FEDERAL LEGISLATION; *HEALTH; *LEGAL ASPECTS; *LEGISLATION

DESCRIPTIVE NOTE: PRICE CODE: PC N01/MF N01. PB83-872416.

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE POLITICAL, LEGAL, AND HEALTH ASPECTS OF ACID RAIN. FEDERAL LEGISLATION AND THE CLEAN AIR ACT ARE INCLUDED. TRANSFRONTIER ASPECTS OF ACID RAIN POLLUTION ARE EXCLUDED, EXCEPT IN THOSE CITATIONS THAT COVER CONGRESSIONAL HEARINGS IN WHICH IT PERTAINS TO PROPOSED LEGISLATION. (THIS UPDATED BIBLIOGRAPHY CONTAINS 184 CITATIONS, 74 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITIO5.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010471

PUBLICATION DATE: 80

TITLE: APPROPRIATE TECHNOLOGY FOR WATER SUPPLY AND SANITATION: VOLUME 3. HEALTH ASPECTS OF EXCRETA AND SULLAGE MANAGEMENT. A STATE-OF-THE-ART REVIEW.

PERSONAL AUTHOR: FEACHEM, RICHARD G.; AND OTHERS

DESCRIPTOR: *APPROPRIATE TECHNOLOGY; *DESIGN; *DISEASES; *ECONOMICS; *PATHOGENS; *PUBLIC HEALTH; *SANITATION; *STATE-OF-THE-ART REVIEWS; *WATER SUPPLY; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 331P. PRICE CODE: MF A01. PB83-263467. PAPER COPIES AVAILABLE FROM: WORLD BANK, 1818 H STREET, N.W., WASHINGTON, DC 20433

ABSTRACT: PUBLIC HEALTH IS OF CENTRAL IMPORTANCE IN THE DESIGN AND IMPLEMENTATION OF IMPROVED EXCRETA DISPOSAL PROJECTS. IMPROVEMENTS IN HEALTH ARE THE MAIN SOCIAL AND ECONOMIC BENEFIT WHICH PLANNERS AND ECONOMISTS HOPE TO ACHIEVE BY INVESTING IN EXCRETA DISPOSAL. IT IS THEREFORE NECESSARY TO MAKE AVAILABLE AS MUCH INFORMATION AS POSSIBLE ABOUT THE INTERACTION BETWEEN EXCRETA AND HEALTH IN ORDER THAT ENGINEERS AND PLANNERS MAY MAKE INFORMED AND RATIONAL DECISIONS. THE INFORMATION THAT IS REQUIRED NOT ONLY CONCERNS THE BROAD EPIDEMIOLOGICAL ISSUES OF THE IMPACT ON DISEASE OF IMPROVEMENTS IN EXCRETA DISPOSAL, BUT ALSO THE WAYS IN WHICH PARTICULAR EXCRETA DISPOSAL AND REUSE TECHNOLOGIES AFFECT THE SURVIVAL AND DISSEMINATION OF PARTICULAR PATHOGENS. THIS BOOK SETS OUT TO PROVIDE SUCH INFORMATION. IT IS INTENDED FOR PLANNERS, ENGINEERS, ECONOMISTS AND HEALTH WORKERS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010472

PUBLICATION DATE: 81

TITLE: APPROPRIATE TECHNOLOGY FOR WATER SUPPLY AND SANITATION: NIGHT-SOIL COMPOSTING.

PERSONAL AUTHOR: SHUVAL, HILLEL I.; AND OTHERS

DESCRIPTOR: *APPROPRIATE TECHNOLOGY; *AEROBIC COMPOSTING; *COMPOSTING; *DEVELOPING COUNTRIES; *NIGHT SOIL; *PUBLIC HEALTH; *SANITATION; *WASTE DISPOSAL; *WATER SUPPLY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 95P. PRICE CODE: MF A01. PB83-263459. PAPER COPIES AVAILABLE FROM: WORLD BANK, 1818 H STREET, N.W., WASHINGTON, DC 20433

ABSTRACT: AMONG THE PROBLEMS FACING THOSE WHO DEPEND ON CONSERVANCY OR OTHER SYSTEMS DISPOSING SEPARATELY GREY WATER AND NIGHT SOIL IS THE LACK OF A SAFE, INEXPENSIVE TREATMENT METHOD FOR NIGHT SOIL. IN KYOTO, FOR EXAMPLE, NIGHT SOIL IS COLLECTED HYGIENICALLY TO THE SATISFACTION OF USERS OF THE SYSTEM, ONLY TO BE DILUTED AT A CENTRAL COLLECTION POINT FOR DISCHARGE TO THE SEWER SYSTEM AND TREATMENT AT A CONVENTIONAL SEWAGE TREATMENT PLANT. THIS PAPER REVIEWS THE STATE OF THE ART ON NIGHT-SOIL COMPOSTING. THE PAPER CONCLUDES THAT AEROBIC COMPOSTING OF NIGHT SOIL REPRESENTS A METHOD OF TREATMENT IDEALLY SUITED FOR DEVELOPING COUNTRIES BECAUSE OF ITS SIMPLICITY IN OPERATION, LIMITED NEED FOR MECHANICAL EQUIPMENT, LOW COST AND ITS EFFECTIVENESS IN INACTIVATING PATHOGENS, THUS ASSURING THAT THE COMPOST CAN BE USED WITHOUT CAUSING ANY PUBLIC HEALTH HAZARD.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010473

PUBLICATION DATE: 82

TITLE: APPROPRIATE TECHNOLOGY FOR WATER SUPPLY AND SANITATION: SANITATION ALTERNATIVE FOR LOW-INCOME COMMUNITIES: VOLUME 1B. A BRIEF INTRODUCTION.

PERSONAL AUTHOR: MARA, DUNCAN

DESCRIPTOR: *APPROPRIATE TECHNOLOGY; *DEVELOPING COUNTRIES; *ECONOMICS; *FACILITIES; *LOW-INCOME COMMUNITIES; *PLANNING; *SANITATION; *WASTE DISPOSAL; WATER SUPPLY

DESCRIPTIVE NOTE: 58P. PRICE CODE: MF A01. PB83-263442. PAPER COPIES AVAILABLE FROM: WORLD BANK, 1818 H STREET, N.W., WASHINGTON, DC 20433

ABSTRACT: THIS BOOKLET IS INTENDED FOR ECONOMIC, URBAN, AND HEALTH PLANNERS; ITS PURPOSES ARE TO INTRODUCE IN GENERAL NON-TECHNICAL TERMS THE ALTERNATIVE SANITATION TECHNOLOGIES THAT ARE CURRENTLY AVAILABLE FOR LOW-INCOME URBAN COMMUNITIES IN DEVELOPING COUNTRIES, AND TO PRESENT A SUITABLE PLANNING METHODOLOGY FOR PROVIDING THESE COMMUNITIES WITH THE SANITATION FACILITIES THEY NEED. THIS PRIMARY HEALTH OBJECTIVE CAN BE FULLY ACHIEVED BY SANITATION TECHNOLOGIES WHICH ARE MUCH SIMPLER AND CHEAPER THAN CONVENTIONAL SEWERAGE; THESE TECHNOLOGIES ARE DESCRIBED IN THE REPORT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010474

PUBLICATION DATE: 80

TITLE: APPROPRIATE TECHNOLOGY FOR WATER SUPPLY AND SANITATION: VOLUME 1A. SUMMARY OF TECHNICAL AND ECONOMIC OPTIONS.

PERSONAL AUTHOR: KALBERMATTEN, JOHN M.; AND OTHERS

DESCRIPTOR: *APPROPRIATE TECHNOLOGY; *ECONOMICS; *DEVELOPING COUNTRIES; *PUBLIC HEALTH; *RESEARCH REPORTS; *SANITATION; *WASTE DISPOSAL; *WATER SUPPLY; *TECHNOLOGY

DESCRIPTIVE NOTE: 56P. PRICE CODE: MF A01. PB83-263434. PAPER COPIES AVAILABLE FROM: WORLD BANK, 1818 H STREET, N.W., WASHINGTON, DC 20433

ABSTRACT: THIS PAPER IS A SUMMARIZED VERSION OF THE FINAL REPORT ON APPROPRIATE TECHNOLOGY FOR WATER SUPPLY AND WASTE DISPOSAL IN DEVELOPING COUNTRIES, A WORLD BANK RESEARCH PROJECT (RPO 671-46) UNDERTAKEN BY THE ENERGY, WATER AND TELECOMMUNICATIONS DEPARTMENT IN 1976-1978. IT REPORTS THE BROAD TECHNICAL, ECONOMIC, HEALTH, AND SOCIAL FINDINGS OF THE RESEARCH AND DISCUSSES THE ASPECTS OF PROGRAM PLANNING NECESSARY FOR THEIR IMPLEMENTATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010475

PUBLICATION DATE: SEP 83

TITLE: DEMONSTRATE REAL TIME AUTOMATIC CONTROL OF COMBINED SEWER SYSTEMS.

PERSONAL AUTHOR: COFFEE, HAROLD C.; AND OTHERS

DESCRIPTOR: *AUTOMATIC CONTROLS; *COMBINED SEWER SYSTEMS; *COSTS; *MODELS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 173P. PRICE CODE: PC A08/MF A01. PB83-259705.

ABSTRACT: THE PRIMARY OBJECTIVE OF THIS STUDY WAS TO DEVELOP A REAL TIME AUTOMATIC CONTROL MODEL THAT COULD BE USED IN CONNECTION WITH A COMBINED SEWER SYSTEM TO MINIMIZE OVERFLOWS DURING STORMS. THE MODEL WAS APPLIED TO THE NORTH SHORE OUTFALL CONSOLIDATION PROJECT IN SAN FRANCISCO. THIS PROJECT CONSISTS OF A LARGE TRANSPORT STORAGE FACILITY THAT

NTERCEPTS EXISTING OUTFALLS AND ALLOWS FLOWS TO BE PUMPED ) A PRIMARY OR A SECONDARY TREATMENT PLANT DEPENDING ON PERATIONAL STRATEGY. FOUR REACTIVE CONTROL STRATEGIES AND NE REACTIVE-PREDICTIVE STRATEGY WERE FORMULATED AND VALUATED FOR POLLUTANT REMOVAL PERFORMANCE. THE COST FFECTIVENESS OF EACH WAS THEN DETERMINED.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010476

UBLICATION DATE: APR 83

ITLE: DRINKING WATER PILOT STUDY: SUMMARY.

ERSONAL AUTHOR: BELLACK, ERVIN; COTRUVO, JOSEPH A.

ESCRIPTOR: *ANALYTICAL CHEMISTRY; *DATA ANALYSIS; DRINKING WATER; *GROUNDWATER; *MICROBIOLOGY; *OPERATIONS WATER); *PILOT STUDIES; *PUBLIC HEALTH; *RECYCLING; *WATER REATMENT; *WATER REUSE; *WATER POLLUTION CONTROL; *WORLD ROBLEMS

ESCRIPTIVE NOTE: 242P. PRICE CODE: PC A11/MF A01. PB83-56875.

BSTRACT: THE DRINKING WATER PILOT STUDY WAS INITIATED BY HE U. S. EPA IN ORDER TO ADDRESS A BROAD SPECTRUM OF RINKING WATER QUALITY AND HEALTH RELATED ISSUES. SIX UBJECT AREAS HAVE BEEN STUDIED BY A NUMBER OF GROUPS EPRESENTING INDIVIDUALS FROM ELEVEN NATO COUNTRIES AND HREE NON-ALLIANCE COUNTRIES WITH TECHNICAL PARTICIPATION ROM MANY OTHERS. THE TOPIC AREAS INCLUDE ANALYTICAL HEMISTRY AND DATA HANDLING (AREA I), ADVANCED TREATMENT ECHNOLOGY (AREA II), MICROBIOLOGY (AREA III), HEALTH FFECTS (AREA IV), REUSE OF WATER RESOURCES (AREA V), AND ROUND WATER PROTECTION (AREA VI).

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010477

UBLICATION DATE: SEP 83

ITLE: EPA (ENVIRONMENTAL PROTECTION AGENCY) MACROSCOPIC LANNING MODEL (EPAMAC) FOR STORMWATER AND COMBINED SEWER VERFLOW CONTROL: APPLICATION GUIDE AND USER'S MANUAL.

ERSONAL AUTHOR: SMITH, WILLIAM G.; STRICKFADEN, MARIANNE .

ESCRIPTOR: COMPUTER APPLICATIONS; *DESIGN; *EPAMAC; FACILITIES; *FLOW ANALYSIS; *MANUALS; *MANAGEMENT; *MODELS; PLANNING; *SEWERS; STORMWATER; *WASTEWATER COLLECTION

ESCRIPTIVE NOTE: 305P. PRICE CODE: PC A15/MF A01. PB83-59689.

ABSTRACT: A SIMPLIFIED STORMWATER MANAGEMENT MODEL HAS BEEN DEVELOPED TO PROVIDE AN INEXPENSIVE, FLEXIBLE TOOL FOR PLANNING AND PRELIMINARY SIZING OF STORMWATER FACILITIES. THE MODEL WAS DEVELOPED TO BE PART OF A METHODOLOGY FOR USE IN THE MANAGEMENT OF STORMWATER THAT UTILIZES BOTH SIMPLE COMPUTER PROGRAMS AND HAND COMPUTATIONS. THE MODEL CONSISTS OF THREE UNCOMPLICATED BUT INTERRELATED PROGRAMS THAT CAN BE USED SINCULARLY OR TOGETHER. CAPABILITIES OF THE MODEL, IN ADDITION TO QUANTITY AND QUALITY ANALYSES FOR STORMWATER FLOWS, INCLUDE DRY-WEATHER FLOW, HOURLY SIMULATION, OVERFLOW EVEN ANALYSIS, POLLUTANT REMOVALS DUE TO SEDIMENTATION IN STORAGE, AND LATERAL INFLOWS. POSTPROCESSOR PROGRAMS CAN ALSO PROVIDE HISTOGRAM PLOTS OF FLOW AND QUALITY AND ANALYSES OF RECEIVING WATER COLIFORM LIMITATION VIOLATION DAYS FOR SEVERAL COLIFORM STANDARDS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010478

PUBLICATION DATE: 82

TITLE: MODEL FOR THE DEVELOPMENT OF A SELF-HELP WATER SUPPLY PROGRAM.

PERSONAL AUTHOR: GLENNIE, COLIN

DESCRIPTOR: *FACILITIES; *INSTITUTIONAL REQUIREMENTS; *MODELS; *PLANNING; *PROGRAM DEVELOPMENT; *RURAL AREAS; *SANITATION; *TRAINING; *WATER SUPPLY

DESCRIPTIVE NOTE: 59P. PRICE CODE: MF A01; PB83-262774; PAPER COPIES AVAILABLE FROM: WORLD BANK, 1818 H STREET, N.W., WASHINGTON, DC 20433

ABSTRACT: THIS WORKING PAPER CONSIDERS THE MANPOWER, TRAINING AND INSTITUTIONAL REQUIREMENTS OF SELF-HELP WATER SUPPLY AND SANITATION PROGRAMS. THE RECOMMENDATIONS HERE WOULD BE OF DOUBTFUL VALUE IF THEY WERE MADE SUFFICIENTLY GENERAL TO BE APPLICABLE TO ANY PROGRAM IN ANY COUNTRY. ACCORDINGLY, THE APPROACH HAS BEEN TO CONSIDER A PRACTICAL MODEL FOR THE DEVELOPMENT OF A SELF-HELP PROGRAM, AND EXAMINE THE ISSUES OF MANPOWER, TRAINING AND INSTITUTIONAL REQUIREMENTS IN RELATION TO THIS MODEL WHILE DISCUSSING ISSUES OF PARALLEL IMPORTANCE. THIS EXERCISE PROVIDES A BASIS FOR CONSIDERING WHAT FEATURES OF THE MODEL ARE APPLICABLE TO OTHER PROGRAM MODELS, AND HOW THEY MAY BE ADAPTED ACCORDINGLY. THE PAPER DESCRIBES A MODEL WHICH HAS TAKEN A DECADE TO DEVELOP IN THE FIELD. ALTHOUGH THE MODEL HAS DEVELOPED FROM A RURAL WATER SUPPLY PROGRAM, MANY OF THE PRINCIPAL FEATURES ARE APPLICABLE TO SANITATION PROGRAM DEVELOPMENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010479
UBLICATION DATE: JUL 83

ITLE: MUNICIPAL WASTEWATER DISINFECTION PROCEEDINGS OF THE ECOND NATIONAL SYMPOSIUM, ORLANDO, FLORIDA ON JANUARY 26-8, 1982.

ERSONAL AUTHOR: VENOSA, A. D.; AKIN, E. W.

ESCRIPTOR: *CONFERENCE PROCEEDINGS; *DISINFECTION; OPERATIONS (WASTEWATER); *PUBLIC HEALTH; *TECHNOLOGY; WASTEWATER TREATMENT

ESCRIPTIVE NOTE: 338P. PRICE CODE: PC A17/MF A01; PB83-53848

BSTRACT: THE USEPA'S MUNICIPAL ENVIRONMENTAL RESEARCH ABORATORY AND HEALTH EFFECTS RESEARCH LABORATORY, INCINNATI, OHIO SPONSORED A NATIONAL SYMPOSIUM ON MUNICIPAL ASTEWATER DISINFECTION IN ORLANDO, FLORIDA, JANUARY 26-28, 982. THE SYMPOSIUM BROUGHT TOGETHER SCIENTISTS, ENGINEERS, ND FEDERAL, STATE AND LOCAL GOVERNMENT OFFICIALS FOR AN XCHANGE OF INFORMATION ON HEALTH, TECHNOLOGICAL AND ESIGN/O&M CONSIDERATIONS OF WASTEWATER DISINFECTION. THE ONFERENCE WAS BEGUN WITH PHILOSOPHICAL PRO AND CON PAPERS N THE NEED FOR WASTEWATER DISINFECTION. THESE PAPERS SET HE STAGE FOR THE TECHNICAL SESSIONS THAT FOLLOWED. THE LAST APER WAS A SUMMARY OF THE CONFERENCE WITH PERSONAL BSERVATIONS OF A PERSON LONG ACTIVE IN THE WATER HEALTH IELD.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010480

JBLICATION DATE: 77

ITLE: MUNICIPAL WATER SUPPLY PROJECT ANALYSIS: CASE TUDIES.

ERSONAL AUTHOR: LAMSON-SCRIBNER, FRANK H., JR.; HUANG, OHN W.

ESCRIPTOR: *ACCOUNTING; *CASE STUDIES; *ECONOMICS; MANAGEMENT; *MUNICIPALITIES; *PLANNING; *WATER RATES; WATER RESOURCES; *WATER SUPPLY

ESCRIPTIVE NOTE: 520P. PRICE CODE: MF A01; PB83-263913 APER COPIES AVAILABLE FROM: WORLD BANK; 1818 H STREET, N. WASHINGTON, DC 20433

BSTRACT: THIS PUBLICATION PRESENTS CASE STUDIES FROM A ARIETY OF SETTINGS ON MUNICIPAL WATER SUPPLY PROJECTS. NCLUDED ARE SECTIONS ON FORECASTING, DISCOUNTING, ECOUNTING, FINANCE, WATER RATE STRUCTURES, ECONOMIC NALYSIS, AND PROJECT MANAGEMENT.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010481
PUBLICATION DATE: SEP 83

TITLE: PREDICTION OF ECOLOGICAL EFFECTS OF TOXIC CHEMICALS: OVERALL STRATEGY AND THEORETICAL BASIS FOR THE ECOSYSTEM MODEL.

PERSONAL AUTHOR: LASSITER, RAY R.; COOLEY, JAMES L.

DESCRIPTOR: *AQUATIC ECOSYSTEMS; *CHEMICALS; *ECOLOGY; *ENVIRONMENTAL IMPACT; *MODELS; *TOXIC SUBSTANCES; *ECOSYSTEMS

DESCRIPTIVE NOTE: 66P. PRICE CODE: PC A04/MF A01; PB83-261685

ABSTRACT: A STRATEGY IS DEVELOPED FOR MODELING ECOSYSTEMS TO PERMIT ASSESSMENT OF EFFECTS OF TOXIC CHEMICALS ON ELEMENT CYCLING AND OTHER ECOSYSTEM PROCESSES. THE STRATEGY INCLUDES USE OF MULTI-SPECIES REPRESENTATIONS OF BIOTIC COMMUNITIES AND MATHEMATICAL DESCRIPTIONS OF THE PROCESSES THAT ARE IMPORTANT IN AQUATIC ECOSYSTEMS. DIRECT EFFECTS OF TOXICANTS ARE ASSIGNED TO THE SPECIES COMPRISING THE BIOTIC COMMUNITY IN A MANNER SUGGESTED BY AVAILABLE TOXICOLOGICAL INFORMATION. EFFECTS ARE CALCULATED AS THE DIFFERENCE BETWEEN SELECTED MEASURES OF PROCESSES FROM UNAFFECTED SYSTEMS AND SYSTEMS AFFECTED BY THE PRESENCE OF A TOXIC CHEMICAL.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010482

PUBLICATION DATE: JUL 81

TITLE: SMALL WATER PURIFICATION SYSTEMS.

PERSONAL AUTHOR: CASE, RICHARD B.; RISTAU, TONI K.

DESCRIPTOR: *CHLORINE; *DISINFECTION; *IODINE; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *SMALL SYSTEMS; *ULTRAVIOLET LIGHT; *WATER TREATMENT

DESCRIPTIVE NOTE: 34P. PRICE CODE: PC A03/MF A01; PB83-264267

ABSTRACT: SMALL WATER PURIFICATION SYSTEMS ARE EXAMINED. CHLORINATION IS DETERMINED TO BE SUITABLE FOR LONG-TERM CONTINOUS USE BUT IS NOT FEASIBLE IN REMOTE LOCATIONS WHERE ELECTRICITY IS NOT AVAILABLE. IODINATION IS MORE EFFECTIVE THROUGH A WIDER RANGE THAN CHLORINATION. IT IS ALSO LESS EXPENSIVE, EASIER TO INSTALL, REQUIRES NO ELECTRICITY AND LITTLE MAINTENANCE. IODINATION CAN HAVE ADVERSE HEALTH EFFECTS AND IS NOT RECOMMENDED FOR RESIDENTIAL USE. ORGANIZATION IS EFFECTIVE, BUT MORE EXPENSIVE TO INSTALL, OPERATE AND MAINTAIN AND IS NOT RECOMMENDED AS A SMALL WATER PURIFICATION SYSTEM. ULTRAVIOLET TREATMENT IS A DISINFECTANT ONLY; WATER MAY BECOME CONTAMINATED ONCE IT PASSES THE POINT OF DISINFECTION. UV IS CUMBERSOME AND EXPENSIVE AND IS NOT RECOMMENDED FOR A SYSTEM WHICH REQUIRES SEVERAL OUTLETS. IT

LSO REQUIRES ELECTRICITY AND IS NOT FEASIBLE FOR REMOTE OCATIONS WHERE POWER IS NOT AVAILABLE. REVERSE OSMOSIS IS XPENSIVE AND SHOULD BE CONSIDERED ONLY WHEN THE WATER OURCE HAS VERY HIGH LEVELS OF DISSOLVED CONTAMINANTS WHEN REATMENT BEYOND DISINFECTION IS DESIRED.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

IIS ACCESSION NUMBER: EW010483

JBLICATION DATE: SEP 83

ITLE: TOXICITY AND METABOLISM STUDIES WITH EPA ENVIRONMENTAL PROTECTION AGENCY) PRIORITY POLLUTANTS AND ELATED CHEMICALS IN FRESHWATER ORGANISMS.

ERSONAL AUTHOR: CALL, DANIEL J.; AND OTHERS

ESCRIPTOR: *CHEMICALS; *ENVIRONMENTAL IMPACT; *FRESHWATER RGANISMS; *METABOLISM; *PRIORITY POLLUTANTS; *RESEARCH EPORTS; *TOXIC SUBSTANCES

ESCRIPTIVE NOTE: 134P. PRICE CODE: PC A07/MF A01; PB83-3665

BSTRACT: TWENTY-TWO CHEMICALS FROM THE EPA PRIORITY OLLUTANT LIST WERE STUDIED FOR THEIR ACUTE AND/OR CHRONIC OXICITY TO SELECTED FRESHWATER ORGANISMS. FRESHWATER PECIES TESTED INCLUDED THE FATHEAD MINNOW (PIMEPHALES ROMELAS), RAINBOW TROUT (SALMO GAIRDNERI), BLUEGILL SUNFISH LEPOMIS MACROCHIRUS), FLAGFISH (JORDANELLA FLORIDAE), WATER LEA (DAPHNIA MAGNA), SCUD (GAMMARUS PSEUDOLIMNAEUS), MIDGE TANYTARSUS DISSIMILIS), AND GREEN ALGA (SELENASTRUM APRICORNUTUM). A COMPARISON WAS MADE OF THE METABOLISM AND INDING OF CARBON TETRACHLORIDE, CHLOROFORM, 1,1,2-RICHLOROETHANE, 1,1,2-TRICHLOROETHYLENE AND ONOCHLOROBENZENE BY MICROSOMAL FRACTIONS OF RAINBOW TROUT IVERS AND OF DAPHNID WHOLE BODIES.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

IIS ACCESSION NUMBER: EW010484

JBLICATION DATE: SEP 83

ITLE: VALUE OF FLOW CALIBRATION FOR DECISION MAKING IN NFILTRATION/INFLOW STUDIES.

ERSONAL AUTHOR: PIGANO, WILLIAM C.; AND OTHERS

ESCRIPTOR: *DATA ANALYSIS; *COSTS; *DECISION MAKING; ECONOMICS; *FLOW CALIBRATION; *INFILTRATION; *INFLOW; SEWERS; *WASTEWATER COLLECTION

ESCRIPTIVE NOTE: 75P. PRICE CODE: PC A04/MF A01; PB83-[illegible]

BSTRACT: THIS REPORT DEALS WITH THE VALUE OF FLOW CALIBRATION FOR DECISION MAKING IN SEWER SYSTEM STUDIES. THE PRESENT STUDY INCLUDED A VARIETY OF 'WHAT IF' SCENARIOS FOR CRITICAL KEY MANHOLES AS TO THE AMOUNT OF INFORMATION AVAILABLE TO DEVELOP STAGE/FLOW CALIBRATION CURVES. THE FINDINGS INDICATE THAT THE ADDITIONAL CARE AND THE COSTS INVOLVED IN PRIMARY FLOW CALIBRATION OF STAGE/FLOW CURVES FOR SEWER SYSTEM EVALUATIONS ARE WELL WORTH THE EFFORT, AND, IN MANY INSTANCES, COULD SAVE THE GOVERNMENT VALUABLE RESOURCES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010485

PUBLICATION DATE: SEP 83

TITLE: WATER POLLUTANT IDENTIFICATION: TOXICITY BIOASSAYS. 1977-SEPTEMBER, 1983 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *BIOASSAY; *LABORATORY PROCEDURES; *BIOINDICATORS; *MONITORING; *POLLUTANT IDENTIFICATION; *TOXIC SUBSTANCES; *WATER POLLUTION; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 111P. PRICE CODE: PC N01/MF N01; PB83-871640

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING TOXICITY BIOASSAY TECHNIQUES FOR POLLUTANT IDENTIFICATION. MICROBIOLOGICAL STUDIES AND EVALUATION OF BIOASSAYS IN WATER POLLUTION TREATMENT AND WASTEWATER TOXICITY CONTROL ARE DISCUSSED. BIOMONITORING TECHNIQUES, BIOINDICATORS, AND BIOASSAY PROCEDURES FOR POLLUTANT IDENTIFICATIONS ARE PRESENTED. (CONTAINS 90 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010486

PUBLICATION DATE: SEP 83

TITLE: WATER RESOURCES ORGANIZATIONS IN GEORGIA.

PERSONAL AUTHOR: HATCHER, K. J.; CHAMBERS, R. C.

DESCRIPTOR: *DIRECTORIES; *FEDERAL PROGRAMS; *GEORGIA; *NATURAL RESOURCES; *ORGANIZATIONS; *PROGRAM DESCRIPTIONS; *STATE PROGRAMS; *WATER RESOURCES

DESCRIPTIVE NOTE: 98P. PRICE CODE: PC A05/MF A01; PB84-117274

ABSTRACT: THE NATURAL RESOURCES OF WATER QUALITY, WATER QUANTITY, SURFACE WATER, AND GROUND WATER ARE CURRENTLY MANAGED THROUGH WATER PROGRAMS IN VARIOUS FEDERAL, STATE AND

OCAL AGENCIES. MORE EFFICIENT WATER MANAGEMENT AND ESOURCES UTILIZATION WOULD RESULT IF AGENCY PROGRAMS WERE ETTER COORDINATED TO MANAGE THE WATER RESOURCES AND WATER SERS AS A SYSTEM. THIS REPORT SEEKS TO FACILITATE MORE OORDINATED WATER RESOURCES MANAGEMENT BY PROVIDING A OMPILATION AND SUMMARY OF WATER MANAGEMENT ACTIVITIES BY OCAL, STATE, FEDERAL, AND PRIVATE ORGANIZATIONS IN GEORGIA.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010487

UBLICATION DATE: OCT 83

ITLE: RECLAIMED WATER. 1977-OCTOBER, 1983 (CITATIONS FROM HE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

ESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; EDERAL ROLE; INDUSTRIAL WASTES; *POLICIES; *PUBLIC-TTITUDES; *RECLAIMED WATER; *RECYCLED WATER; *WASTEWATER REATMENT; *WATER RECLAMATION; *WATER REUSE

ESCRIPTIVE NOTE: 194P. PRICE CODE: PC N01/MF N01; PB84-50429

BSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING ECLAIMED WATER. WATER RECLAMATION FACILITIES, RECLAIMED ATER REUSE AND STORAGE, AND RECLAMATION TECHNIQUES AND ROCESSES ARE DISCUSSED. INDUSTRIAL AND DOMESTIC WASTEWATER ECLAMATION AND REUSE SYSTEMS ARE ALSO DISCUSSED. PUBLIC TTITUDES AND FEDERAL POLICY OF WATER RECLAMATION ARE RESENTED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 173 ITATIONS, 15 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS DITION.)

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010488

UBLICATION DATE: AUG 83

ITLE: WATERBORNE OUTBREAKS IN THE UNITED STATES, 1971-81.

ERSONAL AUTHOR: CRAUN, GUNTHER F.; AND OTHERS

ESCRIPTOR: *DISEASES; *DRINKING WATER; *PUBLIC HEALTH; STATISTICS; *UNITED STATES; *WATERBORNE DISEASES; *WATER UPPLY

ESCRIPTIVE NOTE: 46P. PRICE CODE: PC A03/MF A01; PB83-46108

BSTRACT: SINCE 1971 THE ENVIRONMENTAL PROTECTION AGENCY ND THE CENTER FOR DISEASE CONTROL HAVE COOPERATED IN THE NVESTIGATION AND REPORTING OF WATERBORNE OUTBREAKS IN THE NITED STATES. THREE HUNDRED AND TWENTY WATERBORNE OUTBEAKS FFECTING 77,989 INDIVIDUALS WERE REPORTED DURING 1971-80 BY 3 STATES AND PUERTO RICO. THREE DEATHS WERE ASSOCIATED WITH THESE OUTBREAKS. THIRTY-FIVE OUTBREAKS AND 4,450 CASES OF WATERBORNE DISEASE WERE REPORTED IN 1981. MOST OUTBREAKS OCCURRED IN NONCOMMUNITY WATER SYSTEMS BUT MOST OF THE DISEASE RESULTED FROM OUTBREAKS IN COMMUNITY WATER SYSTEMS. THERE IS A SEASONAL DISTRIBUTION OF OUTBREAKS IN NONCOMMUNITY AND INDIVIDUAL WATER SYSTEMS WITH MOST OUTBREAKS OCCURRING IN THE SUMMER MONTHS AND AFFECTING PRIMARILY TRAVELERS, VISITORS TO RECREATIONAL AREAS, CAMPERS, AND RESTAURANT PATRONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010489

PUBLICATION DATE: MAY 83

TITLE: MANAGING SMALL AND ALTERNATIVE WASTEWATER SYSTEMS: A PLANNING MANUAL.

DESCRIPTOR: *ALTERNATIVE SYSTEMS; *FACILITIES; *MANAGEMENT; *MANUALS; *OPERATIONS (WASTEWATER); *PLANNING; *SMALL SYSTEMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 193P. PRICE CODE: A09/MF A01; PB83-250530

ABSTRACT: THIS MANUAL OUTLINES A PLANNING METHODOLOGY FOR THE DEVELOPMENT OF A (SMALL AND ALTERNATIVE WASTEWATER SYSTEMS (SAWS) MANAGEMENT PROGRAM. IT IDENTIFIES THE QUESTIONS A COMMUNITY MUST CONSIDER WHEN PLANNING SAWS MANAGEMENT AND ALSO OFFERS SOME ALTERNATIVE ANSWERS TO THOSE QUESTIONS. EACH AND EVERY COMMUNITY HAS A UNIQUE POLITICAL MAKEUP AND EQUALLY UNIQUE WASTEWATER PROBLEMS. THUS, SUCCESSFUL SAWS MANAGEMENT PROGRAMS ARE SPECIFICALLY DESIGNED TO MEET THE NEEDS AND CONSTRAINTS OF THEIR LOCATIONS. THIS MANUAL WILL HELP SAWS PLANNERS IDENTIFY A NUMBER OF MANAGEMENT OPTIONS FOR THEIR COMMUNITY AND THEN HELP THEM EVALUATE THOSE OPTIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010490

PUBLICATION DATE: JUN 81

TITLE: SLUDGE SAMPLER.

PERSONAL AUTHOR: WARD, R. C.

DESCRIPTOR: *EQUIPMENT; *INVENTIONS; *OPERATIONS (WASTEWATER); *SAMPLING; *SLUDGE; *SLUDGE SAMPLER; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8P. PRICE CODE: PC A02/MF A01; PAT-APPL-6-277-435

ABSTRACT: THE DISCLOSURE RELATES TO A SLUDGE SAMPLER COMPRISING AN ELONGATED GENERALLY CYLINDRICAL HOUSING

ONTAINING A BAFFLE CONTAINING AN APERTURE. CONNECTED TO THE PERTURE IS A FLEXIBLE TUBING HAVING A VALVE FOR MAINTAINING ND RELEASING PRESSURE IN THE LOWER END OF THE HOUSING AND XITING THE UPPER END OF THE HOUSING. THE LOWER END OF THE OUSING CONTAINS A BALL CHECK VALVE MAINTAINED IN CLOSED OSITION BY PRESSURE. WHEN THE LOWER END OF THE DEVICE ONTACTS THE SLUDGE BED, THE PRESSURE VALVE IS OPENED, NABLING SLUDGE TO ENTER THE LOWER END OF THE HOUSING. AFTER HE SAMPLE IS COLLECTED THE VALVE IS CLOSED. AN UPSETTING IN OPENS THE VALVE TO EMPTY A SLUDGE SAMPLE IS REMOVED FROM HE FLUID, (ERA CITATION 07:051102).

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010491

UBLICATION DATE: NOV 83

ITLE: OCEAN WASTE DISPOSAL. AUGUST 1980-SEPTEMBER 1983 CITATIONS FROM THE NTIS DATA BASE).

ESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; ENVIRONMENTAL IMPACT; *OCEANS; *RESEARCH REPORTS; *SEWAGE; WASTE DISPOSAL; *WASTEWATER TREATMENT

ESCRIPTIVE NOTE: 147P. PRICE CODE: PC N01/MF N01; PB84-30135

BSTRACT: THE MAIN TOPICS COVER THE OCEAN DISPOSAL OF EWAGE, SEWAGE SLUDGE, AND DREDGED MATERIAL, ALTHOUGH EPORTS ON THE DISPOSAL OF RADIOACTIVE WASTES, BRINES AND NDUSTRIAL WASTES ARE ALSO INCLUDED. THE ECOLOGICAL AFFECTS RE GIVEN, AS IS RESEARCH ON THE POLLUTION OF THE NEW YORK IGHT. HOWEVER, STUDIES ON THE DISCHARGE OF HEATED EFFLUENTS RE EXCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 139 ITATIONS, 64 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS DITION.)

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010492

UBLICATION DATE: OCT 83

ITLE: WASTEWATER TREATMENT: LAGOONS. 1977-OCTOBER, 1983 CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA ASE).

ESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; DESIGN; *EQUIPMENT; *LAGOONS; *INDUSTRIAL WASTES; OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

ESCRIPTIVE NOTE: 209P. PRICE CODE: PC N01/MF N01; PB84-30684

ESTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING HE TREATMENT OF WASTEWATER IN AERATED LAGOONS. THE DESIGN, PERATION, EQUIPMENT AND PRETREATMENT PROCESSES ARE DISCUSSED. THE TREATMENT OF WASTEWATER FROM BREWERIES, TANNERIES, PAPER MILLS AND OTHER INDUSTRIAL OPERATIONS ARE CONSIDERED. (THIS UP-DATED BIBLIOGRAPHY CONTAINS 190 CITATIONS, 32 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010493

PUBLICATION DATE: APR 83

TITLE: DEVELOPMENT AND EVALUATION OF ANALYTICAL TEST PROCEDURES FOR PRIORITY POLLUTANTS.

PERSONAL AUTHOR: MONTEITH, C. S.; BENDER, DANIEL F.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CYANIDE; *EVALUATION; *LABORATORY PROCEDURES; *PHENOLS; *POLLUTANTS; *PRIORITY POLLUTANTS; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: PB83-166181; COST: $13.00

ABSTRACT: ANALYTICAL METHODS WERE DEVELOPED FOR THE DETERMINATION OF CYANIDE AND OF TOTAL PHENOLIC COMPOUNDS IN SOLID/SEMISOLID SAMPLES OF ENVIRONMENTAL IMPORTANCE. BOTH COMPOUNDS MAY ACCUMULATE IN SEDIMENTS AND ARE TAKEN UP BY AQUATIC PLANTS AND ANIMAL IN A VARIETY OF WAYS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010494

PUBLICATION DATE: MAY 83

TITLE: QUANTITATION OF VIRUSES IN WASTE AND OTHER WATERS.

PERSONAL AUTHOR: SMITH, JAMES E.

DESCRIPTOR: *OPERATIONS (WASTEWATER); *RESEARCH; *SLUDGE; *VIRUSES; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB83-190306; COST: $11.50

ABSTRACT: THE OVERALL OBJECTIVES OF THIS STUDY WERE THREE - FOLD: (1) TO DETERMINE MORE PRECISELY THOSE ELEMENTS IN SLUDGE SOLIDS WHICH REMOVE OR INACTIVATE VIRIONS; (2) TO IMPROVE THE TECHNOLOGY FOR RECOVERING AND ASSAYING ABSORBED, INFECTIONS VIRUSES; AND (3) TO DEVISE TECHNIQUES FOR CONTROLLING AND IMPROVING THE REMOVAL OF VIRUSES BY PRECIPITABLE SLUDGE SOLIDS OR OTHER METHODS RELATED TO THE RECOVERY OF WASTEWATERS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010495
UBLICATION DATE: MAR 84

ITLE: TOXICOLOGY - PRINCIPLES AND PRACTICE, VOLUME 2.

ERSONAL AUTHOR: SPERLING, FREDERICK

ESCRIPTOR: *CHEMICALS; *ENVIRONMENTAL IMPACT; *HEALTH; PHYSIOLOGY; *POLLUTION; *POLLUTION CONTROL; *TOXICOLOGY

ESCRIPTIVE NOTE: 232P. PRICE: $45.00

BSTRACT: THIS VOLUME ADDRESSES TOXICOLOGY AS A BASIC CIENCE AND AS AN APPLIED DOCTRINE WITH THE PRACTICAL URPOSE OF UNCOVERING AND ELIMINATING POTENTIAL SOURCES OF OISONINGS FROM THE ENVIRONMENT. EXTENDING AND EXPANDING THE ORK BEGUN IN VOLUME ONE, IT DEALS WITH TOPICS WHICH HAVE MERGED IN IMPORTANCE IN THIS AREA SINCE THE PUBLICATION OF HE FIRST VOLUME, SUCH AS CHEMICALS IN THE ENVIRONMENT, ULMONARY SYSTEM TOXICOLOGY, AND KINETICS.

VAILABILITY: JOHN WILEY & SONS, INC., 605 THIRD AVENUE, EW YORK, NY 10158

RIS ACCESSION NUMBER: EW010496

UBLICATION DATE: 83

ITLE: AQUATIC TOXICOLOGY.

ERSONAL AUTHOR: NRIAGU, JEROME O.

ESCRIPTOR: *AQUATIC POLLUTANTS; *ENVIRONMENTAL IMPACT; RESEARCH; *TOXICOLOGY; *TOXIC SUBSTANCES; *WATER QUALITY; WATER POLLUTION CONTROL

ESCRIPTIVE NOTE: 536P. PRICE: $89.95

BSTRACT: THIS STATE-OF-THE-ART WORK SURVEYS THE TOXICOLOGY F IMPORTANT AQUATIC POLLUTANTS, AND PROVIDES A CRITICAL VERVIEW OF RESEARCH BEING DONE IN THE FIELD. ASSESSES THE ESPONSE AT COMMUNITY, SPECIES, TISSUE, CELLULAR, AND UBCELLULAR LEVELS TO PARTICULAR TOXICANTS AND COVERS THE ECHANISMS OF UPTAKE, METABOLISM, AND EXCRETION OF MANY OXIC POLLUTANTS.

VAILABILITY: JOHN WILEY & SONS, INC., 605 THIRD STREET, EW YORK, NY 10158

RIS ACCESSION NUMBER: EW010497

ITLE: OPERATING TECHNIQUES FOR THE TRACTOR-LOADER-BACKHOE

ERSONAL AUTHOR: OBER, GARY

ESCRIPTOR: *BACKHOES; *EQUIPMENT; *GUIDES; *HEAVY QUIPMENT; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *LOADERS; OPERATIONS (EQUIPMENT); *SAFETY; *TRACTORS

DESCRIPTIVE NOTE: PRICE: $21.95
ABSTRACT: THIS BOOK IS DESIGNED TO HELP IMPROVE THE PERFORMANCE AND SAFETY OF OPERATORS OF VARIOUS HEAVY EQUIPMENT. HEAVILY ILLUSTRATED, THE BOOK COVERS THE BASICS OF OPERATION, TYPICAL OPERATING TECHNIQUES, AND COMMON AND NOT-SO-COMMON ON-SITE JOB SITUATIONS. SOME OF THE TOPICS COVERED INCLUDE MACHINE CONTROL, SAFETY, MAINTENANCE, UTILITY EXCAVATION, PLANNING THE JOB, GRADING AND COMPACTION, BACKHOE TECHNIQUES, DEMOLITION, AND SO FORTH. A USEFUL REFERENCE FOR THE MUNICIPAL PUBLIC WORKS DEPARTMENT.

AVAILABILITY: OBER PUBLISHING, 9514-9 RESEDA BLVD. #478, NORTHRIDGE, CA 91324

IRIS ACCESSION NUMBER: EW010498

PUBLICATION DATE: 83

TITLE: IMPACT OF OIL POLLUTION ON LIVING RESOURCES.

PERSONAL AUTHOR: BAKER, J. M.

DESCRIPTOR: *ANIMALS; *CLEAN-UP; *ECOLOGY; *HABITATS; *OIL INDUSTRY; *OIL SPILLS; *PLANTS; *POLLUTION; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 1-48P.

ABSTRACT: THIS REPORT PRESENTS INFORMATION ON (1) OIL SPILLS AND CLEAN-UP, (2) EFFECTS OF THESE SPILLS AND CLEAN-UP ON ANIMALS AND PLANTS, (3) EFFECTS OF SPILLS AND CLEAN-UP ON HABITATS, AND (4) THE OIL INDUSTRY IN DIFFERENT REGIONS OF THE WORLD, (5) CONCLUSIONS, (6) SUMMARY OF PRIORITIES FOR WWF/IUEN SUPPORT, AND (7) REFERENCES.

AVAILABILITY: THE ENVIRONMENTALIST; V3 N4

IRIS ACCESSION NUMBER: EW010499

PUBLICATION DATE: NOV 83

TITLE: NOTES SUR L'HYDRAULIQUE DES CONDUITES D'AQUEDUC AT D'EGOUT.

PERSONAL AUTHOR: TROTTIER, J. J.

DESCRIPTOR: *CALCULATORS; *COMPUTER PROGRAMS; *ENGINEERING; *HYDRALUICS; *PIPES; *SEWERS; *WATER DISTRIBUTION; *WASTEWATER COLLECTION; *SEWERS

DESCRIPTIVE NOTE: 377-379P.

ABSTRACT: THIS ARTICLE (WRITTEN IN FRENCH) PRESENTS A SIMPLE EQUATION COMBINING TWO COMMONLY-USED FORMULAS (HAZEN-WILLIAMS AND MANNING EQUATIONS) FOR WATER/SEWER PIPE CONNECTIONS. A SIMPLE METHOD TO SOLVE THE EQUATIONS IS EXPLAINED AND IS IMPLEMENTED BY A HAND CALCULATOR PROGRAM LISTED IN AN APPENDIX. OTHER PROGRAM CAPABILITIES ARE DISCUSSED.

AILABILITY: SCIENCE OF TECHNIQUES DE L'EAU; V16 N4

IS ACCESSION NUMBER: EW010500

BLICATION DATE: FEB 84

TLE: OFFERING AN INSERVICE INSTRUCTIONAL PROGRAM USING A MPUTER-BASED COMMUNICATION SYSTEM.

RSONAL AUTHOR: MANOCK, JOHN J.; LUMB, ROGER H.

SCRIPTOR: *BIOLOGY; *CHEMISTRY; *COMPUTER ORIENTED OGRAMS; *COURSE DISCRIPTIONS; *INSERVICE TEACHER UCATION; *HIGH SCHOOLS; *ONLINE SYSTEMS; *SECONDARY SCHOOL IENCE; PROGRAM DISCRIPTIONS; PILOT PROJECTS

SCRIPTIVE NOTE: 84-87P.

STRACT: DESCRIBES A PILOT PROGRAM WHICH TESTED THE ASIBILITY OF USING A COMPUTER-BASED COMMUNICATION SYSTEM R OFFERING AN INTERDISCIPLINARY, INSERVICE BIOLOGY AND EMISTRY COURSE TO REGIONAL HIGH SCHOOL TEACHERS. COURSE RUCTURE (INCLUDING COMPUTER MANAGEMENT AND ELECTRONIC MAIL STEM) ON-LINE EXAMINATIONS, AND UNANTICIPATED PROBLEMS ARE ONG THE AREAS DISCUSSED.

AILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION JOURNAL; 1 N5

IS ACCESSION NUMBER: EW010526

BLICATION DATE: AUG 83

TLE: NONPOINT SOURCE POLLUTION ABATEMENT IN THE GREAT KES BASIN - AN OVERVIEW OF POST-PLUARG DEVELOPMENTS.

SCRIPTOR: CANADA; *EVALUATION; *GREAT LAKES; *NONPOINT URCE POLLUTION; MANAGEMENT; MONITORING; *POLLUTION NTROL; *RECOMMENDATIONS; *REGULATIONS; REPORTS; NTERNATIONAL PROBLEMS; *WATER QUALITY; UNITED STATES; ATER RESOURCES

SCRIPTIVE NOTE: 129P.

STRACT: THIS IS A REPORT OF THE NONPOINT SOURCE CONTROL SK FORCE OF THE WATER QUALITY BOARD OF THE INTERNATIONAL INT COMMISSION, SECTIONS OF THE REPORT INCLUDE (1) ECUITIVE SUMMARY, (2) INTRODUCTION, (3) POST PLUARG ERVIEW OF GREAT LAKES BASIN NONPOINT REMEDIAL PROGRAMS, ) AN EVALUATION OF NONPOINT REMEDIAL PRACTICES IN THE EAT LAKES BASIN, (5) SOME MAJOR SCIENTIFIC AND TECHNICAL SUES HAVING DIRECT IMPACT ON NONPOINT REGULATORY OCESSES, (6) RESPONSE TO PLUARG RECOMMENDATIONS, (7) NCLUSIONS AND (8) RECOMMENDATIONS.

AILABILITY: INTERNATIONAL JOINT COMMISSION, GREAT LAKES GIONAL OFFICE, P. O. BOX 32869, DETROIT, MI 48232-2869

IRIS ACCESSION NUMBER: EW010527
PUBLICATION DATE: NOV 83

TITLE: A REVIEW OF THE MUNICIPAL POLLUTION ABATEMENT PROGRAMS IN THE GREAT LAKES BASIN.

DESCRIPTOR: *COMPLIANCE; CONSTRUCTION; *FACILITIES; *GREAT LAKES BASIN; *EFFLUENTS; *OPERATIONS (WASTEWATER); ENFORCEMENT; MAINTENANCE; *POLLUTION ABATEMENT; *PERFORMANCE; EVALUATION; *RECOMMENDATIONS; SEWERS; TOXIC SUBSTANCES; *WASTEWATER TREATMENT; *SEWER OVERFLOW

DESCRIPTIVE NOTE: 184P.

ABSTRACT: THIS REPORT DESCRIBES THE FINDINGS OF THE MUNICIPAL ABATEMENT TASK FORCE OF THE WATER QUALITY PROGRAMS COMMITTEE REGARDING MUNICIPAL WASTEWATER TREATMENT FACILITIES AND POLLUTANT INPUTS. IT ALSO DISCUSSES THE ABILITY OF THE FACILITIES TO MEET EFFLUENT REQUIREMENTS, EVALUATES MONITORING PROGRAMS, AND COMPARES VARIOUS PROGRAMS AND REQUIREMENTS BASED ON 1981 DATA. THE REPORT SUMMARIZES PROGRESS WHICH HAS BEEN MADE IN MUNICIPAL WASTEWATER POLLUTION ABATEMENT DURING THE PAST DECADE AND IDENTIFIES AREAS FOR IMPROVEMENT IN THE FUTURE.

AVAILABILITY: INTERNATIONAL JOINT COMMISSION, GREAT LAKES REGIONAL OFFICE, P. O. BOX 32869, DETROIT, MI 48232-2869

IRIS ACCESSION NUMBER: EW010528

PUBLICATION DATE: 83

TITLE: 1983 ANNUAL REPORT - COMMITTEE ON THE ASSESSMENT OF HUMAN HEALTH EFFECTS OF GREAT LAKES WATER QUALITY.

DESCRIPTOR: ANNUAL REPORTS; CHEMICALS; DRINKING WATER; *EVALUATION; *GREAT LAKES; *MONITORING; *POLLUTION CONTROL; *PUBLIC HEALTH; *RECOMMENDATIONS; *RESEARCH NEEDS; TOXICOLOGY; *WATER QUALITY

ABSTRACT: THIS IS THE 1983 REPORT OF THE COMMITEE ON THE ASSESSMENT OF HUMAN HEALTH EFFECTS OF GREAT LAKES WATER QUALITY, SECTIONS OF THE REPORT INCLUDE (1) DRINKING WATER CONCERNS, (2) TOXICOLOGICAL EVALUATION, (3) EVALUATION OF CHEMICALS, (4) RESEARCH NEEDS, (5) FUTURE DIRECTIONS, AND (6) RECOMMENDATIONS.

AVAILABILITY: INTERNATIONAL JOINT COMMISSION, GREAT LAKES REGIONAL OFFICE, P. O. BOX 32869, DETROIT, MI 48232-2869

IRIS ACCESSION NUMBER: EW010529

PUBLICATION DATE: 83

TITLE: 1983 ANNUAL REPORT.

DESCRIPTOR: *ANNUAL REPORTS; *ECOLOGY; *GREAT LAKES; *PUBLIC HEALTH; *RECOMMENDATIONS; *RESEARCH REPORTS; *STANDARDS; *TECHNOLOGY; *TOXIC SUBSTANCES; *WATER QUALITY;

ATER RESOURCES
SCRIPTIVE NOTE: 36P.

STRACT: THIS IS THE ANNUAL REPORT OF THE GREAT LAKES IENCE ADVISORY BOARD. DESCRIBED ARE ON GOING EFFORTS TO SESS THE EFFECTS OF PERSISTENT TOXIC SUBSTANCES ON THE ALTH OF THE GREAT LAKES ECOSYSTEM; FINDINGS AND COMMENDATIONS ARE PRESENTED. SOME NEW TECHNIQUES BEING VELOPED TO IMPROVE GREAT LAKES WATER QUALITY AND RESOURCES E ALSO DISCUSSED.

AILABILITY: INTERNATIONAL JOINT COMMISSION, GREAT LAKES GIONAL OFFICE, P. O. BOX 32869, DETROIT, MI 38232-2869

IS ACCESSION NUMBER: EW010530

BLICATION DATE: 83

TLE: 1983 REPORT ON GREAT LAKES WATER QUALITY.

SCRIPTOR: *ANNUAL REPORTS; CHEMICALS; *EUTROPHICATION; REAT LAKES; LAKES; *MANAGEMENT; *NONPOINT SOURCE CONTROL; OINT SOURCE CONTROL; *POLLUTION CONTROL; *RECOMMENDATIONS; OXIC CHEMICALS; *WATER QUALITY

SCRIPTIVE NOTE: 97P.

STRACT: THIS IS THE TENTH REPORT BY THE GREAT LAKES WATER ALITY BOARD TO THE INTERNATIONAL JOINT COMMISSION. THIS PORT IS ORGANIZED AROUND FIVE MAJOR ISSUES. THESE ARE TROPHICATION, TOXIC CHEMICALS, AREAS OF CONCERN, POINT URCES, AND NONPOINT SOURCES. DETAILED INFORMATION WHICH PPORT THE BOARD'S REPORT ARE CONTAINED IN APPENDICES AND ECIAL REPORTS THAT ARE PUBLISHED SEPARATELY.

AILABILITY: INTERNATIONAL JOINT COMMISSION, GREAT LAKES GIONAL OFFICE, P. O. BOX 32869, DETROIT, MI 48232-2869

IS ACCESSION NUMBER: EW010531

BLICATION DATE: 83

TLE: 1983 ANNUAL REPORT - REPORT OF THE AQUATIC ECOSYSTEM JECTIVES COMMITTEE.

SCRIPTOR: *ANNUAL REPORTS; *ECOSYSTEMS; CHEMICALS; OLOGY; *GREAT LAKES; HYDROCARBONS; FISH; *ORGANIC MPOUNDS; *POLLUTION CONTROL; *PUBLIC HEALTH; ECOMMENDATIONS; REGULATIONS; *RESEARCH NEEDS; *WATER ALITY; WILDLIFE

SCRIPTIVE NOTE: 69P.

STRACT: THIS IS THE 1983 ANNUAL REPORT OF THE AQUATIC OSYSTEM OBJECTIVES COMMITTEE. INCLUDED IN THE REPORT ARE COMMENDATIONS, OBJECTIVES, REPORT OF THE TASK FORCE ON DICATORS OF ECOSYSTEM QUALITY, AND FUTURE DIRECTIONS. COMMENDATIONS ARE MADE TO THE SCIENCE ADVISORY BOARD FOR RWARDING TO THE INTERNATIONAL JOINT COMMISSION AND PARTIES OF THE GREAT LAKES WATER QUALITY AGREEMENT.
AVAILABILITY: INTERNATIONAL JOINT COMMISSION, GREAT LAKES REGIONAL OFFICE, P. O. BOX 32869, DETROIT, MI 48232-2869

IRIS ACCESSION NUMBER: EW010532

PUBLICATION DATE: 83

TITLE: 1983 REPORT ON GREAT LAKES WATER QUALITY APPENDIX - DREDGING SUBCOMMITTEE REPORT.

DESCRIPTOR: *DREDGING; *GREAT LAKES; *GUIDELINES; *LAKE ERIE; *POLLUTION CONTROL; *RECOMMENDATIONS; *REPORTS; *WATER QUALITY

DESCRIPTIVE NOTE: 35P.

ABSTRACT: THIS REPORT CONTAINS A SUMMARY OF THE MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS OF THE DREDGING SUBCOMMITTEE OF THE WATER QUALITY BOARD. SECTIONS IN THE REPORT INCLUDE (1) INTRODUCTION, (2) GUIDELINES AND REGISTER FOR EVALUATION OF GREAT LAKES DREDGING PROJECTS, (3) TOLEDO-TORONTO HARBOURS STUDY, (4) LAKE ERIE, (5) OPEN LAKE DISPOSAL SITE SELECTION GUIDELINES, (6) IN-PLACE POLLUTANTS, (7) GREAT LAKES WETLANDS, (8) BENEFICIAL USES OF DREDGED MATERIAL, (9) BIOASSESSMENT PROJECT, AND (10) RECOMMENDATIONS.

AVAILABILITY: INTERNATIONAL JOINT COMMISSION, GREAT LAKES REGIONAL OFFICE, P. O. BOX 32869, DETROIT, MI 48232-2869

IRIS ACCESSION NUMBER: EW010533

PUBLICATION DATE: 84

TITLE: GRADUATE PROGRAMS IN THE PHYSICAL SCIENCES & MATHEMATICS 1984 (BOOK 5).

PERSONAL AUTHOR: CONLEY, DIANE; AND OTHERS

DESCRIPTOR: *CANADA; *DEGREE PROGRAMS; *GRADUATE STUDY; *HIGHER EDUCATION; *MATHEMATICS; *MATHEMATICS EDUCATION; *PHYSICAL SCIENCES; *PROGRAM DESCRIPTIONS; *SCIENCE EDUCATION; *SCIENCES; *UNITED STATES

DESCRIPTIVE NOTE: 800P. PRICE: $19.95; STOCK NO. 2219

ABSTRACT: THIS GUIDE LISTS GRADUATE PROGRAMS IN THE PHYSICAL SCIENCES AND MATHEMATICS IN THE UNITED STATES AND CANADA. DIRECTORIES INDICATE WHICH UNIVERSITIES OFFER WHAT DEGREES AND ALSO PROVIDE DESCRIPTIVE INFORMATION REGARDING THE PROGRAMS AT EACH INSTITUTION.

AVAILABILITY: PETERSON'S GUIDE, P. O. BOX 2123, PRINCETON, NJ 08540

IS ACCESSION NUMBER: EW010534
BLICATION DATE: 84

TLE: GRADUATE PROGRAMS IN ENGINEERING & APPLIED SCIENCES 84 (BOOK 4).

RSONAL AUTHOR: CONLEY, DIANE; LAITY, JAMES

SCRIPTOR: *APPLIED SCIENCES; *CANADA; *DEGREE PROGRAMS; RADUATE STUDY; *HIGHER EDUCATION; *PHYSICAL SCIENCES; ROGRAM DESCRIPTIONS; *SCIENCES; *SCIENCE EDUCATION; ECHNOLOGY; *UNITED STATES

SCRIPTIVE NOTE: 650P. PRICE: $17.95; STOCK NO. 2200

STRACT: THIS GUIDE LISTS GRADUATE PROGRAMS IN ENGINEERING ) THE APPLIED SCIENCES IN THE UNITED STATES AND CANADA. RECTORIES INDICATE WHICH UNIVERSITIES OFFER WHAT DEGREES ) ALSO PROVIDE DESCRIPTIVE INFORMATION REGARDING THE OGRAMS AT EACH INSTITUTION.

AILABILITY: PETERSON'S GUIDES, P. O. BOX 2123, PRINCETON, 08540

IS ACCESSION NUMBER: EW010535

BLICATION DATE: 84

TLE: GRADUATE PROGRAMS IN THE BIOLOGICAL, AGRICULTURAL, ) HEALTH SCIENCES 1984 (BOOK 3).

RSONAL AUTHOR: CONLEY, DIANE; AND OTHERS

SCRIPTOR: *AGRICULTURE; *CANADA; *BIOLOGY; *GRADUATE UDY; *DEGREE PROGRAMS; *HIGHER EDUCATION; *HEALTH; *HEALTH IENCES; *PROGRAM DESCRIPTIONS; *SCIENCE EDUCATION; CIENCES; *UNITED STATES

SCRIPTIVE NOTE: 1,800P. PRICE: $23.95; STOCK NO. 2197

STRACT: THIS GUIDE LISTS GRADUATE PROGRAMS IN BIOLOGY, RICULTURE, AND THE HEALTH SCIENCES IN CANADA AND THE ITED STATES. DIRECTORIES INDICATE WHICH UNIVERSITIES OFFER AT DEGREES AND ALSO PROVIDE DESCRIPTIVE INFORMATION GARDING THE PROGRAMS AT EACH INSTITUTION.

AILABILITY: PETERSON'S GUIDE, P. O. BOX 2123, PRINCETON, 08540

IS ACCESSION NUMBER: EW010537

BLICATION DATE: 77

TLE: HANDBOOK FOR TEACHERS OF ADULT OCCUPATIONAL UCATION.

SCRIPTOR: *ADULT LEARNERS; *EVALUATION; *HANDBOOKS; NSTRUCTION; *INSTRUCTOR TRAINING; *LEARNING; *PLANNING; EACHING METHODS; *TEACHER EDUCATION; *TRAINING

DESCRIPTIVE NOTE: 96P.
ABSTRACT: THIS HANDBOOK IS DESIGNED TO BE USED FOR DEVELOPING INSTRUCTORS FOR INSTRUCTING ADULTS. IT CAN BE USED PRIOR TO TEACHING OR AS PART OF AN INSERVICE PROGRAM. INCLUDED ARE (1) FACTORS AFFECTING LEARNING, (2) PRINCIPLES OF LEARNING, (3) INSTRUCTIONAL TECHNIQUES, (4) INSTRUCTIONAL AIDS, (5) EVALUATION, (6) COURSES OF STUDY, (7) PLANNING, AND (8) MANAGEMENT.

AVAILABILITY: THE UNIVERSITY OF THE STATE OF NEW YORK, THE STATE EDUCATION DEPARTMENT, BUREAU OF OCCUPATIONAL EDUCATION CURRICULUM DEVELOPMENT, ALBANY, NY 12234

IRIS ACCESSION NUMBER: EW010538

PUBLICATION DATE: AUG 78

TITLE: SO YOU'RE HELPING ADULTS LEARN.

DESCRIPTOR: *ADULT LEARNERS; *INSTRUCTION; *PLANNING; *TEACHING METHODS

DESCRIPTIVE NOTE: 20P.

ABSTRACT: THE PURPOSE OF THIS BOOKLET IS TO PROVIDE A BRIEF REVIEW OF ADULT CHARACTERISTICS AND TEACHING METHODS FOR THE NEW TEACHER OF ADULTS. SECTIONS ARE INCLUDED ON VARIOUS ASPECTS OF TEACHING INCLUDING PLANNING AND INSTRUCTION.

AVAILABILITY: WISCONSIN BOARD OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION, MADISON, WI

IRIS ACCESSION NUMBER: EW010539

PUBLICATION DATE: 78

TITLE: VICTIM RESCUE - INSTRUCTOR'S MANUAL.

DESCRIPTOR: *ACCIDENT PREVENTION; *EMERGENCY RESCUE; *INSTRUCTION; *INSTRUCTOR'S MANUAL; *POSTSECONDARY EDUCATION; *SAFETY

DESCRIPTIVE NOTE: 128P.

ABSTRACT: THIS MANUAL WAS DEVELOPED TO BE A SUPPLEMENT TO BASIC EMT-A TRAINING AND TO SERVE AS A BASIS FOR SPECIAL COURSES FOR RESCUE PERSONNEL. SEVENTEEN LESSONS ARE INCLUDED. TOPICS COVERED INCLUDE RESCUE CARRIES AND DRAGS, KNOTS, RIGGING, SHORING AND TUNNELING, CUTTING TORCHES, GAS MASKS, ELECTRICAL EMERGENCIES, AND SEVERE STORMS.

AVAILABILITY: INSTRUCTIONAL MATERIALS LABORATORY, TRADE AND INDUSTRIAL EDUCATION, THE OHIO STATE UNIVERSITY, 1885 NEIL AVENUE, ROOM 112, COLUMBUS, OH 43210

IS ACCESSION NUMBER: EW010540
BLICATION DATE: 83

TLE: SAFETY OF EXISTING DAMS: EVALUATION AND ROVEMENT.

SCRIPTOR: *DAMS; *DECISION ANALYSIS; *EVALUATION; YDROLOGY; *INSPECTION; *RESERVOIRS; *SAFETY; *WATER SOURCES; *WATER STORAGE

SCRIPTIVE NOTE: 354P. PRICE: $16.50

STRACT: THIS REPORT COVERS DAM SAFETY (CAUSES OF ILURES, FIELD INSPECTIONS, MAINTENANCE, RECORDS, ALUATION OF SAFETY, AND EMERGENCY ACTION PLANNING), RISK-SED DECISION ANALYSIS, HYDROLOGIC AND HYDRAULIC NSIDERATIONS, GEOLOGIC AND SEISMOLOGICAL CONSIDERATIONS, NCRETE AND MASONRY DAMS, EMBANKMENT DAMS, APPURTENANT RUCTURES, RESERVOIR PROBLEMS, AND INSTRUMENTATION. A OSSARY IS INCLUDED.

AILABILITY: NATIONAL RESEARCH COUNCIL, NATIONAL ACADEMY ESS, 2101 CONSTITUTION AVE., WASHINGTON, DC 20418

IS ACCESSION NUMBER: EW010541

BLICATION DATE: OCT 83

TLE: FILTRATION AND FLOCCULATION IN INDUSTRIAL PROCESSES. 73-OCTOBER, 1983 (CITATIONS FROM THE BHRA FLUID GINEERING DATA BASE).

SCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *DESIGN; BLIOGRAPHIES; *FILTRATION; *FLOCCULATION; *INDUSTRIAL STES; *EQUIPMENT; *STANDARDS; *THEORY

SCRIPTIVE NOTE: 136P. PRICE CODE: PC N01/MF N01; PB84-1732

STRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERING EORY, DESIGN, DEVELOPMENT, EVALUATIONS, AND STANDARDS FOR LTRATION AND FLOCCULATION TECHNIQUES AND EQUIPMENT USED IN RIOUS INDUSTRIAL PROCESSES. APPLICATIONS INCLUDE AIR LTRATION, DUST COLLECTION, WATER FILTRATION, DEWATERING, D FLOCCULANT SEPARATION. A VARIETY OF FILTERS AND OCCULATION MECHANISMS ARE DISCUSSED. (THIS UPDATED BLIOGRAPHY CONTAINS 189 CITATIONS, 31 OF WHICH ARE NEW TRIES TO THE PREVIOUS EDITION.)

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010542

BLICATION DATE: DEC 82

TLE: LIMING OF ACIDIFIED WATERS: A REVIEW OF METHODS AND FECTS ON AQUATIC ECOSYSTEMS.

PERSONAL AUTHOR: FRASER, J. E.; BRITT, D. L.
DESCRIPTOR: *AQUATIC HABITATS; *ACIDIFIED WATER; *ECOLOGY; *FISH; *LIME; *LIMING TECHNIQUES

DESCRIPTIVE NOTE: 209P. PRICE CODE: PC A10; PB84-120005

ABSTRACT: THE REPORT SUMMARIZES CURRENT INFORMATION ON LIMING AND HOW IT RELATES TO AQUATIC HABITATS THAT ARE POTENTIALLY IMPACTED BY THE ACIDIFICATION PROCESS. PRIMARY EMPHASIS IS ON THE FISHERY RESOURCE. LIMING IS DEFINED AS THE ADDITION OF ANY BASE MATERIAL TO NEUTRALIZE SURFACE WATERS, SEDIMENTS, AND SOILS. INTRODUCTORY INFORMATION DISCUSSES ACID-SENSITIVE REGIONS AND ASSOCIATED AQUATIC FISHERIES AND THE EFFECTS OF ACIDIFICATION ON FISH. THE REMAINING CHAPTERS ADDRESS PREVENTATIVE AND MITIGATIVE LIMING, LIMING TECHNIQUES, ECOLOGICAL RESPONSES TO LIMING OF AQUATIC ECOSYSTEMS, AND INFORMATION NEEDS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010543

PUBLICATION DATE: JUL 83

TITLE: LITERATURE RELEVANT TO REMOTE SENSING OF WATER QUALITY.

PERSONAL AUTHOR: MIDDLETON, E. M.; MARCELL, R. F.

DESCRIPTOR: *BIBLIOGRAPHIES; *DATA ANALYSIS; *MEASUREMENT; *MONITORING; *RESEARCH; *REMOTE SENSING; *WATER CHARACTERISTICS; *WATER QUALITY

DESCRIPTIVE NOTE: 98P. PRICE CODE: PC A05/MF A01; N83-34413/5

ABSTRACT: REFERENCES RELEVANT TO REMOTE SENSING OF WATER QUALITY WERE COMPILED, ORGANIZED, AND CROSS-REFERENCED. THE FOLLOWING GENERAL CATEGORIES WERE INCLUDED: (1) OPTICAL PROPERTIES AND MEASUREMENT OF WATER CHARACTERISTICS; (2) INTERPRETATION OF WATER CHARACTERISTICS BY REMOTE SENSING, INCLUDING COLOR, TRANSPARENCY, SUSPENDED OR DISSOLVED INORGANIC MATTER, BIOLOGICAL MATERIALS, AND TEMPERATURE; (3) APPLICATION OF REMOTE SENSING FOR WATER QUALITY MONITORING; (4) APPLICATION OF REMOTE SENSING ACCORDING TO WATER BODY TYPE; AND (5) MANIPULATION, PROCESSING AND INTERPRETATION OF REMOTE SENSING DIGITAL WATER DATA.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010544

PUBLICATION DATE: OCT 83

TITLE: PERCOLATION TECHNIQUES FOR WATER QUALITY CONTROL AND WASTE TREATMENT. 1977-OCTOBER 1983 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

SCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; ROUNDWATER; *OPERATIONS (WASTEWATER); MODELS; *PERCOLATION CHNIQUES; *SOIL PERCOLATION; *RESEARCH REPORTS; ASTEWATER TREATMENT; *WATER QUALITY

SCRIPTIVE NOTE: 333P. PRICE CODE: PC N01/MF N01; PB84-1653

STRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING RCOLATION TECHNIQUES FOR WATER QUALITY CONTROL AND WASTE EATMENT. WASTE WATER TREATMENT, GROUND WATER RECHARGE, AND IL WATER MOVEMENT ARE DISCUSSED. EFFECTS OF WASTES ON OUND WATER, CHARACTERISTICS OF PERCOLATION OF WASTES, RIGATION WATER, SOIL PERCOLATION TESTS, AND VIRUS ANSPORT IN SOIL ARE INCLUDED. ALSO DISCUSSED ARE RCOLATION MATHEMATICAL ANALYSIS AND MODELING. (THIS DATED BIBLIOGRAPHY CONTAINS 314 CITATIONS, 22 OF WHICH ARE W ENTRIES TO THE PREVIOUS EDITION.)

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010545

BLICATION DATE: OCT 83

TLE: WATER TREATMENT: DISINFECTANTS AND ANTISEPTICS. 76-OCTOBER, 1983 (CITATIONS FROM THE ENERGY DATA BASE).

SCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; NTISEPTICS; *DISINFECTANTS; *DISINFECTION; *MANAGEMENT; PERATIONS (WASTEWATER); *ORGANIC COMPOUNDS; *POLICIES; ESEARCH REPORTS; *WASTEWATER TREATMENT

SCRIPTIVE NOTE: 93P. PRICE CODE: PC N01/MF N01; PB84-1716

STRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING CHNIQUES, MATERIALS, AND EQUIPMENT USED IN THE SINFECTION OF DOMESTIC AND INDUSTRIAL WASTE WATERS. TOPICS CLUDE CHLORINATION AND ALTERNATIVE PROCESSES, TOXICITY UDIES, AND THE MANAGEMENT ASPECTS OF WASTE WATER EATMENT. THE EFFECTS OF ORGANIC COMPOUNDS, AND GOVERNMENT LICY CONSIDERATIONS ARE ALSO TREATED. (THIS UPDATED BLIOGRAPHY CONTAINS 108 CITATIONS, 63 OF WHICH ARE NEW TRIES TO THE PREVIOUS EDITION.)

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010546

TLE: HAZARDOUS MATERIALS SPILL WARNING SYSTEM.

SCRIPTOR: *AUDIOVISUAL AIDS; *DETECTION; *HAZARDOUS TERIALS; *INSTRUMENTATION; *INSTRUCTIONAL MATERIALS; NITORING; POSTSECONDARY EDUCATION; *VIDEOCASETTES; *WATER ALITY

SCRIPTIVE NOTE: RENTAL PRICE: $15.00; 10 MINUTE COLOR 3/4" U-MATIC VIDEOCASSETTE.

ABSTRACT: SHOWS THE MOBILE MONITORING SYSTEM USED TO DETECT SPILL OF HAZARDOUS MATERIALS IN NATURAL WATER WAYS. EXPLAINS THE DETECTION INSTRUMENTATION IN DETAIL.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW010547

PUBLICATION DATE: 83

TITLE: OCEAN DUMPING QUANDRY.

PERSONAL AUTHOR: SQUIRES, DONALD F.

DESCRIPTOR: *NATURAL RESOURCES; *OCEANS; *OCEAN DUMPING; *POLLUTION CONTROL; *WASTES; *WASTE DISPOSAL; *WATER QUALITY

DESCRIPTIVE NOTE: 226P. PRICE: $39.50 CLOTH; $10.95 PAPER.

ABSTRACT: THE BOOK IS A NON-TECHNICAL AND EASILY UNDERSTOOD DESCRIPTION OF THE SOCIETAL PROBLEMS ASSOCIATED WITH DISPOSITION OF WASTES-PARTICULARLY BY DEPOSITING ("DUMPING") THEM IN COASTAL WATERS, SPECIFICALLY IN THE NEW YORK BIGHT. MUCH OF THE INFORMATION CAME FROM THE NOAA MARINE ECOSYSTEM ANALYSIS PROGRAM (MESA). THE BOOK DEFINES THE AREA PHYSICALLY, DISCUSSES THE TOTAL RESOURCE INVOLVED (FISHERIES, PEOPLE RELATED INDUSTRY, MINERAL RESOURCES), THE LEGAL ASPECTS, THE ECONOMIC CONSIDERATIONS AND FINALLY ATTEMPTS A GLIMPSE INTO THE FUTURE. THERE ARE 28 PAGES OF REFERENCES.

AVAILABILITY: STATE UNIVERSITY OF NEW YORK PRESS, ALBANY, NY 12246

IRIS ACCESSION NUMBER: EW010548

PUBLICATION DATE: 83

TITLE: TURBIDITY IN THE AQUATIC ENVIRONMENT: ENVIRONMENTAL FACTOR IN FRESH AND OCEANIC WATERS.

PERSONAL AUTHOR: WILBUR, CHARLES G.

DESCRIPTOR: ANALYTICAL TECHNIQUES; *AQUATIC ENVIRONMENT; ECOLOGY; ENVIRONMENTAL IMPACT; *ESTUARIES; *FRESH WATER; *OCEANS; *TURBIDITY; REMOTE SENSING

DESCRIPTIVE NOTE: 133P. PRICE: $18.75

ABSTRACT: THIS BOOK PROVIDES A REVIEW OF SELECTED PUBLISHED MATERIAL UNTIL THE END OF 1980 AND REFLECTS THE OVERALL STATUS OF AQUATIC TURBIDITY UNTIL THAT TIME. TOPICS PRESENTED INCLUDE PHYSICAL ASPECTS RELATED TO TURBIDITY, ECOLOGICAL EFFECTS, PHYSIOLOGICAL EFFECTS, REMOTE SENSING, DYNAMICS OF SUSPENDED PARTICLES, ESTUARIES, GEOGRAPHICAL

JDIES, AND ENTRANCE OF PARTICULATE MATTER INTO OCEANS.
AILABILITY: CHARLES C. THOMAS, PUBLISHER, 2600 S. FIRST REET, SPRINGFIELD, IL 62717

IS ACCESSION NUMBER: EW010549

BLICATION DATE: 83

TLE: ACID DEPOSITION: ATMOSPHERIC PROCESSES IN EASTERN RTH AMERICA.

SCRIPTOR: *ACID DEPOSITION; *ECOLOGY; *NITROGEN; *NORTH ERICA; *PLANNING; *POLICIES; *RESEARCH; *SULFUR; EGULATIONS; *SOIL; *WATER

SCRIPTIVE NOTE: 375P. PRICE: $16.50

STRACT: ON A REGIONAL BASIS, IT HAS BEEN DEMONSTRATED AT THERE IS A DIRECT LINEAR RELATIONSHIP BETWEEN ACID POSITION AND EMISSIONS OF OXIDES OF SULFUR AND NITROGEN. CH CONSTITUENTS FORM ACIDS THROUGH COMPLEX TRANSFORMATION OCESSES WHEN THEY INTERACT WITH SOIL AND WATER. SPECIFIC CAL SOURCE/RECEPTOR RELATIONSHIPS CANNOT BE PREDICTED, WEVER. THIS REPORT SUMMARIZES CURRENT SCIENTIFIC DERSTANDING ABOUT THE RELATIONS BETWEEN EMISSIONS OF ACID-RMING PRECURSOR GASES AND DRY OR WET ACID DEPOSITION (ACID IN). THE AIM IS TO AID POLICY MAKERS INVOLVED IN GULATORY DECISION MAKING AND IN SETTING RESEARCH IORITIES.

AILABILITY: NATIONAL RESEARCH COUNCIL, NATIONAL ACADEMY ESS, 2101 CONSTITUTION AVE., WASHINGTON, DC 20418

IS ACCESSION NUMBER: EW010550

BLICATION DATE: 83

TLE: CLEAN AIR ACT HANDBOOK.

RSONAL AUTHOR: BROMBERG, J. PHILLIP

SCRIPTOR: *AIR POLLUTION; *CLEAN AIR ACT; *COMPILATIONS; MISSION REDUCTION; *HANDBOOKS; *LEGISLATION; *REGULATIONS; ECHNOLOGY

SCRIPTIVE NOTE: 225P. PRICE: $38.00

STRACT: THIS IS A COMPREHENSIVE, PRACTICAL GUIDE TO THE EAN AIR ACT, WHICH OFFERS AN OVERVIEW OF CURRENT GISLATION, REGULATIONS AND IMPLEMENTATION OF THE ACT. THE NDBOOK FURTHER DISCUSSES POLLUTION TECHNOLOGY, CHNOLOGICAL COMPLIANCE, AND EMISSION REDUCTION CHNOLOGIES.

AILABILITY: GOVERNMENT INSTITUTES, 966 HUNGERFORD DRIVE, 4, ROCKVILLE, MD 20850

IRIS ACCESSION NUMBER: EW010551
PUBLICATION DATE: 83

TITLE: ENERGY FROM BIOMASS AND WASTES, VII.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *BIOMASS; *CONFERENCE PROCEEDINGS; *ENERGY; *ETHANOL; *METHANOL; *METHANE; *WASTES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 1417P. PRICE: $100.00

ABSTRACT: THIS BOOK IS A COLLECTION OF PAPERS FROM ICT'S SEVENTH SYMPOSIUM ON BIOMASS AND WASTES, HELD JANUARY 14-18, 1983, IN LAKE BUENA VISTA, FLA. THE PUBLICATION CONTAINS 55 PAPERS ON SUCH TOPICS AS BIOMASS PRODUCTION AND PROCUREMENT, COMBUSTION, BIOLOGICAL AND THERMAL GASIFICATION, LIQUEFACTION, LANDFILL METHANE PRODUCTION, ECONOMICS, METHANOL AND ETHANOL, AND FUNDED PROGRAMS.

AVAILABILITY: INSTITUTE OF GAS TECHNOLOGY, 3424 SOUTH STATE STREET, CHICAGO, IL 60616

IRIS ACCESSION NUMBER: EW010552

PUBLICATION DATE: 83

TITLE: THE HAZARDOUS WASTE CONSULTANT.

DESCRIPTOR: *BIBLIOGRAPHIES; *ECONOMICS; *HAZARDOUS WASTES; *MANAGEMENT; *REGULATIONS; *TECHNOLOGY; *WASTES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 161P. PRICE: $350.00/YEAR SUBSCRIPTION.

ABSTRACT: THIS IS THE FIRST ISSUE OF A BIMONTHLY PERIODICAL BEING PRESENTED AS A SOURCE OF TECHNICAL INFORMATION FOR INDUSTRY, CONSULTANTS, DESIGN ENGINEERS, AND GOVERNMENT SPECIALISTS IN HAZARDOUS WASTE MANAGEMENT. THE HAZARDOUS WASTE CONSULTANT WILL ADDRESS THE FOLLOWING AREAS: HAZARDOUS WASTE TECHNOLOGY, FEDERAL AND STATE REGULATIONS, WASTE MANAGEMENT ECONOMICS, LEGAL DEVELOPMENTS, AND PERIODIC UPDATES ON COMMERCIAL DISPOSAL FACILITIES, R & D PROJECTS, AND SUPERFUND SITES. ARTICLES ARE GENERALLY TECHNICAL ANALYSES AND INTERPRETATION. THE FIRST ISSUE ALSO INCLUDES A BIBLIOGRAPHIC LISTING OF 139 ARTICLES AND PUBLICATIONS OF INTEREST TO PROFESSIONALS IN HAZARDOUS WASTE MANAGEMENT.

AVAILABILITY: MCCOY AND ASSOCIATES, 13131 W. CEDAR DRIVE, LAKEWOOD, CO 80228

IRIS ACCESSION NUMBER: EW010553

TITLE: PROCEEDINGS: ENGINEERING FOR WATER SUPPLY IN TODAY'S ECONOMY.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *ECONOMICS; *FACILITIES; *MAINTENANCE; *OPERATIONS (WATER); *WATER STORAGE; *WATER SUPPLY

CRIPTIVE NOTE: 104P. PRICE: $15.00

TRACT: PROCEEDINGS OF THE 25TH ANNUAL PUBLIC WATER PLY ENGINEER'S CONFERENCE HAVE BEEN PUBLISHED. ELEVEN ERS ARE INCLUDED ON SUCH TOPICS AS EXTENDING THE USEFUL E OF CONCRETE STRUCTURES, UPGRADING EXISTING PLANTS, ECTIVE USE OF WATER STORAGE, AND FUNDING FOR THE FUTURE.

ILABILITY: ENGINEERING PUBLICATIONS OFFICE, UNIVERSITY ILLINOIS AT URBANA-CHAMPAIGN, 112 ENGINEERING HALL, 1308 GREEN STREET, URBANA, IL 61801

S ACCESSION NUMBER: EW010554

LICATION DATE: 79

LE: ESTABLISHMENT OF WATER QUALITY MONITORING PROGRAMS.

SONAL AUTHOR: EVERETT, L. G.; SCHMIDT, K. D.

CRIPTOR: *CONFERENCE PROCEEDINGS; *MONITORING; UNDWATER; *POLLUTION CONTROL; SURFACE WATER; WASTEWATER; TER QUALITY; WATER RESOURCES

CRIPTIVE NOTE: 370P. PRICE: $37.00

TRACT: THIS IS THE PROCEEDINGS OF A SYMPOSIUM. THE LICATION FOCUSES ON IMPORTANT ASPECTS OF WATER QUALITY ITORING AND ADDRESSES THE FOUR MAJOR COMPONENTS OF FACE WATER, SOIL WATER, GROUNDWATER AND WASTEWATER LUTANT SOURCES.

ILABILITY: AMERICAN WATER RESOURCES ASSOCIATION, 5410 SVENOR LANE, SUITE 220, BETHESDA, MD 20814

S ACCESSION NUMBER: EW010555

LICATION DATE: 83

LE: INTERNATIONAL SYMPOSIUM ON HYDROMETEOROLOGY CEEDINGS.

SONAL AUTHOR: JOHNSON, A. IVAN; CLARK ROBERT A.

CRIPTOR: *ACID RAIN; *CLIMATE; *CONFERENCE PROCEEDINGS; TA ACQUISITION; *HYDROMETEOROLOGY; *FORECASTING; STRUMENTATION; *MODELING; *PLANNING; *WEATHER IFICATION; *WATER QUALITY; *WATER RESOURCES; *WATER PLY

CRIPTIVE NOTE: 598P. PRICE: $55.00

TRACT: THE 93 PAPERS IN THIS PROCEEDINGS VOLUME PROVIDE ROUND MATERIAL FOR THE MANY APPLICATIONS OF OMETEOROLOGY BY BOTH METEOROLOGISTS AND ENGINEERS. THE ERS ILLUSTRATE THE DIVERSE INTERESTS OF THE SEVERAL TICIPATING SOCIETIES AND OF THE NUMEROUS SCIENTISTS FROM FEDERAL, STATE, UNIVERSITY, AND PRIVATE SECTORS. THIS UME IS ORGANIZED INTO THE FOLLOWING EIGHT SECTIONS: TRUMENTATION AND DATA ACQUISITION, HYDROLOGIC MODELING AND FORECASTING, WATER SUPPLY AND WATER RESOURCES, LONG-TERM PLANNING FOR WATER QUALITY, DROUGHT AND CLIMATE, WEATHER MODIFICATION, ACID RAIN, AND PROBABLE MAXIMUM PRECIPITATION AND FREQUENCY FOR DESIGN.

AVAILABILITY: AMERICAN WATER RESOURCES ASSOCIATION, 5410 GROSVENOR LANE, SUITE 220, BETHESDA, MD 20814

IRIS ACCESSION NUMBER: EW010556

PUBLICATION DATE: 81

TITLE: SATELLITE HYDROLOGY.

PERSONAL AUTHOR: DEUTSCH, M.; AND OTHERS

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *GROUNDWATER; *HYDROLOGY; *MANAGEMENT; *METEOROLOGY; *WETLANDS; *REMOTE SENSING; *SURFACE WATER; *WATER QUALITY; *WATER USE

DESCRIPTIVE NOTE: 730P. PRICE: $91.00

ABSTRACT: THIS IS THE PROCEEDINGS OF A CONFERENCE ON REMOTE SENSING HELD IN SIOUX FALLS, SOUTH DAKOTA. THE PUBLICATION CONTAINS CHAPTERS ON SPACE TECHNOLOGY APPLIED TO METEOROLOGY, SNOW AND ICE, SURFACE WATER, SOIL MOISTURE, WATER QUALITY AND ENVIRONMENT, GROUNDWATER, WETLANDS, COASTAL ZONE, HYDRO DATA RELAY, AND WATER USE, AND MANAGEMENT.

AVAILABILITY: AMERICAN WATER RESOURCES ASSOCIATION, 5410 GROSVENOR LANE, SUITE 220, BETHESDA, MD 20814

IRIS ACCESSION NUMBER: EW010557

PUBLICATION DATE: 81

TITLE: UNIFIED RIVER BASIN MANAGEMENT.

PERSONAL AUTHOR: NORTH, R. M.; AND OTHERS

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *MANAGEMENT; *PLANNING; *POLICIES; *RIVERS; *RIVER BASINS; *WATER RESOURCES

DESCRIPTIVE NOTE: 654P. PRICE: $63.00

ABSTRACT: THIS PUBLICATION IS THE PROCEEDINGS OF A SYMPOSIUM HELD IN GATLINBURG, TENN. ALL THE PAPERS FOCUS ON RIVER BASIN MANAGEMENT.

AVAILABILITY: AMERICAN WATER RESOURCES ASSOCIATION, 5410 GROSVENOR LANE, SUITE 220, BETHESDA, MD 20814

IS ACCESSION NUMBER: EW010558
BLICATION DATE: 82

TLE: UNIFIED RIVER BASIN MANAGEMENT - STAGE II.

RSONAL AUTHOR: ALLEE, D. J.; AND OTHERS

SCRIPTOR: *CASE STUDIES; *MANAGEMENT; *PLANNING; *RIVERS; ATER RESOURCES; *WATER QUALITY

SCRIPTIVE NOTE: 500P. PRICE: $53.00

STRACT: THE 44 PAPERS PUBLISHED IN THIS VOLUME CONTINUES E DEVELOPMENT OF CASE STUDIES OF INNOVATIONS, SUCCESSES, D FAILURES TO ACHIEVE THE GOALS AND OBJECTIVES OF UNIFIED VER BASIN MANAGEMENT. IT ALSO PUTS EMPHASIS ON TRADITIONAL D INNOVATIVE REFORM OF PLANNING CONCEPTS; FEDERAL, STATE, BSTATE, AND LOCAL ROLES, AS WELL AS THE BASIS FOR REFORM D ADAPTATION TO THE NEEDS OF THE FUTURE.

AILABILITY: AMERICAN WATER RESOURCES ASSOCIATION, 5410 OSVENOR LANE, SUITE 220, BETHESDA, MD 20814

IS ACCESSION NUMBER: EW010559

BLICATION DATE: DEC 79

TLE: DISSOLVED SOLIDS - WATER QUALITY STANDARDS CRITERIA GEST A COMPILATION OF STATE/FEDERAL CRITERIA.

SCRIPTOR: *DIGESTS; *EPA; *DISSOLVED SOLIDS; *FEDERAL VERNMENT; *POLLUTANTS; *STANDARDS; *STATES; *WATER QUALITY

SCRIPTIVE NOTE: 20P.

STRACT: THIS DIGEST WAS COMPILED TO PROVIDE GENERAL FORMATION TO THE PUBLIC AS WELL AS TO FEDERAL, STATE, AND CAL OFFICIALS. IT CONTAINS EXCERPTS FROM THE INDIVIDUAL ATE-FEDERAL WATER QUALITY STANDARDS ESTABLISHING POLLUTANT ECIFIC CRITERIA FOR NAVIGABLE SURFACE WATERS. THIS DIGEST CONCERNED WITH DISSOLVED SOLIDS. SINCE WATER QUALITY ANDARDS ARE REVISED FROM TIME TO TIME, INDIVIDUAL ENTRIES THIS DIGEST MAY BE SUPERSEDED.

AILABILITY: U. S. EPA, OFFICE OF WATER, PLANNING AND ANDARD, WASHINGTON, DC 20460

IS ACCESSION NUMBER: EW010663

BLICATION DATE: FEB 84

TLE: HOW TO PREPARE FOR A PERFORMANCE APPRAISAL TERVIEW.

RSONAL AUTHOR: KING, PATRICIA

SCRIPTOR: *APPRAISAL; *MANAGEMENT; *PERFORMANCE PRAISAL; *PERSONNEL; *TRAINING

DESCRIPTIVE NOTE: 66-69P.
ABSTRACT: THIS ARTICLE GIVES TRAINERS PRACTICAL INFORMATION TO USE IN A TRAINING SESSION ON PERFORMANCE APPRAISAL.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL; V38 N2

IRIS ACCESSION NUMBER: EW010664

PUBLICATION DATE: FEB 84

TITLE: WHO FORGOT THE LEADER'S GUIDE?

PERSONAL AUTHOR: STEWART, STACY C.

DESCRIPTOR: *INSTRUCTION; *INSTRUCTIONAL MATERIALS; *RECOMMENDATIONS; *TEACHING GUIDES; *TRAINING

DESCRIPTIVE NOTE: 73-74P.

ABSTRACT: A LEADER'S GUIDE IS AN ESSENTIAL PART OF A TRAINING PROGRAM. ITEMS TO INCLUDE IN A LEADERS GUIDE ARE LISTED.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL; V38 N2

IRIS ACCESSION NUMBER: EW010665

PUBLICATION DATE: FEB 84

TITLE: HOW USEFUL ARE CASE STUDIES.

PERSONAL AUTHOR: ARMISTEAD, COLIN

DESCRIPTOR: *CASE STUDIES; *CURRICULUM DEVELOPMENT; *INSTRUCTION; *INSTRUCTIONAL MATERIALS; *TRAINING

DESCRIPTIVE NOTE: 75-77P.

ABSTRACT: DISCUSSED IS THE USE OF CASE STUDIES AS A TEACHING TOOL. TYPES OF CASE STUDIES AND USES OF CASE STUDIES ARE CONSIDERED.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL; V38 N2

IRIS ACCESSION NUMBER: EW010666

PUBLICATION DATE: FEB 84

TITLE: INNOVATIVE DIRECT FILTRATION PLANT INEXPENSIVE TO BUILD AND OPERATE.

PERSONAL AUTHOR: AINSWORTH, LEONARD D.

DESCRIPTOR: *COSTS; *DRINKING WATER; *FILTRATION; *FACILITIES; *OPERATIONS (WATER); *WATER TREATMENT

DESCRIPTIVE NOTE: 40-43P.

TRACT: ECONOMICS IN WATER FILTRATION PLANT CONSTRUCTION OPERATION RESULT FROM USE OF DIRECT FILTRATION AND SELF-RGIZING HYDRAULICS. THE PLANT IN CALIFORNIA PROCESSES FACE WATER FROM RIVERS.

ILABILITY: PUBLIC WORKS; V115 N2

S ACCESSION NUMBER: EW010667

LICATION DATE: FEB 84

LE: WHEN TREATMENT TANKS LIFT AND TILT.

SONAL AUTHOR: CAPE, JAMES

SCRIPTOR: *FACILITIES; *INSTRUMENTATION; *OPERATIONS STEWATER); *TILT SENSING; *WASTEWATER TREATMENT

SCRIPTIVE NOTE: 46-48P.

STRACT: A TILT SENSING DEVICE IS DESCRIBED TO GIVE EARLY NING OF MOVEMENT OF MAJOR WASTEWATER TREATMENT PLANT UCTURES.

AILABILITY: PUBLIC WORKS; V115 N2

IS ACCESSION NUMBER: EW010668

BLICATION DATE: FEB 84
TLE: EPA GRANT FUNDED PROJECTS AND CONSTRUCTION CLAIMS: TIGATING GRANTEE EXPOSURE.

RSONAL AUTHOR: MANZI, J. E.

SCRIPTOR: *CONSTRUCTION; *CONSTRUCTION CLAIMS; ONSTRUCTION GRANTS PROGRAM; *EPA; *FACILITIES; *PROJECT NAGEMENT; *MANAGEMENT; *LIABILITY

SCRIPTIVE NOTE: 50-53P.

STRACT: THE EPA HAS PROVIDED GRANTEES WITH A CONSTRUCTION AIMS POLICY AS RELATED TO THE BUILDING OF FEDERALLY FUNDED EATMENT PROJECTS.

AILABILITY: PUBLIC WORKS; V115 N2

IS ACCESSION NUMBER: EW010669

BLICATION DATE: FEB 84

TLE: ATTACKING PRIVATE INFILTRATION/INFLOW SOURCES.

RSONAL AUTHOR: PAULSON, RICHARD I.; AND OTHERS

SCRIPTOR: *INFILTRATION; *INFLOW; *ILLINOIS; *LIABILITY; AINTENANCE; *PRIVATE SOURCES; *POLICIES; *REHABILITATION; EWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 54-59P.

ABSTRACT: THE TECHNICAL, POLITICAL, AND LEGAL IMPLICATIONS OF CORRECTING I/I SOURCES ARE EXAMINED.

AVAILABILITY: PUBLIC WORKS; V115 N2

IRIS ACCESSION NUMBER: EW010670

PUBLICATION DATE: FEB 84

TITLE: PAINT SYSTEMS FOR WATER TANKS.

PERSONAL AUTHOR: MCFARLAND, WAYNE E.

DESCRIPTOR: *MAINTENANCE; *PAINT; *SURFACE PREPARATION; *TANKS; *WATER TANKS

DESCRIPTIVE NOTE: 60-62,90P.

ABSTRACT: THE IMPORTANCE OF SURFACE PREPARATION CANNOT BE OVERSTRESSED IN SEARCH FOR QUALITY COATINGS. TYPES OF SURFACE PREPARATION AND COATINGS ARE DISCUSSED.

AVAILABILITY: PUBLIC WORKS; V115 N2

IRIS ACCESSION NUMBER: EW010671

PUBLICATION DATE: FEB 84
TITLE: SOLAR HEATED SLUDGE BED OVERCOMES WEATHER CONSTRAINTS.

PERSONAL AUTHOR: PFISTER, RALPH E.

DESCRIPTOR: *DEWATERING; *ENERGY; *FACILITIES; *ILLINOIS; *SLUDGE; *SOLAR HEAT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 63P.

ABSTRACT: ENCLOSING AN EXISTING SLUDGE BED WITH AN ACTIVE, SOLAR-HEATED BUILDING ENABLED YEAR-ROUND SLUDGE REMOVAL AT AN ILLINOIS TREATMENT FACILITY.

AVAILABILITY: PUBLIC WORKS; V115 N2

IRIS ACCESSION NUMBER: EW010672

PUBLICATION DATE: FEB 84

TITLE: CONSTRUCTION ARBITRATION AND MEDIATION.

PERSONAL AUTHOR: HOELLERING, MICHAEL F.

DESCRIPTOR: *ARBITRATION; *CONSTRUCTION DISPUTES; *COSTS; *MEDIATION; *PERFORMANCE EVALUATION

DESCRIPTIVE NOTE: 34-38P.

TRACT: ALTERNATIVES TO LITIGATION RESOLVE CONSTRUCTION PUTES OUTSIDE THE COURTS. SUCH PRACTICES ARE FASTER AND S COSTLY.

ILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76

S ACCESSION NUMBER: EW010673

LICATION DATE: FEB 84

LE: NEGOTIATING CONSTRUCTION CLAIMS.

SONAL AUTHOR: DUCK, DONALD J.

CRIPTOR: *CONSTRUCTION DISPUTES; *CONSTRUCTION CLAIMS; GOTIATION

CRIPTIVE NOTE: 39-41P.

TRACT: OPEN-MINDED EXPLORATION OF THE MERITS OF STRUCTION CLAIMS OFTEN AVOIDS INVOLVING THIRD PARTIES. TICS THAT PERMIT SETTLEMENT BY NEGOTIATION ARE DESCRIBED.

ILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76

S ACCESSION NUMBER: EW010674

LICATION DATE: FEB 84

LE: MEDIATION: AN ALTERNATIVE TO LITIGATION.

SONAL AUTHOR: MULLER, FRANK

CRIPTOR: *CONSTRUCTION CLAIMS; *COSTS; *CONTRACTS; DIATION

CRIPTIVE NOTE: 42-43P.

TRACT: IMPARTIAL THIRD PARTIES CAN HELP DISPUTANTS IVE AT COMPROMISES. VARIOUS ASPECTS OF MEDIATION ARE SIDERED.

ILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76

S ACCESSION NUMBER: EW010675

LICATION DATE: FEB 84

LE: LIABILITY FOR NEW PRODUCTS.

SONAL AUTHOR: BARNES, BARRY; ULIN, DALE R.

CRIPTOR: *CONSTRUCTION CONTRACTS; *ENGINEERS; UIPMENT; *LIABILITY; *PRODUCT LIABILITY; *SUPPLIERS

DESCRIPTIVE NOTE: 44-47P.

ABSTRACT: LEGAL PITFALLS MAY STIFLE THE USE OF NEW PRODUCTS AND EQUIPMENT. SEVERAL CASES ARE DISCUSSED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N2

IRIS ACCESSION NUMBER: EW010676

PUBLICATION DATE: FEB 84

TITLE: KEY ELEMENTS OF CONSTRUCTION SPECIFICATIONS.

PERSONAL AUTHOR: IBBS, C. WILLIAM, JR.

DESCRIPTOR: *ARBITRATION; *CONSTRUCTION CLAIMS; *CONSTRUCTION SPECIFICATIONS; *CONTRACTS; *CONTRACT DISPUTES; *COSTS; *MANAGEMENT; *PERFORMANCE EVALUATION

DESCRIPTIVE NOTE: 48-55P.

ABSTRACT: DIFFERING SITE CONDITIONS AND PERFORMANCE-RELATED DISPUTES ARE COMMON CAUSES OF CLAIMS. TYPES OF CONTRACT DISPUTES AND TECHNIQUES FOR RESOLVING THEM ARE DISCUSSED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N2

IRIS ACCESSION NUMBER: EW010677

PUBLICATION DATE: FEB 84

TITLE: WATERBORNE DISEASE OUTBREAKS--1946-1980: A THIRTY-FIVE-YEAR PERSPECTIVE.

PERSONAL AUTHOR: LIPPY, EDWIN C.; WALTRIP, STEVEN C.

DESCRIPTOR: *DISEASES; *DRINKING WATER; *HEALTH; *PUBLIC HEALTH; *TRENDS; *WATERBORNE DISEASES; *WATER QUALITY; *WATER TREATMENT; *WATER SUPPLY; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 60-67P.

ABSTRACT: THE NUMBER OF WATERBORNE DISEASE OUTBREAKS REPORTED SINCE 1966 INDICATES AN UPWARD TREND. PRESENTED IS AN ANALYSIS OF THE DATA FROM THESE OUTBREAKS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N2

IRIS ACCESSION NUMBER: EW010678

PUBLICATION DATE: FEB 84

TITLE: BLACK AND WHITE PRINTING PAPERS.

PERSONAL AUTHOR: POLI, BRUCE

SCRIPTOR: *INSTRUCTIONAL MATERIALS; *PHOTOGRAPHY; *PRINT PERS; *VISUAL AIDS

SCRIPTIVE NOTE: 34-36,39P.

STRACT: DESCRIBED ARE PHOTOGRAPHIC PRINT PAPERS (BLACK D WHITE) AND THEIR RECOMMENDED USES.

AILABILITY: TECHNICAL PHOTOGRAPHY; V16 N2

IS ACCESSION NUMBER: EW010679

BLICATION DATE: FEB 84

TLE: RETURN FLOWS FROM SLUDGE TREATMENT.

RSONAL AUTHOR: LAWLER, DESMOND F.; SINGER, PHILIP C.

SCRIPTOR: *ANAEROBIC DIGESTERS; *DEWATERING; *DESIGN; PERATIONS (WASTEWATER); *RECOMMENDATIONS; *RESEARCH; ETURN FLOWS; *WASTEWATER TREATMENT

SCRIPTIVE NOTE: 118-126P.

STRACT: THIS RESEARCH WAS DESIGNED TO INVESTIGATE FACTORS AT INFLUENCE THE QUANTITY AND QUALITY OF RETURN FLOWS FROM AEROBIC DIGESTERS AND MECHANICAL DEWATERING DEVICES FROM STEWATER PLANTS AND TO CONSIDER SOME POSSIBLE TERNATIVES. RESULTS OF THE RESEARCH AND RECOMMENDATIONS R OPERATORS AND DESIGNERS ARE GIVEN.

AILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; 6 N2

IS ACCESSION NUMBER: EW010680

BLICATION DATE: FEB 84

TLE: DISINFECTION OF SECONDARY EFFLUENT WITH OZONE/UV.

RSONAL AUTHOR: VENOSA, ALBERT A.; AND OTHERS

SCRIPTOR: *DISINFECTION; *ECONOMICS; *OZONE; *OPERATIONS ASTEWATER); *PERFORMANCE EVALUATION; *RECOMMENDATIONS; ESEARCH; *WASTEWATER TREATMENT; *ULTRAVIOLET LIGHT

SCRIPTIVE NOTE: 137-142P.

STRACT: THIS STUDY WAS UNDERTAKEN TO DETERMINE IF OZONE D UV IN COMBINATION PRODUCE A SYNERGISTIC EFFECT ON SINFECTION AND IF SO, WHAT CONFIGURATION FAVORS SYNERGISM. R LARGE PLANTS UV AND OZONE IN A SEQUENTIAL ARRANGEMENT S MORE COST-EFFECTIVE THAN EITHER ALONE. FOR SMALLER ANTS UV APPEARED TO BE THE BETTER OPTION.

AILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; 6 N2

IRIS ACCESSION NUMBER: EW010681

PUBLICATION DATE: FEB 84

TITLE: USE OF ARTIFICIAL WETLANDS TO REMOVE NITROGEN FROM WASTEWATER.

PERSONAL AUTHOR: GERSBERG, R. M.

DESCRIPTOR: *ARTIFICIAL WETLANDS; *COSTS; *FACILITIES; *NITROGEN; *NITROGEN REMOVAL; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *RESEARCH; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 152-156P.

ABSTRACT: THIS REPORT DESCRIBES STUDIES WITH LARGER, DEMONSTRATION-SCALE ARTIFICIAL WETLANDS FOR REMOVING NITROGEN FROM SECONDARY WASTEWATER EFFLUENTS. RESULTS ARE REPORTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N2

IRIS ACCESSION NUMBER: EW010683

PUBLICATION DATE: FEB 84

TITLE: COOPERATIVE SEPARATISM MARKS RALEIGH'S WATER/WASTEWATER OPERATIONS.

PERSONAL AUTHOR: HERSCH, PAUL

DESCRIPTOR: *ADMINISTRATION; *MANAGEMENT; *NORTH CAROLINA; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *UTILITIES; *WATER DISTRIBUTION; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 19,49P.

ABSTRACT: DESCRIBED IS THE MANAGEMENT OF WATER AND WASTEWATER OPERATIONS AT RALEIGH, NORTH CAROLINA. ORGANIZATION AND OPERATIONS ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N2

IRIS ACCESSION NUMBER: EW010684

PUBLICATION DATE: FEB 84

TITLE: CAREFUL ENGINEERING PRODUCES PLANT WITH SOUND PERFORMANCE, PLEASING AESTHETICS.

PERSONAL AUTHOR: MICHELS, CARL J.

DESCRIPTOR: *COSTS; *DESIGN; *FACILITIES; *EFFLUENTS; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT; *WISCONSIN

DESCRIPTIVE NOTE: 20-22P.

ABSTRACT: DESCRIBED IS A WASTEWATER TREATMENT FACILITY THAT WAS CONSTRUCTED IN WISCONSIN. THE PLANT USES A VARIETY OF

OCESSES TO ACHIEVE HIGH QUALITY EFFLUENTS.
AILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N2

IS ACCESSION NUMBER: EW010685

BLICATION DATE: FEB 84

TLE: BLUEPRINT FOR A JOINT POWER AGENCY.

RSONAL AUTHOR: KENNEDY, DAVID D.; BRUCE, WAYNE A.

SCRIPTOR: *CALIFORNIA; *DESIGN; *CONSTRUCTION; *JOINT WER AGREEMENTS; *MANAGEMENT; *MAINTENANCE; *OPERATIONS ASTEWATER); *UTILITIES; *WASTEWATER TREATMENT; *WASTEWATER LLECTION; *WASTE DISPOSAL

SCRIPTIVE NOTE: 26-29P.

STRACT: POLITICAL HARMONY AND A SINGLE-PURPOSE GOAL WERE NSTRIBUTING FACTORS IN THE SUCCESSFUL IMPLEMENTATION OF A INT POWER AGREEMENT BY FIVE LOCAL AGENCIES. DESCRIBED IS E PROJECT TO DESIGN AND BUILD A WASTEWATER MANAGEMENT AND SPOSAL SYSTEM IN AN AREA EAST OF SAN FRANCISCO.

AILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N2

IS ACCESSION NUMBER: EW010686

BLICATION DATE: FEB 84

TLE: PORTABLE, COMPUTERIZED MONITOR KEEPS TABS ON WATER.

RSONAL AUTHOR: DEININGER, ROLF A.

SCRIPTOR: *ANALYTICAL TECHNIQUES; *COMPUTERS; *COMPUTER PLICATIONS; *DATA COLLECTION; *INSTRUMENTS; *MONITORING; ATER QUALITY

SCRIPTIVE NOTE: 32-33,53P.

STRACT: DESCRIBED IS AN ANALYTICAL INSTRUMENT THAT CAN BE MBINED WITH A MICROCOMPUTER AND TAKEN NEARLY ANYWHERE TO NTINUOUSLY MONITOR WATER QUALITY.

AILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N2

IS ACCESSION NUMBER: EW010687

BLICATION DATE: FEB 84

TLE: I/I REHAB SUCCESS COMES WITH UNDERSTANDING SYSTEM HAVIOR.

RSONAL AUTHOR: NOGAJ, RICHARD J.

SCRIPTOR: *INFILTRATION; *INFLOW; *MAINTENANCE; PERATIONS (WASTEWATER); *PLANNING; *REHABILITATION; *SEWERS; *WASTEWATER COLLECTION
DESCRIPTIVE NOTE: 36-38P.

ABSTRACT: DISCUSSED ARE A VARIETY OF WATER FLOW CHARACTERISTICS IN WASTEWATER COLLECTION SYSTEMS RELATED TO INFILTRATION AND INFLOW (I/I). REHABILITATION OF WASTEWATER COLLECTION SYSTEMS REQUIRES AN UNDERSTANDING OF SYSTEM FLOW BEHAVIOR AND ACCURATE DATA.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N2

IRIS ACCESSION NUMBER: EW010688

PUBLICATION DATE: FEB 84

TITLE: GRINDER PUMP SOLUTION APPEALS TO RESIDENTS.

PERSONAL AUTHOR: BURNETT, THOMAS E.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *COLORADO; *GRINDER PUMPS; *OPERATIONS (WASTEWATER); *PLANNING; *PRESSURE SEWERS; *SEWERS; *TECHNOLOGY; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 39-41P.

ABSTRACT: DESCRIBED IS A PROJECT IN COLORADO THAT INSTALLED GRINDER PUMPS AND PRESSURE SEWERS IN A SMALL COLORADO COMMUNITY.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N2

IRIS ACCESSION NUMBER: EW010689

PUBLICATION DATE: FEB 84

TITLE: IMPROVING WATER UTILITY MANAGEMENT.

PERSONAL AUTHOR: SHELL, RICHARD L.; DAMACHI, NICHOLAS A.

DESCRIPTOR: *COMPUTER APPLICATIONS; *DATA COLLECTION; *FORECASTING; *MANAGEMENT; *OPERATIONS (WATER); *PLANNING; *WATER RATES; *WATER DISTRIBUTION; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 42-44P.

ABSTRACT: DISCUSSED IS THE NEED FOR THE IMPROVEMENT OF WATER UTILITY MANAGEMENT AND SEVERAL ASPECTS OF MANAGEMENT THAT NEED TO BE CONSIDERED. THE APPLICATION OF COMPUTERS TO THE STUDY OF THESE PROBLEMS AND MANAGEMENT OF THESE WATER OPERATIONS IS CONSIDERED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N2

IS ACCESSION NUMBER: EW010690
BLICATION DATE: NOV 83

TLE: AERIAL PHOTOGRAPHY: ITS USE IN THE STUDY OF COASTAL OSION AND POLLUTION. 1974-NOVEMBER, 1983 (CITATIONS FROM EANIC ABSTRACTS).

SCRIPTOR: *AERIAL PHOTOGRAPHY; *ANNOTATED BIBLIOGRAPHIES; IBLIOGRAPHIES; *COASTAL AREAS; *EROSION; *OCEANS; HOTOGRAPHY; *POLLUTION; *SHORELINES; *SURVEYS

SCRIPTIVE NOTE: 89P. PRICE CODE: PC N01/MF N01; PB84-2813

STRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING RIAL PHOTOGRAPHY AND ITS USE AS A MEANS TO STUDY COASTAL ORELINE PROBLEMS SUCH AS EROSION AND POLLUTION, AND TO RVEY COASTAL AND LAND AREAS. (THIS UPDATED BIBLIOGRAPHY NTAINS 117 CITATIONS, 19 OF WHICH ARE NEW ENTRIES TO THE EVIOUS EDITION.)

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010691

BLICATION DATE: DEC 83

TLE: ASSESSMENT FOR FUTURE ENVIRONMENTAL PROBLEMS - OCEAN MPING.
RSONAL AUTHOR: MENZIE, C. A.; AND OTHERS

SCRIPTOR: *ENVIRONMENT; *OCEAN DUMPING; *OCEANS; ESEARCH PRIORITIES; *RESOURCE ALLOCATIONS; *WASTE SPOSAL; *RECOMMENDATIONS

SCRIPTIVE NOTE: 160P. PRICE CODE: PC A08/MF A01; PB84-6770

STRACT: THE OBJECTIVE OF THIS REPORT IS TO PROVIDE THE U. ENVIRONMENTAL PROTECTION AGENCY'S OFFICE OF STRATEGIC SSESSMENT AND SPECIAL STUDIES WITH A TECHNICAL BASIS FOR KING DECISIONS ON RESEARCH PRIORITIES AND RESOURCE LOCATION AS THESE RELATE TO THE QUESTION OF OCEAN DUMPING. E PROGRAM WAS ORGANIZED INTO FOUR TASKS. FIRST, HISTORICAL ENDS IN WASTE GENERATION, DISPOSAL, AND LEGISLATIVE AND CHNOLOGICAL FACTORS (AS OF 1982) WERE REVIEWED TO INDICATE E LIKELIHOOD THAT A PARTICULAR WASTE TYPE WOULD BE OCEAN MPED IN THE FUTURE. SECOND, THE ENVIRONMENTAL IMPLICATIONS LAND-BASED ALTERNATIVES WERE REVIEWED TO PROVIDE CKGROUND ON THE NATURE OF RISKS ASSOCIATED WITH THESE TERNATIVES. THIRD, THE ENVIRONMENTAL IMPLICATIONS OF OCEAN SPOSAL WERE REVIEWED FOR WASTES AND THEIR CONSTITUENTS. NALLY, BASED ON THE INFORMATION GENERATED IN THE FIRST REE TASKS, RECOMMENDATIONS ARE PROVIDED ON FUTURE RESEARCH EDS AND THESE ARE ASSIGNED EITHER HIGH, MODERATE, OR LOW IORITY STATUS.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010692
PUBLICATION DATE: JUN 83

TITLE: DEVELOPMENT DOCUMENT FOR EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE METAL FINISHING POINT SOURCE CATEGORY.

PERSONAL AUTHOR: KINCH, R.

DESCRIPTOR: *EFFLUENTS; *GUIDELINES; *INDUSTRIAL WASTES; *METAL FINISHING INDUSTRIES; *METALS; *OPERATIONS (WASTEWATER); *STANDARDS; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 733P. PRICE CODE: PC A99/MF E04; PB84-115989

ABSTRACT: THE DEVELOPMENT DOCUMENT SUPPLIES SUPPORTING TECHNICAL INFORMATION TO THE ENVIRONMENTAL PROTECTION AGENCY'S LIMITS ON POLLUTANTS THAT METAL FINISHING FACILITIES MAY DISCHARGE TO WATER THAT GO ON TO PUBLICALLY OWNED TREATMENT WORKS. THE METAL FINISHING DEVELOPMENT DOCUMENT PROVIDES SPECIFIC BACKGROUND INFORMATION ON THE DEVELOPMENT OF EFFLUENT LIMITATIONS BASED ON 'BEST PRACTICABLE TECHNOLOGY' AND 'BEST AVAILABLE TECHNOLOGY' AND ESTABLISHES NEW SOURCE PERFORMANCE STANDARDS AND PRETREATMENT STANDARDS UNDER THE CLEAN WATER ACT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010693

PUBLICATION DATE: NOV 83

TITLE: DEVELOPMENT OF METHODS TO DEFINE WATER QUALITY EFFECTS OF URBAN RUNOFF.

PERSONAL AUTHOR: MANCINI, J. L.

DESCRIPTOR: *COSTS; *OPERATIONS (WASTEWATER); *SURFACE RUNOFF; *URBAN AREAS; *WATER QUALITY

DESCRIPTIVE NOTE: 162P. PRICE CODE: PC A08/MF A01; PB84-122928

ABSTRACT: THE PROJECTED COSTS FOR TREATING COMBINED SEWER OVERFLOWS AND URBAN RUNOFF NATIONWIDE ARE EXTREMELY LARGE, AND THEREFORE NECESSITATE THAT METHODS BE AVAILABLE TO QUANTITATIVELY EVALUATE THE RECEIVING WATER IMPACTS ASSOCIATED WITH THESE DISCHARGES. THIS REPORT SUMMARIZES THE RESULTS OF A STUDY EFFORT INVESTIGATING METHODS WHICH CAN BE EMPLOYED TO DEVELOP WET WEATHER WATER QUALITY CRITERIA WHICH COULD FORM PART OF THE BASIS FOR WET WEATHER STANDARDS. THIS PROJECT CONSIDERS SHORT-TERM WATER QUALITY IMPACTS THAT OCCUR DURING OR SHORTLY AFTER A STORM EVENT. EXAMPLES OF THE SHORT TERM IMPACTS ARE DISSOLVED OXYGEN DEPRESSIONS DUE TO RAPID OXIDATION OF CONTAMINANTS OR THE DEATH OF FISH AS A RESULT OF SHORT TERM INCREASES IN THE CONCENTRATION OF A TOXIC IN THE RECEIVING WATER.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010694

BLICATION DATE: DEC 83

TLE: DISINFECTANTS: CHLORINE AND CHLORINE DIOXIDE. 78-1983 (CITATIONS FROM THE LIFE SCIENCES COLLECTION DATA SE).

SCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; HLORINE; *CHLORINE DIOXIDE; *DISINFECTION; *SWIMMING OLS; *WASTEWATER TREATMENT; *WATER TREATMENT

SCRIPTIVE NOTE: 136P. PRICE CODE: PC N01/MF N01; PB84-4793

STRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING E ANTIMICROBIAL PROPERTIES OF CHLORINE AND CHLORINE OXIDE. THE USE OF CHLORINE FOR THE INACTIVATION OF RUSES, BACTERIA AND FUNGI IN WASTEWATER TREATMENT PLANTS DISCUSSED, INCLUDING THE MODE OF ACTION AND FACTORS FLUENCING INACTIVATION. THE USE OF CHLORINE DIOXIDE AS AN TERNATIVE TO CHLORINE DISINFECTION IN WATER SUPPLIES AND IMMING POOLS IS ALSO DISCUSSED. (THIS UPDATED BIBLIOGRAPHY NTAINS 164 CITATIONS, 39 OF WHICH ARE NEW ENTRIES TO THE EVIOUS EDITION.)

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010695

BLICATION DATE: SEP 83

TLE: ESTIMATION OF COSTS FOR SMALL WATER SYSTEMS.

RSONAL AUTHOR: DEB, ARUN K.; RICHARDS, WILLIAM G.

SCRIPTOR: *ALTERNATIVE TECHNOLOGIES; *DESIGN; *COSTS; STIMATING; *FACILITIES; *MODELS; *OPERATIONS (WATER); MALL SYSTEMS; *WATER SYSTEMS; *WATER SUPPLY; *WATER EATMENT

SCRIPTIVE NOTE: 17P. PRICE CODE: PC A02/MF A01; AD-P001 5/7

STRACT: THE WATER MANAGEMENT (WATMAN) MODEL HAS BEEN PANDED IN THIS STUDY SO AS TO COVER BOTH LARGE AND SMALL TER SYSTEMS. IT IS A PARTICULARLY VERSATILE TOOL FOR TIMATING PRELIMINARY DESIGN COSTS FOR SMALL WATER SYSTEMS DATA APPROPRIATE TO SMALL SYSTEMS AND ALTERNATIVE CHNOLOGY, ESPECIALLY FOR BOTTLED WATER DISTRIBUTION AND INT-OF-USE TREATMENT, WAS COLLECTED AND USED TO DERIVE ST INFORMATION. COST FUNCTIONS FOR ESTIMATING CAPITAL AND ERATIONS FOR SMALL WATER SYSTEMS HAVE BEEN DEVELOPED AND CORPORATED INTO THE MODEL. WATMAN IS FLEXIBLE ENOUGH TO MULATE ALMOST ANY CONFIGURATIONS OF UP TO TEN WATER STEMS AND A VARIETY OF UNIT PROCESSES IN ORDER TO CONDUCT PRELIMINARY DESIGNS AND ECONOMIC EVALUATIONS OF ALTERNATIVE TECHNOLOGIES AVAILABLE TO UTILITIES. SEVERAL TECHNOLOGIES CONSIDERED ESPECIALLY APPROPRIATE TO SMALL SYSTEMS WERE EXAMINED INCLUDING ALTERNATE SOURCES, CONVENTIONAL ADDITIONAL TREATMENT, PACKAGE PLANTS AND EQUIPMENT, REGIONALIZATION, AND DUAL WATER SYSTEMS, POINT-OF-USE TREATMENT, AND BOTTLED WATER DISTRIBUTION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010696

PUBLICATION DATE: AUG 83

TITLE: GROUNDWATER RESOURCES AND CONTAMINATION IN THE UNITED STATES. WORKSHOP PAPERS AND SUMMARY, WASHINGTON, DC, MARCH 14-15, 1983.

DESCRIPTOR: *CONTAMINATION; *COSTS; *GROUNDWATER; *MONITORING; *PUBLIC HEALTH; *RESEARCH; *WATER RESOURCES; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 231P. PRICE CODE: PC A11/MF A01; PB84-126358

ABSTRACT: SIX PAPERS DELIVERED AT THE WORKSHOP ARE PRESENTED. THE PAPERS ADDRESS SUCH TOPICS AS PUBLIC HEALTH EFFECTS OF CONTAMINATED GROUNDWATER; IMPACTS, COSTS, AND TECHNIQUES FOR MITIGATION OF CONTAMINATED GROUNDWATER; CONTAMINANT MIGRATION IN GROUNDWATER; DETECTION AND MONITORING OF CONTAMINATED GROUNDWATER; AND USES OF DIFFERENT KINDS OF AQUIFERS. BIOGRAPHIES OF THE PAPERS' AUTHORS ARE INCLUDED. IT IS SUGGESTED THAT THE INSTITUTIONAL AND LEGAL PROCESSES NECESSARY TO BRING ABOUT THE CONTROL OF CONTAMINATION WITHIN STATES AND BETWEEN STATES BE EXAMINED. THE NEED FOR AN INVENTORY OF EXISTING RESEARCH IS IDENTIFIED, AND IT IS RECOMMENDED THAT RESEARCH BE CONDUCTED ON THE ATTENTUATION AND TRANSFORMATION OF CHEMICALS IN DIFFERENT TYPES OF AQUIFERS BY BIOLOGICAL, PHYSICAL, AND CHEMICAL MEANS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010697

PUBLICATION DATE: SEP 83

TITLE: LAND TREATMENT PROCESSES WITH CAPDET (COMPUTER-ASSISTED PROCEDURE FOR THE DESIGN AND EVALUATION OF WASTEWATER TREATMENT SYSTEM).

PERSONAL AUTHOR: MERRY, C. J.; AND OTHERS

DESCRIPTOR: *DESIGN; *COSTS; *CAPDET; *COMPUTER APPLICATIONS; *INFILTRATION; *LAND TREATMENT; *FACILITIES; *OVERLAND FLOW; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 91P. PRICE CODE: PC A05/MF A01; AD-A134

STRACT: A SUMMARY OF THE FIRST-, SECOND-, AND THIRD-ORDER SIGN STEPS FOR THE THREE LAND TREATMENT UNIT PROCESSES LOW INFILTRATION, RAPID INFILTRATION AND OVERLAND FLOW) THIN THE CAPDET MODEL IS PRESENTED. THE FIRST-ORDER SIGN, CONSISTING OF THE BASIC SANITARY ENGINEERING OCESSES FOR SLOW INFILTRATION, RAPID INFILTRATION, AND ERLAND FLOW, IS DESCRIBED IN TERMS OF THE SELECTED OCEDURES AND THE COMPUTER FORMAT. THE SECOND-ORDER DESIGN A DESCRIPTION OF THE QUANTITIES AND SIZES CALCULATED FOR CH LAND TREATMENT PROCESS. THE THIRD-ORDER DESIGN IS THE LCULATION OF THE UNIT PROCESS COSTS BY APPLYING PRICES TO E QUANTITIES AND SIZES CALCULATED DURING THE SECOND-ORDER SIGN STEP. (AUTHOR)

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010698

BLICATION DATE: DEC 83

TLE: MARINE DISPOSAL OF RADIOACTIVE WASTES. 1978-1983 ITATIONS FROM THE LIFE SCIENCES COLLECTION DATA BASE).

SCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; NDUSTRIAL WASTES; *OCEANS; *RADIOACTIVE WASTES; *WASTE SPOSAL; *WATER POLLUTION CONTROL

SCRIPTIVE NOTE: 124P. PRICE CODE: PC N01/MF N01; PB84-4637

STRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING E DISPOSAL OF HIGH AND LOW LEVEL LIQUID AND SOLID DIOACTIVE WASTES IN THE SEA AND GROUND WATER. EMPHASIS IS THE DISPOSAL OF THE WASTES AT SEA. DISPOSAL UNDER AND ON E SEA BED IS EXAMINED, AND THE MIGRATION AND CONCENTRATION RADIOACTIVE WASTES IN SEA WATER AND AQUATIC LIFE ARE CLUDED. METHODOLOGY FOR MEASURING RADIOACTIVITY IS NSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 140 TATIONS, 10 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS ITION.)

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010699

BLICATION DATE: SEP 83

TLE: METHOD FOR TREATING CONTAMINATED WASTEWATER.

RSONAL AUTHOR: FOCHTMAN, E. G.; AND OTHERS

SCRIPTOR: *FUELS; *HYDRAZINE; *INVENTIONS; *OPERATIONS ASTEWATER); *PATENTS; *TECHNOLOGY; *WASTEWATER TREATMENT

SCRIPTIVE NOTE: 12P. PRICE: $1.00

ABSTRACT: A METHOD IS DESCRIBED FOR TREATING HYDRAZINE-FUEL CONTAMINATED WASTEWATER IN WHICH HYDRAZINE, MONOMETHYL HYDRAZINE, UNSYMMETRICAL DIMETHYL HYDRAZINE AND DIMETHYL-NITROSAMINE POLLUTANTS ARE EFFECTIVELY DECOMPOSED AT A CONTROLLED PH OF ABOUT 5 BY AN ULTRAVIOLET INDUCED CHLORINATION TREATMENT OF THE WASTEWATER.

AVAILABILITY: COMMISSIONER OF PATENTS, WASHINGTON, DC 20231

IRIS ACCESSION NUMBER: EW010700

PUBLICATION DATE: MAY 83

TITLE: PUBLIC INVOLVEMENT TECHNIQUES: A READER OF TEN YEARS EXPERIENCE AT THE INSTITUTE FOR WATER RESOURCES.

PERSONAL AUTHOR: CREIGHTON, J.; AND OTHERS

DESCRIPTOR: *INSTITUTE OF WATER RESOURCES; *PLANNING; *PUBLIC INVOLVEMENT; *PUBLIC PARTICIPATION; *POLICY; *WATER RESOURCES

DESCRIPTIVE NOTE: 485P. PRICE CODE: PC A21/MF A01; AD-A134 756/6

ABSTRACT: THE INSTITUTE FOR WATER RESOURCES (IWR), LIKE MOST GOVERNMENTAL ENTITIES, FOUND THE SEVENTIES WERE A DECADE OF CHALLENGE. IWR IS AN INTERDISCIPLINARY RESEARCH CENTER WHICH, THROUGH STAFF STUDIES OR FUNDING OF STUDIES BY CONSULTANTS, PROVIDES POLICY GUIDANCE AND RESEARCH AND DEVELOPMENT IN THE AREA OF WATER RESOURCES PLANNING TO THE U. S. ARMY CORPS OF ENGINEERS. AS SUCH, IWR PLAYED A CONSIDERABLE ROLE IN SHAPING THE CORPS OF ENGINEERS ADAPTION TO THE 1970'S. IT WAS A DECADE OF CHALLENGE, BUT IT WAS ALSO A DECADE OF CONTRIBUTION IN WHICH IWR WAS ABLE TO CONTRIBUTE SUBSTANTIALLY TO POLICY AND PROCEDURES WHICH RESULTED IN A MORE ADEQUATE BALANCING OF ECONOMIC, ENVIRONMENTAL, AND SOCIAL VALUES IN WATER RESOURCES DECISION MAKING. CENTRAL TO THIS CONTRIBUTION WAS IWR'S WORK IN PUBLIC INVOLVEMENT. THE GENESIS FOR THIS READER WAS TWO-FOLD: A RECOGNITION THAT A GREAT DEAL OF MATERIAL HAD BEEN DEVELOPED FOR IWR-SPONSORED TRAINING PROGRAMS WHICH MANY PRACTIONERS INSIDE AND OUTSIDE GOVERNMENT BELIEVED REPRESENTED AN IMPORTANT CONTRIBUTION TO THE FIELD OF PUBLIC INVOLVEMENT, AND THEREFORE DESERVED PUBLICATION; AND, A DESIRE TO PROVIDE RECOGNITION TO IWR'S CONTRIBUTION TO THE FIELD OVER THE PAST DECADE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010701

PUBLICATION DATE: OCT 83

TITLE: SIMULATION OF SPILLED OIL BEHAVIOR IN BAYS AND COASTAL WATERS.

PERSONAL AUTHOR: HESS, K. W.

ESCRIPTOR: *BAYS; *COMPUTER SOFTWARE; *COMPUTER PPLICATIONS; *OCEANS; *OILSPILLS; *SIMULATIONS; *WATER OLLUTION CONTROL

ESCRIPTIVE NOTE: 29P. PRICE CODE: PC A03/MA A01; PB84-22597

BSTRACT: OILSPILL IS A COMPUTER PROGRAM DESIGNED TO ORECAST THE BEHAVIOR OF FLOATING OIL IN THE COASTAL ZONE. HE PROGRAM, WRITTEN IN FORTRAN IV, RUNS ON THE AFOS AUTOMATION OF FIELD OPERATIONS AND SERVICES) DATA GENERAL CLIPSE S/230 COMPUTER. IT CAN BE STORED ON FLOPPY DISK AND ETRIEVED WHEN IT IS TO BE RUN. THE PROGRAM, WHICH IS RUN AT HE ALPHANUMERIC DISPLAY MODULE (ADM), REQUIRES INPUT SUCH S OIL SPILL LOCATION, MAP PARAMETERS, AND WIND AND WATER URRENT FORECASTS.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010702

UBLICATION DATE: SEP 83

'ITLE: VERIFICATION OF MAPS COST ESTIMATING PROCEDURES.

ERSONAL AUTHOR: WALSKI, THOMAS M.; LINDSEY, ANITA K.

ESCRIPTOR: *COSTS; *ESTIMATING; *MAPS; *PLANNING; *WATER UPPLY

ESCRIPTIVE NOTE: 11P. PRICE CODE: PC A02/MF A01; AD-P001 05/9

BSTRACT: THE PURPOSE OF THIS STUDY WAS TO VERIFY THE ETHODOLOGY AREAWIDE PLANNING STUDIES COST ESTIMATING ROCEDURE AGAINST AN INDEPENDENTLY DETERMINED SET OF COST ATA. FROM THIS KIND OF ANALYSIS IT IS POSSIBLE TO: ETERMINE THE ACCURACY OF THE INDIVIDUAL MODULES, IDENTIFY ND CORRECT MINOR SHORTCOMINGS OF THE PROGRAM, AND IDENTIFY OTENTIAL MAJOR PROGRAM MODIFICATIONS AND ADDITIONS. THIS APER HAS BEEN PREPARED TO PRESENT THE RESULTS OF THE ERIFICATION STUDY, THEREBY PROVIDING MAPS ADDITIONAL REDIBILITY WITH BOTH PLANNERS AND ESTIMATORS. IN ADDITION, EADERS SHOULD GAIN A BETTER APPRECIATION OF THE PROBLEMS SSOCIATED WITH PLANNING LEVEL COST ESTIMATIONS AND A BETTER NDERSTANDING OF THE ACCURACY OF THE RESULTING COST STIMATES.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010703

UBLICATION DATE: JUN 81

ITLE: WATER RESOURCES ASSESSMENTS: PRINCIPLES FOR DESIGN ND IMPLEMENTATION.

ESCRIPTOR: *ANALYTICAL TECHNIQUES; *ASSESSMENT; *DESIGN; *CASE STUDIES; *IMPLEMENTATION; *PLANNING; *WATER ASSESSMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 139P. PRICE CODE: PC A07/MF A01; PB84-124155

ABSTRACT: THE REPORT, WHICH PROVIDES A REGIONAL PERSPECTIVE ON THE ROLE OF A WATER ASSESSMENT AND EXAMINES THE USE OF SPECIFIC ASSESSMENT METHODS TO REGIONAL WATER-RESOURCES PLANNING, IS ORGANIZED AS A GUIDE TO THOSE CONSIDERING THE DESIGN AND IMPLEMENTATION OF AN ASSESSMENT ON EITHER A NATIONAL OR REGIONAL SCALE. PREVIOUS ASSESSMENTS ARE EVALUATED, THE FRAMEWORK FOR A NEW CONCEPTUAL APPROACH TO ASSESSMENT IS DEFINED, THE DERIVATION OF ASSESSMENT OBJECTIVES ARE DETAILED, AND PRINCIPALS FOR ASSESSMENT DESIGN ARE ESTABLISHED. THE REPORT ALSO REVIEWS ASSESSMENT-LEVEL ANALYTICAL TECHNIQUES AND PRESENTS A CASE STUDY TEST OF THE INDICATOR CONCEPT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010704

PUBLICATION DATE: AUG 83

TITLE: ADAPTATION OF THE SIMPLEX GASIFICATION PROCESS TO THE CO-CONVERSION OF MUNICIPAL SOLID WASTE AND SEWAGE SLUDGE.

PERSONAL AUTHOR: ARBO, J. C.; AND OTHERS

DESCRIPTOR: *BRIQUETTES; COAL; *FUEL; ENERGY CONSERVATION; *GASIFIERS; *RESEARCH; *SLUDGE; *SOLID WASTES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: PRICE CODE: PB82-112418

ABSTRACT: THE FEASIBILITY OF MAKING STURDY BRIQUETTES WITH DEWATERED SLUDGE, MUNICIPAL SOLID WASTE, AND COAL FOR USE IN GASIFIERS WAS DEMONSTRATED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010706

PUBLICATION DATE: AUG 83

TITLE: COMBINED SEWER OVERFLOW CHARACTERISTICS FROM TREATMENT PLANT DATA.

PERSONAL AUTHOR: MUELLER, JAMES A.; DITORO, DOMINIC M.

DESCRIPTOR: *MASS BALANCE TECHNIQUE; *OPERATIONS (WASTEWATER); *RESEARCH; *SEWERS; *SEWER OVERFLOW; *SURFACE RUNOFF; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE CODE: PB83-224543

BSTRACT: RESEARCH WAS UNDERTAKEN TO EVALUATE THE ADEQUACY F USING A MASS BALANCE TECHNIQUE WITH DAILY MUNICIPAL ASTEWATER TREATMENT PLANT DATA TO DETERMINE COMBINED SEWER UNOFF AND OVERFLOW CHARACTERISTICS. RESULTS OF THE STUDY RE REPORTED.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010707

JBLICATION DATE: JUN 83

ITLE: DETERMINATION OF MINIMAL INFECTIOUS DOSE OF AN ITEROVIRUS IN DRINKING WATER.

ERSONAL AUTHOR: SCHIFF, GILBERT M.; AND OTHERS

ESCRIPTOR: *DISEASES; *DRINKING WATER; *PUBLIC HEALTH; RESEARCH; *VIRUSES; *WATER TREATMENT

ESCRIPTIVE NOTE: PRICE CODE: PB83-191015

BSTRACT: THE GOALS OF THIS PROJECT WERE TO DETERMINE THE NIMAL INFECTIOUS DOSE AND THE MEDICAL SIGNIFICANCE OF AN TERIC VIRUS INGESTED IN DRINKING WATER. A TOTAL OF 149 ULT HALES WERE INVOLVED IN THE STUDY. RESULTS OF THE STUDY E REPORTED.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010708

BLICATION DATE: JUN 83

TLE: EVALUATION OF A PASSIVE MONITOR FOR VOLATILE GANICS.

RSONAL AUTHOR: COUTANT, ROBERT W.

SCRIPTOR: *ANALYTICAL TECHNIQUES; *AIR; *DOSIMETERS; ONITORING; *PERFORMANCE EVALUATION; *ORGANIC COMPOUNDS; OLLUTION; *VOLATILE ORGANICS

SCRIPTIVE NOTE: PRICE CODE: PB83-194464

STRACT: A LABORATORY INVESTIGATION WAS CONDUCTED TO TERMINE THE POTENTIAL UTILITY OF A COMMERCIALLY AVAILABLE SIVE DOSIMETER FOR MONITORING TOXIC VOLATILE ORGANIC MPOUNDS AT AMBIENT LEVELS, TEST COMPOUNDS INCLUDED: LOROFORM, [illegible] TRICHLOROFORM, CARBON TETRACHLORIDE, ICHLOROETHYLENE, TETRACHLOROETHYLENE, BENZENE, AND LOROBENZENE. IT WAS CONCLUDED THAT AT LEAST ONE CURRENTLY AILABLE PASSIVE DOSIMETER COULD BE USEFUL FOR MONITORING AMBIENT LEVELS OF TOXIC ORGANIC CHEMICALS.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010710

PUBLICATION DATE: AUG 83

TITLE: MEASUREMENT OF VOLATILE CHEMICAL EMISSIONS FROM WASTEWATER BASINS.

PERSONAL AUTHOR: THIBODEAUX, LOUIS J.; AND OTHERS

DESCRIPTOR: *AIR POLLUTION; *ACETONE; *HYDROCARBONS; *INDUSTRIAL WASTES; *METHANOL; *ORGANIC COMPOUNDS; *PULP AND PAPER INDUSTRY; *RESEARCH; *SAMPLING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE CODE: PB83-135632

ABSTRACT: THE OBJECTIVE OF THIS PROJECT WAS TO DETERMINE THE MAGNITUDE OF THE FLUX RATE OF ORGANIC COMPOUNDS THAT ARE EMITTED INTO THE AIR FROM SELECTED WASTEWATER TREATMENT FACILITIES FOR THE PULP AND PAPER INDUSTRY. A FIELD SAMPLING METHOD WAS DEVELOPED. CONCENTRATIONS OF METHANOL, ACETONE, AND HYDROCARBONS WERE FOUND; CONCENTRATIONS DECREASED WITH HEIGHT ABOVE THE WATER.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010711

PUBLICATION DATE: MAY 83

TITLE: OVERLAND FLOW TREATMENT OF MUNICIPAL SEWAGE AT EASLEY, SC.

PERSONAL AUTHOR: ABERNATHY, A. RAY

DESCRIPTOR: *COSTS; *EFFLUENT; *LAND USE; *OVERLAND FLOW; OPERATIONS (WASTEWATER) *PERFORMANCE EVALUATION; *RESEARCH; *SEWAGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE CODE: PB83-170985

ABSTRACT: THIS PROJECT SOUGHT TO DEMONSTRATE THE FEASIBILITY OF TREATING EITHER COMMINUTED RAW SEWAGE OR EFFLUENT FROM A FACULTATIVE LAGOON IN PIEDMONT SOUTH CAROLINA WHERE MILD WINTER PREVAILS IN A REGION OF HIGH RAINFALL. THE MAJOR OBJECTIVE WAS TO DEMONSTRATE THE EFFECTIVE TREATMENT OF THE TWO WASTE STREAMS IN A RATHER SIMPLE, EASILY OPERATED OVERLAND FLOW FACILITY. RESULTS OF THE STUDY ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010712

PUBLICATION DATE: AUG 83

TITLE: PREDICTING PREFERENTIAL ADSORPTION OF ORGANICS BY ACTIVATED CARBON.

ERSONAL AUTHOR: BELFORT, GEORGES; AND OTHERS
ESCRIPTOR: *ACTIVATED CARBON; *ADSORPTION; *ORGANIC OMPOUNDS; *RESEARCH

ESCRIPTIVE NOTE: PRICE CODE: PB83-222778

BSTRACT: PREFERENTIAL ADSORPTION OF ORGANIC COMPOUNDS FROM ILUTE AQUEOUS SOLUTIONS ONTO ACTIVATED CARBON (AC) WAS TUDIED TO DEVELOP A COMPREHENSIVE THEORETICAL BASIS FOR REDICTING ADSORPTION OF MULTICOMPONENT SOLUTES. RESULTS OF E PROJECT ARE REPORTED.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010714

UBLICATION DATE: JUL 83

ITLE: REDUCED-POLLUTION CORROSION-PROTECTION SYSTEMS.

ERSONAL AUTHOR: STAEBLER, CHRISTIAN J., JR.; SIMPERS, ONNIE F.

ESCRIPTOR: *CORROSION PROTECTION; *CORROSION; CADMIUM; YANIDE; CHROMIUM; *METAL PLATING; *INDUSTRIAL POLLUTION; RGANIC SOLVENTS; *PERFORMANCE EVALUATION; *POLLUTION; RESEARCH; PHENOLIC PAINT STRIPPERS; *WATER POLLUTION ONTROL

ESCRIPTIVE NOTE: PRICE CODE: PB83-153056

BSTRACT: THIS STUDY EVALUATED NEWER LESS POLLUTING METAL LATING MATERIALS AND PROCESSES AS POTENTIAL ALTERNATIVES TO URRENTLY USED PLATING SYSTEMS. RESULTS ARE REPORTED.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010715

UBLICATION DATE: AUG 83

ITLE: REMOVING ORGANICS FROM PHILADELPHIA DRINKING WATER Y COMBINED OXIDATION AND ADSORPTION.

ERSONAL AUTHOR: FLEMING, HOWARD M.; AND OTHERS

ESCRIPTOR: *ADSORPTION; *COSTS; *DRINKING WATER; *GRANULAR CTIVATED CARBON; *OPERATIONS (WATER); *ORGANIC COMPOUNDS; OXIDATION; *OZONATION; *PERFORMANCE EVALUATION; *UNIT ROCESSES; *WATER TREATMENT

ESCRIPTIVE NOTE: PRICE CODE: PB83-223370

BSTRACT: LABORATORY AND PILOT SCALE STUDIES WERE CONDUCTED O INVESTIGATE THE COMBINED UNIT PROCESSES OF OXIDATION BY ZONATION AND ADSORPTION BY GRANULAR ACTIVATED CARBON (GAC) F ORGANICS. SYSTEM COMPARISONS WERE MADE USING ESTIMATED TOTAL COSTS OF EACH UNIT PROCESS.
AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010716

PUBLICATION DATE: AUG 83

TITLE: STUDIES OF WATERBORNE AGENTS OF VIRAL GASTROENTERITIS.

PERSONAL AUTHOR: DOLIN, RALPHAEL

DESCRIPTOR: *COLORADO; *DRINKING WATER; *PUBLIC HEALTH; *RESEARCH; *SNOW MOUNTAIN AGENT; *VIRAL GASTROENTERITIS; *VIRUSES; *WATER SUPPLY

DESCRIPTIVE NOTE: PRICE CODE: PB83-234930

ABSTRACT: THE STUDIES REPORTED WERE CONDUCTED TO INVESTIGATE THE ETIOLOGY OF A LARGE OUTBREAK OF WATERBORNE VIRAL GASTROENTERITIS AND TO DEVELOP SENSITIVE AND EFFICIENT METHODS FOR THE DETECTION OF THE CAUSATIVE AGENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010718

PUBLICATION DATE: AUG 83

TITLE: TEST PROCEDURE FOR GAMMA EMITTERS IN DRINKING WATER: INTERLABORATORY COLLABORATIVE STUDY.

PERSONAL AUTHOR: CASELLA, V. R., AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DRINKING WATER; *GAMMA EMITTERS; *LABORATORY PROCEDURES; *RADIOACTIVITY; *RADIONUCLIDES; *WATER QUALITY

DESCRIPTIVE NOTE: PRICE CODE: PB83-207381

ABSTRACT: THIS STUDY WAS CONDUCTED FOR THE TEST PROCEDURE, GAMMA EMITTING RADIONUCLIDES IN DRINKING WATER. THE PURPOSE WAS TO DETERMINE THE ESTIMATED PRECISION AND ACCURACY OF MULTILAB TEST RESULTS. RESULTS ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010719

PUBLICATION DATE: JUL 83

TITLE: TEST PROCEDURE FOR IODINE-131 IN DRINKING WATER: INTERLABORATORY COLLABORATIVE STUDY.

RSONAL AUTHOR: YANKO, W. H.; AND OTHERS

SCRIPTOR: *ANALYTICAL TECHNIQUES; *DRINKING WATER; ODINE; *IODINE-131; *LABORATORY PROCEDURES; *RESEARCH; ATER SUPPLY

SCRIPTIVE NOTE: PRICE CODE: PB83-187468

STRACT: AN INTERLABORATORY COLLABORATIVE STUDY WAS NDUCTED ON A TEST PROCEDURE FOR MEASURING THE IODINE-131 NCENTRATION IN DRINKING WATER. THE PURPOSE OF THE STUDY S TO DETERMINE THE ESTIMATED PRECISION AND ACCURACY OF ST RESULTS FROM PARTICIPATING LABORATORIES USING THIS TEST OCEDURE AND ANALYZING DRINKING WATER SAMPLES. RESULTS ARE PORTED.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010721

BLICATION DATE: 83

TLE: CURRICULA AND SYLLABI IN HYDROLOGY.

SCRIPTOR: *CURRICULUM; *EDUCATION; *ENVIRONMENT; RADUATE STUDY; *HYDROLOGY; *INSTRUCTION; *PROGRAM SCRIPTIONS; *TRENDS; *UNDERGRADUATE STUDY; *WATER QUALITY; ATER RESOURCES

SCRIPTIVE NOTE: 111P. PRICE: $12.25; ORDER #4011-U1310

STRACT: THIS UPDATED AND REVISED VERSION OF THE 1972 ITION CONSIDERS ASPECTS OF WATER QUALITY, ENVIRONMENTAL SUES, AND WATER RESOURCES ASSESSMENT FOR THE RATIONAL ILIZATION OF WATER WITHIN NATIONAL PLANNING SCHEMES. CTIONS COVER: OBJECTIVES OF HYDROLOGICAL EDUCATION, THE ECTRUM OF HYDROLOGICAL EDUCATION, TOPICS FOR EDUCATION IN DROLOGY, CURRENT STATE OF EDUCATIONAL PROGRAMS, AND FUTURE ENDS IN HYDROLOGICAL EDUCATION. ANNEXES PRESENT SYLLABI D CURRICULA FOR UNDERGRADUATE, GRADUATE, AND ADVANCED UDY IN HYDROLOGY.

AILABILITY: UNIPUB, BOX 433, MURRAY HILL STATION, NEW RK, NY 10157

IS ACCESSION NUMBER: EW010722

BLICATION DATE: 83

TLE: EXPERIMENTAL FACILITIES IN WATER RESOURCES UCATION.

SCRIPTOR: *DESIGN; EDUCATION; *FACILITIES; *HYDROLOGY; STRUCTIONAL MATERIALS; *LABORATORIES; *POSTGRADUATE STUDY; ATER RESOURCES; *UNDERGRADUATE STUDY

SCRIPTIVE NOTE: 63P. PRICE: $9.25; ORDER #4011-U1311

STRACT: DESIGNED AS A TEACHING AID FOR UNDERGRADUATE AND POSTGRADUATE STUDIES, THIS VOLUME FOCUSES ON THE PLANNING AND DESIGN OF EXPERIMENTAL FACILITIES RELATED TO WATER RESOURCES EDUCATION. SECTIONS COVER: THE HYDROLOGIC CYCLE; HYDRAULICS AND HYDROLOGICAL PROCESSES; DATA GATHERING FOR WATER RESOURCES DESIGN NEEDS AND FOR OPERATION AND MANAGEMENT OF WATER RESOURCES PROJECTS; GENERAL CONCEPTS OF MEASUREMENTS; DESIGNING AND EQUIPPING HYDRAULICS LABORATORIES AND HYDROLOGIC TEACHING FACILITIES; AND THE USE OF EXPERIMENTAL FACILITIES IN WATER RESOURCES EDUCATION.

AVAILABILITY: UNIPUB, BOX 433, MURRAY HILL STATION, NEW YORK, NY 10157

IRIS ACCESSION NUMBER: EW010723

PUBLICATION DATE: 83

TITLE: GROUND WATER IN THE PACIFIC REGION.

DESCRIPTOR: *DEVELOPMENT; *GROUNDWATER; *INTERNATIONAL PROBLEMS; *MANAGEMENT; *PACIFIC REGION; *WATER RESOURCES; *WATER SUPPLY; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 289P. PRICE: $38.00; ORDER #4011-UN83/2A12

ABSTRACT: REVIEWS THE CURRENT STATUS OF GROUNDWATER RESOURCES IN THE PACIFIC AREA, COVERING AUSTRALIA, JAPAN, THE PHILIPPINES, INDONESIA, NEW ZEALAND, AND NEW GUINEA, AS WELL AS THE SMALLER ISLAND COUNTRIES AND ATOLLS OF THE REGION. CONSIDERS METHODS PRESENTLY USED TO ASSESS AND MANAGE GROUNDWATER RESOURCES AND SUGGESTS STRATEGIES FOR FUTURE DEVELOPMENT. ALSO LISTS GROUNDWATER PROJECTS IN THE PACIFIC REGION SPONSORED BY THE UNITED NATIONS DEVELOPMENT PROGRAMME.

AVAILABILITY: UNIPUB, BOX 433, MURRAY HILL STATION, NEW YORK, NY 10157

IRIS ACCESSION NUMBER: EW010724

PUBLICATION DATE: 83

TITLE: TEACHING THE SYSTEMS APPROACH TO WATER RESOURCES DEVELOPMENT.

DESCRIPTOR: *DEVELOPMENT; ENGINEERS; HYDROLOGISTS; *INSTRUCTION; *INSTRUCTIONAL MATERIALS; *SYSTEMS APPROACH; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 20P. PRICE: $6.00; ORDER #4011-U1307

ABSTRACT: DEFINES AND CHARACTERIZES THE SYSTEMS APPROACH TO WATER RESOURCES DEVELOPMENT. DISCUSSES SYSTEMS ANALYSIS IN CURRICULA FOR HYDROLOGISTS AND ENGINEERS. COVERS TEACHING SUCH AUXILIARY SUBJECTS AS ECONOMICS, ENGINEERING ECONOMY, PROJECT FINANCING, STATISTICS, AND COMPUTER PROGRAMMING. INCLUDES PRACTICAL EXERCISES.

AVAILABILITY: UNIPUB, BOX 433, MURRAY HILL STATION, NEW

ORK, NY 10157

IRIS ACCESSION NUMBER: EW010725

PUBLICATION DATE: 83

TITLE: ACTIVATED SLUDGE: A COMPARISON OF OXYGEN AND AIR SYSTEMS.

DESCRIPTOR: *ACTIVATED SLUDGE; *AIR SYSTEMS; *COMPARATIVE ANALYSIS; *DESIGN; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *OXYGEN; *PERFORMANCE EVALUATION; *POSTSECONDARY EDUCATION; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 112P. PRICE: $15.50

ABSTRACT: THIS REPORT IS DIRECTED TOWARD A REVIEW OF THE OXYGEN-ACTIVATED SLUDGE PROCESS, WHICH WILL INCLUDE DESIGN AND OPERATIONAL DATA FROM FULL-SCALE SYSTEMS AND A GENERAL DISCUSSION OF THE DIFFERENT TYPES OF SYSTEMS COMMERCIALLY AVAILABLE, AS WELL AS A DISCUSSION OF THE CONTROVERSIAL OPERATIONAL CHARACTERISTICS OF SUBSTRATE UTILIZATION RATE, SLUDGE YIELD AND SOLIDS-LIQUID SEPARATION. THE MATERIAL PRESENTED SHOULD ENHANCE THE READER'S UNDERSTANDING OF BOTH THE ACTIVATED SLUDGE PROCESS AND ITS MOST POPULAR MODIFICATIONS.

AVAILABILITY: AMERICAN SOCIETY OF CIVIL ENGINEERS, 345 EAST 47TH STREET, NEW YORK, NY 10017

IRIS ACCESSION NUMBER: EW010726

PUBLICATION DATE: 83

TITLE: BIOLOGICAL CONTROL OF NITROGEN IN WASTEWATER TREATMENT.

PERSONAL AUTHOR: BARNES, D.; BLISS, P. J.

DESCRIPTOR: *BIOLOGICAL CONTROL; *DENITRIFICATION; *INSTRUCTIONAL MATERIALS; *NITROGEN; *NITRIFICATION; *OPERATIONS (WASTEWATER); *POSTSECONDARY EDUCATION; *REFERENCE MATERIALS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE: $30.00

ABSTRACT: THE TEXT ATTEMPTS TO SUMMARIZE THE THEORY AND PRACTICE OF BIOLOGICAL NITRIFICATION AND DENITRIFICATION PROCESSES IN WASTEWATER TREATMENT, AND HAS BEEN PREPARED TO PRESENT A USABLE REFERENCE OF EXISTING INFORMATION FOR ENGINEERS AND APPLIED SCIENTISTS IN THE FIELD.

AVAILABILITY: E & F. N. SPON, 733 THIRD AVE, NEW YORK, NY 10017

IRIS ACCESSION NUMBER: EW010727
PUBLICATION DATE: 83

TITLE: CONSTRUCTION INSPECTION--A FIELD GUIDE TO PRACTICE.

PERSONAL AUTHOR: CLYDE, JAMES E.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *FIELD GUIDES; *INSPECTION; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION

DESCRIPTIVE NOTE: 411P.

ABSTRACT: THIS PUBLICATION IS INTENDED TO PROVIDE THE CONSTRUCTION PRACTITIONER WITH UP-TO-DATE GUIDES TO THEORY, DESIGN, AND PRACTICE.

AVAILABILITY: JOHN WILEY & SONS, INC., ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW010728

TITLE: FUNDAMENTAL INSTRUMENTATION SERIES - MICROPROCESSORS IN INDUSTRIAL CONTROL.

PERSONAL AUTHOR: BIBBERO, ROBERT J.

DESCRIPTOR: *AUTOMATIC CONTROLS; *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE; *INDUSTRIAL CONTROL; *INSTRUMENTATION; *INSTRUCTIONAL MATERIALS; *MICROPROCESSORS; *POSTSECONDARY EDUCATION

DESCRIPTIVE NOTE: 256P. PRICE: $39.95

ABSTRACT: THE FIRST MODULE IN THE FUNDAMENTAL INSTRUMENTATION SERIES, IS A SELF STUDY TEXT FOR THOSE WHO WANT TO KNOW HOW TO APPLY DIGITAL DEVICES AND MICROPROCESSORS TO PROCESS CONTROL AND OTHER INDUSTRIAL APPLICATIONS. IT PRESUMES NO PREVIOUS EXPERIENCE WITH DIGITAL SYSTEMS AND BEGINS WITH A THOROUGH GROUNDING IN BASIC CONCEPTS, SUCH AS BINARY ARITHMETIC AND LOGIC. WITH THIS BACKGROUND, IT PROCEEDS TO DESCRIBE MICROPROCESSOR PRINCIPLES, SUCH AS ADDRESSING, ARCHITECTURE, MEMORIES, DESCRIPTIONS OF MICROPROCESSOR TYPES, AND INPUT/OUTPUT CHIPS AND TECHNIQUES. THE PROGRAMMING OF MICROPROCESSORS IN ASSEMBLER AND HIGHER LEVEL LANGUAGES IS COVERED IN SOME DETAIL, INCLUDING EXAMPLES SUCH AS ARITHMETIC AND TIMING SOFTWARE.

AVAILABILITY: ILM ADMINISTRATOR, INSTRUMENT SOCIETY OF AMERICA, P. O. BOX 12277 67 ALEXANDER DRIVE, RESEARCH TRIANGLE PARK, NC 27709

IRIS ACCESSION NUMBER: EW010729

PUBLICATION DATE: 83

TITLE: ENVIRONMENTAL EFFECTS OF ORGANIC AND INORGANIC CONTAMINANTS IN SEWAGE SLUDGE.

RSONAL AUTHOR: DAVIS, R. D.; AND OTHERS

SCRIPTOR: *AGRICULTURE; *CHEMICALS; *CONFERENCE OCEEDINGS; *CONTAMINANTS; *EUROPE; *FERTILIZER; *INORGANIC MPOUNDS; *LAND APPLICATION; *ORGANIC COMPOUNDS; *PUBLIC ALTH; *SEWAGE SLUDGE; *SLUDGE; *RESEARCH REPORTS; *WASTE SPOSAL; *WASTEWATER TREATMENT

SCRIPTIVE NOTE: 257P. PRICE: $36.95

STRACT: THIS PUBLICATION CONTAINS THE PROCEEDINGS OF TWO MINARS HELD AT THE WATER RESEARCH CENTRE, STEVENAGE, U. K. 1982. THE SEMINARS PROVIDED A FORUM FOR THE EXCHANGE OF CENT RESEARCH RESULTS AND IDEAS ON THE SUBJECT OF TREATED WAGE SLUDGE. AGRICULTURAL LAND IS THE PRINCIPAL DISPOSAL UTE FOR SEWAGE SLUDGE IN EUROPE. SINCE THERE ARE CONCERNS GARDING ORGANIC AND INORGANIC CONTAMINANTS THAT MAY OCCUR SLUDGE, RESEARCH IS BEING CONDUCTED ON THE EFFECTS OF ESE CONTAMINANTS AND TO PROTECT FOOD SUPPLIES WHERE SEWAGE UDGE IS USED ON LAND.

AILABILITY: D REDIEL PUBLISHING COMPANY, 190 OLD DERBY ., HINGHAM, MA 02043

IS ACCESSION NUMBER: EW010730

BLICATION DATE: 83

TLE: EVALUATING THE FLUIDIZED BED COMBUSTION OPTION.

RSONAL AUTHOR: SHEAHAN, RICHARD T.
SCRIPTOR: *BOILERS; *FLUIDIZED BED COMBUSTION; OMBUSTION; *CONFERENCE PROCEEDINGS; *ECONOMICS; QUIPMENT; *TECHNOLOGY

SCRIPTIVE NOTE: 288P. PRICE: $68.00

STRACT: THIS BOOK DOCUMENTS A CONFERENCE HELD IN SHINGTON, D. C., ON FLUIDIZED BED COMBUSTION (FBC) AS A ST-EFFECTIVE OPTION FOR BOILER UPGRADE. THE CONFERENCE WAS ONSORED BY THE HIGHER EDUCATION ENERGY TASK FORCE AND THE UNCIL OF INDUSTRIAL BOILER OWNERS (CIBO). THE BOOK SCUSSES THE ECONOMICS AND TECHNICAL FUNDAMENTALS OF MOSPHERIC FBC FOR THE BENEFIT OF OWNERS AND MANUFACTURERS INDUSTRIAL AND INSTITUTIONAL BOILERS.

AILABILITY: GOVERNMENT INSTITUTES, BOX 1096, ROCKVILLE, 20850

IS ACCESSION NUMBER: EW010731

BLICATION DATE: 83

TLE: FIXED-FILM BIOLOGICAL PROCESSES FOR WASTEWATER EATMENT.

RSONAL AUTHOR: WU, YEUN C.; SMITH, ED O.

SCRIPTOR: *BIOLOGICAL PROCESSES; *CONFERENCE PROCEEDINGS; *FIXED-FILM BIOLOGICAL PROCESSES; *OPERATIONS (WASTEWATER); *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 493P. PRICE: $48.00

ABSTRACT: THIS PUBLICATION PROVIDES UP-TO-DATE AND PERTINENT SCIENTIFIC INFORMATION CONCERNING FIXED-FILM BIOLOGICAL PROCESSES FOR THE TREATMENT OF WASTEWATER. IT IS AN OUTGROWTH OF TWO CONFERENCES: "THE FIRST NATIONAL SYMPOSIUM WORKSHOP ON ROTATING BIOLOGICAL CONTACTOR TECHNOLOGY," SPONSORED BY THE U. S. ARMY CONSTRUCTION ENGINEERING RESEARCH LABORATORY, THE U. S. ENVIRONMENTAL PROTECTION AGENCY, AND THE UNIVERSITY OF PITTSBURGH; AND "THE FIRST INTERNATIONAL CONFERENCE ON FIXED-FILM BIOLOGICAL PROCESSES," WHICH THE NATIONAL SCIENCE FOUNDATION COSPONSORED.

AVAILABILITY: NOYES DATA CORPORATION, MILL ROAD AT GRAND AVE., PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW010732

PUBLICATION DATE: 83

TITLE: GROUNDWATER CONTAMINATION IN THE UNITED STATES.

PERSONAL AUTHOR: PYE, VERONICA I.; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *CONTAMINATION; *GROUNDWATER; *LAWS; *LEGISLATION; *MONITORING; *POLLUTION; *REGULATIONS; *WATER POLLUTION CONTROL; *WATER RESOURCES; *WATER QUALITY
DESCRIPTIVE NOTE: 307P.

ABSTRACT: THIS REPORT ON GROUNDWATER CONTAMINATION PROVIDES A NATIONAL PERSPECTIVE ON GROUNDWATER RESOURCES, THE EXTENT AND SEVERITY OF THEIR CONTAMINATION, AND RELATED WATER QUALITY POLICIES. THE BOOK IS BASED ON A STUDY INITIATED IN 1981 AND SUPPORTED BY THE ENVIRONMENTAL ASSESSMENT COUNCIL OF THE PHILADELPHIA ACADEMY OF NATURAL SCIENCES. ITS PURPOSE WAS TO DESCRIBE FACTORS THAT ALTER GROUNDWATER QUALITY, DISCUSS THE EFFECTS OF GROUNDWATER CONTAMINATION, IDENTIFY MITIGATING MEASURES, AND REVIEW PERTINENT FEDERAL AND STATE LAWS.

AVAILABILITY: UNIVERSITY OF PENNSYLVANIA PRESS, ACADEMY OF NATURAL SCIENCE, NINETEENTH AND THE PARKWAY, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW010733

PUBLICATION DATE: 83

TITLE: THE INCIDENCE MONITORING AND TREATMENT OF VIRUSES IN WATER SUPPLY SYSTEMS--A STATE OF THE ART REVIEW.

DESCRIPTOR: *DISEASES; *DISINFECTION; *DRINKING WATER; *HEALTH; *MONITORING; *OPERATIONS (WATER); *PUBLIC HEALTH; *VIRUSES; *WATER SUPPLY; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER REUSE

ESCRIPTIVE NOTE: 85P. PRICE: $13.00

BSTRACT: THE AIM OF THIS REVIEW WAS TO PLACE THE VARIOUS ONTROVERSIES CONCERNING VIRAL CONTAMINATION/INFECTION INTO ROPER PERSPECTIVE, AND TO PROVIDE THE PROFESSIONAL WITH FFICIENT INFORMATION TO MAKE AN INTELLIGENT DECISION OWARD RESOLVING THE ISSUES IN QUESTION.

VAILABILITY: AMERICAN SOCIETY OF CIVIL ENGINEERS, 345 EAST TH STREET, NEW YORK, NY 10017

RIS ACCESSION NUMBER: EW010734

UBLICATION DATE: MAR 83

TLE: OSHA SAFETY & HEALTH STANDARDS, 1983.

ESCRIPTOR: *ACCIDENT PREVENTION; *ACCIDENTS; *HAZARDOUS ATERIALS; *HEALTH; *PUBLIC HEALTH; *REFERENCE MATERIALS; AFETY; *STANDARDS

ESCRIPTIVE NOTE: 838P. PRICE: $12.00

BSTRACT: THIS PUBLICATION CONTAINS THE TEXT OF THE CODE OF EDERAL REGULATIONS, TITLE 29 (LABOR), PART 1910: GENERAL NDUSTRY STANDARDS. THIS CFR PART IS DIVIDED INTO THE OLLOWING SECTIONS: (1) GENERAL SAFETY AND HEALTH ROVISIONS; (2) WALKING-WORKING SURFACES; (3) MEANS OF GRESS; (4) POWERED PLATFORMS, MAN LIFTS, AND VEHICLE-OUNTED WORK PLATFORMS; (5) OCCUPATIONAL HEALTH & NVIRONMENTAL CONTROL; (6) HAZARDOUS MATERIALS; (7) PERSONAL ROTECTIVE EQUIPMENT; (8) GENERAL ENVIRONMENTAL CONTROLS; 9) MEDICAL AND FIRST AID; (10) FIRE PROTECTION; (11) OMPRESSED GAS AND COMPRESSED AIR EQUIPMENT; (12) MATERIALS ANDLING AND STORAGE; (13) MACHINERY AND MACHINE GUARDING; 14) HAND & PORTABLE POWERED TOOLS AND OTHER HAND-HELD QUIPMENT; (15) WELDING, CUTTING AND BRAZING; (16) SPECIAL NDUSTRIES; (17) ELECTRICAL; AND (18) COMMERCIAL DIVING PERATIONS. THIS TEXT IS REVISED THROUGH MARCH 11, 1983, AND N EXTENSIVE SUBJECT INDEX IS INCLUDED.

VAILABILITY: SUPERINTENDENT OF DOCUMENTS, US GOVERNMENT RINTING OFFICE, WASHINGTON, DC 20402.

RIS ACCESSION NUMBER: EW010735

UBLICATION DATE: 83

TLE: HOW TO BE AN EFFECTIVE TRAINER.

ERSONAL AUTHOR: SMITH, BARRY J.; DELAHAYE, BRIAN L.

ESCRIPTOR: *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL ATERIALS; *INSTRUCTION; *POSTSECONDARY EDUCATION; *TRAINING

ESCRIPTIVE NOTE: 399P. PRICE: $55.95

BSTRACT: THIS BOOK IS DESIGNED TO HELP PEOPLE BECOME AN FFECTIVE TRAINER. IT IS A SELF-INSTRUCTIONAL PACKAGE AND NCLUDES SECTIONS ON VARIOUS ASPECTS OF TRAINING.

AVAILABILITY: JOHN WILEY & SONS, INC, ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW010736

PUBLICATION DATE: 82

TITLE: SUPERVISORY MANAGEMENT - A SHORT COURSE IN SUPERVISION, 2ND EDITION.

PERSONAL AUTHOR: ECKLES, ROBERT W.; AND OTHERS

DESCRIPTOR: *COMMUNICATION; *EVALUATION; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *MOTIVATION; *OBJECTIVES; *POSTSECONDARY EDUCATION; *SUPERVISION

DESCRIPTIVE NOTE: 304P. PRICE: $55.95

ABSTRACT: THIS NEW EDITION OF A JOB-TESTED GUIDE IS A GOOD REFERENCE FOR SUPERVISORS AND MANAGERS. NEW TO THIS EDITION ARE IMPROVED COVERAGE OF: TIME MANAGEMENT AND RESOURCE ORGANIZATION; MOTIVATION AND COMMUNICATION; AND ADDITIONAL CHAPTERS ON PRODUCTIVITY, QUALITY CIRCLES, AND WORKER INVOLVEMENT.

AVAILABILITY: JOHN WILEY & SONS, INC., ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW010737

PUBLICATION DATE: MAR 84

TITLE: ANALYSIS AND CONTROL OF UNSTEADY FLOW IN PIPE SYSTEMS, 2ND EDITION.

PERSONAL AUTHOR: WATTERS, GARY Z.

DESCRIPTOR: *COMPUTER SOFTWARE; *CONTROL DEVICES; *FLUID FLOW; *FLOW MEASUREMENT; *HYDRAULICS; *INSTRUCTIONAL MATERIALS; *PIPES; *POSTSECONDARY EDUCATION; *PUMPS; *UNSTEADY FLOW

DESCRIPTIVE NOTE: 336P. PRICE: $39.95

ABSTRACT: THIS SECOND EDITION OF THIS TEXT HAS BEEN REORGANIZED AND EXPANDED FROM THE ORIGINAL, AND WILL THUS BE OF EVEN GREATER VALUE TO THE ENGINEER FACED WITH THE PROBLEM OF UNSTEADY FLOW IN PIPELINES. IT CONTINUES THE PURPOSE OF THE FIRST EDITION, IN THAT IT CONTAINS MANY TIME-SAVING FORTRAN PROGRAMS USEFUL FOR ANALYZING PRESSURE EXTREMES AND CONTROL DEVICES. THESE PROGRAMS HAVE BEEN IMPROVED TO BE MORE USEFUL, UNDERSTANDABLE, AND VERSATILE. A PARTICULARLY USEFUL CHAPTER NEW TO THIS EDITION INCLUDES A REVIEW OF STEADY STATE HYDRAULICS THAT WILL PROVE A USEFUL REFERENCE TO THOSE WHOSE SKILLS AND KNOWLEDGE IN BASIC HYDRAULICS MAY HAVE DIMMED, AND WHO MAY NOT HAVE ACCESS TO BASIC FLUID MECHANICS TEXTS.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVE, STONEHAM, MA 02180

IS ACCESSION NUMBER: EW010738

BLICATION DATE: 83

TLE: ENVIRONMENTAL LAW FOR NON-LAWYERS.

RSONAL AUTHOR: FIRESTONE, DAVID B., REED, FRANK C.

SCRIPTOR: *ENERGY; *ENVIRONMENTAL LAW; *INSTRUCTIONAL TERIALS; *LAWS; *POLLUTION; *POSTSECONDARY EDUCATION; ESTICIDES; *SOLID WASTES; *TOXIC SUBSTANCES

SCRIPTIVE NOTE: 282P. PRICE: $29.95

STRACT: THIS BOOK PROVIDES AN UNDERSTANDING OF MANY FFERENT TOPICS THAT MAY BE GROUPED AS ENVIRONMENTAL LAW. ITTEN FOR INDIVIDUALS WITH NO LEGAL TRAINING, THE WORK IS JECTIVE RATHER THAN PERSUASIVE. IT OFFERS A CLEAR AND FAIR ESENTATION OF BOTH SIDES OF THE ISSUE, YET FAVORS NEITHER DE.

AILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVE., ONEHAM, MA 02180

IS ACCESSION NUMBER: EW010739

BLICATION DATE: 83

TLE: FLUID MECHANICS AND UNIT OPERATIONS.

RSONAL AUTHOR: AZBEL, DAVID S.; CHEREMISINOFF, NICHOLAS

SCRIPTOR: *ENGINEERING; *FLUID FLOW; *FLUID MECHANICS; YDRAULICS; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY UCATION; *SCALE-UP; *UNIT OPERATION

SCRIPTIVE NOTE: 1173P. PRICE: $79.95

STRACT: THIS VOLUME THOROUGHLY COVERS THOSE UNIT ERATIONS WHICH DEMAND AN UNDERSTANDING OF FLUID MECHANICS. IS BOOK DIFFERS FROM OTHER TEXTS BECAUSE IT APPLIES THEORY RECTLY TO THE DESIGN OF UNIT OPERATIONS. THE AUTHORS ESENT DETAILED EQUIPMENT SCALEUP METHODOLOGY ALONG WITH MEROUS PRACTICE AND EXAMPLE PROBLEMS. THOSE PRINCIPLES PORTANT TO MECHANICAL DESIGN ASPECTS FOR THE INTENDED ERATION ARE ALSO PRESENTED. BECAUSE THE PROBLEMS ARE BASED ACTUAL INDUSTRIAL SITUATIONS, THE BOOK WILL PROVE A LUABLE DESIGN GUIDE FOR PRACTICING ENGINEERS.

AILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVE., ONEHAM, MA 02180

IS ACCESSION NUMBER: EW010740

BLICATION DATE: 83

TLE: MATHEMATICAL ANALYSIS OF GROUNDWATER RESOURCES.

RSONAL AUTHOR: HUNT, BRUCE

DESCRIPTOR: *EQUATIONS; *FLOWS; *GROUNDWATER; *INSTRUCTIONAL MATERIALS; *MATHEMATICS; *PHYSICS; *POSTSECONDARY EDUCATION; *POLLUTION; *WATER RESOURCES

DESCRIPTIVE NOTE: 288P. PRICE: $39.95

ABSTRACT: THIS BOOK INTRODUCES THE PHYSICS AND MATHEMATICAL ANALYSIS OF GROUNDWATER RESOURCE PROBLEMS. GOVERNING EQUATIONS AND BOUNDARY CONDITIONS ARE DERIVED, AND VARIOUS COMBINATIONS OF THESE EQUATIONS NECESSARY FOR WELL-POSED PROBLEMS ARE ILLUSTRATED BY EXAMPLES. AN EARLY CHAPTER ON THE APPROXIMATE SOLUTION OF BOUNDARY VALUE PROBLEMS EMPHASIZES THE USE OF COMPUTERS AND FINITE DIFFERENCES TO OBTAIN NUMERICAL SOLUTIONS. LATER CHAPTERS USE COMPLEX VARIABLE AND LAPLACE TRANSFORM TECHNIQUES TO OBTAIN EXACT SOLUTIONS FOR STEADY AND UNSTEADY FLOWS. ALSO INCLUDED IS THE INVERSE PROBLEM OF CALCULATING AQUIFER COEFFICIENTS FROM FIELD MEASUREMENTS OF PIEZOMETRIC HEADS, AND SOME OF THE COMPUTATIONAL ASPECTS OF GROUNDWATER POLLUTION. PROBLEMS AT THE END OF EACH CHAPTER ILLUSTRATE AND EXTEND THE TEXT, AND SPECIALIZED APPENDICES OFFER A SELECTION OF WORKED EXAMPLES. TRIGONOMETRIC AND HYPERBOLIC FUNCTIONS WITH COMPLEX ARGUMENTS AND THE NUMERICAL CALCULATION OF SINGULAR INTEGRALS ARE ALL THOROUGHLY DISCUSSED AND EXPLAINED.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVE., STONEHAM, MA 02180

IRIS ACCESSION NUMBER: EW010741

PUBLICATION DATE: 83

TITLE: SCALE-UP OF WATER AND WASTEWATER TREATMENT PROCESSES.

PERSONAL AUTHOR: SCHMIDTKE, NORBERT W., SMITH, DANIEL W.

DESCRIPTOR: *BIOLOGICAL PROCESSES; *CHEMICAL PROCESSES; *DESIGN; *EVALUATION; *ENGINEERING; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *PROCESS DEVELOPMENT; *SCALE-UP; *SCALE-DOWN; *UNIT OPERATIONS; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 512P. PRICE: $39.95

ABSTRACT: AN IMPORTANT CONSIDERATION IN WASTEWATER TREATMENT PROCESS DEVELOPMENT, DESIGN AND EVALUATION IS THE IMPACT OF CHANGING SIZE OR SCALE OF UNIT OPERATIONS. THIS NEW BOOK PRESENTS A COMPREHENSIVE, DETAILED EXAMINATION OF THESE SCALE CHANGES AS APPLIED TO WATER AND WASTEWATER TREATMENT. NEARLY 40 LEADING ENVIRONMENTAL ENGINEERS FROM 10 COUNTRIES OFFER THE BENEFIT OF THEIR MOST RECENT EXPERIENCE. BOTH SCALE-UP AND SCALE-DOWN ARE CONSIDERED, THE FORMER TO ENSURE THE SUCCESSFUL TRANSITION FROM SMALL SCALE RESULTS TO PILOT SCALE AND EVENTUALLY FULL SCALE SYSTEMS. SCALE-DOWN IS IMPORTANT IN THE ANALYSIS OF OPERATION AND PERFORMANCE OF FULL SCALE UNITS. PROBLEMS ENCOUNTERED IN THE FIELD CAN BE MORE EASILY STUDIED AND SOLVED IN A BENCH-SCALE MODEL; THE SOLUTIONS CAN THEN SUCCESSFULLY BE SCALED-UP TO FIELD OPERATION.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVE.,

TONEHAM, MA 02180

RIS ACCESSION NUMBER: EW010742

UBLICATION DATE: 83

ITLE: SEPTIC-TANK SYSTEMS: A CONSULTANT'S TOOLKIT - OLUME 1--SUBSURFACE DISPOSAL OF SEPTIC-TANK EFFLUENTS.

ERSONAL AUTHOR: TIMOTHY, JOHN H.

ESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *DESIGN; *EFFLUENTS; ONSITE TREATMENT; *OPERATIONS (WASTEWATER); *PERCOLATION; SEPTIC TANKS; *SOILS; *WASTEWATER TREATMENT

ESCRIPTIVE NOTE: 240P. PRICE: $29.95

BSTRACT: THIS IS VOLUME ONE OF A TWO-VOLUME SERIES. THIS UBLICATION FOCUSES ON VARIOUS ASPECTS OF SUBSURFACE ISPOSAL SEPTIC TANKS. EFFLUENTS INCLUDING PERCOLATION ESTS, SITING, DISPOSAL FIELDS, SURVEYS, AND FIELD PPLICATIONS.

VAILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVE., TONEHAM, MA 02180

RIS ACCESSION NUMBER: EW010743

UBLICATION DATE: 83
ITLE: SEPTIC-TANK SYSTEMS: A CONSULTANT'S TOOLKIT - OLUME 2--THE SEPTIC TANK.

ERSONAL AUTHOR: TIMOTHY, JOHN H.

ESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *ONSITE TREATMENT; OPERATIONS (WASTEWATER); *SEPTIC TANKS; *WASTEWATER REATMENT

ESCRIPTIVE NOTE: 144P. PRICE: $19.95

BSTRACT: THIS IS VOLUME TWO OF THE TWO-VOLUME SERIES. THIS UBLICATION FOCUSES ON VARIOUS ASPECTS OF SEPTIC TANKS NCLUDING GASES, NITROGEN REMOVAL, OXYGEN, SUSPENDED SOLIDS, ATER USE, AND SLUDGE.

VAILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVE., TONEHAM, MA 02180

RIS ACCESSION NUMBER: EW010744

ITLE: FUNDAMENTALS OF FLOW MEASUREMENT.

ERSONAL AUTHOR: DECARLO, JOSEPH P.

ESCRIPTOR: *FLUIDS; *FLOW MEASUREMENT; *FLOW METERS; INSTRUCTIONAL MATERIALS; *PROCESS CONTROLS; *POSTSECONDARY DUCATION

DESCRIPTIVE NOTE: 256P. PRICE: $39.95
ABSTRACT: FUNDAMENTALS OF FLOW MEASUREMENT IS DESIGNED TO CONVEY TO THE STUDENT A COMPREHENSIVE UNDERSTANDING OF FLOW MEASUREMENT METHODS THROUGH DOCUMENTATION THAT IS LOGICALLY CATEGORIZED AND READILY UTILIZED IN PRACTICAL SITUATIONS. TWELVE SEPARATE UNITS ARE DESIGNED TO INTRODUCE THE TWO BASIC APPROACHES TO FLOW MEASUREMENT, "ENERGY EXTRACTIVE" AND "ENERGY ADDITIVE," THE GENERAL CLASSES AND TYPES OF FLOWMETERS, THE TERMINOLOGY ASSOCIATED WITH FLOW MEASUREMENT, SPECIAL TECHNIQUES, MASS FLOW MEASUREMENT, AND THE METHODOLOGY FOR FLOWMETER SELECTION. EACH UNIT IS DESIGNED IN A CONSISTENT FORMAT WITH A SET OF SPECIFIC LEARNING OBJECTIVES.

AVAILABILITY: ILM ADMINISTRATOR, INSTRUMENT SOCIETY OF AMERICA, P. O. BOX 12277, 67 ALEXANDER DR., RESEARCH TRIANGLE PARK, NC 27709

IRIS ACCESSION NUMBER: EW010745

TITLE: CONTROL PRINCIPLES AND TECHNIQUES SERIES - FUNDAMENTALS OF PROCESS CONTROL THEORY.

PERSONAL AUTHOR: MURRILL, PAUL W.

DESCRIPTOR: *AUTOMATIC CONTROLS; *AUTOMATION; *CONTROL THEORY; *CONTROL TECHNIQUES; *INSTRUCTIONAL MATERIALS; *PROCESS CONTROLS; *POSTSECONDARY EDUCATION

DESCRIPTIVE NOTE: 248P. PRICE: $39.95
ABSTRACT: THE FIRST MODULE IN THIS SERIES, FUNDAMENTALS OF PROCESS CONTROL THEORY, TEACHES BASIC PRINCIPLES OF PROCESS AUTOMATION. UNITS 1-6 PRESENT BASIC FEEDBACK CONTROL CONCEPTS AND THE FUNCTIONAL COMPONENTS USED IN MODERN INDUSTRY APPLICATIONS. UNITS 7 AND 8 INTRODUCE DYNAMIC BEHAVIOR AND TUNING OF PROCESS CONTROL SYSTEMS. UNITS 9-12 REVIEW ADVANCED CONTROL TECHNIQUES AND CONCEPTS.

AVAILABILITY: ILM ADMINISTRATOR, INSTRUMENT SOCIETY OF AMERICA, P. O. BOX 12277, 67 ALEXANDER DR., RESEARCH TRIANGLE PARK, NC 27709

IRIS ACCESSION NUMBER: EW010746

TITLE: MEASUREMENT AND CONTROL OF LIQUID LEVEL.

PERSONAL AUTHOR: CHO, CHUN H.

DESCRIPTOR: *CONTROL SYSTEMS; *INDIVIDUALIZED INSTRUCTION; *INSTRUCTIONAL MATERIALS; *LIQUIDS; *MEASUREMENT; *POSTSECONDARY EDUCATION; *PROCESS CONTROLS; *SENSING DEVICES

DESCRIPTIVE NOTE: 288P. PRICE: $39.95

ABSTRACT: MEASUREMENT AND CONTROL OF LIQUID LEVEL IS DESIGNED TO TEACH THE BASIC PRINCIPLES OF LIQUID LEVEL MEASUREMENT AND TO DEMONSTRATE THE SELECTION AND APPLICATION

THESE LEVEL MEASUREMENT DEVICES FOR A WIDE RANGE OF CESS CONTROL AND MEASUREMENT REQUIREMENTS. THE ILM IS IDED INTO SEVEN SEPARATE UNITS. THE FIRST TWO UNITS ARE DICATORY TO SOUND A TONE AND INCLUDE SOME OF THE BASIC JECTIVES OF THE SELF-STUDY COURSE. FOLLOWING THESE, THERE FIVE UNITS (UNITS 3-7) WHICH INTRODUCE THE DIFFERENT IC TYPES OF [illegible] DEVICES AND THEIR PRINCIPLES OF RATION. UNITS 8-10 PRESENT AN OVERVIEW OF THE OTHER TROL LOOP ELEMENTS WHICH ARE AN INTEGRAL PART OF A LEVEL TROL SYSTEM, NAMELY VALVES, CONTROLLERS, AND MOST PORTANTLY THE LEVEL PROCESS TO BE CONTROLLED. THE LAST UNITS (UNITS 11 AND 12) GIVE SOME EXAMPLES OF THE PICAL LEVEL CONTROL SYSTEM AND A TOOL TO APPLY IN THE LYSIS OF [illegible] SYSTEMS WITH RESPECT TO ITS SYSTEM BILITY AND INFORMATION CRITERIA.

ILABILITY: THE ADMINISTRATOR, INSTRUMENT SOCIETY OF RICA, P. O. BOX 12277, 67 ALEXANDER DRIVE, RESEARCH ANGLE PARK, NC 27709

S ACCESSION NUMBER: EW010747

LICATION DATE: 82

LE: BACTERIAL INDICATORS OF POLLUTION.

SONAL AUTHOR: PIPES, WESLEY O.

CRIPTOR: *BACTERIA; *BIOLOGICAL INDICATORS; *HEALTH; STRUCTURAL MATERIALS; *LABORATORY PROCEDURES; CROBIOLOGY; *MONITORING; *POLLUTION; *POSTSECONDARY CATION; *PUBLIC HEALTH; *WATER QUALITY; *WATER POLLUTION TROL

CRIPTIVE NOTE: 104P. PRICE: $68.00

TRACT: BACTERIAL INDICATORS, THEIR USE IN ASSESSING ER QUALITY AND HEALTH RISKS, AND THE CURRENT TROVERSIES ON THEIR USE ARE PRESENTED. MICROBIAL HNIQUES AND QUANTITICAL PROBLEMS ARE EXAMINED; OMMENDATIONS FOR CHOOSING TECHNIQUES ARE GIVEN. NTITATIVE RELATIONSHIPS BETWEEN INDICATOR DENSITY AND HOGEN DENSITY ARE EXPLORED. THE BASIS FOR REGULATING ROBIAL WATER QUALITY AND THE COST OF MONITORING ARE ALSO CUSSED.

ILABILITY: CRC PRESS, INC., 2000 CORPORATE BLVD., NW, A RATON, FL 33431

S ACCESSION NUMBER: EW010749

LICATION DATE: 82

LE: BIODEGRADATION AND DETOXIFICATION OF ENVIRONMENTAL LUTANTS.

SONAL AUTHOR: CHAKRABARTY, A. M.

CRIPTOR: BIODEGRADATION; *BIOLOGY; *DETOXIFICATION; VIRONMENT; *ENZYMES; *PCBS; *POLLUTION; *POLLUTION CONTROL; *PESTICIDES

DESCRIPTIVE NOTE: 160P. PRICE: $50.00

ABSTRACT: DEFINES AND REVIEWS THE RECENT ADVANCES IN THE UNDERSTANDING OF THE BIOLOGICAL MECHANISMS INVOLVED IN THE BIODEGRADATION AND DETOXIFICATION OF VARIOUS ENVIRONMENTAL POLLUTANTS: THE POTENTIAL OF MICROBIAL ENZYME SYSTEMS FOR THE DETOXIFICATION AND DISPOSAL OF INDUSTRIAL PESTICIDES IS INVESTIGATED. FACTORS AFFECTING MICROBIAL DEGRADATION OF PCBS ARE DISCUSSED. ENZYMES INVOLVED IN HYDROXYLATION AND DETOXIFICATION ARE EXAMINED AS WELL AS THE GENETICS AND EVOLUTION OF THESE PROCESSES. AN OVERALL PICTURE OF THE MERCURY CYCLE IS PRESENTED, INCLUDING MERCURIC AND ORGANOMERCURIAL RESISTANCE. THE EXTENSIVE EVOLUTIONARY DIVERGENCE OF HOMOLOGOUS STRUCTURAL GENES IS DESCRIBED. CHLORINATED COMPOUNDS ARE REVIEWED WITH AN EMPHASIS ON THE ROLE OF PLASMIDS IN MICROBIAL DISSIMILATION, AND THE GENETIC MECHANISMS GOVERNING DISSIMILATION OF CHLORINATED COMPOUNDS BY MEMBERS OF ENTEROBACTERIACEAE.

AVAILABILITY: CRC PRESS, INC., 2000 CORPORATE BLVD., NW, BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW010750

PUBLICATION DATE: 82

TITLE: CRC HANDBOOK OF IRRIGATION TECHNOLOGY - VOLUME I.

PERSONAL AUTHOR: FINKEL, HERMAN J.

DESCRIPTOR: *AGRICULTURE; *DESIGN; *IRRIGATION; *SALINITY; *SOILS; *WATER RESOURCES; *WATER USE; *WATER QUALITY

DESCRIPTIVE NOTE: 369P. PRICE: $66.00

ABSTRACT: THESE VOLUMES SUMMARIZE ESSENTIAL DATA ON THE DESIGN AND OPERATION OF VARIOUS IRRIGATION SYSTEMS FOR CROPS EXISTING IN DIFFERENT SOILS AND CLIMATIC REGIONS OF THE WORLD. THEY PROVIDE PRACTICAL SOLUTIONS TO PROBLEMS. MUCH OF THE INFORMATION IS IN TABULAR FORM. VOLUME I BEGINS WITH A DISCUSSION OF THE IMPORTANCE AND EXTENT OF IRRIGATION IN THE WORLD. SPECIFIC ASPECTS SUCH AS SOIL-WATER AND PLANT-WATER RELATIONSHIPS, SOIL SALINITY AND WATER QUALITY AND WATER REQUIREMENTS OF CROPS ARE THOROUGHLY EXAMINED. VARIOUS IRRIGATION METHODS ARE EXPLAINED.

AVAILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW010751

PUBLICATION DATE: 82

TITLE: CRC HANDBOOK OF IRRIGATION TECHNOLOGY - VOLUME II.

PERSONAL AUTHOR: FINKEL, HERMAN J.

DESCRIPTOR: *AGRICULTURE; *IRRIGATION; *IRRIGATION METHODS;

ALTH HAZARDS; *LAND USE; *ECONOMICS; *WATER RESOURCES; ATER USE

CRIPTIVE NOTE: [illegible]P. PRICE: $48.00

TRACT: [illegible] SUMMARY II OF A TWO VOLUME SERIES. THE [illegible] ON LAND GRADING, CRITERIA FOR [illegible], HEALTH HAZARDS AND ECONOMICS. [illegible] CROPS SUCH AS COTTON, SUGAR, EAL, [illegible] EMPHASIZED.

[illegible], 2000 CORPORATE BLVD., NW, BOCA [illegible]

S ACCESSION NUMBER: EW010752

[illegible]

[illegible] FOR ENVIRONMENTAL STANDARDS.

[illegible] WILLIAM D.

[illegible] *COST BENEFIT ANALYSIS; [illegible] *EVALUATION; *POLLUTANTS; *PHENOL; [illegible] ANALYSIS; *STANDARDS; *WATER [illegible] POLLUTION CONTROL

CRIPTIVE NOTE: [illegible] PRICE: $69.00

TRACT: [illegible] OF THIS BOOK WAS A STUDY CONDUCTED BY [illegible] INSTITUTE FOR RISK ANALYSIS (AURA) [illegible] STEEL INSTITUTE (AISI). THIS WORK [illegible] APPROACHES [illegible] SETTING ACCEPTABLE [illegible] ENVIRONMENTAL STANDARDS FROM "ZERO" RISK, [illegible] BENEFIT ANALYSIS. THIS IS ACCOMPLISHED [illegible] CADMIUM AND PHENOL-THE FIRST [illegible] ORGANIC-AS VEHICLES TO TRACE THE [illegible] IN WATER POLLUTION, METHODS OF [illegible] STANDARD SETTING, AND METHODS OF [illegible] LEVELS OF RISK FOR THESE STANDARDS. [illegible] IN A LOGICAL SEQUENCE OF STUDY TASKS [illegible] PROCESS THAT MIGHT BE INVOLVED IN [illegible] STANDARD. THESE TASKS ARE: BACKGROUND AND MODEL [illegible] ENVIRONMENTAL ASSESSMENT; RISK [illegible] BASELINES FOR REMAINING PARAMETERS; [illegible] EFFECTIVENESS OF ALTERNATIVE METHODS. [illegible] TECHNIQUES AND DEVELOPMENTS ARE [illegible] APPENDIXES EXPAND UPON THE INFORMATION [illegible] IN THE CHAPTERS.

AILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCA [illegible]ON, FL 33431

IS ACCESSION NUMBER: EW010753

BLICATION DATE: [illegible]

LE: GUIDEBOOK: TOXIC SUBSTANCES CONTROL ACT.-VOLUME I.

SONAL AUTHOR: DOMINGUEZ, GEORGE S.

DESCRIPTOR: *CHEMICALS; *EPA; *GUIDEBOOKS; *LEGISLATION; *INDUSTRY; *PUBLIC HEALTH; *POLLUTION CONTROL; *TOXIC SUBSTANCES; *TOXIC SUBSTANCES CONTROL ACT

DESCRIPTIVE NOTE: 440P. PRICE: $60.00

ABSTRACT: INCLUDES THE COMPLETE TOXIC SUBSTANCES CONTROL ACT ALONG WITH A SUMMARY AND ANALYSIS, THE SENATE AND HOUSE COMMITTEE REPORT, AND EPA'S IMPLEMENTATION PLAN. SECTIONS ON CORPORATE PREPAREDNESS OUTLINE STEPS EACH COMPANY SHOULD TAKE TO COMPLY WITH THE LAW. FOUR PROGRESSIVE LEVELS OF INVESTIGATIONAL EFFORTS, DEPENDING UPON EXTENT, FREQUENCY, AND NATURE OF CHEMICAL USE ARE IDENTIFIED IN A SECTION ON TOXICOLOGICAL EFFECTS TESTING. THE MOST CURRENT LIST OF U. S. ENVIRONMENTAL AND TOXICOLOGICAL TESTING LABORATORIES AVAILABLE IS ALSO INCLUDED.

AVAILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW010754

PUBLICATION DATE: 80

TITLE: GUIDEBOOK: TOXIC SUBSTANCES CONTROL ACT - VOLUME II.

PERSONAL AUTHOR: DOMINGUEZ, GEORGE S.

DESCRIPTOR: *CHEMICALS; *ECONOMICS; *EPA; *GUIDEBOOKS; *INDUSTRIAL WASTES; *LEGISLATION; *POLICIES; *PUBLIC HEALTH; *POLLUTION CONTROL; *TOXIC SUBSTANCES; *TOXIC SUBSTANCES CONTROL ACT

DESCRIPTIVE NOTE: 240P. PRICE: $86.00

ABSTRACT: BEGINS WITH A DISCUSSION OF THE JUDICIAL CONSTRUCTION OF THE LAW FROM THE STANDPOINT OF RECENT LITIGATION INVOLVING TESTING, PCBS, HEALTH AND SAFETY STUDIES, CONFIDENTIALITY AND INSPECTIONS. THE TSCA'S IMPACT ON THE ECONOMY AND ON INTERNATIONAL ACTIVITY IS HIGHLIGHTED. OTHER DISCUSSIONS IN THIS VOLUME EXPLAIN THE ROLE OF THE INTERAGENCY TESTING COMMITTEE, INDUSTRIAL RISK REQUIREMENTS FOR SUBSTANTIAL RISK REPORTING, AND ENVIRONMENTAL EFFECTS TESTING. THE EPA'S POWER TO PREVENT OR DELAY THE MANUFACTURE AND USE OF NEW AND CERTAIN EXISTING CHEMICALS WHILE IT STUDIES ENVIRONMENTAL EFFECTS IS ALSO COVERED.

AVAILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW010755

PUBLICATION DATE: 79

TITLE: ION EXCHANGE FOR POLLUTION CONTROL - VOLUME I.

PERSONAL AUTHOR: CALMON, C.; GOLD, H.

DESCRIPTOR: *AMMONIA; *ECONOMICS; *EQUIPMENT; *ION

CHANGE; *HEAVY METALS; *OPERATIONS (WASTEWATER); ITRATES; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

SCRIPTIVE NOTE: 272P. PRICE: $79.50

STRACT: INCLUDED IN VOL. I ARE 19 CHAPTERS. TOPICS VERED INCLUDE THE ION EXCHANGE PROCESS, ION EXCHANGERS, UIPMENT, SYSTEMS AND ECONOMIC FACTORS, AN IN-DEPTH EATMENT OF THE PROCESSES FOR REMOVING HEAVY METALS AND MONIA, AND THE RECOVERY OF NITRATES FROM A VARIETY OF STEWATERS.

AILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCA TON, FL 33431

IS ACCESSION NUMBER: EW010756

BLICATION DATE: 79

TLE: ION EXCHANGE FOR POLLUTION CONTROL - VOLUME II.

RSONAL AUTHOR: CALMON, C.; GOLD, H.

SCRIPTOR: *EQUIPMENT; *ION EXCHANGE; *EFFLUENTS; ABORATORY PROCEDURES; *INDUSTRIAL WASTES; *MUNICIPAL STES; *OPERATIONS (WASTEWATER); *NUCLEAR WASTES; OLYMERS; *WASTEWATER TREATMENT

SCRIPTIVE NOTE: 283P. PRICE: $84.50

STRACT: THIS IS VOLUME II OF A TWO VOLUME SERIES. THE LLOWING INFORMATION IS GIVEN IN 24 CHAPTERS: BASE RECOVERY OM SPENT SULFITE LIQUORS, DECOLORIZING WOOD PULP BLEACHING FLUENTS, THE USE OF POLYMERIC ABSORBENTS, THE TREATMENT OF FLUENTS FROM NUCLEAR AND MUNICIPAL TREATMENT PLANTS, THE L OF ION EXCHANGE FOR LAB AND ANALYTICAL EVALUATIONS, USES POLYMERS WITH ACTIVE SITES, AND NEW DEVELOPMENTS IN CHANGERS AND PROCESSES.

AILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCA ON, FL 33431

S ACCESSION NUMBER: EW010757

LICATION DATE: 80

LE: LIVESTOCK WASTE MANAGEMENT - VOLUME 1.

SONAL AUTHOR: OVERCASH, MICHAEL R.; AND OTHERS

CRIPTOR: *AGRICULTURE; *AGRICULTURAL WASTES; VIRONMENT; *INDUSTRIAL WASTES; *LIVESTOCK; *MANAGEMENT; GULATIONS; *WASTE DISPOSAL

CRIPTIVE NOTE: 272P. PRICE: $70.00

TRACT: THESE VOLUMES PROVIDE AN UP-TO-DATE, CRITICAL IEW OF ALTERNATIVE LIVESTOCK AND POULTRY PRODUCTION-WASTE AGEMENT STRATEGIES WHICH SATISFY EXISTING AND DEVELOPING TIONAL CRITERIA. A PERSPECTIVE ON THE OVERALL APPROACH TO WASTE MANAGEMENT SYSTEMS IS PROVIDED, AS WELL AS SUFFICIENT DATA AND GUIDANCE TO HELP YOU SELECT OR DEVELOP COMPLETE DESIGNS FOR VARIOUS SYSTEMS. VOLUME I PRESENTS A BRIEF INTRODUCTION TO LIVESTOCK WASTE MANAGEMENT; SETS THE REGULATORY STAGE; AND DETAILS THE HOUSING, PRODUCTION, AND WASTE CHARACTERISTICS ASSOCIATED WITH BEEF, DAIRY, POULTRY, SWINE, AND MISCELLANEOUS ANIMALS.

AVAILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCO RATON, FL 33431

IRIS ACCESSION NUMBER: EW010758

PUBLICATION DATE: 83

TITLE: LIVESTOCK WASTE MANAGEMENT - VOLUME 2.

PERSONAL AUTHOR: OVERCASH, MICHAEL R.; AND OTHERS

DESCRIPTOR: *AGRICULTURE; *AGRICULTURAL WASTES; *INDUSTRIAL WASTES; *LIVESTOCK; *LAND APPLICATION; *MANAGEMENT; *FERTILIZER; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 264P. PRICE: $70.00

ABSTRACT: THIS IS VOLUME II OF A TWO VOLUME SERIES. VOLUME II BEGINS WITH THE PROCESSES THAT SIGNIFICANTLY ALTER THE AMOUNT AND CONCENTRATION OF LIVESTOCK WASTES. UTILIZATION PROCESSES ARE COVERED, INCLUDING SOME TECHNOLOGIES THAT REMAIN IN THE DEVELOPMENTAL STAGE. SPECIAL CONSIDERATION IS GIVEN TO THE ULTIMATE DISPOSITION ON THE PLANT-SOIL SYSTEM OF MANURE OR RESIDUES FROM PRETREATMENT UTILIZATION SCHEMES. THE FERTILIZER BENEFITS, NONPOINT SOURCE IMPACTS, AND EQUIPMENT FOR LAND APPLICATION ARE ALSO INCLUDED.

AVAILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW010759

PUBLICATION DATE: 80

TITLE: METHANE PRODUCTION FROM WASTE ORGANIC MATTER.

PERSONAL AUTHOR: STAFFORD, D. A.; AND OTHERS

DESCRIPTOR: *AGRICULTURE; *AGRICULTURAL WASTES; *ENERGY; *GARBAGE; *INDUSTRIAL WASTES; *METHANE; *RECYCLING; *RESEARCH; *SEWAGE; *SLUDGE

DESCRIPTIVE NOTE: 304P. PRICE: $89.50

ABSTRACT: FOOD FACTORY WASTES, FARM WASTES, GARBAGE, AND SEWAGE SLUDGE HAVE TO BE DEVELOPED AS COMMERCIAL SUBSTRATES FOR METHANE PRODUCTION. THIS BOOK DISCUSSES THE ABOVE POINTS TOGETHER WITH RECENT FINDINGS FROM THE AUTHORS RESEARCH AND THOSE OF OTHERS IN THE FIELD.

AVAILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCA RATON, FL 33431

IS ACCESSION NUMBER: EW010760
BLICATION DATE: 82

TLE: ORGANIC MATERIALS IN AQUATIC ECOSYSTEMS.

RSONAL AUTHOR: ORGANIC MATERIALS IN AQUATIC ECOSYSTEMS.

SCRIPTOR: *AQUATIC ENVIRONMENTS; *BIOLOGY; *ENERGY; COSYSTEMS; *ECOLOGY; *FOOD CHAINS; *ORGANIC COMPOUNDS; ATER

SCRIPTIVE NOTE: 208P. PRICE: $67.00

STRACT: AN EXAMINATION OF THE LIVES AND ROLES OF ORGANIC TERIALS WITHIN AQUATIC ECOSYSTEMS. FOOD CHAINS, ENERGY OWS, PHYSICAL ATTRIBUTES, DECOMPOSITION, ASSIMILATION, AND E CYCLES OF BIOLOGICAL ELEMENTS ARE DISCUSSED IN DETAIL.

AILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCA TON, FL 33431

IS ACCESSION NUMBER: EW010761

BLICATION DATE: 82

TLE: POLLUTANT TRANSFER AND TRANSPORT IN THE SEA - VOLUME

RSONAL AUTHOR: KULLENBERG, GUNNAR E. B.

SCRIPTOR: *CHEMISTRY; *OCEANOGRAPHY; *POLLUTION; HYSICS; *WATER POLLUTION CONTROL

SCRIPTIVE NOTE: 240P. PRICE: $78.00

STRACT: DEALS WITH PHYSICAL PROCESSES IN THE OCEAN AND EDICTIVE MODELING OF TRANSFER OF POLLUTANTS; PRESENTS CENT IDEAS AND OBSERVATIONS OF THE PHYSICAL CONDITIONS IN E OCEAN THAT ARE RELEVANT TO THE POLLUTION PROBLEM IN NERAL; GIVES A BRIEF ACCOUNT OF TECHNIQUES COMMONLY USED INVESTIGATE EXPERIMENTALLY THE PHYSICAL SPREADING OF LLUTANTS ON SMALL TO MESOSCALES; GIVES AN ACCOUNT OF THE R-SEA EXCHANGE OF POLLUTANTS, WHERE MUCH PROGRESS HAS BEEN DE IN RECENT YEARS.

AILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCA TON, FL 33431

IS ACCESSION NUMBER: EW010762

BLICATION DATE: 82

TLE: POLLUTANT TRANSFER AND TRANSPORT IN THE SEA - VOLUME

RSONAL AUTHOR: KULLENBERG, GUNNAR E. B.

SCRIPTOR: *BIOLOGY; *COASTAL AREAS; *MODELS; CEANOGRAPHY; *OIL SPILLS; *POLLUTION; *SEDIMENTS; *WATER POLLUTION CONTROL
DESCRIPTIVE NOTE: 248P. PRICE: $78.00

ABSTRACT: PROCESSES AND TRANSFER RELATED TO BIOLOGICAL CONDITIONS, SUSPENDED MATTER, AND SEDIMENTS ARE PRESENTED. ESTUARIES AND FJORDS ARE DISCUSSED SEPARATELY SINCE THESE COASTAL ZONES ARE CONSIDERED TO BE OF SPECIAL INTEREST. MANY ASPECTS OF OIL SPILLS ARE CONSIDERED, INCLUDING PROCESSES AND MODELING WITH A DISCUSSION OF FINDINGS FROM SEVERAL RECENT SPILLS.

AVAILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCO RATON, FL 33431

IRIS ACCESSION NUMBER: EW010763

PUBLICATION DATE: 80

TITLE: THE UTILIZATION AND RECYCLE OF AGRICULTURAL WASTES AND RESIDUES.

PERSONAL AUTHOR: SHULLER, MICHAEL L.

DESCRIPTOR: *AGRICULTURE; *AGRICULTURAL WASTES; *POLLUTION; *POLLUTION CONTROL; *RECYCLING; *WASTE DISPOSAL; *WASTE USE

DESCRIPTIVE NOTE: 304P. PRICE: $86.00

ABSTRACT: THIS BOOK CRITICALLY REVIEWS THE PROCESSES THAT HAVE BEEN SUGGESTED FOR WASTE OR RESIDUE CONVERSION. SINCE THE FIELD IS VAST, WITH A DIVERSE LITERATURE, THE WORK ALSO PROVIDES EASY ACCESS FOR THOSE WITH LESS FAMILIARITY WITH AGRICULTURAL RESIDUES.

AVAILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCA RATON, FL 33431

IRIS ACCESSION NUMBER: EW010764

PUBLICATION DATE: 83

TITLE: VIRAL POLLUTION OF THE ENVIRONMENT.

PERSONAL AUTHOR: BERG, GERALD.

DESCRIPTOR: *DRINKING WATER; *DISINFECTION; *FOODS; *WATER QUALITY; *WATER TREATMENT; *PUBLIC HEALTH; *POLLUTION; *SLUDGE; *SEWAGE; *VIRUSES; *WATER POLLUTION; *WASTEWATER

DESCRIPTIVE NOTE: 248P. PRICE: $76.00

ABSTRACT: THE BOOK FOLLOWS VIRAL POLLUTION OF THE WATER ENVIRONMENT FROM ITS ORIGIN IN SEWAGE AND SLUDGES THROUGH DISCHARGE TO RIVERS, STREAMS AND OCEANS, AND TO THE LAND. THE EVENTUAL RECYCLING OF THAT POLLUTION TO DRINKING WATER, IRRIGATION WATER, AND TO THE LIFE ENVIRONMENT OF FISH AND SHELLFISH ULTIMATELY CONSUMED BY HUMANS IS DESCRIBED. THE AUTHORS DISCUSS VIRAL HAZARDS IN DETAIL AND DESCRIBE POSSIBILITIES FOR AMELIORATING OR ABATING THE HAZARDS. A

ISCUSSION OF THE FORMATION OF CARCINOGENIC HALOMETHANES BY HLORINATION OF WATERS AND THE CURRENTLY AVAILABLE LTERNATIVE TO SUCH DISINFECTION HIGHLIGHTS THE BOOK.

VAILABILITY: CRC PRESS, 2000 CORPORATE BLVD., NW, BOCA ATON, FL 33431

IIS ACCESSION NUMBER: EW010765

JBLICATION DATE: 83

TLE: REGULATORY COMPLIANCE MONITORING BY ATOMIC BSORPTION SPECTROSCOPY.

RSONAL AUTHOR: KATZ, SIDNEY A.; JENNISS, STEPHEN W.

SCRIPTOR: *AIR QUALITY; *ATOMIC ABSORPTION SPECTROSCOPY; NALYTICAL TECHNIQUES; *LABORATORY PROCEDURES; *MONITORING; EGULATIONS; *SAMPLING; *SOLID WASTES; *SPECTROSCOPY; VASTEWATER; *WATER QUALITY

SCRIPTIVE NOTE: 288P. PRICE: $37.50

STRACT: THIS BOOK WAS PREPARED FOR THE ENVIRONMENTAL IENTIST WHO USES THIS TECHNIQUE TO DETERMINE HEAVY METAL VELS IN AIR, WATER AND WASTE-WATER, LIQUID AND SOLID STES, AND BIOLOGICAL TISSUES. IT IS DIRECTED TO BOTH THE OCEDURES PRECEDING THE ABSORBANCE MEASUREMENTS AND THE NDITIONS UNDER WHICH ATOMIC ABSORBANCE IS MEASURED: SAMPLE LLECTION, SAMPLE PRESERVATION, AND SAMPLE DISSOLUTION ARE NSIDERED IN THE FORMER CATEGORY, AND FLAME/FURNACE RAMETERS, WAVELENGTH SELECTIONS, INTERFERENCES, AND ANTITATION ARE INCLUDED IN THE LATTER. A SECTION ON ALITY CONTROL/QUALITY ASSURANCE IS ALSO INCLUDED. THE OCEDURES DESCRIBED IN THIS MANUAL REFLECT THE CURRENT COMMENDATIONS/REQUIREMENTS OF THE MAJOR REGULATORY ENCIES IN NORTH AMERICA.

AILABILITY: VERLAG CHEMIE INTERNATIONAL, INC., 303 N. W. TH AVENUE, DEERFIELD BEACH, FL 33441

IS ACCESSION NUMBER: EW010766

BLICATION DATE: 83

TLE: IRRIGATION ENGINEERING.

RSONAL AUTHOR: BENAMI, A.; OFEN, A.

SCRIPTOR: *AGRICULTURE; *ENGINEERING; *IRRIGATION; ESIGN; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; OSTSECONDARY EDUCATION; *WATER RESOURCES

SCRIPTIVE NOTE: 330P. PRICE: $29.00 SOFTCOVER; $30.00 RDCOVER

STRACT: THIS PUBLICATION IS CONCERNED WITH THE PRINCIPLES IRRIGATION ENGINEERING AND THE ELEMENTS NECESSARY FOR DERSTANDING THE PLANNING AND OPERATION OF IRRIGATION STEMS. THE PUBLICATION INCLUDES SIX CHAPTERS: (1) WATER REQUIREMENTS AND IRRIGATION INTERVALS; (2) SPRINKLER IRRIGATION; (3) TRICKLE/DRIP; (4) FURROW IRRIGATION; (5) BORDER STRIPS; (6) OPTIMAL DESIGN OF IRRIGATION SYSTEMS.

AVAILABILITY: SOLCOOR IRRIGATION DIVISION, 1264 WEST 2ND STREET, LOS ANGELES, CA 90026

IRIS ACCESSION NUMBER: EW010767

PUBLICATION DATE: MAY 83

TITLE: ENVIRONMENTAL LAW HANDBOOK, 7TH EDITION.

PERSONAL AUTHOR: ARBUCKLE, J. GORDON; AND OTHERS

DESCRIPTOR: *AIR POLLUTION CONTROL; *ENVIRONMENTAL LAW; *HANDBOOKS; *LEGISLATION; *LAND USE; *NOISE; *PUBLIC HEALTH; *REGULATIONS; *SAFETY; *TOXIC SUBSTANCES; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 507P. PRICE: $48.00

ABSTRACT: THIS IS THE 7TH EDITION OF THIS PUBLICATION. THE NEW EDITION PROVIDES THREE NEW CHAPTERS ON ENVIRONMENTAL AUDITING, SUPERFUND, AND OSHA. REVISED CHAPTERS INCLUDE THOSE ON RCRA, TOXIC SUBSTANCES, AND PESTICIDES. OTHER CHAPTERS INCLUDE FUNDAMENTALS OF ENVIRONMENTAL LAW, NATIONAL ENVIRONMENTAL POLICY, WATER POLLUTION CONTROL, AIR POLLUTION CONTROL, AND NOISE.

AVAILABILITY: GOVERNMENT INSTITUTES, INC., 966 HUNGERFORD DRIVE, #24, ROCKVILLE, MD 20850

IRIS ACCESSION NUMBER: EW010768

PUBLICATION DATE: SEP 83

TITLE: RESEARCH PRIORITIES FOR MONITORING VIRUSES IN THE ENVIRONMENT.

PERSONAL AUTHOR: KARAGANIS, JOSEPH V.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *LAND APPLICATION; *MONITORING; *PUBLIC HEALTH; *QUANTITATIVE METHODS; *RECOMMENDATIONS; *RESEARCH; *RESEARCH NEEDS; *VIRUS INDICATORS; *VIRUSES; *WATER QUALITY

DESCRIPTIVE NOTE: 12P.

ABSTRACT: A CONFERENCE WAS HELD IN 1980 BY A GROUP OF EXPERTS REGARDING MONITORING VIRUSES IN THE ENVIRONMENT. FOLLOWING THAT CONFERENCE, EPA CONVERED A SMALLER GROUP IN 1982 TO PREPARE SPECIFIC RECOMMENDATIONS FOR SETTING RESEARCH PRIORITIES FOR MONITORING VIRUSES IN THE ENVIRONMENT. THIS DOCUMENT IS THEIR REPORT. THE REPORT IS ORGANIZED INTO TWO SECTIONS, (1) SUMMARY AND RECOMMENDATIONS AND (2) RATIONALE FOR THE RECOMMENDATIONS.

AVAILABILITY: US ENVIRONMENTAL PROTECTION AGENCY, ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY, CINCINNATI,

45268

IS ACCESSION NUMBER: EW010769

TLE: MEASUREMENT OF DISSOLVED OXYGEN USING MEMBRANE ECTRODES.

SCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; HEMISTRY; *DISSOLVED OXYGEN; *INSTRUCTIONAL MATERIALS; QUIPMENT; *LABORATORY EQUIPMENT; *LABORATORY PROCEDURES; AINTENANCE; *POSTSECONDARY EDUCATION; *SLIDES

SCRIPTIVE NOTE: 39 COLOR SLIDES AND 23 PAGE SCRIPT. NTAL PRICE: $15.00

STRACT: THIS SLIDE PROGRAM IS DESIGNED TO EXPLAIN THE CHNOLOGY OF THE POLAROGRAPHIC OXYGEN ELECTRODE AND ITS OPER USE FOR THE MEASUREMENT OF DISSOLVED OXYGEN. THE OGRAM COMES WITH A SCRIPT THAT IS USED BY THE YELLOW RINGS INSTRUMENT, COMPANY FOR THEIR EDUCATIONAL ESENTATIONS. SEVERAL ANALYTICAL PROCEDURES ARE DESCRIBED, ME POTENTIONAL TYPES OF ERRORS ARE CONSIDERED, AND CARE OF UIPMENT IS PRESENTED. THE SCRIPT CAN BE ADAPTED FOR A RIETY OF PRESENTATIONS.

AILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO ATE UNIVERSITY, 1200 CHAMBERS ROAD, THIRD FLOOR, COLUMBUS, 43212

IS ACCESSION NUMBER: EW010770

BLICATION DATE: 83

TLE: WASTEWATER DISCHARGERS ARE NOT COMPLYING WITH EPA LLUTION CONTROL PERMITS.

SCRIPTOR: *COMPLIANCE; *EPA; *ENFORCEMENT; *FEDERAL ROLE; NDUSTRIAL WASTES; *MONITORING; *PERFORMANCE EVALUATION; ECOMMENDATIONS; *STATE ROLE; *WASTE DISCHARGERS; ASTEWATER TREATMENT; *WATER QUALITY

SCRIPTIVE NOTE: 61P.

STRACT: THE CLEAN WATER ACT'S NATIONAL POLLUTANT SCHARGE ELIMINATION SYSTEM LIMITS THE TYPE AND AMOUNT OF LLUTION A MUNICIPAL OR INDUSTRIAL FACILITY MAY LEGALLY SCHARGE INTO THE NATION'S WATERWAYS. BASED ON A REVIEW OF 1 RANDOMLY SELECTED MAJOR DISCHARGERS IN SIX STATES, GAO TIMATED THAT 82 PERCENT OF THESE DISCHARGERS EXCEEDED EIR PERMIT LIMITS AT LEAST ONCE DURING AN 18-MONTH PERIOD ID THAT 31 PERCENT OF THE DISCHARGERS IN THE SIX STATES AT EXCEEDED PERMIT LIMITS FOR ONE OR MORE POLLUTANTS DID BY 50 PERCENT OR MORE FOR AT LEAST 4 CONSECUTIVE MONTHS. E ENVIRONMENTAL PROTECTION AGENCY (EPA) RELIES ON SELF-NITORING BY DISCHARGERS TO DETECT AND REPORT NCOMPLIANCE. BECAUSE SUCH INFORMATION IS NOT ALWAYS OVIDED OR IS INCOMPLETE, EPA AND THE STATES ARE NOT AWARE ALL PERMIT NONCOMPLIANCE AND, THUS, WHO SHOULD BE SUBJECT ENFORCEMENT ACTION. EPA AND STATE ENFORCEMENT POLICIES EQUENTLY ALLOW NONCOMPLIANCE TO CONTINUE FOR LONG PERIODS OF TIME. IN ADDITION, EPA AND STATE ENFORCEMENT ACTIONS HAVE DECLINED. GAO MAKES SEVERAL RECOMMENDATIONS TO THE ADMINISTRATOR, EPA, FOR IMPROVING THE PERMIT PROGRAM.

AVAILABILITY: US GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW010771

PUBLICATION DATE: DEC 83

TITLE: OPERATION AND MAINTENANCE MANUAL FOR SMALL WATER SYSTEMS.

PERSONAL AUTHOR: BARBER, R. DALE

DESCRIPTOR: DISINFECTION; *INSTRUCTIONAL MATERIALS; *EQUIPMENT; MAINTENANCE; *OPERATIONS (WATER); *TROUBLESHOOTING; *SMALL SYSTEMS; SAMPLING; WATER DISTRIBUTION; WATER SUPPLY; WATER QUALITY; *WATER TREATMENT; WATER STORAGE

DESCRIPTIVE NOTE: 80P.

ABSTRACT: THIS MANUAL WAS WRITTEN TO HELP THE SMALL WATER SYSTEM OPERATOR TO EFFICIENTLY OPERATE AND MAINTAIN HIS SYSTEM. SPECIFIC SOLUTIONS HAVE BEEN GIVEN TO MANY OF THE COMMON PROBLEMS ENCOUNTERED BY SMALL SYSTEMS, SECTIONS ARE INCLUDED ON WATER SUPPLY, DISINFECTION, TRANSMISSION AND DISTRIBUTION SYSTEMS, STORAGE TANKS, WATER PUMPS, HYDROPNEUMATIC SYSTEMS, ELECTRICAL EQUIPMENT, RECORD KEEPING, AND WATER SAMPLING.

AVAILABILITY: NEW MEXICO HEALTH AND ENVIRONMENT DEPARTMENT, P. O. BOX 968, SANTA FE, NM 87504

IRIS ACCESSION NUMBER: EW010774

PUBLICATION DATE: 83

TITLE: ENGINEERING APPROACHES FOR LAKE MANAGEMENT-VOLUME 1: DATA ANALYSIS AND EMPIRICAL MODELING.

PERSONAL AUTHOR: CHAPRA, STEVEN C.; ROCKHOW, KENNETH H.

DESCRIPTOR: *DATA ANALYSIS; *ENGINEERING; *LAKES; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *MODELS; *POSTSECONDARY EDUCATION; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 360P. PRICE: $39.95

ABSTRACT: THIS IS VOLUME 1 OF A TWO VOLUME SERIES ON ENGINEERING APPROACHES FOR LAKE MANAGEMENT. THE FIRST SECTION OF THIS VOLUME PRESENTS A VARIETY OF TECHNIQUES THAT CONTRIBUTE TO A STRONG OBSERVATIONAL PROGRAM. THE REMAINING SECTIONS DEAL WITH THEORY AND PRACTICE OF MODELING.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IS ACCESSION NUMBER: EW010775
BLICATION DATE: 83

TLE: ENGINEERING APPROACHES FOR LAKE MANAGEMENT-VOLUME 2: CHANISTIC MODELING.

RSONAL AUTHOR: CHAPRA, STEVEN C.; RECKHOW, KENNETH H.

SCRIPTOR: *ENGINEERING; *INSTRUCTIONAL MATERIALS; *LAKES; ANAGEMENT; *MODELS; *PLANNING; *WATER QUALITY; *WATER SOURCES

SCRIPTIVE NOTE: 520P. PRICE: $49.95

STRACT: THIS IS VOLUME II OF A TWO-VOLUME SERIES. THIS LUME IS PRIMARILY CONCERNED WITH MECHANISTIC MODELS FOR KE WATER QUALITY. SEVERAL MODELS ARE CONSIDERED.

AILABILITY: BUTTERWORTH PUBLISHERS, 10 TOWER OFFICE PARK, BURN, MA 01801

IS ACCESSION NUMBER: EW010776

BLICATION DATE: MAR 84

TLE: USE OF LINERS FOR CONTAINMENT AT HAZARDOUS WASTE NDFILLS.

RSONAL AUTHOR: COPE, FRED; AND OTHERS

SCRIPTOR: *COSTS; *DESIGN; *DISPOSAL SITES; *HAZARDOUS STES; *LINERS; *LAND USE; *PERFORMANCE EVALUATION; *WASTE SPOSAL

SCRIPTIVE NOTE: 22-32P.

STRACT: THIS ARTICLE CONSIDERS LINERS FOR THE CONTAINMENT HAZARDOUS WASTES. TYPES OF LINERS AND SELECTION CRITERIA E DESCRIBED AND DISCUSSED. ADVANTAGES AND DISADVANTAGES OF CH ARE PRESENTED.

AILABILITY: POLLUTION ENGINEERING; V16 N3

IS ACCESSION NUMBER: EW010777

BLICATION DATE: MAR 84

TLE: TAKING THE SPIKES OUT OF ULTRASONIC FLOW ASUREMENT.

RSONAL AUTHOR: SOLTZ, DAN

SCRIPTOR: *COMPUTER SOFTWARE; *FLOWMETERS; *FLOW ASUREMENT; *FLUID FLOW; *MONITORING; *SPIKE ELIMINATION; LTRASONIC METHODS; *WASTEWATER TREATMENT

SCRIPTIVE NOTE: 36-37P.

STRACT: DESCRIBED ARE PROCEDURES FOR TAKING SPIKES OUT OF MEASUREMENTS OF ULTRASONIC FLOW MEASUREMENT.
AVAILABILITY: POLLUTION ENGINEERING; V16 N3

IRIS ACCESSION NUMBER: EW010778

PUBLICATION DATE: MAR 84

TITLE: NEW DESIGN COMBINES CONCEPTS TO CUT COSTS.

PERSONAL AUTHOR: CHRISTOPHER, STAN A.; TITUS, RUSSELL L.

DESCRIPTOR: *COSTS; *DESIGN; *ECONOMICS; *FACILITIES; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 40-41P.

ABSTRACT: DESCRIBED IS AN INNOVATIVE WASTEWATER TREATMENT SYSTEM. THE SYSTEM CUTS CAPITAL AND OPERATION/MAINTENANCE COSTS WITH ITS SIMPLICITY.

AVAILABILITY: POLLUTION ENGINEERING; V16 N3

IRIS ACCESSION NUMBER: EW010779

PUBLICATION DATE: MAR 84

TITLE: RAPID URBANIZATION? DON'T FORGET STORM DRAINAGE.

PERSONAL AUTHOR: DEBO, THOMAS N.

DESCRIPTOR: *COSTS; *DRAINAGE; *FACILITIES; *PLANNING; *STORM RUNOFF; *SURFACE RUNOFF

DESCRIPTIVE NOTE: 58-61P.

ABSTRACT: ANTICIPATING RAPID POPULATION GROWTH DUE TO CONSTRUCTION OF A NAVAL BASE, A RURAL COUNTY MADE PLANS FOR A DRAINAGE PROGRAM. A DISCUSSION OF THIS GEORGIA COUNTIES PLANNING IS PRESENTED.

AVAILABILITY: PUBLIC WORKS; V115 N3

IRIS ACCESSION NUMBER: EW010780

PUBLICATION DATE: MAR 84

TITLE: SEALING LEAKS THAT ARE HARD TO REACH.

PERSONAL AUTHOR: ELMORE, BILL R.

DESCRIPTOR: *MAINTENANCE; *PIPES; *SEWAGE PIPES; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 64-65P.

ABSTRACT: AN INTERNAL PIPELINE SEALING PROCESS WAS THE

SWER WHERE ACCESS WAS A DIFFICULT PROBLEM. A PROCEDURE FOR ALING GAPS BETWEEN PIPES IS DESCRIBED.

AILABILITY: PUBLIC WORKS; V115 N3

IS ACCESSION NUMBER: EW010781

BLICATION DATE: MAR 84

TLE: WATER SUPPLY OPERATOR'S GUIDE TO CROSS CONNECTION NTROL.

RSONAL AUTHOR: CONLON, THOMAS J.

SCRIPTOR: *CROSS-CONNECTIONS; *DRINKING WATER; JIDELINES; *INSPECTION; *OPERATIONS (WATER); *PUBLIC ALTH; *RECORDS; *WATER SUPPLY

SCRIPTIVE NOTE: 70-73P.

STRACT: DESCRIBED ARE WAYS TO ESTABLISH AND MAINTAIN AN FECTIVE CROSS CONNECTION CONTROL PROGRAM FOR WATER SUPPLY. GH RISK CONSUMERS SHOULD BE CONTACTED AND GOOD INSPECTION CORDS NEED TO BE MAINTAINED.

AILABILITY: PUBLIC WORKS; V115 N3

IS ACCESSION NUMBER: EW010782

BLICATION DATE: MAR 84

TLE: COMPUTERS ENCOURAGE PEAK PERFORMANCE IN PUBLIC RKS.

SCRIPTOR: *COLORADO; *COMPUTERS; *COMPUTER APPLICATIONS; NGINEERING; *GENERAL SERVICES; *PUBLIC WORKS; RANSPORTATION SERVICES; *WATER UTILITIES; *WASTEWATER EATMENT

SCRIPTIVE NOTE: 80-85P.

STRACT: DESCRIBED ARE EXAMPLES OF THE WAY A PUBLIC WORKS GANIZATION USES COMPUTERS TO CUT COSTS AND EXPAND ERATIONS.

AILABILITY: PUBLIC WORKS; V115 N3

IS ACCESSION NUMBER: EW010783

BLICATION DATE: MAR 84

TLE: EFFECTS OF ACID RAIN ON WATER SUPPLIES IN THE RTHEAST.

RSONAL AUTHOR: TAYLOR, FLOYD B.; SYMONS, GEORGE E.

SCRIPTOR: *ACID RAIN; *AQUIFERS; *DRINKING WATER; ONITORING; *PUBLIC HEALTH; *RESEARCH; *WATERSHEDS; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 35-41P.

ABSTRACT: ADEQUATE TREATMENT IS THE SOLUTION FOR MAINTAINING ACCEPTABLE WATER QUALITY. RESULTS OF A STUDY CONCERNING THE IMPACT OF ACID PRECIPITATION ON DRINKING WATER ARE REPORTED. THE STUDY FOCUSED ON THE NORTHEAST U. S. NO ADVERSE EFFECTS ON HUMAN HEALTH WERE DEMONSTRATED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N3

IRIS ACCESSION NUMBER: EW010784

PUBLICATION DATE: MAR 84

TITLE: THE DILEMMA OF AN ACIDIC SKY.

PERSONAL AUTHOR: JENKINS, TOM

DESCRIPTOR: *ACID RAIN; *BIBLIOGRAPHIES; *ENVIRONMENTAL EFFECTS; *ECONOMICS; *LEGISLATION; *PLANNING; *PUBLIC HEALTH; *REGULATIONS; *RESEARCH; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 42-49P.

ABSTRACT: AN OVERVIEW OF THE CAUSE, EFFECTS, AND CONTROL OF ACID RAIN PROVIDES A PERSPECTIVE OF THE PROBLEM. A NUMBER OF RESEARCH STUDIES ARE REVIEWED AND A COMPREHENSIVE BIBLIOGRAPHY IS PROVIDED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N3

IRIS ACCESSION NUMBER: EW010785

PUBLICATION DATE: MAR 84

TITLE: THE EFFECTS OF ACID PRECIPITATION RUNOFF ON SOURCE WATER QUALITY.

PERSONAL AUTHOR: LEIBFRIED, ROBERT T.; AND OTHERS

DESCRIPTOR: *ACID RAIN; *ACID PRECIPITATION; *MONITORING; *PENNSYLVANIA; *PUBLIC HEALTH; *RESEARCH; *STREAMS; *SURFACE RUNOFF; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 50-53P.

ABSTRACT: DISCUSSED ARE THE EFFECTS OF ACID PRECIPITATION RUNOFF ON WATER QUALITY. THE ARTICLE IS BASED ON ANALYSES CONDUCTED ON TWO PENNSYLVANIA STREAMS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURANL; V76 N3

RIS ACCESSION NUMBER: EW010786

'UBLICATION DATE: MAR 84

'ITLE: CURRENT RESEARCH ON THE EFFECTS OF ACID DEPOSITION.

'ERSONAL AUTHOR: PERRY, JAMES A.

'ESCRIPTOR: *ACID RAIN; *ECONOMICS; *ENVIRONMENTAL EFFECTS; MONITORING; *PUBLIC HEALTH; *RESEARCH; *WATER QUALITY; WATER SUPPLY; *WATER TREATMENT

'ESCRIPTIVE NOTE: 54-59P.

BSTRACT: EFFECTS OF ACID DEPOSITION, CURRENT RESEARCH AND APS IN KNOWLEDGE ABOUT THE EFFECTS ARE DISCUSSED. POSSIBLE ONTROLS TO REDUCE ACID RAIN AND PROCEDURES FOR TREATING ATER ARE DISCUSSED.

VAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 3

RIS ACCESSION NUMBER: EW010787

UBLICATION DATE: MAR 84

ITLE: ACID PRECIPITATION AND DRINKING WATER SUPPLIES.

ERSONAL AUTHOR: REED, JOHN S.; HENNINGSON, JOHN C.

ESCRIPTOR: *BIBLIOGRAPHIES; *ACID RAIN; *CORROSION; ENVIRONMENTAL EFFECTS; *MANAGEMENT; *PUBLIC HEALTH; *WATER UALITY; *WATER SUPPLY; *WATER TREATMENT

ESCRIPTIVE NOTE: 60-65P.

BSTRACT: MEASURES TO CONTROL AND MANAGE WATER SUPPLIES HAT ARE SUBJECT TO ACID DEPOSITION ARE DISCUSSED.

VAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 3

RIS ACCESSION NUMBER: EW010788

UBLICATION DATE: MAR 84

ITLE: TEMPERATURE EFFECTS ON THE USE OF METAL-ION OAGULANTS FOR WATER TREATMENT.

ERSONAL AUTHOR: MORRIS, JULI K.; KNOCKE, WILLIAM R.

ESCRIPTOR: *ALUM; *COAGULATION; *FERRIC CHLORIDE; PERATIONS (WATER); *PRECIPITATION; *RESEARCH; EMPERATURE; *TURBIDITY; *WATER TREATMENT

ESCRIPTIVE NOTE: 74-79P.

BSTRACT: LOW TEMPERATURE IMPEDES TURBIDITY REMOVAL BY ETAL-ION COAGULANTS, ESPECIALLY ALUM. TEMPERATURE DID NOT IGNIFICANTLY INHIBIT THE RATE OF METAL-ION PRECIPITATION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N3

IRIS ACCESSION NUMBER: EW010789

PUBLICATION DATE: MAR 84

TITLE: AIR STRIPPING OF TASTE AND ODOR COMPOUNDS FROM WATER.

PERSONAL AUTHOR: LALEZARY, SHAHLA; AND OTHERS

DESCRIPTOR: *AIR STRIPPING; *ODORS; *OPERATIONS (WATER); *RESEARCH; *TASTES; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 83-87P.

ABSTRACT: A SPECIAL APPLICATION OF CLOSED-LOOP STRIPPING ANALYSIS IS DESCRIBED IN THIS STUDY.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N3

IRIS ACCESSION NUMBER: EW010790

PUBLICATION DATE: MAR 84

TITLE: COMPUTERS TAKE OVER CLOVIS.

DESCRIPTOR: *CALIFORNIA; *COMPUTER APPLICATIONS; *COMPUTERS; *AUTOMATIC CONTROLS; *MANAGEMENT; *WATER DISTRIBUTION; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 98P.

ABSTRACT: DESCRIBED IS A COMPUTERIZED WATER AND SEWER CONTROL SYSTEM IN CLOVIS, CALIFORNIA.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N3

IRIS ACCESSION NUMBER: EW010791

PUBLICATION DATE: MAR 84

TITLE: CONTRACT ASSURES VANCOUVER QUALITY SEWAGE TREATMENT.

DESCRIPTOR: *CONTRACT SERVICES; *ECONOMICS; *MANAGEMENT; *WASHINGTON; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 48, 51P.

ABSTRACT: VANCOUVER, WASHINGTON ENTERED INTO A CONTRACT WITH ENVIROTECH OPERATING SERVICES (EOS) TO OPERATE ITS WASTEWATER TREATMENT FACILITIES. THE CONTRACT WAS AWARDED FOR 10 YEARS. THE CONTRACT GIVES STABILITY TO THE CITY'S PROGRAM AND PROVIDES AN EXPERIENCED ORGANIZATION TO OPERATE THE FACILITIES.

'AILABILITY: AMERICAN CITY & COUNTY; V99 N3

IIS ACCESSION NUMBER: EW010792

UBLICATION DATE: MAR 84

TLE: GROUNDWATER PLAN SIDESTEPS CONTAMINATION WOES.

ERSONAL AUTHOR: KLINER, SUZANNE M.

ESCRIPTOR: *CONTAMINATION; *GROUNDWATER; *PLANNING; REGULATIONS; *WATER POLLUTION CONTROL; *WATER RESOURCES; VATER SUPPLY; *WATER QUALITY

ESCRIPTIVE NOTE: 27-29, 52-53.P.

BSTRACT: DISCOVERIES OF TOXIC CONTAMINANTS IN PUBLIC WATER UPPLIES OR THEIR SOURCES RECEIVE WIDE PUBLICITY AND OFTEN ROUSE PUBLIC ALARM. MUNICIPAL MANAGERS CAN AVOID SUCH ROUBLES WITH A GROUNDWATER PROTECTION PLAN. SOURCES OF ROUNDWATER CONTAMINATION, REGULATORY MEASURES, AND ROCEDURES FOR DEALING WITH CONTAMINATION ARE CONSIDERED.

VAILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N3

RIS ACCESSION NUMBER: EW010793

UBLICATION DATE: MAR 84

ITLE: CROSS-DISCIPLINE HARMONY KEEPS GROUNDWATER ONITORING EFFORTS IN TUNE.

ERSONAL AUTHOR: KORTE, NIC E.; KEARL, PETER M.

ESCRIPTOR: *COMMUNICATION; *GROUNDWATER; *MANAGEMENT; MONITORING; *PLANNING; *PERSONNEL; *RESPONSIBILITIES; WATER POLLUTION CONTROL; *WATER QUALLTY; *WATER RESOURCES; WATER SUPPLY

ESCRIPTIVE NOTE: 32-34P.

BSTRACT: GROUNDWATER MONITORING OBJECTIVES CAN BE ACHIEVED UCCESSFULLY IF INTERDISCIPLINARY RELATIONSHIPS AMONG THE XPERTS INVOLVED ARE SPELLED OUT EARLY IN THE PROGRAM. ERSONNEL NEEDED FOR A SUCCESSFUL PROGRAM ARE IDENTIFIED. IN DDITION, RESPONSIBILITIES AND COMMUNICATION PROCEDURES ARE ISCUSSED.

VAILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N3

RIS ACCESSION NUMBER: EW010794

'UBLICATION DATE: MAR 84

'ITLE: COMPRESSOR DESIGN TO MEET VARIABLE AIR NEEDS.

'ERSONAL AUTHOR: ESHELMAN, ROBERT H.

DESCRIPTOR: *AIR COMPRESSORS; *EQUIPMENT; *EQUIPMENT SELECTION; *OPERATIONS (WASTEWATER); *PLANNING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 35-37P.

ABSTRACT: AIR COMPRESSION SYSTEM DESIGNS FOR MUNICIPAL WASTEWATER TREATMENT PLANTS HAVE TO TAKE THE UNCONTROLLED CHARACTERISTICS OF THE INFLUENTS INTO CONSIDERATION. VARIABLES TO CONSIDER AND EXAMPLES OF EQUIPMENT ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N3

IRIS ACCESSION NUMBER: EW010795

PUBLICATION DATE: MAR 84

TITLE: BIOBRICKS BECOME A CONSTRUCTION REALITY.

PERSONAL AUTHOR: BRYAN, EDWARD H.

DESCRIPTOR: *APPROPRIATE TECHNOLOGY; *BIOBRICKS; *BRICKS; *BUILDING MATERIALS; *ECONOMICS; *MARKETING; *RECYCLING; *RESEARCH; *SEWAGE SLUDGE; *SLUDGE; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 38-39,59P.

ABSTRACT: A PROJECT TO INCORPORATE WASTEWATER TREATMENT PLANT SLUDGE IN CERAMIC BUILDING COMPONENTS CULMINATED IN THE COMPLETION OF A PARK PICNIC SHELTER CONSTRUCTED WITH "BIOBRICKS". RESEARCH RELATED TO THE PRODUCTION TESTING, AND USE OF THE BRICKS IS PRESENTED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N3

IRIS ACCESSION NUMBER: EW010796

PUBLICATION DATE: MAR 84

TITLE: MOTOR CONTROLS PAY SLUDGE HANDLING DIVIDENDS.

PERSONAL AUTHOR: MORRIS, LARRY G.

DESCRIPTOR: *ELECTRONIC SPEED CONTROLS; *EQUIPMENT; *MOTORS; *OPERATIONS (WASTEWATER); *PUMPS; *SLUDGE DEWATERING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 40-41P.

ABSTRACT: ELECTRONIC SPEED CONTROLS RETROFITTED TO PUMPING INSTALLATIONS HAVE INCREASED THE EFFICIENCY OF A SLUDGE DEWATERING AND HANDLING OPERATION. AN APPLICATION AT A KENTUCKY WASTEWATER TREATMENT PLANT IS DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N3

RIS ACCESSION NUMBER: EW010797

JBLICATION DATE: MAR 84

ITLE: STATE-OF-THE-ART DISPOSAL ALTERNATIVES.

ERSONAL AUTHOR: MACKIE, JAY

ESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *HAZARDOUS WASTES; HAZARDOUS MATERIALS; *PUBLIC HEALTH; *RESEARCH; TECHNOLOGY; *WASTE DISPOSAL; *WASTEWATER TREATMENT

ESCRIPTIVE NOTE: 45-47P.

BSTRACT: ALTERNATIVE TECHNOLOGIES MEAN MORE THAN JUST SPOSAL; THEY CAN PROVIDE SOLUTIONS TO MANY WASTE ANAGEMENT PROBLEMS. POTENTIAL PROBLEMS, POSSIBLE ECHNOLOGIES, AND PROBLEMS RELATED TO THE USE OF ECHNOLOGIES ARE CONSIDERED. SOME SUGGESTIONS FOR POSSIBLE TIONS ARE PRESENTED.

VAILABILITY: CONSULTING ENGINEER; V62 N3

IS ACCESSION NUMBER: EW010798

BLICATION DATE: MAR 84

TLE: THE SENSITIVE ART OF SITING TREATMENT FACILITIES.

RSONAL AUTHOR: BOYLE, DAVID F.; SORENSEN, PAUL B.

SCRIPTOR: *HAZARDOUS WASTES; *ECONOMICS; *MANAGEMENT; LANNING; *PUBLIC HEALTH; *WASTE DISPOSAL; *WASTE STORAGE; ASTE TREATMENT

SCRIPTIVE NOTE: 43-51P.

STRACT: INDUSTRY, GOVERNMENT, AND THE PUBLIC MUST WORK GETHER TO DEVELOP NEW WAYS TO SAFELY HANDLE BOTH OLD AND W WASTES. THIS ARTICLE CONSIDERS PROBLEMS ASSOCIATED WITH TING OF FACILITIES FOR TREATING, STORING, AND DISPOSING OF ZARDOUS WASTES.

AILABILITY: CONSULTING ENGINEER; V62 N3

IS ACCESSION NUMBER: EW010799

BLICATION DATE: SEP 83

TLE: A FIELD OF AN AIR TRANSPORTABLE INCINERATOR.

RSONAL AUTHOR: SIRUK, D.

SCRIPTOR: *INCINERATORS; *OIL SPILLS; *OIL DEBRIS; ERFORMANCE EVALUATION; *WASTE DISPOSAL; *WATER POLLUTION TROL

SCRIPTIVE NOTE: 103-106P.

STRACT: DESCRIBED ARE TESTS OF AN AIR TRANSPORTABLE INCINERATOR FOR BURNING OIL DEBRIS FROM OIL SPILLS. THE TESTS INDICATED THE INCINERATOR WAS EFFECTIVE. IT WAS CONSIDERED SIMPLE, RELIABLE, AND EASY TO TRANSPORT.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER; V8 N5

IRIS ACCESSION NUMBER: EW010800

PUBLICATION DATE: SEP 83

TITLE: A SIMPLE FIELD EFFECTIVENESS TEST FOR DISPERSANTS.

PERSONAL AUTHOR: ABBOTT, F. S.

DESCRIPTOR: *DISPERSANTS; *FIELD TESTS; *LABORATORY PROCEDURES; *OIL; *OIL SPILLS; *PERFORMANCE EVALUATION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 107-108P.

ABSTRACT: DESCRIBED IS A QUICK, CHEAP FIELD TEST FOR DETERMINING THE EFFECTIVENESS OF A DISPERSANT FOR OIL SPILLS.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER; V8 N5

IRIS ACCESSION NUMBER: EW010814

PUBLICATION DATE: APR 80

TITLE: ACCOUNTING FOR RURAL WATER SYSTEMS-A PRACTICAL APPROACH.

PERSONAL AUTHOR: FITE, J. STEVE

DESCRIPTOR: *ACCOUNTING; *ADMINISTRATION; *BOOKKEEPING; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *RECORDKEEPING; *RURAL AREAS; *SMALL SYSTEMS; *WATER UTILITIES

DESCRIPTIVE NOTE: 122P.

ABSTRACT: THIS BOOK IS DESIGNED FOR THE MANAGER OF A RURAL WATER SYSTEM. THE GUIDE CONTAINS THE MOST SIMPLIFIED ACCOUNTING POSSIBLE TO MEET SYSTEM NEEDS. CHAPTERS ARE INCLUDED ON ACCOUNTS, BOOKKEEPING, ASSETS, LIABILITIES, EQUITIES, INCOME, EXPENSES, CONSTRUCTION, FMHA REPORTING, AUDITS AND FINANCIAL ANALYSIS, AND STATE RURAL WATER ASSOCIATIONS.

AVAILABILITY: FARMERS HOME ADMINISTRATION, U. S. DEPARTMENT OF AGRICULTURE, WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW010815

PUBLICATION DATE: APR 83

TITLE: FISCAL OPERATIONS & MANAGEMENT FOR THE SMALL WATER UTILITY.

RSONAL AUTHOR: COMMONWEALTH OF PENNSYLVANIA; DEPARTMENT COMMUNITY AFFAIRS

SCRIPTOR: *CONSULTING SERVICES; *ECONOMICS; NSTRUCTIONAL MATERIALS; *MANAGEMENT; *PLANNING; *PUBLIC LATIONS; *RECORDKEEPING; *REGULATORY AGENCIES; *WATER TES; *WATER UTILITIES; *WATER SUPPLY

SCRIPTIVE NOTE: 167P. PRICE: $1.00 PER DOCUMENT PLUS .03 PER PAGE.

STRACT: THE PURPOSE OF THIS MANUAL IS TO HELP THE SMALL NICIPAL-OWNED WATER SYSTEM, SMALL WATER AUTHORITY, AND THE MALL WATER PRIVATE INVESTOR UNDERSTAND MANAGEMENT PROBLEMS. HE MANUAL PROVIDES GUIDANCE FOR MANAGEMENT, FINANCING, AND TE PROCEDURES. CHAPTERS ARE INCLUDED ON ORGANIZATIONAL EDS, PLANNING, TIME MANAGEMENT, PERSONNEL MANAGEMENT, NANCIAL MANAGEMENT, PUBLIC RELATIONS, RECORD KEEPING, ERATING AND MAINTENANCE MANAGEMENT, CONSULTING SERVICES, TER RATES, AND REGULATORY AGENCIES.

AILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO ATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 212

IS ACCESSION NUMBER: EW010817

BLICATION DATE: DEC 83

ITLE: NTIS ENVIRONMENTAL POLLUTION & CONTROL-AN ABSTRACT WSLETTER 1983 ANNUAL INDEX.

SCRIPTOR: *AIR; *ENVIRONMENT; *HEALTH; *INDEXES; RESEARCH REPORTS; *SAFETY; *POLLUTION CONTROL; *NOISE; ESTICIDES; *RADIATION; *SOLID WASTES; *WASTEWATER; *WATER; OLLUTION

SCRIPTIVE NOTE: 455P. PB83-906852

STRACT: THIS IS THE ANNUAL INDEX FOR 1983 FOR MATERIALS NOUNCED THROUGH THE NATIONAL TECHNICAL INFORMATION ERVICE. TOPICS COVERED INCLUDE AIR, NOISE, SOLID WASTES, ATER, PESTICIDES, RADIATION, ENVIRONMENTAL HEALTH AND AFETY, AND ENVIRONMENTAL IMPACT STATEMENTS. ITEMS ARE NDEXED BY TOPIC AND PROVIDE TITLE AND AVAILABILITY NFORMATION.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010818

UBLICATION DATE: 84

ITLE: TOXICITY TESTING: STRATEGIES TO DETERMINE NEEDS AND RIORITIES.

ESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICALS; *LABORATORY ROCEDURES; *PRIORITIES; *PUBLIC HEALTH; *RESEARCH NEEDS; RESEARCH REPORTS; *TOXIC SUBSTANCES; *TOXICITY TESTING

DESCRIPTIVE NOTE: 400P. PRICE $22.50 U. S., CANADA, AND MEXICO $27.00 EXPORT

ABSTRACT: THIS IS THE FINAL REPORT OF FOUR COMMITTEES (AND OTHERS) ORGANIZED TO (1) CHARACTERIZE THE STATUS OF TOXICITY-TESTING INFORMATION ON SUBSTANCES AND (2) DEVELOP CRITERIA FOR SETTING RESEARCH PRIORITIES ON SUBSTANCES WITH POTENTIALLY ADVERSE PUBLIC-HEALTH IMPACTS. FROM 65725 SUBSTANCES IDENTIFIED, 675 SUBSTANCES WERE RANDOMLY SELECTED FOR FURTHER WORK. FROM THIS SAMPLE, A SUBSAMPLE OF 100 SUBSTANCES WAS SELECTED BY SCREENING FOR THE PRESENCE OF AT LEAST SOME TOXICITY INFORMATION. DATA CONSIDERED TO BE ESSENTIAL FOR CONDUCTING HEALTH HAZARD ASSESSMENTS ARE LACKING FOR MOST OF THE SUBSTANCES. THIS REPORT PRESENTS CRITERIA FOR SELECTING SUBSTANCES AND DETERMINING TOXICITY-TESTING NEEDS, PROVIDES ESTIMATES OF THOSE NEEDS, AND DESCRIBES SOME USEFUL CRITERIA FOR ASSIGNING PRIORITIES FOR TOXICITY TESTING.

AVAILABILITY: NATIONAL ACADEMY PRESS, 2101 CONSTITUTION AVENUE, WASHINGTON, DC 20418

IRIS ACCESSION NUMBER: EW010819

PUBLICATION DATE: 84

TITLE: STUDIES IN GEOPHYSICS: GROUNDWATER CONTAMINATION.

DESCRIPTOR: *AQUIFERS; *CHEMISTRY; *CONTAMINATION; *GROUNDWATER; *FEDERAL ROLE; *LITERATURE REVIEWS; *RESEARCH NEEDS; *REGULATIONS; *RISK ASSESSMENT; *STATE ROLE; *TRANSPORT; *WASTE DISPOSAL; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 191P. PRICE: $17.95

ABSTRACT: THIS STUDY ADDRESSES OUR CURRENT SCIENTIFIC UNDERSTANDING OF GROUNDWATER CONTAMINANT TRANSPORT-BOTH BY THEORY AND BY INVESTIGATION OF CONTAMINATED ACQUIFERS. THE STUDY ALSO LOOKS AT MANY OF THE FUNDAMENTAL QUESTIONS AND UNCERTAINTIES THAT REQUIRE ADDITIONAL SCIENTIFIC RESEARCH FOR THE PREDICTION OF CONTAMINANT TRANSPORT AND THE CONTROL OF GROUNDWATER CONTAMINATION. CHAPTER 1 BRIEFLY EXAMINES THE MAGNITUDE AND NATURE OF THE PROBLEM. CHAPTERS 2 AND 3 REVIEW CONTAMINENT TRANSPORT AND CHEMISTRY. CHAPTERS 4 AND 5 REVIEW PROBLEMS ASSOCIATED WITH WASTE DISPOSAL METHODS. CHAPTER 6 THROUGH 12 PROVIDE EXAMPLES OF WASTE DISPOSAL AND AQUIFER RECLAMATION. THE FINAL TWO CHAPTERS INTRODUCE SOME OF THE INSTITUTIONAL CONSIDERATIONS FOR WASTE DISPOSAL AND THE PREVENTION OF GROUNDWATER CONTAMINATION.

AVAILABILITY: NATIONAL ACADEMY PRESS, 2101 CONSTITUTION AVENUE, N. W., WASHINGTON, DC 20418

IRIS ACCESSION NUMBER: EW010820

PUBLICATION DATE: OCT 83

TITLE: IMPROVEMENTS NEEDED IN EPA'S INSPECTOR GENERAL OPERATIONS.

SCRIPTOR: *AUDITS; *EPA; *GUIDELINES; *INSPECTOR GENERAL; NVESTIGATIONS; *PERFORMANCE EVALUATION; *RECOMMENDATIONS

SCRIPTIVE NOTE: 52P.

STRACT: REPORTED IS A GAO REVIEW OF THE EPA'S INSPECTOR NERAL OPERATIONS. GAO FOUND THAT ALTHOUGH MOST VESTIGATIONS APPEAR TO HAVE BEEN HANDLED PROPERLY, IN SOME SES ALL RELEVANT MATTERS WERE NOT FOLLOWED UP AND NSISTENTLY ADDRESSED. GAO ALSO NOTED THE NEED TO USE VESTIGATIVE RESOURCES MORE EFFECTIVELY AND TO PROVIDE MORE LANCED AUDIT COVERAGE.

AILABILITY: U. S. GENERAL ACCOUNTING OFFICE, DOCUMENT NDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, ITHERSBURG, MD 20760

IS ACCESSION NUMBER: EW010822

BLICATION DATE: FEB 84

TLE: DOD CAN MAKE FURTHER PROGRESS IN CONTROLLING LLUTION FROM ITS SEWAGE TREATMENT PLANTS.

SCRIPTOR: *COMPLIANCE; *DEPARTMENT OF DEFENSE; ONSTRUCTION; *DESIGN; *FACILITIES; *MAINTENANCE; PERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; ECOMMENDATIONS; *WASTEWATER TREATMENT

SCRIPTIVE NOTE: 66P.

STRACT: THIS REPORT DISCUSSES DEPARTMENT OF DEFENSE (DOD) FORTS TO CONTROL POLLUTION FROM ITS SEWAGE TREATMENT PLANT ERATIONS. DOD HAS ABOUT 560 MAJOR INSTALLATIONS IN THE ITED STATES. WHILE IMPROVEMENTS HAVE BEEN MADE, DESIGN AND NSTRUCTION PROBLEMS STILL PERSIST. IN MANY INSTANCES ERATION AND MAINTENANCE PROBLEMS ALSO AFFECT COMPLIANCE. COMMENDATIONS FOR IMPROVING OPERATIONS ARE PROVIDED.

AILABILITY: U. S. GENERAL ACCOUNTING OFFICE, DOCUMENT NDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, ITHERSBURG, MD 20760

IS ACCESSION NUMBER: EW010823

BLICATION DATE: JAN 84

TLE: ACTIVATED SLUDGE TREATMENT. 1978-1981 (CITATIONS OM THE LIFE SCIENCES COLLECTION DATA BASE).

SCRIPTOR: *ACTIVATED SLUDGE; *ANNOTATED BIBLIOGRAPHIES; IBLIOGRAPHIES; *DOMESTIC WASTES; *INDUSTRIAL WASTES; ERFORMANCE EVALUATION; *RESEARCH; *SLUDGE; *WASTEWATER EATMENT

SCRIPTIVE NOTE: 268P. PRICE CODE: PC N01/MF N01; PB84-697

STRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING E ACTIVATED SLUDGE PROCESS IN TREATING INDUSTRIAL AND DOMESTIC WASTE. INCLUDED ARE CITATIONS DEALING WITH APPARATUS DESIGN, PARAMETERS FOR EFFECTIVENESS, AND ORGANISMS UTILIZED IN THE VARIOUS PROCESSES. PERFORMANCE EVALUATIONS AND APPLICATIONS OF THE VARIOUS PROCESSES FOR THE PURIFICATION AND REMOVAL OF UNWANTED SUBSTANCES FROM SEWAGE AND WASTE WATER ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 312 CITATIONS, NONE OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010825

PUBLICATION DATE: 83

TITLE: AFFLUENT EFFLUENT: NEW CHOICES IN WASTEWATER TREATMENT.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *CASE HISTORIES; *OPERATIONS (WASTEWATER); *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 62P. PRICE CODE: PC A04/MF A01; PB84-133966

ABSTRACT: THIS PUBLICATION IS A COLLECTION OF CASE HISTORIES ILLUSTRATING THE SUCCESSFUL USE OF INNOVATIVE AND ALTERNATIVE WASTEWATER TREATMENT SYSTEMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010826

PUBLICATION DATE: JAN 84

TITLE: ANALYSIS OF WATER-SOLUBLE ORGANICS.

PERSONAL AUTHOR: SADOWSKI, L. H.; HARRIS, J. C.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICALS; *CHEMISTRY; *LABORATORY PROCEDURES; *ORGANIC COMPOUNDS

DESCRIPTIVE NOTE: 166P. PRICE CODE: PC A08/MF A01; PB84-141225

ABSTRACT: THE REPORT GIVES RESULTS OF SEVERAL ANALYTICAL PROCEDURES FOR SEPARATING AND DETECTING NON-EXTRACTABLE WATER-SOLUBLE ORGANIC MATERIAL, INCLUDING LOW MOLECULAR WEIGHT ACIDS, ALCOHOLS, KETONES, AND OTHER CATEGORIES OF COMPOUNDS. (THERE ARE MANY WAYS TO ANALYZE HYDROPHOBIC EXTRACTABLE ORGANICS, BUT FEW FOR HYDROPHILIC MATERIALS.) AN ANALYTICAL SCHEME HAS BEEN DEVELOPED THAT UTILIZES SEVERAL CHROMATOGRAPHIC PROCEDURE STANDARDS WITH KNOWN WATER-SOLUBLE COMPOUNDS FROM A VARIETY OF COMPOUND CATEGORIES. THE PRECISION AND ACCURACY DATA FOR EACH COMPOUND ANALYZED USING THESE CHROMATOGRAPHIC SYSTEMS ARE REPORTED. ADDITIONAL AREAS DESCRIBED IN THE REPORT INCLUDE: (1) THE APPLICATION OF TOTAL ORGANIC CARBON/FREEZE DRYING TO MONITOR AND CONCENTRATE NON-EXTRACTABLE WATER-SOLUBLE ALCOHOLS FROM

ER; (2) THE DETECTION OF SPECIFIC COMPOUND CATEGORIES NG COLORIMETRIC PROCEDURES SUCH AS THE ANTHRONE AND ISCH TESTS; (3) THE APPLICATION OF LEVEL 1 PROCEDURES NG WATER-SOLUBLE MODEL COMPOUNDS; (4) THE EVALUATION OF CHROMATOGRAPHY/FOURIER TRANSFORMATION INFRARED AS A BLE WAY TO ANALYZE HYDROPHILIC MATERIALS IN FRACTIONS AINED FROM THE LEVEL 1 FRACTIONATION SCHEME; AND (5) AN LYTICAL WAY TO DETECT LINEAR ALKYLBENZENE SULFONATES.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010827

BLICATION DATE: JAN 84

TLE: AQUATIC PLANTS: ECOLOGY AND ENVIRONMENT. 1977-NUARY, 1984 (CITATIONS FROM THE SELECTED WATER RESOURCES STRACTS DATA BASE).

SCRIPTOR: *AQUATIC PLANTS; *BIBLIOGRAPHIES; *BIOLOGICAL DICATORS; *ECOLOGY; *ENVIRONMENT; *INDUSTRIAL WASTES; *OIL ILLS; *WASTEWATER; *WATER QUALITY

SCRIPTIVE NOTE: 226P. PRICE CODE: PB N01/MF N01; PB84-7242

STRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING OWTH OF, AND ECOLOGICAL AND ENVIRONMENTAL EFFECTS ON, NTHIC FLORA IN LAKES, RIVERS, AND COASTAL AREAS. EFFECTS DOMESTIC SEWAGE, INDUSTRIAL WASTES, AND OIL SPILLS ON NTHIC ECOSYSTEMS ARE DISCUSSED. BENTHIC ALGAE VEGETATION RIVER AND POLLUTED AREAS IS CONSIDERED, AND BENTHIC ALGAE BIOLOGICAL INDICATORS OF WATER QUALITY ARE ALSO SCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 223 TATIONS, 16 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS ITION.)

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010828

BLICATION DATE: DEC 83

TLE: BIOLOGICAL WATER ANALYSIS. 1978-1983 (CITATIONS OM THE LIFE SCIENCES COLLECTION DATA BASE).

SCRIPTOR: *ANALYTICAL TECHNIQUES; *BACTERIA; IBLIOGRAPHIES; *HEAVY METALS; *LABORATORY PROCEDURES; ARASITES; *VIRUSES; *WATER ANALYSIS

SCRIPTIVE NOTE: 70P. PRICE CODE: PC N01/MF N01; PB84-6983

STRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING E ANALYSIS OF WATER FOR BACTERIAL, VIRAL AND PARASITIC NTENT, SUSPENDED PARTICULATE MATTER, HEAVY METALS AND HER POLLUTANTS. METHODS FOR THE BIOLOGICAL ANALYSIS OF ATER ARE CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 74 CITATIONS, 11 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010829

PUBLICATION DATE: SEP 83

TITLE: ECONOMIC IMPACT ANALYSIS OF EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE ALUMINUM FORMING POINT SOURCE CATEGORY.

DESCRIPTOR: *ALUMINUM; *COSTS; *ECONOMICS; *EFFLUENT GUIDELINES; *GUIDELINES; *INDUSTRIAL WASTES; *METALS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 133P. PRICE CODE: PC A07/MF A01; PB84-139757

ABSTRACT: THE U. S. ENVIRONMENTAL PROTECTION AGENCY ISSUED EFFLUENT GUIDELINES AND LIMITATIONS FOR THE ALUMINIM FORMING POINT SOURCE CATEGORY IN SEPTEMBER, 1983. THIS REPORT ESTIMATES THE ECONOMIC IMPACT OF POLLUTION CONTROL COSTS IN TERMS OF PRICE CHANGES, PRODUCTION CHANGES, EFFECTS ON PROFITABILITY, POTENTIAL PLANT CLOSURES, UNEMPLOYMENT, AND OTHER SECONDARY EFFECTS. IMPACTS ON NEW ALUMINUM FORMING PLANTS ARE ALSO EXAMINED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010830

PUBLICATION DATE: JUN 83

TITLE: EFFECTIVENESS OF OZONE AS A MUNICIPAL WASTEWATER DISINFECTANT.

PERSONAL AUTHOR: VENOSA, A. D.

DESCRIPTOR: *DISINFECTANTS; *EFFLUENTS; *OZONE; *PERFORMANCE EVALUATION; *RESEARCH; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 23P. PRICE CODE: PC A02/MF A01; PB84-130517

ABSTRACT: THIS PAPER REVIEWED FACTORS INFLUENCING THE EFFECTIVENESS OF OZONE AS A WASTEWATER EFFLUENT DISINFECTANT. IN A BRIEF SELECTED REVIEW OF THE LITERATURE, IT WAS SHOWN THAT DEMAND OF THE EFFLUENT PLAYS AN IMPORTANT AND SOMETIMES NOT SO EASILY PREDICTED ROLE IN DEFINING THE DOSE REQUIREMENT TO ACHIEVE A GIVEN FECAL COLIFORM CRITERION. IMPORTANT FACTORS INCLUDE BOD, COD, AND NITRITE, WHILE LESS IMPORTANT ARE SUSPENDED SOLIDS. THE QUESTION OF RELIABILITY WAS ADDRESSED IN THIS PAPER BY POINTING OUT THAT CONTROL OF OZONE DISINFECTION CAN EASILY BE ACCOMPLISHED BY MONITORING JUST ONE PARAMETER, THE EXHAUST GAS OZONE CONCENTRATION. FINALLY, IF STRICTER STANDARDS ARE REQUIRED

) BE ENFORCED, COMBINING OZONE WITH ULTRAVIOLET LIGHT IN EQUENCE IS ECONOMICALLY MORE EFFECTIVE THAN EITHER UV LIGHT t OZONE ALONE FOR TREATMENT PLANTS GREATER THAN 38,000 CU 'D (10.0 MGD).

/AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

IIS ACCESSION NUMBER: EW010831

JBLICATION DATE: SEP 83

TLE: EFFECTS OF WASTEWATER TREATMENT FACILITIES ON ETLANDS IN THE MIDWEST.

ESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *BIBLIOGRAPHIES; ECOLOGY; *FACILITIES; *MANAGEMENT; *WASTEWATER TREATMENT; /ETLANDS; *TECHNOLOGY

ESCRIPTIVE NOTE: 385P. PRICE CODE: PC A17/MF A01; PB84-7844

STRACT: THE REPORT DESCRIBES ISSUES OF WASTEWATER AND ETLANDS IN MIDWEST STATES (MINNESOTA, WISCONSIN, MICHIGAN, LINOIS, INDIANA AND OHIO), SUMMARIZES THE EXISTING NCLUDES A BIBLIOGRAPHY), INVENTORIES THE 98 EXISTING ETLAND DISCHARGES IN EPA REGION V AND IDENTIFIES POTENTIAL TES AND TOPICS FOR ADDITIONAL STUDY. BOTH NATURAL AND NSTRUCTED ('ARTIFICIAL') WETLANDS ARE CONSIDERED FOR TERNATIVE WASTEWATER TREATMENT TECHNOLOGY. KEY AREAS FOR TURE STUDY TO CONTRIBUTE TO A GENERIC ENVIRONMENTAL IMPACT ATEMENT INCLUDE: CONSTRUCTED WETLANDS, HYDROLOGIC IMPACTS, NG-TERM ECOLOGICAL EFFECTS, LEGAL AND ADMINISTRATIVE NSTRAINTS, MITIGATION OF IMPACTS, MANAGEMENT OF RECEIVING ETLANDS AND DISEASE AND HEALTH CONSIDERATIONS.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010832

BLICATION DATE: JAN 84

TLE: GENERALIZATION OF WATER QUALITY CRITERIA USING EMICAL MODELS: DEVELOPMENT OF THE REDEQL-UMD SYSTEM OF MPUTER PROGRAMS FOR AQUEOUS EQUILIBRIA. PART 1. USERS NUAL.

RSONAL AUTHOR: HARRISS, D. K.; AND OTHERS

SCRIPTOR: *COMPUTER APPLICATIONS; *CHEMICAL MODELS; OMPUTER PROGRAMS; *MANUALS; *METALS; *RESEARCH; OXICOLOGY; *WATER QUALITY

SCRIPTIVE NOTE: 200P. PRICE CODE: PC A09/MF A01; PB84-5508

ST.CT: THIS RESEARCH PROGRAM HAD THE PRIMARY OBJECTIVE DEVELOPING SITE-SPECIFIC WATER QUALITY CRITERIA FOR TALS THROUGH CORRELATING AQUATIC TOXICITY WITH ACTIVITIES OF METAL SPECIES. THE PROJECT WAS NOT INTENDED TO CARRY OUT EXPERIMENTAL STUDIES BUT TO MAKE USE OF EXISTING LITERATURE REPORTS OF METAL TOXICITY TO GENERATE THE CORRELATIONS. INHERENT IN THESE STUDIES WAS THE NEED FOR KNOWLEDGE OF THE NUMBER OF METAL SPECIES PRESENT, AND THE RELATIVE AMOUNTS OF EACH. TO MEET THESE NEEDS A SET OF COMPUTER PROGRAMS FOR FINDING EQUILIBRIUM CONCENTRATIONS OF METAL COMPLEXES REDEQL-UMD, WAS DEVELOPED, ALONG WITH A STABILITY CONSTANT DATA BASE AND ASSOCIATED REFERENCE-FOOTNOTE DATA BASES. LITERATURE VALUES OF STABILITY CONSTANT WERE ADJUSTED TO 25 C BY APPLICATION OF THERMODYNAMIC PRINCIPLES. ONCE SPECIATION AND TOXICITY DATA WERE AVAILABLE, A COMBINATION OF FACTOR ANALYSIS AND MULTIPLE REGRESSION ANALYSIS WAS USAD TO DEVELOP CORRELATIONS. A DETAILED EXAMPLE INVOLVING TOXICITY OF COPPER TO DAPHNIA MAGNA IS INCLUDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010833

PUBLICATION DATE: JAN 84

TITLE: GENERALIZATION OF WATER QUALITY CRITERIA USING CHEMICAL MODELS: DEVELOPMENT OF THE REDEQL-UMD SYSTEM OF COMPUTER PROGRAMS FOR AQUEOUS EQUILIBRIA. PART 2. PROGRAMMERS MANUAL.

PERSONAL AUTHOR: HARRISS, D. K.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *MANUALS; *METALS; *PROGAMMER MANUALS; *RESEARCH; *TOXICOLOGY; *WATER QUALITY

DESCRIPTIVE NOTE: 233P. PRICE CODE: PC A11/MF A01; PB84-135516

ABSTRACT: THIS RESEARCH PROGRAM HAD THE PRIMARY OBJECTIVE OF DEVELOPING SITE-SPECIFIC WATER QUALITY CRITERIA FOR METALS THROUGH CORRELATING AQUATIC TOXICITY WITH ACTIVITIES OF METAL SPECIES. THE PROJECT WAS NOT INTENDED TO CARRY OUT EXPERIMENTAL STUDIES BUT TO MAKE USE OF EXISTING LITERATURE REPORTS OF METAL TOXICITY TO GENERATE THE CORRELATIONS. THIS PROGRAMMERS MANUAL CONSISTS OF THREE PARTS: (A) DEFINITIONS AND COMPUTATIONAL ALGORITHMS FOR REDEQL-UMD IN WHICH THE ALGORITHMS FOR ALL COMPUTATIONAL PROCESSES ARE DESCRIBED, WITH EXAMPLES USED WHEN THE PROCEDURE IS COMPLEX; (B) PARAMETER AND GLOBAL VARIABLES FOR REDEQL-UMD IN WHICH THE GLOBAL VARIABLES ARE DEFINED AS TO NATURE AND TYPE, AND NORMAL RANGES ARE GIVEN AS WELL AS THE NAMES OF SUBROUTINES IN WHICH THEY ARE USED AND THE KIND OF USE MADE OF THE VARIABLES IN THOSE SUBROUTINES; (C) FLOW DIAGRAMS FOR REDEQL-UMD IN WHICH FLOW DIAGRAMS FOR ALL SUBROUTINES ARE GIVEN IN CONSIDERABLE DETAIL AS WELL AS A GENERAL FLOW SHEET FOR THE PROGRAM. THE MANUAL WILL FIND GREATEST USE BY THOSE DESIRING TO MAKE MAJOR MODIFICATIONS TO REDEQL-UMD ALTHOUGH IT WOULD BE USEFUL TO A SERIOUS USER WISHING TO OBTAIN A MORE THOROUGH UNDERSTANDING OF THE SET OF PROGRAMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010834

BLICATION DATE: 81

TLE: GROUNDWATER USE MANAGEMENT IN THE NORTHEASTERN ATES: LEGAL AND INSTITUTIONAL ISSUES.

RSONAL AUTHOR: RAYMOND, L. S., JR.

SCRIPTOR: CONFERENCE PROCEEDINGS; *GROUNDWATER; *LEGAL SUES; *LEGISLATION; *INSTITUTIONAL ISSUES; *MANAGEMENT; OLICY; *WATER RESOURCES

SCRIPTIVE NOTE: 337P. PRICE CODE: PC A15/MF A01; PB84-2463

STRACT: THE PURPOSES OF THE CONFERENCE WERE TO PROVIDE A RUM FOR EXCHANGING INFORMATION ON LEGAL AND INSTITUTIONAL OBLEMS INVOLVING GROUNDWATER SHORTAGES IN THE NORTHEASTERN ATES; AND TO IDENTIFY POLICY ISSUES WHICH COMMONLY EMERGE RELATION TO THE LEGAL AND INSTITUTIONAL ASPECTS OF OUNDWATER MANAGEMENT. PUBLICATION OF A PROCEEDINGS WHICH ULD SERVE AS A REFERENCE DOCUMENT ON LEGAL AND STITUTIONAL CONCERNS IN GROUNDWATER MANAGEMENT IN THE RTHEAST REPRESENTED A THIRD PURPOSE FOR THE CONFERENCE.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IIS ACCESSION NUMBER: EW010835

IBLICATION DATE: JAN 84

TLE: GUIDE TO THE SELECTION OF MATERIALS FOR MONITORING LL CONSTRUCTION AND GROUND-WATER SAMPLING.

ERSONAL AUTHOR: BARCELONA, M. J.; AND OTHERS

ESCRIPTOR: *CONSTRUCTION; *COSTS; *DESIGN; *GROUNDWATER; LITERATURE REVIEWS; *MONITORING; *SAMPLING; *WELLS

ESCRIPTIVE NOTE: 37P. PRICE CODE: PC A05/MF A01; PB84-91779

BSTRACT: THE PROJECT WAS INITIATED TO SUPPLEMENT AND PDATE EXISTING GUIDANCE DOCUMENTS FOR EFFECTIVE GROUND-ATER MONITORING EFFORTS. THE AREAS OF PRIMARY CONCERN WERE HE POTENTIAL SOURCES OF ERRORS IN CHEMICAL ANALYSES OF UBSURFACE SAMPLES CAUSED BY WELL CONSTRUCTION AND SAMPLING ATERIALS, TECHNIQUES OR PROCEDURES. A CRITICAL REVIEW OF HE LITERATURE WAS CONDUCTED ON VARIOUS ASPECTS OF ONITORING NATURAL WATERS. MATERIALS' PERFORMANCE DATA AND NPUBLISHED INFORMATION ON THE SUCCESS OF VARIOUS GROUND-ATER MONITORING TECHNIQUES. THE RESULTS OF THE LITERATURE EVIEW WERE COLLECTED AND REVIEWED BY A PANEL OF EXPERTS ROM GOVERNMENT AGENCIES, PRIVATE HYDROLOGICAL CONSULTING IRMS, THE MANUFACTURING INDUSTRY AND NATIONAL STANDARDS RGANIZATIONS. THE PUBLICATION CONSISTS OF A THOROUGH ISCUSSION OF GROUND-WATER MONITORING STRATEGIES, EQUIREMENTS AND PITFALLS. IT CONCLUDES WITH A DETAILED REATMENT OF THE COSTS AND BENEFITS OF RECOMMENDED ONITORING DESIGN CRITERIA.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010836

PUBLICATION DATE: 83

TITLE: IMPLEMENTATION OF SEQUENCING BATCH REACTORS FOR MUNICIPAL TREATMENT.

PERSONAL AUTHOR: BARTH, E. F.

DESCRIPTOR: *BATCH REACTORS; *COSTS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *RESEARCH; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 26P. PRICE CODE: PC A03/MF A01; PB84-130400

ABSTRACT: SEQUENCING BATCH REACTOR TECHNOLOGY IS BEING IMPLEMENTED AT VARIOUS MUNICIPAL SITES IN BOTH THE UNITED STATES AND ABROAD. TOTAL LIFE CYCLE COST SAVINGS, EASE OF OPERATION, AND RELIABILITY FAVOR THIS TECHNOLOGY AT FACILITIES SIZED UP TO 19,000 CU M PER DAY (5 MGD). BATCH TREATMENT HAS INHERENT ADVANTAGES OVER CONTINUOUS PROCESSES IN MANY APPLICATIONS. CURRENT RESEARCH INVESTIGATIONS ON SEQUENCING BATCH REACTORS CONCERN CONTROLLING SLUDGE SETTLEABILITY, NITRIFICATION, DENITRIFICATION, AND BIOLOGICAL PHOSPHORUS REMOVAL.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010837

PUBLICATION DATE: DEC 83

TITLE: ION EXCHANGE RESINS. JONE, 1976-JANUARY, 1983 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *HEAVY METALS; *ION EXCHANGE RESINS; *RADIOACTIVE WASTES; *RESEARCH REPORTS; *WATER

DESCRIPTIVE NOTE: 236P. PRICE CODE: PC N01/MF N01; PB84-854207

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING ION EXCHANGE RESINS AND MATERIALS AND THEIR APPLICATIONS. RECOVERY, PURIFICATION, AND TREATMENT OF URANIUM, PLUTONIUM, THORIUM, AND OTHER HEAVY METALS; OF RADIOACTIVE WASTES; AND, OF WATER AND OTHER VARIOUS SUBSTANCES ARE DISCUSSED. UTILIZATION OF ION EXCHANGE RESINS IN NUCLEAR REACTORS AND POWER PLANTS AND IN CHEMICAL REACTIONS AND PROCEDURES ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 304 CITATIONS, NONE OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010838

PUBLICATION DATE: DEC 83

TITLE: ION EXCHANGE RESINS. FEBRUARY, 1983-DECEMBER, 1983 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *HEAVY METALS; *ION EXCHANGE RESINS; *RADIOACTIVE WASTES; *RESEARCH REPORTS; *WATER

DESCRIPTIVE NOTE: 73P. PRICE CODE: PC N01/MF N01; PB84-154215

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING ION EXCHANGE RESINS AND MATERIALS AND THEIR APPLICATIONS. RECOVERY, PURIFICATION, AND TREATMENT OF URANIUM, PLUTONIUM, THORIUM, AND OTHER HEAVY METALS; OF RADIOACTIVE WASTES; AND, OF WATER AND OTHER VARIOUS SUBSTANCES ARE DISCUSSED. UTILIZATION OF ION EXCHANGE RESINS IN NUCLEAR REACTORS AND POWER PLANTS AND IN CHEMICAL REACTIONS AND PROCEDURES ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 70 CITATIONS, ALL OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010839

PUBLICATION DATE: AUG 83

TITLE: LAND TREATMENT RESEARCH AND DEVELOPMENT PROGRAM, SYNTHESIS OF RESEARCH RESULTS.

PERSONAL AUTHOR: ISKANDAR I. K.; WRIGHT, E. A.

DESCRIPTOR: *COST-EFFECTIVENESS; *DESIGN; *ENVIRONMENTAL EFFECTS; *LAND TREATMENT; *MONITORING; *PLANNING; *RESEARCH; *TECHNOLOGY; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 154P. PRICE CODE: PC A08/MF A01; AD-A134 540/4

ABSTRACT: THE MAJOR OBJECTIVE OF THE CORPS OF ENGINEERS LAND TREATMENT RESEARCH AND DEVELOPMENT PROGRAM WAS TO PROVIDE, THROUGH RESEARCH, DEFINITIVE CRITERIA AND PROCEDURES TO ENABLE THE COST-EFFECTIVE AND ENVIRONMENTALLY SAFE USE OF LAND TREATMENT OF MUNICIPAL WASTEWATER. THIS RESEARCH INCLUDED LONG-TERM FIELD EXPERIMENTS AT DIFFERENT LOCATIONS WITHIN THE UNITED STATES TO ESTABLISH DESIGN CRITERIA, LABORATORY RESEARCH TO UNDERSTAND AND SOLVE FUNDAMENTAL PROBLEMS, AND EVALUATION OF EXISTING LAND TREATMENT SYSTEMS TO DOCUMENT LONG-TERM PERFORMANCE. THE INFORMATION GATHERED FROM THE LAND TREATMENT RESEARCH PROGRAM HAS BEEN PUBLISHED IN MORE THAN 240 TECHNICAL PUBLICATIONS ON REGIONAL PLANNING, SITE SELECTION, DESIGN PROCEDURES, MECHANISMS OF WASTEWATER RENOVATION, SITE MANAGEMENT, SITE MONITORING AND ENVIRONMENTAL EFFECTS. DURING THE LAND TREATMENT PROGRAM, AN ACTIVE TECHNOLOGY TRANSFER EFFORT WAS MAINTAINED TO TRANSMIT RESEARCH RESULTS DIRECTLY TO USERS. THE STUDY CLEARLY DEMONSTRATED THAT LAND TREATMENT IS AN ATTRACTIVE ALTERNATIVE TO OTHER WASTE TREATMENT PRACTICES. IT WAS ALSO SHOWN THAT THE DIRECT BENEFITS OF THE PROGRAM, IN TERMS OF INCREASED COST-EFFECTIVENESS FROM IMPROVED DESIGN, WERE MUCH GREATER THAN THE PROGRAM'S COST.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010840

PUBLICATION DATE: JUN 83

TITLE: MANAGEMENT MODEL FOR DETERMINING ACCEPTABLE TYPES AND LEVELS OF RECREATION AT PUBLIC DRINKING WATER RESERVOIRS.

PERSONAL AUTHOR: KLAR, L. R.; AND OTHERS

DESCRIPTOR: *COSTS; *DRINKING WATER; *MANAGEMENT; *MANAGEMENT MODELS; *RECREATION; *RESEARCH REPORTS; *RESERVOIRS; *WATER QUALITY

DESCRIPTIVE NOTE: 260P. PRICE CODE: PC A12/MF A01; PB84-132448

ABSTRACT: A MANAGEMENT MODEL WAS DEVELOPED FOR DETERMINING OPTIMAL MIXES OF RECREATION ACTIVITIES AT PUBLIC DRINKING WATER RESERVOIRS. QUABBIN RESERVOIR, LOCATED IN CENTRAL MASSACHUSETTS, SERVED AS A CASE STUDY FOR THE MODEL. AN INTERDISCIPLINARY RESEARCH TEAM WAS FORMED TO STUDY (1) THE IMPACT OF SELECTED RECREATION ACTIVITIES ON WATER QUALITY, (2) PUBLIC DEMAND AND WILLINGNESS TO PAY FOR SELECTED RECREATION ACTIVITIES AT QUABBIN, (3) THE CARRYING CAPACITY POTENTIAL OF THE RESERVOIR AND (4) THE COST-BENEFITS ASSOCIATED WITH INCREASES IN RECREATION AT QUABBIN. ALL STUDY VARIABLES WERE INTEGRATED INTO A QUADRATIC PROGRAMMING MODEL PRODUCING OPTIMAL RECREATION ACTIVITY MIXES AS OUTPUTS. THE MODEL WAS SENSITIVE TO MANAGEMENT OBJECTIVES; RECOMMENDATIONS WERE LIMITED TO ACTIVITIES THAT WOULD NOT LOWER THE EXISTING HIGH QUALITY OF QUABBIN WATER.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010841

PUBLICATION DATE: MAY 83

TITLE: MORT USER'S MANUAL FOR USE WITH THE MANAGEMENT OVERSIGHT AND RISK TREE ANALYTICAL LOGIC DIAGRAM.

PERSONAL AUTHOR: KNOX, N. W.; EICHER, R. W.

DESCRIPTOR: *ACCIDENTS; *ANALYTICAL TECHNIQUES; *ACCIDENT PREVENTION; *MANAGEMENT; *MANUALS; *MORT; *OCCUPATIONAL SAFETY; *RISK; *SAFETY

DESCRIPTIVE NOTE: 71P. PRICE CODE: PC A04/MF A01; DES-000490

STRACT: THIS REPORT IS THE USER'S MANUAL FOR MORT, A GIC DIAGRAM IN THE FORM OF A WORK SHEET THAT ILLUSTRATES A NG SERIES OF INTERRELATED QUESTIONS. MORT IS A MPREHENSIVE ANALYTICAL PROCEDURE THAT PROVIDES A SCIPLINED METHOD FOR DETERMINING THE CAUSES AND NTRIBUTING FACTORS OF MAJOR ACCIDENTS. ALTERNATIVELY, IT RVES AS A TOOL TO EVALUATE THE QUALITY OF AN EXISTING FETY SYSTEM. WHILE SIMILAR IN MANY RESPECTS TO FAULT TREE ALYSIS, MORT IS MORE GENERALIZED AND PRESENTS OVER 1500 ECIFIC ELEMENTS OF AN IDEAL UNIVERSAL MANAGEMENT PROGRAM R OPTIMIZING OCCUPATIONAL SAFETY. (ERA CITATION 09:001361)

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010842

BLICATION DATE: DEC 83

TLE: OFFSHORE DRILLING: ENVIRONMENTAL EFFECTS. 1976-83 (CITATIONS FROM THE ENERGY DATA BASE).

SCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; NVIRONMENTAL IMPACT; *OFFSHORE DRILLING; *REGULATIONS; ECHNOLOGY; *WATER POLLUTION CONCTOL

SCRIPTIVE NOTE: 255P. PRICE CODE: PC N01/MF N01; PB84-4132

STRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING HE IMPACTS OF OFFSHORE DRILLING ON THE ENVIRONMENT. OLLUTION CONTROL TECHNIQUES AND TECHNOLOGY ARE CONSIDERED RIMARILY RELATIVE TO THEIR EFFICACY AND EFFICIENCY. PECIFIC ENVIRONMENTAL IMPACT STATEMENTS, PERMIT PPLICATIONS, AND LEASE SALES ARE CITED AS ARE REGULATORY ND NON-REGULATORY REQUIREMENTS FOR DRILLING. (THIS UPDATED IBLIOGRAPHY CONTAINS 319 CITATIONS, 34 OF WHICH ARE NEW NTRIES TO THE PREVIOUS EDITION.)

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010843

UBLICATION DATE: DEC 83

ITLE: OIL SPILL REMOVAL: DISPERSANTS, ABSORBANTS, BOOMS, ND SKIMMERS. 1978-1983 (CITATIONS FROM THE LIFE SCIENCES OLLECTION DATA BASE).

ESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; ENVIRONMENTAL IMPACT; *EQUIPMENT; *OIL SPILLS; *OIL SPILL EMOVAL; *TECHNOLOGY

ESCRIPTIVE NOTE: 95P. PRICE CODE: PC N01/MF N01; PB84-35162

BSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING HE TECHNIQUES AVAILABLE FOR THE REMOVAL OF OIL FOLLOWING AJOR SPILLS. CHEMICAL DISPERSANTS, GELLING AGENTS, FOAM PLASTICS, BOOMS, SKIMMERS, AND BURNING ARE DISCUSSED. SPECIFIC OIL SPILLS ARE CONSIDERED AND THE ENVIRONMENTAL IMPACTS OF OIL SPILLS ARE NOTED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 112 CITATIONS, 48 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010844

PUBLICATION DATE: APR 83

TITLE: OPTIMIZATION MODEL FOR LAND TREATMENT PLANNING, DESIGN AND OPERATION. PART 1. BACKGROUND AND LITERATURE REVIEW.

PERSONAL AUTHOR: BARON, JACLYN A.; AND OTHERS

DESCRIPTOR: *DESIGN; *LAND TREATMENT; *LITERATURE REVIEWS; *MODELS; *PLANNING; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 39P. PRICE CODE: PC A03/MF A01; AD-A134 554/5

ABSTRACT: THE MATERIAL PRESENTED IN PART 1 IS INTENDED TO PROVIDE INSIGHT INTO THE POSSIBLE LAND TREATMENT PLANNING OBJECTIVES, THE STATUS OF LAND TREATMENT RESEARCH AND IMPLEMENTATION, THE RENOVATIVE PROCESSES THAT OCCUR IN THE VARIOUS COMPONENTS OF THESE SYSTEMS, AND THE POTENTIAL FOR OPTIMIZING THE CONFIGURATION OF THESE COMPONENTS. THE STRUCTURE AND APPLICATION OF NINE MODELS, WHICH INCLUDE METHODS TO OPTIMIZE THE REGIONAL PLANNING, DESIGN AND OPERATION OF SLOW-RATE LAND TREATMENT SYSTEMS, ARE BRIEFLY DISCUSSED. GENERAL COMMENTS FOLLOW ON THE OVERALL STATUS OF RESEARCH IN LAND TREATMENT MODELING AND DIRECTIONS FOR FUTURE WORK.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010845

PUBLICATION DATE: APR 83

TITLE: OPTIMIZATION MODEL FOR LAND TREATMENT PLANNING, DESIGN AND OPERATION. PART 2. CASE STUDY.

PERSONAL AUTHOR: BARON, JACLYN A.; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *DESIGN; *LAND TREATMENT; *PLANNING; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 38P. PRICE CODE: PC A03/MF A01; AD-A134 813/1

ABSTRACT: A PROCEDURE TO EVALUATE DESIGN AND OPERATING OPTIONS FOR SLOW-RATE LAND TREATMENT SYSTEMS IS DEMONSTRATED. THE NONLINEAR OPTIMIZATION MODEL LTMOD IS USED TO GENERATE OPTIMAL MONTHLY OPERATING REGIMES (EFFLUENT

PPLICATION PATTERNS) AND TO DEFINE OPTIMAL DESIGN ONFIGURATIONS (COMBINATIONS OF STORAGE CAPACITY AND RRIGATION AREA). THE MODEL IS APPLIED TO A HYPOTHETICAL LOW-RATE LAND TREATMENT SYSTEM IN A COOL, HUMID AREA WITH A ORAGE CROP, WHERE THE OPERATION AND DESIGN OF THE SYSTEM IS ONSTRAINED BY THE POTENTIAL FOR NITROGEN RENOVATION IN THE TORAGE FACILITY AND IN THE SOIL-CORP SYSTEM. THE COST ROPERTIES OVER THE RANGE OF OPTIMAL DESIGN ALTERNATIVES ARE XAMINED TO DEDUCE SOME GENERAL COST CHARACTERISTICS OF LOW-RATE SYSTEMS RANGING FROM 0.5 TO 10 MGD.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

IIS ACCESSION NUMBER: EW010846

IBLICATION DATE: JAN 84

TLE: POLYCHLORINATED BIPHENYLS IN THE FRESHWATER VIRONMENT. 1977-JANUARY, 1984 (CITATIONS FROM THE LECTED WATER RESOURCES ABSTRACTS DATA BASE).

SCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; RESHWATER; *ENVIRONMENTAL EFFECTS; *MONITORING; *PCBS; OLYCHLORINATED BIPHENYLS; *RESEARCH REPORTS; *WATER LLUTION CONTROL

SCRIPTIVE NOTE: 118P. PRICE CODE: PC N01/MF N01; PB84-7358

STRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING E OCCURRENCE AND EFFECTS OF POLYCHLORINATED BIPHENYLS IN E FRESHWATER ENVIRONMENT. TOPICS INCLUDE SOURCES, STRIBUTION, AND ACCUMULATION RATES FOR SPECIFIC REGIONS, OACCUMULATION, POLLUTANT PATHS AND INTRODUCTION INTO THE OD CHAIN, AND RESULTS OF LONG AND SHORT TERM MONITORING OF LECTED AREAS. DETECTION METHODS FOR PCB ACCUMULATION IN SH AND SURFICIAL SEDIMENTS ARE ALSO CONSIDERED. (CONTAINS 2 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010847

BLICATION DATE: AUG 83

TLE: PROCEEDINGS FROM A WORKSHOP ON RESEARCH NEEDS LATING TO SOIL ABSORPTION OF WASTEWATER.

RSONAL AUTHOR: WARD, R. C.; MORRISON, S. M.

SCRIPTOR: *CONFERENCE PROCEEDINGS; *MICROBIOLOGY; *ONSITE STEWATER TREATMENT; *PUBLIC HEALTH; *RESEARCH NEEDS; OIL; *SOIL ABSORPTION; *SOIL CHEMISTRY; *WASTEWATER EATMENT

SCRIPTIVE NOTE: 128P. PRICE CODE: PC A09/MF A01; PB84-3160

ABSTRACT: PAPERS DELIVERED AT THE CONFERENCE ARE PRESENTED IN THE REPORT. THEY ADDRESS RESEARCH NEEDS IN SOIL SCIENCE AND SOIL ABSORPTION OF WASTEWATER, SLUDGES AND INVERTEBRATES, HEALTH IMPLICATIONS OF BACTERIA AND PARASITES IN SOIL ABSORPTION OF WASTEWATER, AND SOIL CHEMISTRY ASPECTS OF ON-SITE WASTEWATER TREATMENT SYSTEMS. CRITIQUES OF VIROLOGY, MICROBIOLOGY, AND SOIL MACROORGANISM RESEARCH ARE INCLUDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010852

PUBLICATION DATE: DEC 83

TITLE: STRIP MINING: HYDROLOGY. 1977-1983 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *GROUNDWATER; *HYDROLOGY; *SITE REHABILITATION; *STRIP MINING; *SURFACE WATER; *WATER POLLUTION

DESCRIPTIVE NOTE: 223P. PRICE CODE: PC N01/MF N01; PB84-854199

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE HYDROLOGIC IMPACTS OF STRIP MINING. THE POTENTIAL IMPACTS OF STRIP MINING ON SURFACE AND GROUND WATER AND MEASURES TO MONITOR AND CONTROL WATER POLLUTION ARE DISCUSSED. SITE REHABILITATION IS ALSO CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 204 CITATIONS, 12 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010853

PUBLICATION DATE: JAN 84

TITLE: UTILIZATION OF MUNICIPAL WASTEWATER AND SLUDGE ON LAND, PROCEEDINGS OF THE 1983 WORKSHOP.

PERSONAL AUTHOR: PAGE, A. L.; AND OTHERS

DESCRIPTOR: *ECONOMICS; *EFFLUENTS; *LAND APPLICATION; *LAND TREATMENT; *MANAGEMENT; *PUBLIC HEALTH; *SLUDGE; *TECHNOLOGY; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 461P. PRICE CODE: PC A20/MF A01; PB84-129030

ABSTRACT: A WORKSHOP ON UTILIZATION OF MUNICIPAL WASTEWATER AND SLUDGE ON LAND WAS HELD IN DENVER, COLORADO FROM FEBRUARY 23 THROUGH 25, 1983. RESEARCHERS AND PRACTITIONERS OF LAND TREATMENT, TOTALING 203 IN NUMBER AND FROM THE UNITED STATES AND OTHER COUNTRIES WERE, INVITED TO ATTEND AND EVALUATE ADVANCES IN THE LAND TREATMENT TECHNOLOGY DURING THE PAST DECADE. THE REPORTS OF THE CONFERENCE

CLUDE POSITION PAPERS ON INSTITUTIONAL CONSTRAINTS, DROLOGIC AND NUTRIENT MANAGEMENT, PATHOGENS, METALS, GANICS, ENGINEERING AND ECONOMICS AND PUBLIC HEALTH PECTS.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010854

BLICATION DATE: DEC 83

TLE: WASTE TREATMENT: BEVERAGE INDUSTRY. 1972-1983 ITATIONS FROM THE FOOD SCIENCE AND TECHNOLOGY ABSTRACTS TA BASE).

SCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; REWERIES; *BEVERAGE INDUSTRY; *EFFLUENTS; *INDUSTRIAL STES; *ECONOMICS; *WASTE DISPOSAL; *WASTE TREATMENT; INERIES

SCRIPTIVE NOTE: 198P. PRICE CODE: PC N01/MF N01; PB84-44005

STRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING E TREATMENT OF EFFLUENTS FROM BEVERAGE INDUSTRY PROCESSES. RTICULAR EMPHASIS IS ON BREWERY AND WINERY EFFLUENT EATMENT. CHARACTERISTICS OF THE WASTE PRODUCTS AND PRE-EATMENT AND TREATMENT METHODS ARE DISCUSSED. REGULATIONS VERNING WASTE DISPOSAL ARE ALSO CONSIDERED ALONG WITH THE ONOMICS OF WASTE DISPOSAL. BOTH ALCOHOLIC AND SOFT DRINK VERAGES ARE CONSIDERED. (THIS UPDATED BIBLIOGRAPHY NTAINS 312 CITATIONS, 25 OF WHICH ARE NEW ENTRIES TO THE EVIOUS EDITION.)

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010856

UBLICATION DATE: JUL 83

ITLE: WASTEWATER MANAGEMENT: TECHNICAL ALTERNATIVES AND EGULATORY OUTLOOK.

ESCRIPTOR: *CONFERENCE PROCEEDING; *CHEMICALS; ENZYMES; ECONOMICS; *INDUSTRIAL WASTES; *IRRADIATION; *MANAGEMENT; OPERATIONS (WASTEWATER); *TECHNOLOGY; *WASTEWATER TREATMENT

ESCRIPTIVE NOTE: 24P. PRICE CODE: PC A02/MF A01; PB84-41373

BSTRACT: THE FOLLOWING IS A COMBINED DISCUSSION AND REPORT F THE MIT MARINE INDUSTRY COLLEGIUM WORKSHOP HELD AT MIT ON EBRUARY 10, 1983. THE FIRST AREA DESCRIBED IN SOME DETAIL N SECTION 2 CONCERNS THE USE OF ENZYMES FOR PRECIPITATING HENOLS AND RELATED CHEMICALS FROM INDUSTRIAL WASTEWATER IN NEW AND EFFICACIOUS MANNER. SECTION 3 DESCRIBES CONTINUED EVELOPMENT IN THE ELECTRON IRRADIATION PROCESS FOR TREATING UNICIPAL WASTEWATERS. FINALLY, SECTION 4 COMPLIMENTS THE TECHNICAL ALTERNATIVES TO WASTEWATER TREATMENT. CREATIVE FINANCING OF SEWERAGE TREATMENT PLANTS MIGHT ENCOURAGE PRIVATE AND PUBLIC INTERESTS TO JOIN FORCES IN MUTUALLY BENEFICIAL PARTNERSHIPS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010857

PUBLICATION DATE: DEC 83

TITLE: WATER POLLUTION: UPTAKE OF HEAVY METALS BY SHELLFISH AND MARINE PLANTS. 1974-1983 (CITATIONS FROM OCEANIC ABSTRACTS).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *HEAVY METALS; *MARINE PLANTS; *METALS; *OCEANOGRAPHY; *PLANTS; *SHELLFISH; *WATER POLLUTION

DESCRIPTIVE NOTE: 180P. PRICE CODE: PC N01/MF N01; PB84-854306

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING HEAVY METAL CONTAMINATION OF SHELLFISH AND MARINE PLANTS. TOXICITY LEVELS AND THE LONG TERM EFFECTS ON THE ECOLOGY OF THE MARINE ENVIRONMENT ARE DISCUSSED. THE GROWTH RATE OF MARINE LIFE AS A FUNCTION OF METAL CONCENTRATION AND THE LONG TERM EFFECTS ON THE FOOD CHAIN ARE ALSO CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 248 CITATIONS, 11 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010858

PUBLICATION DATE: JAN 84

TITLE: WATER QUALITY: PATHOGENIC BACTERIA. 1977-JANUARY, 1984 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES; *BACTERIA; *MICROBIOLOGY; *PATHOGENIC BACTERIA; *PATHOGENS; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 211P. PRICE CODE: PC N01/MF N01; PB84-857812

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING WATER QUALITY, WASTEWATER TREATMENT AND THE PRESENCE, SURVIVAL, AND HAZARDS OF PATHOGENIC MICROORGANISMS. THE PROBABLE SOURCES AND FACTORS AFFECTING THE SURVIVAL OF THE BACTERIA ARE CONSIDERED. DETECTION METHODS AND PHYSICAL AND CHEMICAL TREATMENT METHODS ARE DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 205 CITATIONS, 17 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010859

UBLICATION DATE: OCT 83

ITLE: ACTIVATED CARBON PROCESS FOR THE TREATMENT OF ADMIUM (II)-CONTAINING WASTEWATERS.

ERSONAL AUTHOR: HUANG, C. P.

ESCRIPTOR: *ACTIVATED CARBON; *CADMIUM; *INDUSTRIAL ASTES; *METALS; *OPERATIONS (WASTEWATER); *PERFORMANCE VALUATION; *RESEARCH REPORTS; *WASTEWATER TREATMENT

ESCRIPTIVE NOTE: PB84-247155

BSTRACT: THIS STUDY DEALS WITH THE REMOVAL OF CADMIUM (II) Y ACTIVATED CARBON ADSORPTION. RESULTS OF THE USE OF IFFERENT TYPES OF COMMERCIAL ACTIVATED CARBON, EFFECTS OF XPERIMENTAL VARIABLES, AND COSTS ARE REPORTED.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010860

BLICATION DATE: DEC 83

TLE: ALTERNATE TREATMENT OF ORGANIC SOLVENTS AND SLUDGES OM METAL FINISHING OPERATIONS--FINAL REPORT.

RSONAL AUTHOR: CHENG, S. C.; AND OTHERS

SCRIPTOR: *COSTS; *INDUSTRIAL WASTES; *METALS; *METAL NISHING OPERATIONS; *ORGANIC COMPOUNDS; *SLUDGES; OLVENTS; *WASTE TREATMENT; *WASTE DISPOSAL

SCRIPTIVE NOTE: PB84-102151

STRACT: THE METAL FINISHING INDUSTRY USES SIGNIFICANT OUNTS OF ORGANIC MATERIALS IN ITS METAL WORKING PROCESSES, SOLVENT CLEANING, AND IN PRODUCT COATING PROCESSES. DATA THE QUANTITIES AND COMPOSITIONS OF THESE WASTES WERE LLECTED FROM LITERATURE SOURCES, INDUSTRY SOURCES, AND ATE AND ENVIRONMENTAL AGENCY FILES. PROCESSES FOR HANDLING ESE WASTES WERE DESCRIBED AND RECOMMENDATIONS WERE MADE R FUTURE WORK TO PROMOTE THE SAFE DISPOSAL OF THESE GANIC RESIDUES.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010864

PUBLICATION DATE: NOV 83

TITLE: CHARACTERIZATION AND TREATMENT OF AQUEOUS WASTES AND RESIDUE FROM PETROLEUM REFINERIES.

PERSONAL AUTHOR: BURKS, S. L.; WAGNER, J.

DESCRIPTOR: *INDUSTRIAL WASTES; *OIL; *OPERATIONS (WASTEWATER); *PETROLEUM WASTES; *OIL REFINERIES; *RESEARCH PROJECTS; *PERFORMANCE EVALUATION; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB83-260281

ABSTRACT: THIS RESEARCH PROJECT WAS DESIGNED TO EVALUATE METHODS FOR INTENSIVELY TREATING HIGHLY CONCENTRATED LOW VOLUME STREAMS CONTAINING PETROLEUM REFINERY WASTES. MATERIALS REMOVED AND PROCEDURES USED ARE REPORTED. ADVANCED SYSTEMS COULD BE USED FOR TREATMENT, BUT THESE SYSTEMS WOULD NOT BE AS PRACTICAL OR ECONOMICALLY FEASIBLE AS BIOLOGICAL OXIDATION UNITS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010866

PUBLICATION DATE: SEP 83

TITLE: DEMONSTRATION OF SEWER RELINING BY THE INSITUFORM PROCESS, NORTHBROOK, ILLINOIS.

PERSONAL AUTHOR: DRIVER, F. T.; OLSON, M. R.

DESCRIPTOR: *COSTS; *INFILTRATION; *INSITUFORM; *MAINTENANCE; *OPERATIONS (WASTEWATER); *REHABILITATION; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: PB83-245878

ABSTRACT: A FULL SCALE STUDY WAS UNDERTAKEN OF THE INSITUFORM PROCESS FOR LINING SEWER PIPES TO SEAL LEAKS TO PREVENT INFILTRATION. THE STUDY WAS DONE IN NORTHBROOK, ILLINOIS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010867

PUBLICATION DATE: SEP 83

TITLE: DEVELOPMENT AND APPLICATION OF A WATER SUPPLY FINANCIAL REPORTING SYSTEM: VOLUMES I AND II.

PERSONAL AUTHOR: FENDER, VICTOR C.; AND OTHERS

DESCRIPTOR: *ADMINISTRATION; *COMPUTER APPLICATIONS;

INANCES; *FINANCIAL REPORTING SYSTEMS; *MANAGEMENT; EPORTING; *WATER UTILITIES; *WATER SUPPLY

SCRIPTIVE NOTE: PB83-249417 (VOLUME I); PB83-249425 OLUME II).

STRACT: THIS TWO-VOLUME REPORT DESCRIBES THE DEVELOPMENT A COMPUTERIZED FINANCIAL REPORTING SYSTEM FOR A KENTON UNTY IN KENTUCKY. THE OBJECTIVES OF THE REPORTING SYSTEM E TO (1) PROVIDE PROGRAMS THAT PRODUCE A GENERAL LEDGER COUNTING SYSTEM AND FINANCIAL REPORTS AND (2) FUNCTION AS MODULAR SYSTEM INDEPENDENTLY OR WITH A COST ANALYSIS STEM. THIS REPORT DISCUSSES THE BACKGROUND CONDITIONS AND SULTS OF THE PROJECT IN VOLUME I AND PROVIDES COMPLETE CUMENTATION IN VOLUME II.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

.IS ACCESSION NUMBER: EW010869

TLE: THE FATE OF ORGANIC POLLUTANTS IN A WASTEWATER LAND EATMENT SYSTEM USING LAGOON IMPOUNDMENT AND SPRAY RRIGATION.

RSONAL AUTHOR: DEMIRJIAN, Y. A.; AND OTHERS

SCRIPTOR: *IRRIGATION; *LAGOONS; *LAND TREATMENT; ICHIGAN; *OPERATIONS (WASTEWATER); *ORGANIC COMPOUNDS; ERFORMANCE EVALUATION; *RECOMMENDATIONS; *RESEARCH; ASTEWATER TREATMENT

STRACT: THIS STUDY WAS CONDUCTED TO DETERMINE THE FATE OF RGANIC POLLUTANTS IN A WASTEWATER LAND TREATMENT SYSTEM IN SKEGON COUNTY IN MICHIGAN. THE SYSTEM USED LAGOON MPOUNDMENT AND SPRAY IRRIGATION. RESULTS OF THE STUDY ARE EPORTED.

VAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 ORT ROYAL ROAD, SPRINGFIELD, VA 22161

RIS ACCESSION NUMBER: EW010870

UBLICATION DATE: NOV 83

ITLE: LAND TREATABILITY OF REFINERY AND PETROCHEMICAL LUDGES.

ERSONAL AUTHOR: BROWN, K. W.; AND OTHERS

ESCRIPTOR: BIODEGRADATION; GROUNDWATER; *INDUSTRIAL ASTES; *LAND TREATMENT; MONITORING; PHYTOTOXICITY; *OIL; PETROCHEMICALS; *PERFORMANCE EVALUATION; *RESEARCH; SLUDGE; WASTE DISPOSAL; WATER POLLUTION CONTROL

ESCRIPTIVE NOTE: PB83-247148

BSTRACT: THE LAND DISPOSAL OF THE API SEPARATOR SLUDGES AS INVESTIGATED WITH REGARD TO DECOMPOSITION RATES OF RGANIC CONSTITUENTS AND THE POSSIBLE IMPACT OF THESE MATERIALS ON PLANTS AND SURFACE WATER OR GROUNDWATER QUALITY. TWO OILY SLUDGES WERE STUDIED FOR THEIR PHYTOTOXICITY, BIODEGRADABILITY IN SOILS, WATER-SOLUBLE CONSTITUENTS AND FIELD MOBILITY. RESULTS OF THE STUDY ARE REPORTED AND INDICATED A NEED FOR CAREFUL MANAGEMENT OF LAND TREATMENT SITES TO AVOID GROUNDWATER CONTAMINATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010871

PUBLICATION DATE: SEP 83

TITLE: LAND TREATMENT FIELD STUDIES, VOLUMES 1-6.

PERSONAL AUTHOR: BERKOWITZ, JOAN; AND OTHERS

DESCRIPTOR: *FIELD STUDIES; *INDUSTRIAL WASTES; *LAND TREATMENT; *MANAGEMENT; *PERFORMANCE EVALUATION; *RESEARCH; *WASTE DISPOSAL; *WASTE CHARACTERISTICS

DESCRIPTIVE NOTE: PB83-241273 (VOLUME 1); PB83-241281 (VOLUME 2); PB83-241299 (VOLUME 3); PB83-241307 (VOLUME 4); PB83-241315 (VOLUME 5); AND PB83-241323 (VOLUME 6). PB83-241265 (VOLUMES 1-6)

ABSTRACT: A FIELD STUDY EXAMINED SIX LAND TREATMENT SITES RECEIVING INDUSTRIAL WASTES. EACH SITE RECEIVED ONE WASTE ONLY. RESULTS OF THE STUDY PROVIDE INSIGHT INTO THE FACTORS THAT SHOULD BE CONSIDERED WHEN PLANNING LAND TREATMENT FACILITIES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010873

PUBLICATION DATE: SEP 83

TITLE: MICROBIOLOGICAL ALTERATIONS IN DISTRIBUTED WATER TREATED WITH GRANULAR ACTIVATED CARBON.

PERSONAL AUTHOR: HAAS, CHARLES N.; AND OTHERS

DESCRIPTOR: *COLIFORMS; *GAS; *GRANULAR ACTIVATED CARBON; *ENDOTOXIUS; *MICRORGANISMS; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB83-247163

ABSTRACT: GRANULAR ACTIVATED CARBON (GAS) TREATMENT OF DRINKING WATER WAS INVESTIGATED TO DETERMINE ITS EFFECTS ON THE MICROBIOLOGICAL CHARACTERISTICS OF POTABLE WATER DISTRIBUTION SYSTEMS. RESULTS OF THE STUDIES IN TWO FULL-SCALE PLANTS AND A PILOT-SCALE PLANT ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010875

BLICATION DATE: NOV 83

TLE: TEST PROCEDURE FOR URANIUM IN DRINKING WATER: ITERLABORATORY COLLABORATIVE STUDY.

RSONAL AUTHOR: PHILLIPS, C. A.; AND OTHERS

SCRIPTOR: *ANALYTICAL TECHNIQUES; *DRINKING WATER; NTERLABORATORY STUDIES; *LABORATORY PROCEDURES; ERFORMANCE EVALUATION; *TEST PROCEDURES; *URANIUM; *WATER ALITY

SCRIPTIVE NOTE: PB83-247239

STRACT: AN INTERLABORATORY COLLABORATIVE STUDY WAS NDUCTED FOR A TEST PROCEDURE TO MEASURE THE CONCENTRATION URANIUM IN DRINKING WATER. THE PURPOSE OF THE STUDY WAS ESTIMATE THE PRECISION AND ACCURACY FOR THE TEST OCEDURE THAT CAN BE EXPECTED BY A COMPETENT LABORATORY. ATISTICAL RESULTS ARE REPORTED.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010876

BLICATION DATE: OCT 83

TLE: WASTEWATER TREATMENT WITH PLANTS IN NUTRIENT FILMS.

RSONAL AUTHOR: JEWELL, W. J.; AND OTHERS

SCRIPTOR: *ALTERNATIVE TECHNOLOGY; *ECONOMICS; *NUTRIENT LM TECHNIQUE; *OPERATIONS (WASTEWATER); *PERFORMANCE ALUATION; *RESEARCH REPORTS; *TECHNOLOGY; *WASTEWATER EATMENT

SCRIPTIVE NOTE: PB83-247494

STRACT: THE GOAL OF THIS STUDY WAS TO DETERMINE THE ONOMIC, TECHNICAL, AND PRACTICAL FEASIBILITY OF USING ANTS GROWN IN THE NUTRIENT FILM TECHNIQUE (NFT) SYSTEM AS LLUTION CONTROL SYSTEMS. THE NFT WAS SHOWN TO BE A VIABLE TERNATIVE FOR DOMESTIC SEWAGE TREATMENT. VARIOUS ASPECTS THE STUDY WERE DISCUSSED.

AILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 RT ROYAL ROAD, SPRINGFIELD, VA 22161

IS ACCESSION NUMBER: EW010877

BLICATION DATE: NOV 83

TLE: WATER HYACINTH WASTEWATER TREATMENT SYSTEMS: PORTUNITIES AND CONSTRAINTS IN COOLER CLIMATES.

RSONAL AUTHOR: LESLIE, MICHELE

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *AQUATIC PLANTS; *COSTS; *HYACINTHS; *OPERATIONS (WASTEWATER); *PLANTS; *REGULATIONS; *TECHNOLOGY; *WASTEWATER TREATMENT; *WATER HYACINTHS

DESCRIPTIVE NOTE: PB83-251223

ABSTRACT: THIS STUDY WAS CONDUCTED TO CONSIDER THE USE OF HIGHER PLANTS SUCH AS HYACINTHS FOR MUNICIPAL WASTEWATER TREATMENT IN COOLER CLIMATES. RESULTS OF THE STUDY INDICATE THERE ARE SEVERAL BARRIERS TO THE USE OF SUCH ORGANISMS ON A YEAR-ROUND BASIS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010878

PUBLICATION DATE: MAR 84

TITLE: MONITOR: SECONDARY TREATMENT: REGULATORY REALITY.

PERSONAL AUTHOR: FLYNN, KEVIN C.

DESCRIPTOR: *COMPLIANCE; *ECONOMICS; *EFFLUENTS; *LEGISLATION; *POLICIES; *REGULATIONS; *SECONDARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 204-208P.

ABSTRACT: DISCUSSED ARE RECENT PROPOSED REGULATIONS REGARDING SECONDARY WASTEWATER TREATMENT. THE IMPACT OF THE PROPOSED REGULATIONS ARE CONSIDERED. MOST FINANCIAL SAVINGS WILL COME TO SMALL COMMUNITIES WITH POPULATIONS OF 10,000 OR LESS AND PLANTS DISCHARGING 1 MGD OR LESS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N3

IRIS ACCESSION NUMBER: EW010879

PUBLICATION DATE: MAR 84

TITLE: CHEMICAL REACTOR DESIGN THEORY AND BIOLOGICAL TREATMENT OF INDUSTRIAL WASTES--IS THERE A GAP?

PERSONAL AUTHOR: BUSCH, ARTHUR W.

DESCRIPTOR: *ACTIVATED SLUDGE; *BIOLOGICAL WASTEWATER TREATMENT; *DESIGN; *ENGINEERING; *FACILITIES; *INDUSTRIAL WASTES; *MODELS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 215-218P.

ABSTRACT: THERE IS A NEED TO RESTATE THE ENGINEERING ASPECTS OF ACTIVATED SLUDGE DESIGN IN TERMS OF EXPERIMENTALLY DERIVED RATE DATA. THIS PAPER ADDRESSES ISSUES ARISING FROM THE APPLICATION OF CHEMICAL REACTOR DESIGNS THEORY FOR FIRST ORDER REACTIONS TO AEROBIC BIOLOGICAL WASTEWATER TREATMENT.

AILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; 6 N3

IS ACCESSION NUMBER: EW010880

BLICATION DATE: MAR 84

TLE: USE OF WATER HYACINTH AQUATIC TREATMENT SYSTEMS FOR MONIA CONTROL AND EFFLUENT POLISHING.

RSONAL AUTHOR: HAUGER, JEFFREY R.

SCRIPTOR: *AMMONIA; *AQUATIC TREATMENT; *CALIFORNIA; YACINTHS; *MANAGEMENT; *PERFORMANCE EVALUATION; ECOMMENDATIONS; *WATER HYACINTHS; *WASTEWATER TREATMENT

SCRIPTIVE NOTE: 219-225P.

STRACT: TEST SYSTEMS REDUCED AMMONIA BY 10% IN NONAERATED NDS, AND BY 99% IN PONDS WITH SUPPLEMENTAL AERATION.

AILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; 6 N3

IS ACCESSION NUMBER: EW010881

BLICATION DATE: MAR 84

TLE: LAND APPLICATION ODOR STUDY.

RSONAL AUTHOR: GERICK, J. A.

SCRIPTOR: *INDUSTRIAL WASTES; *LAND APPLICATION; ERATIONS (WASTEWATER); *ODOR CONTROL; *POTATO INDUSTRY; RFORMANCE EVALUATION; *RESEARCH; *RECOMMENDATIONS; ASTEWATER TREATMENT

SCRIPTIVE NOTE: 287-291P.

STRACT: A *QUANTITATIVE UNDERSTANDING OF MECHANISMS OF* OR PRODUCTION CAN LEAD TO PROCESS AND OPERATIONAL DIFICATIONS THAT REDUCE ODOR DEVELOPMENT. THIS PAPER SCRIBES THE USE OF ADVANCED LABORATORY TECHNIQUES TO ANTIFY ODOR PRODUCTION. THE STUDY INVOLVED POTATO WASTES IDAHO.

AILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; 6 N3

RIS ACCESSION NUMBER: EW010882

UBLICATION DATE: APR 84

ITLE: HUMAN RESOURCES TEST THE SKILLS OF TODAY'S MANAGERS.

ERSONAL AUTHOR: GWINN, CHES

ESCRIPTOR: *COSTS; *HUMAN RESOURCES; *HUMAN RESOURCE DEVELOPMENT; *MANAGEMENT; *PERFORMANCE MANAGEMENT SYSTEMS; *PERSONNEL; *PRODUCTIVITY; SALARIES

DESCRIPTIVE NOTE: 56-59P.

ABSTRACT: PUBLIC SECTOR GROUPS ARE BEGINNING TO EMULATE THE PRIVATE SECTOR IN MANAGING HUMAN RESOURCES. FACTORS FORCING ORGANIZATIONS TO PAY MORE ATTENTION TO PEOPLE MANAGEMENT ARE: (1) SCARCITY OF FINANCIAL RESOURCES, (2) DEMAND FOR MORE AND HIGHER QUALITY SERVICES, (3) COMPETITION FOR CAPABLE PERSONNEL, AND (4) CHANGES IN THE LABOR FORCE. THREE STRATEGIES FOR IMPROVED EMPLOYEE MOTIVATION ARE DESCRIBED.

AVAILABILITY: AMERICAN CITY & COUNTY; V99 N4

IRIS ACCESSION NUMBER: EW010883

PUBLICATION DATE: APR 84

TITLE: STUDIES ON HOME WATER TREATMENT SYSTEMS.

PERSONAL AUTHOR: BELL, FRANK A., JR.; AND OTHERS

DESCRIPTOR: *DRINKING WATER; *ENDOTOXINS; *HOME SYSTEMS; *MICROORGANISMS; *ONSITE TREATMENT; *ORGANIC COMPOUNDS; *PERFORMANCE EVALUATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 126-130P.

ABSTRACT: STATISTICAL INFORMATION ON OVER 30 COMMERCIALLY AVAILABLE HOME WATER TREATMENT SYSTEMS IS PRESENTED. INFORMATION INCLUDES DATA ON REMOVING VOLATILE ORGANIC CHEMICALS AND MICROBIOLOGICAL AND ENDOTOXIN CONCENTRATIONS FOUND IN THE FILTER EFFLUENTS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N4

IRIS ACCESSION NUMBER: EW010884

PUBLICATION DATE: APR 84

TITLE: DEVELOPING JOINT WATER PROJECTS.

PERSONAL AUTHOR: HARDTEN, RONALD D.

DESCRIPTOR: *ECONOMICS; *JOINT PROJECT DEVELOPMENT; *OPERATIONS (WATER); *RURAL AREAS; *URBAN AREAS; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 131-133P.

ABSTRACT: CORE CITIES AND SUBURBAN WATER AGENCIES FIND ECONOMY IN COOPERATION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N4

RIS ACCESSION NUMBER: EW010885
UBLICATION DATE: APR 84

ITLE: BIOLOGICAL ACTIVATED CARBON--AT WHAT COST?

ERSONAL AUTHOR: NEUKRUG, HOWARD M.; AND OTHERS

ESCRIPTOR: *COSTS; *GRANULAR ACTIVATED CARBON; *ODORS; OPERATIONS (WATER); *OZONE; *ORGANIC COMPOUNDS; PERFORMANCE EVALUATION; *TASTES; *WATER TREATMENT

ESCRIPTIVE NOTE: 158-167P.

BSTRACT: THIS ARTICLE EXAMINES THE TECHNICAL AND ECONOMIC EASIBILITY OF INCORPORATING OZONE, GAC, OR OZONE-GAC UNIT ROCESSES INTO A CONVENTIONAL WATER TREATMENT TRAIN TO EMOVE TRACE ORGANIC COMPOUNDS, TO REDUCE TOTAL ORGANIC ARBON, AND TO CONTROL UNPLEASANT TASTES AND ODORS.

VAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76

IS ACCESSION NUMBER: EW010886

BLICATION DATE: APR 84

TLE: LINE CLEANING: AN ECONOMICAL ALTERNATIVE FOR CAPTURING CAPACITY.

SCRIPTOR: *MAINTENANCE; *PIPES; *WATER DISTRIBUTION; ATER PIPES; *WATER SUPPLY

SCRIPTIVE NOTE: 173-179P.

STRACT: DESCRIBED IS LINE CLEANING OF WATER SUPPLY MAINS INCREASE FLOW AND PRESSURE.

AILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76

IS ACCESSION NUMBER: EW010887

BLICATION DATE: APR 84

TLE: COLORIMETRIC DETERMINATION OF OZONE IN WATER BASED REACTION WITH BIS (TERPYRIDINE) IRON (II).

RSONAL AUTHOR: TOMIYASU, HIROSHI; GORDON, GILBERT

SCRIPTOR: *ANALYTICAL TECHNIQUES; *DISINFECTION; ABORATORY PROCEDURES; *OZONE

SCRIPTIVE NOTE: 752-754P.

STRACT: THE ANALYSIS OF AQUEOUS OZONE WAS STUDIED BY A LORIMETRIC METHOD THAT USES THE REACTION BETWEEN OZONE AND S (TERPYRIDINE) IRON (II) IN DILUTE HYDROCHLORIC ACID LUTION. DIRECT COMPARISONS WITH THE INDIGO METHOD AND UV ECTROPHOTOMETRIC MEASUREMENTS ARE PRESENTED.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N4

IRIS ACCESSION NUMBER: EW010888

PUBLICATION DATE: APR 84

TITLE: KINETICS OF THE COMPLEXATION OF IRON (II) WITH FERROZINE.

PERSONAL AUTHOR: THOMPSEN, JAMES C.; MOTTOLA, HORACIO A.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL REACTIONS; *FERROZINE; *IRON; *LABORATORY PROCEDURES

DESCRIPTIVE NOTE: 755-757P.

ABSTRACT: THE KINETICS OF IRON (II) COMPLEXATION BY FERROZINE HAS BEEN STUDIED BY APPLYING STOPPED FLOW MIXING AND PHOTOMETRIC MONITORING AT 562 MM. A MECHANISM IS PROPOSED TO SATISFY THE EXPERIMENTAL OBSERVATIONS AND RATE EQUATION.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N4

IRIS ACCESSION NUMBER: EW010889

PUBLICATION DATE: APR 84

TITLE: DETERMINATION OF RADIUM IN WATER BY LIQUID SCINTILLATION COUNTING AFTER PRECONCENTRATION WITH ION-EXCHANGE RESIN.

PERSONAL AUTHOR: HIGUCHI, HIDEO; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *LABORATORY TECHNIQUES; *LIQUID SCINTILLATION COUNTING; *RADIUM; *WATER QUALITY

DESCRIPTIVE NOTE: 761-763P.

ABSTRACT: A METHOD FOR THE DETERMINATION OF RADIUM IN ENVIRONMENTAL WATER BY MEANS OF A LIQUID SCIENTILLATION COUNTING TECHNIQUE HAS BEEN DEVELOPED.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N4

IRIS ACCESSION NUMBER: EW010891

PUBLICATION DATE: APR 84

TITLE: THE ROLE OF WATER AUDITS IN WATER CONSERVATION.

PERSONAL AUTHOR: GAGNON, GARY A.

DESCRIPTOR: *CASE HISTORIES; *CONSERVATION; *MANAGEMENT; *OPERATIONS (WATER); *WATER AUDITS; *WATER DISTRIBUTION; *WATER CONSERVATION

DESCRIPTIVE NOTE: 129-140P.

:TRACT: SIGNIFICANT LEVELS OF WATER CONSERVATION CAN BE IIEVED THROUGH CONTROL OF LEAKAGE FROM A WATER :TRIBUTION SYSTEM. A COMPLETE WATER AUDIT GENERALLY ISIST OF THREE PHASES. HOWEVER, AN AUDIT IS USUALLY VARIED MEET INDIVIDUAL COMMITTEE NEEDS. SIX CASE HISTORIES ARE :SENTED.

AILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND IAGEMENT; V110 N2

IS ACCESSION NUMBER: EW010892

BLICATION DATE: APR 84

TLE: MANAGING A PUBLIC INVOLVEMENT PROGRAM.

RSONAL AUTHOR: ASTRACK, RICHARD F.; AND OTHERS

SCRIPTOR: *FLOOD CONTROL; *ILLINOIS; *MANAGEMENT; LANNING; *PUBLIC PARTICIPATION; *SURVEYS; *WATER RESOURCES

SCRIPTIVE NOTE: 153-166P.

STRACT: DEVELOPING A PUBLIC INVOLVEMENT PROGRAM AND TERMINING WHAT PROCEDURES AND METHODS ARE EFFECTIVE IN TER RESOURCES PLANNING ARE DESCRIBED. DISCUSSED ARE PERIENCES FROM THE DEVELOPMENT AND MANAGEMENT OF A U. S. MY CORPS OF ENGINEERS PUBLIC INVOLVEMENT PROGRAM AS PART A FLOOD CONTROL PROJECT.

AILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND NAGEMENT; V110 N2

IS ACCESSION NUMBER: EW010893

BLICATION DATE: APR 84

TLE: WATER USE AND PUBLIC POLICY IN FLORIDA.

RSONAL AUTHOR: DZURIK, ANDREW A.

SCRIPTOR: *FLORIDA; *LEGISLATION; *MANAGEMENT; *PLANNING; OLICIES; *POPULATION GROWTH; *URBAN AREAS; *WATER USE; ATER SUPPLY; *WATER RESOURCES

SCRIPTIVE NOTE: 167-179P.

STRACT: THE INTERRELATIONS OF WATER USE, POPULATION OWTH, AND URBANIZATION IN THE STATE OF FLORIDA ARE AMINED. WATER SUPPLY POLICY IS BEING WELL SERVED BY THE ATE'S WATER MANAGEMENT DISTRICTS, BUT ADDITIONAL EFFORTS IST BE PLACED ON PLANNING FOR MUNICIPAL WATER SHORTAGES.

AILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND NAGEMENT; V110 N2

IRIS ACCESSION NUMBER: EW010894

PUBLICATION DATE: APR 84

TITLE: CONSTRAINTS TO MANAGING INTERSTATE AQUIFER.

PERSONAL AUTHOR: NOONAN, DAVID C.; AND OTHERS

DESCRIPTOR: *DELAWARE RIVER BASIN; *GROUNDWATER; *CONTAMINATION; *INTERSTATE SYSTEMS; *MANAGEMENT; *POLICIES; *RECOMMENDATIONS; *WATER RESOURCES

DESCRIPTIVE NOTE: 191-205P.

ABSTRACT: THE LEGAL, INSTITUTIONAL, AND TECHNICAL CONSTRAINTS OF MANAGING A GROUNDWATER SYSTEM THAT FLOWS ACROSS INTERSTATE BOUNDARIES (THE DELAWARE RIVER BASIN) IS DESCRIBED.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT; V110 N2

IRIS ACCESSION NUMBER: EW010895

PUBLICATION DATE: APR 84

TITLE: WATER CONSERVATION AND CAPACITY EXPANSION.

PERSONAL AUTHOR: RUBINSTEIN, JACOBO; ORTOLANO, LEONARD

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CALIFORNIA; CASE STUDIES; CONSERVATION; *ECONOMICS; *MANAGEMENT; *PLANNING; *WATER DEMAND; *WATER CONSERVATION; WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 220-237P.

ABSTRACT: A FRAMEWORK IS PRESENTED THAT ALLOWS PLANNERS OF WATER SUPPLY SYSTEMS TO MAKE EFFICIENT USE OF WATER RESOURCES BY EXPLICITLY CONSIDERING THE MANAGEMENT OF THE DEMAND FOR WATER AS A SUPPLEMENT TO TRADITIONAL SUPPLY AUGMENTATION PROJECTS. THE FRAMEWORK IS APPLIED TO A CASE STUDY IN CALIFORNIA.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT; V110 N2

IRIS ACCESSION NUMBER: EW010896

PUBLICATION DATE: APR 84

TITLE: SMOKE TESTING.

PERSONAL AUTHOR: GERARDI, MICHAEL H.

DESCRIPTOR: *EQUIPMENT; *INFILTRATION; *INFLOW; *MAINTENANCE; *PREVENTIVE MAINTENANCE; *SEWERS; *SEWER SYSTEMS; *SMOKE TESTING; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 56-67P.

ISTRACT: SMOKE TESTING IS A VALUABLE TOOL FOR ROUBLESHOOTING AS WELL AS ROUTINE MAINTENANCE OF SANITARY WER SYSTEMS. TECHNIQUES OF ITS USE ARE DISCUSSED.

VAILABILITY: PUBLIC WORKS; V115 N4

IIS ACCESSION NUMBER: EW010897

BLICATION DATE: APR 84

TLE: MOBILIZING FOR COMBINED SEWER OVERFLOW MONITORING.

RSONAL AUTHOR: GRAHAM, MALISE J.; AND OTHERS

SCRIPTOR: *MICHIGAN; *MONITORING; *OPERATIONS ASTEWATER); *PLANNING; *SEWERS; *SEWER OVERFLOW; ASTEWATER COLLECTION

SCRIPTIVE NOTE: 58-61P.

STRACT: MOBILIZING A MONITORING SYSTEM FOR A LARGE URBAN EA REQUIRES A LARGE STAFF DURING STORM EVENTS. THE GISTICS OF SUCH A PROJECT IN DETROIT, MICHIGAN ARE SCUSSED.

AILABILITY: PUBLIC WORKS; V115 N4

IS ACCESSION NUMBER: EW010898

BLICATION DATE: APR 84

TLE: ODOR CONTROL AT WASTEWATER TREATMENT PLANTS.

RSONAL AUTHOR: FANCHANN, STEVEN A.

SCRIPTOR: *HYDROGEN PEROXIDE; *HYDROGEN SULFIDE; *NEW RK; *ODORS; *ODOR CONTROL; *OPERATIONS (WASTEWATER); LUDGE TREATMENT; *WASTEWATER TREATMENT; *PERFORMANCE ALUATION

SCRIPTIVE NOTE: 112-113P.

STRACT: ODOR CONTROL AT A PLANT IN NEW YORK WAS CRITICAL TO PROXIMITY TO RESIDENTIAL AREAS. DESCRIBED IS A STUDY THE PROBLEM AND CORRECTIVE ACTIONS TAKEN.

AILABILITY: PUBLIC WORKS; V115 N4

S ACCESSION NUMBER: EW010900

LICATION DATE: APR 84

LE: NEW REHABILITATION PROCESS FOR LARGE CONCRETE WATER E.

CRIPTOR: *CALIFORNIA; *CONCRETE WATER PIPES; INTENANCE; *PIPES; *REHABILITATION; *WATER DISTRIBUTION; TER PIPES

DESCRIPTIVE NOTE: 80-82P.

ABSTRACT: DESCRIBED IS A REHABILITATION PROCESS USING STEEL LINING SECTIONS TO REHABILITATE DETERIORATED CONCRETE PRESSURE PIPES. THE PROCEDURE WAS USED IN CALIFORNIA.

AVAILABILITY: PUBLIC WORKS; V115 N4

IRIS ACCESSION NUMBER: EW010901

PUBLICATION DATE: APR 84

TITLE: COMPUTERIZED MONITORING OF A WATER AND SEWER SYSTEM.

PERSONAL AUTHOR: GOODMAN, ALLEN L.; LANCASTER, LEON P.

DESCRIPTOR: *COMPUTER APPLICATIONS; *FACILITIES; LIFT STATIONS; *MICROCOMPUTERS; *MONITORING; TANKS; *WASTEWATER SYSTEMS; *WATER SYSTEMS; WATER TANKS; WELLS

DESCRIPTIVE NOTE: 84P.

ABSTRACT: DESCRIBED IS A TELEMETERING SYSTEM FOR MONITORING WELLS, LIFT STATIONS, AND STORAGE TANKS. THE SYSTEM MONITORS OPERATIONS, PROVIDES INFORMATION FOR PREVENTIVE MAINTENANCE, AND IMPROVES EFFICIENCY.

AVAILABILITY: PUBLIC WORKS; V115 N4

IRIS ACCESSION NUMBER: EW010902

PUBLICATION DATE: APR 84

TITLE: ENERGY EFFICIENCY AT A WASTEWATER TREATMENT PLANT.

DESCRIPTOR: *CALIFORNIA; *COGENERATION; *ENERGY; *ENERGY EFFICIENCY; *ELECTRIC POWER GENERATION; *METHANE; *RECYCLING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 85P.

ABSTRACT: DESCRIBED IS A GENERATOR FOR A WASTEWATER TREATMENT PLANT WHICH RUNS ON METHANE, AND PRODUCES EXCESS POWER WHICH IS SOLD. THE METHANE IS GENERATED FROM THE DICESTER SYSTEM IN THE WASTEWATER TREATMENT PLANT.

AVAILABILITY: PUBLIC WORKS; V115 N4

IRIS ACCESSION NUMBER: EW010903

PUBLICATION DATE: APR 84

TITLE: WHERE LEARNING HAPPENS.

PERSONAL AUTHOR: FINKEL, COLEMAN

DESCRIPTOR: *DESIGN; *FACILITIES; *INSTRUCTION; *LEARNING; *LEARNING ENVIRONMENT

SCRIPTIVE NOTE: 32-36P.

STRACT: SUCCESSFUL LEARNING TAKES PLACE IN AN ENVIRONMENT AT SUPPORTS THE PHYSICAL, INTELLECTUAL, AND PSYCHOLOGICAL EDS OF LEARNERS AND INSTRUCTORS. DESCRIBED ARE VARIOUS PES OF LEARNING ENVIRONMENTS AND THE DESIGN OF LEARNING ILITIES.

AILABILITY: TRAINING & DEVELOPMENT JOURNAL; V38 N4

IS ACCESSION NUMBER: EW010904

BLICATION DATE: APR 84

TLE: ACCENTUATE THE POSITIVE, ELIMINATE THE NEGATIVE.

RSONAL AUTHOR: SCHLEGER, PETER R.

SCRIPTOR: *AUDIOVISUAL AIDS; *INSTRUCTION; *ORGANIZATION; LANNING; *PRESENTATIONS

SCRIPTIVE NOTE: 97-101P.

STRACT: IN THIS ARTICLE AN EXPERIENCED PRESENTER AND DIA CONSULTANT TELLS HOW TO PUT TOGETHER A MEMORABLE ESENTATION, INCLUDING SPECIAL TIPS ON THE USE OF AUDIO-SUALS.

AILABILITY: TRAINING & DEVELOPMENT JOURNAL; V38 N4

IS ACCESSION NUMBER: EW010905

BLICATION DATE: APR 84

TLE: LEARNING ABOUT LINING.

RSONAL AUTHOR: HOLSTAD, MARK S.; SPEICHER, BRIAN L.

SCRIPTOR: *CONCRETE PIPE; *COSTS; *CUSTOMER COMPLAINTS; AINTENANCE; *NEW MEXICO; *PIPES; *PIPE LINING; EHABILITATION; *SLIP-LINING; *WASTEWATER COLLECTION

SCRIPTIVE NOTE: 25-27P.

STRACT: THERE WERE TRICKS TO BE LEARNED DURING BUQUERQUE'S ONGOING PIPE LINING PROJECT TO REHABILITATE IE WASTEWATER COLLECTION SYSTEM. THE EFFORT HAS LED TO WER COSTS AND FEWER CUSTOMER COMPLAINTS.

AILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N4

RIS ACCESSION NUMBER: EW010906

UBLICATION DATE: APR 84

ITLE: INFILTRATION CUT DRAMATICALLY AFTER PIPE REPAIRS.

ERSONAL AUTHOR: HANNINGAN, PAUL F.

DESCRIPTOR: *INFILTRATION; *INFLOW; *INSITUFORM; *INTERCEPTORS; *MAINTENANCE; *MASSACHUSETTS; *PERFORMANCE EVALUATION; *REHABILITATION; SEWERS; *SEWER REPAIRS; WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 27-28P.

ABSTRACT: REPAIR OF A NEW ENGLAND INTERCEPTOR RESULTED IN A SUBSTANTIAL REDUCTION OF WASTEWATER PLANT INFLOW. AS A RESULT, NEW SEWER TIE-INS WERE AGAIN ALLOWED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N4

IRIS ACCESSION NUMBER: EW010907

PUBLICATION DATE: APR 84

TITLE: DESIGNING FOR REMOVAL OF SANITARY SEWER CROSS CONNECTIONS.

PERSONAL AUTHOR: HOLLENBECK, ALAN J.

DESCRIPTOR: *CROSS CONNECTIONS; *INDIRECT CROSS CONNECTIONS; *INFILTRATION; *INFLOW; *REHABILITATION; *SEWERS; *STORM SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 29-31P.

ABSTRACT: DESCRIBED IS A STEP-BY-STEP PROCEDURE TO ELIMINATE INDIRECT CROSS CONNECTIONS THAT EXIST BETWEEN STORM AND SANITARY SEWER SYSTEMS.
AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N4

IRIS ACCESSION NUMBER: EW010908

PUBLICATION DATE: APR 84

TITLE: CLEANING CONTRACT LOWERS COSTS AND COMPLAINTS.

PERSONAL AUTHOR: BLOMGREN, CARL T.

DESCRIPTOR: *CLEANING; *CONTRACT SERVICES; *COSTS; *CUSTOMER COMPLAINTS; *ILLINOIS; *MAINTENANCE; *PREVENTIVE MAINTENANCE; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 32-33P.

ABSTRACT: DESCRIBED IS A CONTRACT SERVICE APPROACH THAT HAS PROVED TO BE BENEFICIAL TO AN ILLINOIS SANITARY DISTRICT IN THE UPKEEP OF ITS WASTEWATER COLLECTION FACILITIES. THE CLEANING SERVICE HAS LOWERED COSTS AND COMPLAINTS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N4

IS ACCESSION NUMBER: EW010909

BLICATION DATE: APR 84

TLE: BOD RESULTS THAT ARE BELIEVEABLE.

RSONAL AUTHOR: STOVER, ENOS L.; MCCARTNEY, DAVID E.

SCRIPTOR: *ANALYTICAL TECHNIQUES; *BOD; *EVALUATION; ABORATORY PROCEDURES; *WASTEWATER TREATMENT

SCRIPTIVE NOTE: 37-40, 62, 66P.

STRACT: ACCURACY IN THE RESULTS FROM THE MUCH USED BOD STEWATER TEST DEMANDS CONSISTENT LABORATORY TECHNIQUE AND SOUND UNDERSTANDING OF THE BIOLOGICAL GROWTH MECHANISMS VOLVED.

AILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N4

IS ACCESSION NUMBER: EW010910

BLICATION DATE: APR 84

TLE: REMOTE METER READING PAYS FOR ITSELF.

RSONAL AUTHOR: TESGATA, CHARLES O.; OLESEN, MICHAEL C.

SCRIPTOR: *COSTS; *EQUIPMENT; *OPERATIONS (WATER); EMOTE REGISTERS; *REMOTE METERS; *WATER METERS

SCRIPTIVE NOTE: 42-43P.

STRACT: THE REMOTE REGISTER APPROACH TO METER READING SURED RAPID PAYBACK OF THE INVESTMENT, SO THIS WISCONSIN MUNITY DECIDED TO TAKE ADVANTAGE OF IT.

AILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N4

S ACCESSION NUMBER: EW010911

LICATION DATE: APR 84

LE: A PROCESS FOR EACH SEASON.

SONAL AUTHOR: KUCHENRITHER, R. D.; AND OTHERS

CRIPTOR: *COLORADO; *FACILITIES; *OPERATIONS (WATER); RFORMANCE EVALUATION; *SEASONAL EFFECTS; *WATER

CRIPTIVE NOTE: 44-46P.

TRACT: PILOT TESTS SPANNING 74 MONTHS WERE NEEDED TO M UP THE BEST PROCESS TO BE USED DURING EACH OF THE THREE SONS THAT A COLORADO WATER PLANT EXPERIENCES EVERY YEAR.

ILABILITY: WATER ENGINEERING & MANAGEMENT; V131 N4

IRIS ACCESSION NUMBER: EW010924

PUBLICATION DATE: 83

TITLE: TECHNOLOGIES AND MANAGEMENT STRATEGIES FOR HAZARDOUS WASTE CONTROL.

DESCRIPTOR: *FEDERAL PROGRAMS; *HAZARDOUS WASTES; *INDUSTRIAL WASTES; *MANAGEMENT; *RECOMMENDATIONS; *TECHNOLOGY; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 425P. PRICE: $8.50

ABSTRACT: PRESENTED IS AN ANALYSIS OF THE FEDERAL PROGRAM FOR THE MANAGEMENT OF NONNUCLEAR INDUSTRIAL HAZARDOUS WASTE, WITH RECOMMENDATIONS FOR IMPROVING THE EFFICIENCY AND EFFECTIVENESS OF THE PROGRAM.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, US GOVERNMENT PRINTING OFFICE, DEPT. 33, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW010926

PUBLICATION DATE: 83

TITLE: GUIDELINES FOR DEVELOPING A WASTEWATER SAFETY PROGRAM.

DESCRIPTOR: *EMPLOYEE PARTICIPATION; *GUIDELINES; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PLANNING; *RECOMMENDATIONS; *SAFETY; *SAFETY PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 56P. PRICE: $9.00 MEMBERS; $12.00 NON-MEMBERS; ORDER NO. MOP SM-2

ABSTRACT: THIS MANUAL COVERS THE PROCEDURES AND STEPS TO TAKE IN ESTABLISHING A SAFETY PROGRAM, AND WHAT ELEMENTS SHOULD BE IN SUCH A PROGRAM. IT EMPHASIZES THE IMPORTANCE OF MANAGEMENT AND EMPLOYEE PARTICIPATION IN A SAFETY PROGRAM. STRESS IS NOT PLACED ON SAFETY DOS AND DON'TS BUT RATHER ON CONDUCTING AN OVERALL POLICY OF SAFETY PRACTICES.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626 PENNSYLVANIA AVENUE, N. W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW010927

PUBLICATION DATE: 83

TITLE: SLUDGE DEWATERING.

DESCRIPTOR: *DESIGN; *DEWATERING; *FILTRATION; *INSTRUCTIONAL MATERIALS; *LAND APPLICATION; *OPERATIONS (WASTEWATER); *POSTSECONDARY EDUCATION; *SLUDGE; *TECHNOLOGY; *WASTEWATER TREATMENT; *VACUUM FILTRATION

DESCRIPTIVE NOTE: 175P. PRICE: $19.50 MEMBERS; $26.00 NON-MEMBERS; ORDER NO. M0016

STRACT: THE 1983 EDITION OF THIS POPULAR TITLE PRESENTS DATED SECTIONS ON LAND, VACUUM FILTRATION, AND NTRIFUGATION METHODS. MAJOR SECTIONS COVER THE CHNOLOGIES LIKE BELT FILTER PRESSES AND RECESSED PLATE ESSURE FILTERS. WRITTEN PRIMARILY FROM A DESIGN NDPOINT, SLUDGE DEWATERING ALSO CONSIDERS METHODS FOR TEGRATING THE DEWATERING PROCESS INTO THE OVERALL EATMENT SCHEME. FACTORS TAKEN INTO ACCOUNT INCLUDE YSICAL AND CHEMICAL CONSTITUENTS OF WASTEWATER; LOCAL, ATE, AND FEDERAL REGULATIONS; AND RECYCLE STREAMS.

AILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626 NNSYLVANIA AVENUE, N. W., WASHINGTON, DC 20037

IS ACCESSION NUMBER: EW010929

BLICATION DATE: 83

TLE: WATER RATES: AN EQUITABILITY CHALLENGE.

SCRIPTOR: *CONFERENCE PROCEEDINGS; *RATES; *WATER RATES; ATER UTILITIES; *WATER SUPPLY

SCRIPTIVE NOTE: 164P. PRICE: $11.05 MEMBERS; $13.80 NMEMBERS

STRACT: MORE THAN A DOZEN ARTICLES ON VARIOUS WATER RATE SUES ARE INCLUDED IN THIS AWWA ANNUAL CONFERENCE SEMINAR OCEEDINGS. TOPICS DISCUSSED IN THIS BOOK INCLUDE: (1) TTING EQUITABLE RATES FOR SUBURBAN CUSTOMERS; (2) STRIBUTING COSTS OF SERVICE TO CUSTOMER CLASSES; (3) LCULATING REVENUE REQUIREMENTS; (4) THE RATE SETTING OCESS; (5) SINGLE TARRIF PRICING; (6) INVERTED RATE AND NSERVATION PRICING; (7) LIFELINE AND SOCIAL POLICY ICING; AND (8) SEASONAL AND TIME OF DAY PRICING.

AILABILITY: AMERICAN WATER WORKS ASSOCIATION, DATA OCESSING DEPARTMENT, 6666 W. QUINCY AVENUE, DENVER, CO 235

IS ACCESSION NUMBER: EW010930

BLICATION DATE: 83

TLE: USE OF ORGANIC POLYELECTROLYTES IN WATER TREATMENT.

SCRIPTOR: *COAGULATION; *CONFERENCE PROCEEDINGS; *ORGANIC LYELECTROLYTES; *OPERATIONS (WATER); *POLYMERS; *SLUDGE NDITIONING; *WATER TREATMENT

SCRIPTIVE NOTE: 112P. PRICE: $9.10 MEMBERS; $12.55 NMEMBERS

STRACT: THIS IS A COLLECTION OF SIX PAPERS PRESENTED AT E AWWA ANNUAL CONFERENCE IN LAS VEGAS, NEV., ON JUN. 5-9, 83. INCLUDED ARE THE FOLLOWING PAPERS: (1) POLYMERS IN LUDGE CONDITIONING; (2) USE OF POLYMERS IN THE COAGULATION OCESS; (3) SYSTEM DESIGN FOR POLYMER USE; (4) FATE OF LYMERS IN THE TREATMENT PROCESS; (5) MECHANISMS OF ARTICLE DESTABILIZATION FOR POLYMERS IN WATER TREATMENT; AND (6) SYNTHESIS AND PROPERTIES OF POLYMERS USED IN WATER TREATMENT.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, DATA PROCESSING DEPARTMENT, 6666 W. QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW010932

PUBLICATION DATE: 83

TITLE: INNOVATIVE FILTRATION TECHNIQUES.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *DRINKING WATER; *FILTRATION; *OPERATIONS (WATER); *WATER TREATMENT

DESCRIPTIVE NOTE: 192P. PRICE: $11.05 MEMBERS; $15.20 NONMEMBERS

ABSTRACT: THIS SEMINAR PROCEEDINGS HIGHLIGHTS AN ASSORTMENT OF WATER FILTRATION TECHNIQUES, FROM CENTURY-OLD SLOW SAND FILTRATION TO THE LATEST IN OZONATION. THE PAPERS INCLUDED IN THIS BOOK WERE PRESENTED AT THE 1983 AWWA ANNUAL CONFERENCE IN LAS VEGAS, NEV. TOPICS PRESENTED INCLUDE: (1) THE RE-EMERGENCE OF SLOW SAND FILTRATION; (2) PRINCIPLES AND USE OF LOW HEAD FILTERS; (3) FILTRATION TECHNIQUES FOR SMALL UTILITIES; (4) OZONE-DIRECT FILTRATION; AND (5) DECLINING-RATE FILTERS. AUTHORED BY WELL-KNOWN EXPERTS IN THE FIELD OF WATER FILTRATION, ALL PAPERS INCLUDED IN THIS PUBLICATION FOCUS ON THE PRACTICAL APPLICATIONS OF INNOVATIVE FILTRATION RATHER THAN ITS THEORETICAL ASPECTS. NUMEROUS ILLUSTRATIONS, CHARTS AND TABLES ARE INCLUDED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, DATA PROCESSING DEPARTMENT, 6666 W. QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW010933

PUBLICATION DATE: 83

TITLE: UNCERTAINTY AND FORECASTING OF WATER QUALITY.

PERSONAL AUTHOR: BECK, M. B.; VAN STRATEN, G.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CASE STUDIES; *FORECASTING; *MODELS; *MONTE CARLO SIMULATION; *RECURSIVE ESTIMATION; *TIME-SERIES ANALYSIS; *WATER QUALITY

DESCRIPTIVE NOTE: 386P.

ABSTRACT: THIS BOOK PRESENTS APPLICABLE METHODS FOR IDENTIFYING WATER QUALITY MODELS FROM UNCERTAIN EXPERIMENTAL DATA AND FOR ANALYZING PREDICTION-ERROR PROPAGATION. THERE ARE THREE SPECIAL EMPHASES: (1) IDENTIFICATION; (2) THE RELATION BETWEEN IDENTIFICATION AND PRACTICE; AND (3) INTERACTION BETWEEN CASE STUDIES AND METHODOLOGICAL DEVELOPMENT. TOPICS DISCUSSED INCLUDE RECURSIVE ESTIMATION, TIME-SERIES ANALYSIS, AND THE USE OF MONTE CARLO SIMULATION IN THE GENERATION OF SPECULATIVE HYPOTHESES.

'AILABILITY: SPRINGER-VERLAG NEW YORK INC., P. O. BOX 2485 :CAUCUS, NJ 07094

:IS ACCESSION NUMBER: EW010940

BLICATION DATE: 83

TLE: ANALYSIS AND CHEMISTRY OF WATER POLLUTANTS.

RSONAL AUTHOR: FREI, R. W.; BRINKMAN, U. A. TH.

SCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMISTRY; *CONFERENCE OCEEDINGS; *ORGANIC COMPOUNDS; *POLICIES; *POLLUTION; ESEARCH; *WATER POLLUTION CONTROL

SCRIPTIVE NOTE: 290P. PRICE: $49.50

STRACT: THIS BOOK IS A SELECTION OF PAPERS PRESENTED AT E 12TH ANNUAL SYMPOSIUM ON THE ANALYTICAL CHEMISTRY OF LLUTANTS HELD IN AMSTERDAM, THE NETHERLANDS, IN APRIL 1982. TER POLLUTION WAS THE MAIN TOPIC OF THE SYMPOSIUM; THERE S A SPECIAL FOCUS ON ORGANIC POLLUTANTS. THE SYMPOSIUM WAS ONSORED BY THE INTERNATIONAL ASSOCIATION OF ENVIRONMENTAL ALYTICAL CHEMISTRY IN COOPERATION WITH THE ROYAL DUTCH EMICAL SOCIETY. THEIR GOAL WAS TO PROMOTE AN TERDISCIPLINARY APPROACH. THUS THERE ARE PAPERS ON POLICY TTERS AND TESTING PROCEDURES FOR MUTAGENIC POLLUTANTS IN DITION TO STRAIGHT-FORWARD TECHNICAL MATERIAL.

AILABILITY: THE FREE UNIVERSITY, AMSTERDAM (EDS.), GORDAN D BREACH PUBLISHERS, INC., 50 WEST 23 STREET, NEW YORK, NY 010

IS ACCESSION NUMBER: EW010941

BLICATION DATE: 83

TLE: CHESAPEAKE WATERS, POLLUTION, PUBLIC HEALTH, AND BLIC OPINION.

RSONAL AUTHOR: CAPPER, JOHN; AND OTHERS

SCRIPTOR: BIOLOGY; CHEMICALS; *CHESAPEAKE BAY; *ECOLOGY; ISTORY; *PUBLIC HEALTH; *POLLUTION; *PUBLIC OPINION; EGULATIONS

SCRIPTIVE NOTE: 214P. PRICE: $19.95

STRACT: A HISTORY OF THE CHESAPEAKE BAY AND HOW IT IS ED IS PRESENTED. ALONG WITH CHEMICAL AND BIOLOGICAL ALYSIS OF THE CHANGES IN ITS ECOSYSTEM SINCE COLONIAL IES. REGULATIONS REGARDING THE USE OF THE BAY ARE PLAINED-THE FIRST PUBLIC HEALTH CONCERNS DATA FROM LONIAL TIMES-AND TODAY'S COMPLICATED BUREAUCRACY GULATING THE VIABLE BAY SYSTEM IS MADE CLEAR. PERSISTANT REATS TO THE BAY ARE ANALYZED.

AILABILITY: TIDEWATER PUBLISHERS, BOX 456, CENTREVILLE, 21617

IRIS ACCESSION NUMBER: EW010942

PUBLICATION DATE: 83

TITLE: CONTROL OF ORGANIC SUBSTANCES IN WATER AND WASTEWATER.

PERSONAL AUTHOR: BERGER, BERNARD B.

DESCRIPTOR: *CHEMICALS; *ORGANIC COMPOUNDS; *TECHNOLOGY; *WATER QUALITY; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 459P.

ABSTRACT: THIS BOOK FOCUSES ON THE PRIORITY ORGANIC POLLUTANTS, ON WAYS TO MAKE THE MOST EFFICIENT USE OF TREATMENT TECHNOLOGIES, AND ON NEW PROCESSES THAT MAY BE USED IN THE FUTURE. THE STATUS REPORT PRESENTED BY THIS MONOGRAPH COULD BE VIEWED AS AN AUDIT OF 1980 CONCEPTS IN CONTENDING WITH SYNTHETIC ORGANIC POLLUTANTS, AS WELL AS AN INDICATOR OF THE PROBABLE TECHNOLOGIES OF THE FUTURE.

AVAILABILITY: U. S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW010943

PUBLICATION DATE: 83

TITLE: DRILLING DISCHARGES IN THE MARINE ENVIRONMENT.

DESCRIPTOR: *DRILLING DISCHARGES; *MARINE ENVIRONMENT; *OIL DRILLING; *OIL; *POLLUTION; *WASTE DISPOSAL; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 180P.

ABSTRACT: CONTROVERSY OVER THE DISCHARGE OF WASTES GENERATED IN DRILLING OIL AND GAS WELLS ON THE OUTER CONTINENTAL SHELF LED THE BUREAU OF LAND MANAGEMENT TO CALL FOR A CRITICAL REVIEW OF THE SUBJECT. THE NATIONAL RESEARCH COUNCIL FORMED THE PANEL ON ASSESSMENTS OF FATES AND EFFECTS OF DRILLING FLUIDS AND CUTTINGS IN THE MARINE ENVIRONMENT. THEIR GOAL WAS TO ESTABLISH A CREDIBLE TECHNICAL BASIS FOR DECISIONS ABOUT THE DISCHARGES. THEIR REPORT AND CONCLUSIONS ARE PRESENTED.

AVAILABILITY: NATIONAL RESEARCH COUNCIL, NATIONAL ACADEMY PRESS, WASHINGTON, DC.

IRIS ACCESSION NUMBER: EW010944

PUBLICATION DATE: 83

TITLE: ENVIRONMENTAL REGULATION OF INDUSTRIAL PLANT SITING: HOW TO MAKE IT WORK BETTER.

PERSONAL AUTHOR: DUERKSEN, CHRISTOPHER J.

SCRIPTOR: *CASE STUDIES; *ENVIRONMENTAL IMPACT; ACILITIES; *INDUSTRIAL PLANTS; *INDUSTRIES; *LAND USE; OLLUTION; *POLLUTION CONTROL; *REGULATIONS; *SITE LECTION; *SITING

SCRIPTIVE NOTE: PRICE: $15.00

STRACT: THE CONSERVATION FOUNDATION BEGAN A STUDY IN 1979 THE EXTENT TO WHICH ENVIRONMENTAL LAND-USE LAWS INFLUENCE E SITING OF LARGE INDUSTRIAL FACILITIES, AND TO EXPLORE YS TO EXPEDITE SITING DECISIONS WHILE MAINTAINING VIRONMENTAL STANDARDS. THE RESEARCH IS BASED ON ATISTICAL ANALYSES, INTERVIEWS, AND CASE STUDIES. GANIZED IN THREE PARTS, THE BOOK COVERS THE HISTORY OF TING REGULATIONS AND HOW THEY CHANGED IN THE SEVENTIES, E IMPACT OF REGULATIONS ON COMPETITION AND EFFICIENCY, AND ASSESSMENT OF VARIOUS ATTEMPTS TO REFORM THE SYSTEM.

AILABILITY: THE CONSERVATION FOUNDATION, 1717 SSACHUSETTS AVENUE, N. W., WASHINGTON, DC 20036

IS ACCESSION NUMBER: EW010945

BLICATION DATE: 83

TLE: HAZARDOUS WASTE LAND TREATMENT.

RSONAL AUTHOR: BROWN, KIRK W.; AND OTHERS

SCRIPTOR: *DESIGN; *FACILITIES; *HAZARDOUS WASTES; STRUCTIONAL MATERIALS; *LAND TREATMENT; *MANAGEMENT; ONITORING; *PLANNING; POSTSECONDARY EDUCATION; *POLLUTION NTROL; *WASTE DISPOSAL

SCRIPTIVE NOTE: 692P. PRICE: $39.95

STRACT: LAND TREATMENT IS COMMONLY KNOWN BUT LITTLE NDERSTOOD. IN GENERAL, ORGANIC WASTES MAY BE EFFECTIVELY GRADED AND INORGANIC CONSTITUENTS IMMOBILIZED WHILE SSOCIATED ENVIRONMENTAL LIABILITIES REMAIN LOW. TO MAINTAIN HESE POSITIVE QUALITIES, LAND TREATMENT MUST BE RECOGNIZED S AN INTENSIVE AND DYNAMIC PROCESS. CAREFUL PLANNING AND ANAGEMENT SHOULD FOCUS ON VARYING TREATMENT CONDITIONS. HIS BOOK EXPLAINS THE FACTORS INVOLVED IN DESIGNING, PERATING AND MONITORING LAND TREATMENT UNITS FROM INITIAL ITE SELECTION AND WASTE CHARACTERIZATION THROUGH FACILITY ESIGN, OPERATION, AND CLOSURE.

VAILABILITY: BUTTERWORTH PUBLISHERS, 10 TOWER OFFICE PARK, OBURN, MA 01801

RIS ACCESSION NUMBER: EW010946

UBLICATION DATE: 83

ITLE: HEAVY METAL POLLUTION, ANNOTATED BIBLIOGRAPHY.

ERSONAL AUTHOR: JARVIS, P. J.

ESCRIPTOR: *BIBLIOGRAPHIES; ENVIRONMENTAL IMPACT; *HEAVY METALS; ECOLOGY; *METALS; *POLLUTION; *POLLUTION CONTROL; TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 420P. PRICE: $25.00

ABSTRACT: THIS BIBLIOGRAPHY COVERS LITERATURE ON HEAVY METAL POLLUTION PUBLISHED BETWEEN 1976 AND 1980, INCLUSIVE. IT PARTICULARLY REFERS TO MATERIAL ON THE ENVIRONMENTAL, ECOLOGICAL AND BEHAVIORAL NATURE AND CONSEQUENCE OF HEAVY METAL POLLUTION, BUT OTHER GERMANE PUBLICATIONS ARE INCLUDED. DIFFERENT SOURCES PROVIDE DIFFERENT DEFINITIONS OF THE TERM "HEAVY METAL;" FOR THE PURPOSES OF THIS BIBLIOGRAPHY A PRAGMATIC DECISION WAS MADE AS TO WHAT TO INCLUDE AND WHAT TO EXCLUDE. THE AUTHOR FOCUSES ON THOSE 19 METALS THAT HAVE A SPECIFIC GRAVITY OF 4.5 OR HIGHER AND WHICH ARE GENERALLY CONSIDERED TO BE OF SUFFICIENT ENVIRONMENTAL DISTRIBUTION TO BE ENVIRONMENTALLY OR BIOLOGICALLY SIGNIFICANT AS TOXIC SUBSTANCES.

AVAILABILITY: GEO BOOKS, LTD., REGENCY HOUSE, 34 DUKE STREET, NORWICH NR3 3AP ENGLAND

IRIS ACCESSION NUMBER: EW010947

PUBLICATION DATE: 83

TITLE: PLANNING AND POLLUTION.

PERSONAL AUTHOR: MILLER, CHRISTOPHER; WOOD, CHRISTOPHER

DESCRIPTOR: *ENVIRONMENT; *ENVIRONMENTAL IMPACT; *LAND USE; *LEGISLATION; *POLICIES; *PLANNING; *POLLUTION; *POLLUTION CONTROL; *REGULATIONS

DESCRIPTIVE NOTE: 232P. PRICE: $32.50

ABSTRACT: THIS BOOK EXAMINES THE ROLE OF LAND USE PLANNING IN THE CONTROL OF ENVIRONMENTAL POLLUTION. IT IS CONCERNED PRIMARILY WITH THE PRACTICES OF LOCAL PLANNING AUTHORITIES IN USING THEIR LEGAL POWERS TO MINIMIZE THE DISCHARGE OF POLLUTANTS AND TO LIMIT THEIR EFFECTS ON THE ENVIRONMENT. THE NATURE OF THESE LEGAL POWERS (THE UTILIZATION OF WHICH VARIES SUBSTANTIALLY ACCORDING TO THE TYPE OF POLLUTION INVOLVED: AIR, WATER, LAND AND NOISE) IS EXPLAINED. IN ADDITION, THE BOOK EXPLORES THE RELATIONSHIPS THAT HAVE DEVELOPED BETWEEN THE PLANNING AUTHORITIES AND OTHER BODIES THAT HAVE STATUTORY POWERS TO CONTROL POLLUTION. THE BOOK IS A DISTILLATION OF A FOUR-VOLUME REPORT OF A RESEARCH PROGRAM, FINANCED BY THE SOCIAL SCIENCE RESEARCH COUNCIL AND CARRIED OUT BETWEEN 1977 AND 1980, AT THE POLLUTION RESEARCH UNIT FOR THE UNIVERSITY OF MANCHESTER.

AVAILABILITY: OXFORD UNIVERSITY PRESS, WALTON STREET, OXFORD OX2 6DP, ENGLAND

IRIS ACCESSION NUMBER: EW010948

PUBLICATION DATE: 83

TITLE: THE POLLUTION CONTROL POLICY OF THE EUROPEAN

DMMUNITIES.
ESCRIPTOR: *COSTS; *EUROPE; *GOVERNMENT ROLE; INTERNATIONAL PROBLEMS; *MANAGEMENT; *PLANNING; *POLICIES; POLLUTION CONTROL; *POLLUTION

ESCRIPTIVE NOTE: PRICE: $18.00 PLUS POSTAGE.

BSTRACT: THE BOOK STRESSES TWO FUNDAMENTAL CONCERNS: OLLUTER RESPONSIBILITIES FOR POLLUTION PREVENTION COST AND OR ELIMINATION OF POLLUTION. IMPORTANT ISSUES IN POLLUTION ONTROL ARE ANALYZED IN DETAIL, AND AN ACCOUNT OF EVOLVING OLICIES IS PRESENTED. THE FIRST EDITION OF THIS BOOK WAS UBLISHED IN 1979; THIS NEW VOLUME HAS BEEN COMPLETELY EVISED TO COVER ALL NEW LEGISLATION AND CHANGES SINCE 1979.

VAILABILITY: GRAHAM & TROTMAN, LTD., STERLING HOUSE, 66 DE, ENGLAND

# AUTHOR INDEX

BBOTT, F. S.
EW 010 800

BERNATHY, A. RAY
EW 010 711

DAMS, J. THOMAS
EW 010 464

INSWORTH, LEONARD D.
EW 010 666

KIN, E. W.
EW 010 479

LLEE, D. J.
EW 010 558

RBO, J. C.
EW 010 704

RBUCKLE, J. GORDON
EW 010 767

RMISTEAD, COLIN
EW 010 665

STRACK, RICHARD F.
EW 010 892

ZBEL, DAVID S.
EW 010 739

AKER, J. M.
EW 010 498

ARBER, R. DALE
EW 010 771

ARCELONA, M. J.
EW 010 835

ARNES, BARRY
EW 010 675

ARNES, D.
EW 010 726

ARON, JACLYN A.
EW 010 844
EW 010 845

ARTH, E. F.
EW 010 836

ECK, M. B.
EW 010 933

ELFORT, GEORGES
EW 010 712

ELL, FRANK A., JR.
EW 010 883

BELLACK, ERVIN
EW 010 476

BENAMI, A.
EW 010 766

BENDER, DANIEL F.
EW 010 493

BERG, GERALD.
EW 010 764

BERGER, BERNARD B.
EW 010 942

BERKOWITZ, JOAN
EW 010 871

BIBBERO, ROBERT J.
EW 010 728

BLISS, P. J.
EW 010 726

BLOMGREN, CARL T.
EW 010 908

BRINKMAN, U. A. TH.
EW 010 940

BRITT, D. L.
EW 010 542

BROMBERG, J. PHILLIP
EW 010 550

BROWN, K. W.
EW 010 870

BROWN, KIRK W.
EW 010 945

BRUCE, WAYNE A.
EW 010 685

BRYAN, EDWARD H.
EW 010 795

BURKS, S. L.
EW 010 864

BURNETT, THOMAS E.
EW 010 688

BUSCH, ARTHUR W.
EW 010 879

CALL, DANIEL J.
EW 010 483

CALMON, C.
EW 010 755
EW 010 756

CAPE, JAMES
EW 010 667

CAPPER, JOHN
EW 010 941

CASE, RICHARD B.
EW 010 482

CASELLA, V. R.
EW 010 718

CHAKRABARTY, A. M.
EW 010 749

CHAMBERS, R. C.
EW 010 486

CHAPRA, STEVEN C.
EW 010 774
EW 010 775

CHENG, S. C.
EW 010 860

CHEREMISINOFF, NICHOLAS P.
EW 010 739

CHO, CHUN H.
EW 010 746

CHRISTOPHER, STAN A.
EW 010 778

CLARK ROBERT A.
EW 010 555

CLYDE, JAMES E.
EW 010 727

COFFEE, HAROLD C.
EW 010 475

COMMONWEALTH OF PENNSYLVANIA
EW 010 815

CONLEY, DIANE
EW 010 533
EW 010 534
EW 010 535

CONLON, THOMAS J.
EW 010 781

CONROY, BARBARA
EW 010 387

COOLEY, JAMES L.
EW 010 481

COPE, FRED
EW 010 776

COTRUVO, JOSEPH A.
EW 010 476

COUTANT, ROBERT W.
EW 010 708

CRAUN, GUNTHER F.
EW 010 488

CREIGHTON, J.
EW 010 700

DAMACHI, NICHOLAS A.
EW 010 689

DAVIS, R. D.
EW 010 729

DEB, ARUN K.
EW 010 695

DEBO, THOMAS N.
EW 010 779

DECARLO, JOSEPH P.
EW 010 744

DEININGER, ROLF A.
EW 010 686

DELAHAYE, BRIAN L.
EW 010 735

DEMIRJIAN, Y. A.
EW 010 869

DEPARTMENT OF COMMUNITY AFFAIRS
EW 010 815

DEUTSCH, M.
EW 010 556

DITORO, DOMINIC M.
EW 010 706

DOLIN, RALPHAEL
EW 010 716

DOMINGUEZ, GEORGE S.
EW 010 753
EW 010 754

DOYLE, DAVID F.
EW 010 798

DRIVER, F. T.
EW 010 866

DUCK, DONALD J.
EW 010 673

DUERKSEN, CHRISTOPHER J.
EW 010 944

ZURIK, ANDREW A.
EW 010 893

CKLES, ROBERT W.
EW 010 736

ICHER, R. W.
EW 010 841

LMORE, BILL R.
EW 010 780

SHELMAN, ROBERT H.
EW 010 794

VERETT, L. G.
EW 010 554

ANGMANN, STEVEN A.
EW 010 898

EACHEM, RICHARD G.
EW 010 471

ENDER, VICTOR C.
EW 010 867

INKEL, COLEMAN
EW 010 903

INKEL, HERMAN J.
EW 010 750
EW 010 751

IRESTONE, DAVID B.

EW 010 738

ITE, J. STEVE
EW 010 814

LYNN, KEVIN C.
EW 010 878

OCHTMAN, E. G.
EW 010 699

RASER, J. E.
EW 010 542

REI, R. W.
EW 010 940

AGNON, GARY A.
EW 010 891

ERARDI, MICHAEL H.
EW 010 896

ERICK, J. A.
EW 010 881

ERSBERG, R. M.
EW 010 681

GLENNIE, COLIN
EW 010 478

GOLD, H.
EW 010 755
EW 010 756

GOODMAN, ALLEN L.
EW 010 901

GORDON, GILBERT
EW 010 887

GRAHAM, MALISE J.
EW 010 897

GWINN, CHES
EW 010 882

HAAS, CHARLES N.
EW 010 873

HANNINGAN, PAUL F.
EW 010 906

HARDTEN, RONALD D.
EW 010 884

HARRIS, J. C.
EW 010 826

HARRISS, D. K.
EW 010 832
EW 010 833

HATCHER, K. J.
EW 010 486

HAUSER, JEFFREY R.
EW 010 880

HENNINGSON, JOHN C.
EW 010 787

HERSCH, PAUL
EW 010 683

HESS, K. W.
EW 010 701

HIGUCHI, HIDEO
EW 010 889

HOELLERING, MICHAEL F.
EW 010 672

HOLLENBECK, ALAN J.
EW 010 907

HOLSTAD, MARK S.
EW 010 905

HOTT, LAWRENCE R.
EW 010 382

HUANG, C. P.
EW 010 859

HUANG, JOHN W.
EW 010 480

HUNT, BRUCE
EW 010 740

IBBS, C. WILLIAM, JR.
EW 010 676

ISKANDAR I. K.
EW 010 839

JARVIS, P. J.
EW 010 946

JENKINS, TOM
EW 010 784

JENNISS, STEPHEN W.
EW 010 765

JEWELL, W. J.
EW 010 876

JOHNSON, A. IVAN
EW 010 555

KALBERMATTEN, JOHN M.
EW 010 474

KARAGANIS, JOSEPH V.
EW 010 768

KATZ, SIDNEY A.
EW 010 765

KEARL, PETER M.
EW 010 793

KENNEDY, DAVID D.
EW 010 685

KINCH, R.
EW 010 692

KING, PATRICIA
EW 010 663

KLAR, L. R.
EW 010 840

KLINER, SUZANNE M.
EW 010 792

KNOCKE, WILLIAM R.
EW 010 788

KNOX, N. W.
EW 010 841

KORTE, NIC E.
EW 010 793

KUCHENRITHER, R. D.
EW 010 911

KULLENBERG, GUNNAR E. B.
EW 010 761
EW 010 762

LAITY, JAMES
EW 010 534

LALEZARY, SHAHLA
EW 010 789

LAMSON-SCRIBNER, FRANK H., JR.
EW 010 480

LANCASTER, LEON P.
EW 010 901

LASSITER, RAY R.
EW 010 481

LAWLER, DESMOND F.
EW 010 679

LEIBFRIED, ROBERT T.
EW 010 785

LESLIE, MICHELE
EW 010 877

LINDSEY, ANITA K.
EW 010 702

LIPPY, EDWIN C.
EW 010 677

LUMB, ROGER H.
EW 010 500

MACKIE, JAY
EW 010 797

MANCINI, J. L.
EW 010 693

MANOCK, JOHN J.
EW 010 500

MANZI, J. E.
EW 010 668

MARA, DUNCAN
EW 010 473

MARCELL, R. F.
EW 010 543

MCCARTNEY, DAVID E.
EW 010 909

ICFARLAND, WAYNE E.
EW 010 670

IENZIE, C. A.
EW 010 691

IERRY, C. J.
EW 010 697

IICHELS, CARL J.
EW 010 684

IIDDLETON, E. M.
EW 010 543

IILLER, CHRISTOPHER
EW 010 947

IONTEITH, C. S.
EW 010 493

IORRIS, JULI K.
EW 010 788

IORRIS, LARRY G.
EW 010 796

IORRISON, S. M.
EW 010 847

IOTTOLA, HORACIO A.
EW 010 888

IUELLER, JAMES A.
EW 010 706

IULLER, FRANK
EW 010 674

IURRILL, PAUL W.
EW 010 745

IELSON, DWAYNE E.
EW 010 464

IEUKRUG, HOWARD M.
EW 010 715
EW 010 885

IOGAJ, RICHARD J.
EW 010 687

IOONAN, DAVID C.:
EW 010 894

IORTH, R. M.
EW 010 557

IRIAGU, JEROME O.
EW 010 496

)BER, GARY
EW 010 497

OFEN, A.
EW 010 766

OLESEN, MICHAEL C.
EW 010 910

OLSON, M. R.
EW 010 866

ORTOLANO, LEONARD
EW 010 895

OVERCASH, MICHAEL R.
EW 010 757
EW 010 758

PAGE, A. L.
EW 010 853

PAULSON, RICHARD I.
EW 010 669

PERRY, JAMES A.
EW 010 786

PFISTER, RALPH E.
EW 010 671

PHILLIPS, C. A.
EW 010 875

PIPES, WESLEY O.
EW 010 747

PISANO, WILLIAM C.
EW 010 484

POLI, BRUCE
EW 010 678

PYE, VERONICA I.
EW 010 732

RAYMOND, L. S., JR.
EW 010 834

RECKHOW, KENNETH H.
EW 010 775

REED, JOHN S.
EW 010 787

RICHARDS, WILLIAM G.
EW 010 695

RISTAU, TONI K.
EW 010 482

ROCKHOW, KENNETH H.
EW 010 774

ROWE, WILLIAM D.
EW 010 752

RUBINSTEIN, JACOBO
EW 010 895

SADOWSKI, L. H.
EW 010 826

SCHIFF, GILBERT M.
EW 010 707

SCHLEGER, PETER R.
EW 010 904

SCHMIDT, K. D.
EW 010 554

SCHMIDTKE, NORBERT W.

EW 010 741

SHEAHAN, RICHARD T.
EW 010 730

SHELL, RICHARD L.
EW 010 689

SHULLER, MICHAEL L.
EW 010 763

SHUVAL, HILLEL I.
EW 010 472

SIMPERS, BONNIE F.
EW 010 714

SINGER, PHILIP C.
EW 010 679

SMITH, BARRY J.
EW 010 735

SMITH, ED O.
EW 010 731

SMITH, JAMES E.
EW 010 494

SMITH, WILLIAM G.
EW 010 477

SMRKE, D.
EW 010 799

SOLTZ, DAN
EW 010 777

SORENSEN, PAUL B.
EW 010 798

SPEICHER, BRIAN L.
EW 010 905

SPERLING, FREDERICK
EW 010 495

SQUIRES, DONALD F.
EW 010 547

STAEBLER, CHRISTIAN J., JR.
EW 010 714

STAFFORD, D. A.
EW 010 759

STEWART, STACY C.
EW 010 664

STOVER, ENOS L.
EW 010 909

STRICKFADEN, MARIANNE E.
EW 010 477

SYMONS, GEORGE E.
EW 010 783

TAYLOR, FLOYD B.
EW 010 783

TEGGATA, CHARLES O.
EW 010 910

THIBODEAUX, LOUIS J.
EW 010 710

THOMPSEN, JAMES C.
EW 010 888

TIMOTHY, JOHN H.
EW 010 742
EW 010 743

TITUS, RUSSELL L.
EW 010 778

TODD, DAVID KEITH
EW 010 390

TOMIYASU, HIROSHI
EW 010 887

TROTTIER, J. J.
EW 010 499

ULIN, DALE R.
EW 010 675

VAN STRATEN, G.
EW 010 933

VENOSA, A. D.
EW 010 479
EW 010 830

VENOSA, ALBERT A.
EW 010 680

WAGNER, J.
EW 010 864

WALSKI, THOMAS M.
EW 010 702

WALTRIP, STEVEN C.
EW 010 677

WARD, R. C.
EW 010 490
EW 010 847

WATTERS, GARY Z.
EW 010 737

WILBUR, CHARLES G.
EW 010 548

WOOD, CHRISTOPHER
EW 010 947

WRIGHT, E. A.
EW 010 839

WU, YEUN C.
EW 010 731

YANKO, W. H.
EW 010 719

# SUBJECT INDEX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CIDENT PREVENTION | (3) | EW010539 | EW010734 | EW010841 | | | | |
| CIDENTS | (2) | EW010734 | EW010841 | | | | | |
| COUNTING | (2) | EW010480 | EW010814 | | | | | |
| ETONE | (1) | EW010710 | | | | | | |
| ID DEPOSITION | (1) | EW010549 | | | | | | |
| IDIFIED WATER | (1) | EW010542 | | | | | | |
| ID PRECIPITATION | (5) | EW010467 | EW010468 | EW010469 | EW010470 | EW010785 | | |
| ID RAIN | (10) | EW010467 | EW010468 | EW010469 | EW010470 | EW010555 | EW010783 | EW010784 |
| | EW010785 | EW010786 | EW010787 | | | | | |
| TIVATED CARBON | (2) | EW010712 | EW010859 | | | | | |
| TIVATED SLUDGE | (3) | EW010725 | EW010823 | EW010879 | | | | |
| MINISTRATION | (3) | EW010683 | EW010814 | EW010867 | | | | |
| SORPTION | (2) | EW010712 | EW010715 | | | | | |
| ULT LEARNERS | (2) | EW010537 | EW010538 | | | | | |
| VANCED SECONDARY TREATMENT | (2) | EW010462 | EW010463 | | | | | |
| VANCED WASTEWATER TREATMENT | (2) | EW010462 | EW010463 | | | | | |
| ERIAL PHOTOGRAPHY | (1) | EW010690 | | | | | | |
| EROBIC COMPOSTING | (1) | EW010472 | | | | | | |
| GRICULTURAL WASTES | (4) | EW010757 | EW010758 | EW010759 | EW010763 | | | |
| GRICULTURE | (10) | EW010466 | EW010535 | EW010729 | EW010750 | EW010751 | EW010757 | EW010758 |
| | EW010759 | EW010763 | EW010766 | | | | | |
| IR | (2) | EW010708 | EW010817 | | | | | |
| IR COMPRESSORS | (1) | EW010794 | | | | | | |
| IR POLLUTION | (2) | EW010550 | EW010710 | | | | | |
| IR POLLUTION CONTROL | (1) | EW010767 | | | | | | |
| IR QUALITY | (1) | EW010765 | | | | | | |
| IR STRIPPING | (1) | EW010789 | | | | | | |
| IR SYSTEMS | (1) | EW010725 | | | | | | |
| LTERNATIVE SYSTEMS | (1) | EW010489 | | | | | | |
| LTERNATIVE TECHNOLOGIES | (1) | EW010695 | | | | | | |
| LTERNATIVE TECHNOLOGY | (10) | EW010461 | EW010551 | EW010688 | EW010742 | EW010743 | EW010797 | EW010825 |
| | EW010831 | EW010876 | EW010877 | | | | | |
| LUM | (1) | EW010788 | | | | | | |
| LUMINUM | (1) | EW010829 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| AMMONIA | (2) | EW010755 | EW010880 | | | | | |
| ANAEROBIC DIGESTERS | (1) | EW010679 | | | | | | |
| ANALYTICAL CHEMISTRY | (1) | EW010476 | | | | | | |
| ANALYTICAL TECHNIQUES | (25) | EW009268 | EW010467 | EW010485 | EW010493 | EW010686 | EW010703 | EW010708 |
| | EW010718 | EW010719 | EW010765 | EW010768 | EW010769 | EW010818 | EW010826 | EW010828 |
| | EW010841 | EW010858 | EW010875 | EW010887 | EW010888 | EW010889 | EW010895 | EW010909 |
| | EW010933 | EW010940 | | | | | | |
| ANALYTICAL TECHNIQUES | (1) | EW010548 | | | | | | |
| ANIMALS | (1) | EW010498 | | | | | | |
| ANNOTATED BIBLIOGRAPHIES | (24) | EW010467 | EW010468 | EW010469 | EW010470 | EW010485 | EW010487 | EW010491 |
| | EW010492 | EW010541 | EW010544 | EW010545 | EW010690 | EW010694 | EW010698 | EW010823 |
| | EW010837 | EW010838 | EW010842 | EW010843 | EW010846 | EW010852 | EW010854 | EW010857 |
| | EW010858 | | | | | | | |
| ANNUAL REPORTS | (3) | EW010529 | EW010530 | EW010531 | | | | |
| ANNUAL REPORTS | (1) | EW010528 | | | | | | |
| ANTISEPTICS | (1) | EW010545 | | | | | | |
| APPLIED SCIENCES | (1) | EW010534 | | | | | | |
| APPRAISAL | (1) | EW010663 | | | | | | |
| APPROPRIATE TECHNOLOGY | (5) | EW010471 | EW010472 | EW010473 | EW010474 | EW010795 | | |
| AQUATIC ECOSYSTEMS | (1) | EW010481 | | | | | | |
| AQUATIC ENVIRONMENT | (1) | EW010548 | | | | | | |
| AQUATIC ENVIRONMENTS | (1) | EW010760 | | | | | | |
| AQUATIC HABITATS | (1) | EW010542 | | | | | | |
| AQUATIC PLANTS | (2) | EW010827 | EW010877 | | | | | |
| AQUATIC POLLUTANTS | (1) | EW010496 | | | | | | |
| AQUATIC TREATMENT | (1) | EW010880 | | | | | | |
| AQUIFERS | (2) | EW010783 | EW010819 | | | | | |
| ARBITRATION | (2) | EW010672 | EW010676 | | | | | |
| ARTIFICIAL WETLANDS | (1) | EW010681 | | | | | | |
| ASSESSMENT | (1) | EW010703 | | | | | | |
| ATOMIC ABSORPTION SPECTROSCOPY | (1) | EW010765 | | | | | | |
| AUDIOVISIUAL AIDS | (1) | EW009270 | | | | | | |
| AUDIOVISUAL AIDS | (8) | EW009267 | EW009268 | EW009269 | EW009546 | EW010387 | EW010546 | EW010769 |
| | EW010904 | | | | | | | |
| AUDITS | (1) | EW010820 | | | | | | |
| AUTOMATIC CONTROLS | (4) | EW010475 | EW010728 | EW010745 | EW010790 | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| JTOMATIC SAMPLERS | (1) | EW010460 | | | | | | |
| JTOMATION | (1) | EW010745 | | | | | | |
| ACKHOES | (1) | EW010497 | | | | | | |
| ACTERIA | (3) | EW010747 | EW010828 | EW010858 | | | | |
| ATCH REACTORS | (1) | EW010836 | | | | | | |
| AYS | (1) | EW010701 | | | | | | |
| EVERAGE INDUSTRY | (1) | EW010854 | | | | | | |
| IBLIOGRAPHIES | (25) | EW010390 | EW010460 | EW010467 | EW010469 | EW010543 | EW010552 | EW010690 |
| | EW010694 | EW010698 | EW010784 | EW010787 | EW010823 | EW010827 | EW010828 | EW010831 |
| | EW010837 | EW010838 | EW010842 | EW010843 | EW010846 | EW010852 | EW010854 | EW010857 |
| | EW010858 | EW010946 | | | | | | |
| IBLIOGRAPHIES | (9) | EW010468 | EW010470 | EW010485 | EW010487 | EW010491 | EW010492 | EW010541 |
| | EW010544 | EW010545 | | | | | | |
| IOASSAY | (1) | EW010485 | | | | | | |
| IOBRICKS | (1) | EW010795 | | | | | | |
| IODEGRADATION | (1) | EW010749 | | | | | | |
| IODEGRADATION | (1) | EW010870 | | | | | | |
| IOINDICATORS | (1) | EW010485 | | | | | | |
| IOLOGICAL CONTROL | (1) | EW010726 | | | | | | |
| IOLOGICAL INDICATORS | (2) | EW010747 | EW010827 | | | | | |
| IOLOGICAL PROCESSES | (2) | EW010731 | EW010741 | | | | | |
| IOLOGICAL WASTEWATER TREATMENT | (1) | EW010879 | | | | | | |
| IOLOGY | (5) | EW010500 | EW010535 | EW010749 | EW010760 | EW010762 | | |
| IOLOGY | (1) | EW010941 | | | | | | |
| IOMASS | (1) | EW010551 | | | | | | |
| LUE PLAINS WASTEWATER TREATMENT FACILITY | (2) | EW009267 | EW009269 | | | | | |
| OD | (1) | EW010909 | | | | | | |
| OILERS | (1) | EW010730 | | | | | | |
| OOKKEEPING | (1) | EW010814 | | | | | | |
| REWERIES | (1) | EW010854 | | | | | | |
| RICKS | (1) | EW010795 | | | | | | |
| RIQUETTES | (1) | EW010704 | | | | | | |
| UILDING MATERIALS | (1) | EW010795 | | | | | | |
| ADMIUM | (2) | EW010752 | EW010859 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CADMIUM | (1) | EW010714 | | | | | | |
| *CALCULATORS | (1) | EW010499 | | | | | | |
| *CALIFORNIA | (5) | EW010685 | EW010790 | EW010880 | EW010900 | EW010902 | | |
| CALIFORNIA | (1) | EW010895 | | | | | | |
| *CANADA | (3) | EW010533 | EW010534 | EW010535 | | | | |
| CANADA | (1) | EW010526 | | | | | | |
| *CAPDET | (1) | EW010697 | | | | | | |
| *CASE HISTORIES | (2) | EW010825 | EW010891 | | | | | |
| *CASE STUDIES | (9) | EW010466 | EW010480 | EW010558 | EW010665 | EW010703 | EW010732 | EW010845 |
| | EW010933 | EW010944 | | | | | | |
| CASE STUDIES | (1) | EW010895 | | | | | | |
| *CHEMICAL MODELS | (1) | EW010832 | | | | | | |
| *CHEMICAL PROCESSES | (1) | EW010741 | | | | | | |
| *CHEMICAL REACTIONS | (1) | EW010888 | | | | | | |
| *CHEMICALS | (11) | EW010378 | EW010481 | EW010483 | EW010495 | EW010729 | EW010753 | EW010754 |
| | EW010818 | EW010826 | EW010856 | EW010942 | | | | |
| CHEMICALS | (4) | EW010528 | EW010530 | EW010531 | EW010941 | | | |
| CHEMISTRY | (6) | EW010500 | EW010761 | EW010769 | EW010819 | EW010826 | EW010940 | |
| CHESAPEAKE BAY | (1) | EW010941 | | | | | | |
| CHLORINE | (2) | EW010482 | EW010694 | | | | | |
| CHLORINE DIOXIDE | (1) | EW010694 | | | | | | |
| CHROMIUM | (1) | EW010714 | | | | | | |
| CLEAN AIR ACT | (1) | EW010550 | | | | | | |
| CLEANING | (1) | EW010908 | | | | | | |
| CLEAN-UP | (1) | EW010498 | | | | | | |
| CLIMATE | (1) | EW010555 | | | | | | |
| COAGULATION | (2) | EW010788 | EW010930 | | | | | |
| COAL | (1) | EW010704 | | | | | | |
| COASTAL AREAS | (2) | EW010690 | EW010762 | | | | | |
| COGENERATION | (1) | EW010902 | | | | | | |
| COLIFORMS | (1) | EW010873 | | | | | | |
| COLORADO | (4) | EW010688 | EW010716 | EW010782 | EW010911 | | | |
| COMBINED SEWER SYSTEMS | (1) | EW010475 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MBUSTION | (1) | EW010730 | | | | | | |
| MMUNICATION | (2) | EW010736 | EW010793 | | | | | |
| MPARATIVE ANALYSIS | (1) | EW010725 | | | | | | |
| MPILATIONS | (1) | EW010550 | | | | | | |
| MPLIANCE | (4) | EW010527 | EW010770 | EW010822 | EW010878 | | | |
| MPOSTING | (1) | EW009270 | | | | | | |
| MPOSTING | (1) | EW010472 | | | | | | |
| MPUTER APPLICATIONS | (11) | EW010686 | EW010689 | EW010697 | EW010701 | EW010728 | EW010782 | EW010790 |
| | EW010832 | EW010833 | EW010867 | EW010901 | | | | |
| MPUTER APPLICATIONS | (1) | EW010477 | | | | | | |
| MPUTER ORIENTED PROGRAMS | (1) | EW010500 | | | | | | |
| MPUTER PROGRAMS | (2) | EW010499 | EW010832 | | | | | |
| MPUTERS | (3) | EW010686 | EW010782 | EW010790 | | | | |
| MPUTER SOFTWARE | (4) | EW010701 | EW010728 | EW010737 | EW010777 | | | |
| NCRETE PIPE | (1) | EW010905 | | | | | | |
| NCRETE WATER PIPES | (1) | EW010900 | | | | | | |
| NFERENCE PROCEEDINGS | (15) | EW010479 | EW010551 | EW010553 | EW010554 | EW010555 | EW010556 | EW010557 |
| | EW010729 | EW010730 | EW010731 | EW010847 | EW010929 | EW010930 | EW010932 | EW010940 |
| NFERENCE PROCEEDINGS | (1) | EW010834 | | | | | | |
| NSERVATION | (1) | EW010891 | | | | | | |
| NSERVATION | (1) | EW010895 | | | | | | |
| NSTRUCTION | (6) | EW009546 | EW010668 | EW010685 | EW010727 | EW010822 | EW010835 | |
| NSTRUCTION | (1) | EW010527 | | | | | | |
| NSTRUCTION CLAIMS | (4) | EW010668 | EW010673 | EW010674 | EW010676 | | | |
| NSTRUCTION CONTRACTS | (1) | EW010675 | | | | | | |
| NSTRUCTION DISPUTES | (2) | EW010672 | EW010673 | | | | | |
| NSTRUCTION GRANTS PROGRAM | (1) | EW010668 | | | | | | |
| NSTRUCTION SPECIFICATIONS | (1) | EW010676 | | | | | | |
| NSULTING SERVICES | (1) | EW010815 | | | | | | |
| NTAMINANTS | (1) | EW010729 | | | | | | |
| NTAMINATION | (5) | EW010696 | EW010732 | EW010792 | EW010819 | EW010894 | | |
| NTRACT DISPUTES | (1) | EW010676 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CONTRACTS | (2) | EW010674 | EW010676 | | | | | |
| CONTRACT SERVICES | (2) | EW010791 | EW010908 | | | | | |
| CONTROL DEVICES | (1) | EW010737 | | | | | | |
| CONTROL SYSTEMS | (1) | EW010746 | | | | | | |
| CONTROL TECHNIQUES | (2) | EW010467 | EW010745 | | | | | |
| CONTROL THEORY | (1) | EW010745 | | | | | | |
| CONTROVERSIAL ISSUES | (1) | EW010378 | | | | | | |
| CORROSION | (2) | EW010714 | EW010787 | | | | | |
| CORROSION PROTECTION | (1) | EW010714 | | | | | | |
| COST BENEFIT ANALYSIS | (1) | EW010752 | | | | | | |
| COST-EFFECTIVENESS | (1) | EW010839 | | | | | | |
| COSTS | (33) | EW009270 | EW010465 | EW010475 | EW010484 | EW010666 | EW010672 | EW010674 |
| | EW010676 | EW010681 | EW010684 | EW010693 | EW010695 | EW010696 | EW010697 | EW010702 |
| | EW010711 | EW010715 | EW010776 | EW010778 | EW010779 | EW010829 | EW010835 | EW010836 |
| | EW010840 | EW010860 | EW010866 | EW010877 | EW010882 | EW010885 | EW010905 | EW010908 |
| | EW010910 | EW010948 | | | | | | |
| CROSS CONNECTIONS | (1) | EW010907 | | | | | | |
| CROSS-CONNECTIONS | (1) | EW010781 | | | | | | |
| CURRICULUM | (1) | EW010721 | | | | | | |
| CURRICULUM DEVELOPMENT | (1) | EW010665 | | | | | | |
| CUSTOMER COMPLAINTS | (2) | EW010905 | EW010908 | | | | | |
| CYANIDE | (1) | EW010493 | | | | | | |
| CYANIDE | (1) | EW010714 | | | | | | |
| DAMS | (1) | EW010540 | | | | | | |
| DATA ACQUISITION | (1) | EW010555 | | | | | | |
| DATA ANALYSIS | (4) | EW010476 | EW010484 | EW010543 | EW010774 | | | |
| DATA COLLECTION | (2) | EW010686 | EW010689 | | | | | |
| DECISION ANALYSIS | (1) | EW010540 | | | | | | |
| DECISION MAKING | (1) | EW010484 | | | | | | |
| DEFINITIONS | (1) | EW010460 | | | | | | |
| DEGREE PROGRAMS | (3) | EW010533 | EW010534 | EW010535 | | | | |
| DELAWARE RIVER BASIN | (1) | EW010894 | | | | | | |
| DENITRIFICATION | (1) | EW010726 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ARTMENT OF DEFENSE | (1) | EW010822 | | | | | | |
| IGN | (29) | EW010465 | EW010471 | EW010477 | EW010492 | EW010541 | EW010679 | EW010684 |
| | EW010685 | EW010695 | EW010697 | EW010703 | EW010722 | EW010725 | EW010727 | EW010741 |
| | EW010742 | EW010750 | EW010766 | EW010776 | EW010778 | EW010822 | EW010835 | EW010839 |
| | EW010844 | EW010845 | EW010879 | EW010903 | EW010927 | EW010945 | | |
| ECTION | (1) | EW010546 | | | | | | |
| OXIFICATION | (1) | EW010749 | | | | | | |
| ELOPING COUNTRIES | (3) | EW010472 | EW010473 | EW010474 | | | | |
| ELOPMENT | (2) | EW010723 | EW010724 | | | | | |
| ATERING | (3) | EW010671 | EW010679 | EW010927 | | | | |
| ESTS | (1) | EW010559 | | | | | | |
| RECTORIES | (3) | EW010387 | EW010461 | EW010486 | | | | |
| SASTERS | (1) | EW010378 | | | | | | |
| SEASES | (5) | EW010471 | EW010488 | EW010677 | EW010707 | EW010733 | | |
| SINFECTANTS | (2) | EW010545 | EW010830 | | | | | |
| SINFECTION | (8) | EW010479 | EW010482 | EW010545 | EW010680 | EW010694 | EW010733 | EW010764 |
| | EW010887 | | | | | | | |
| SINFECTION | (1) | EW010771 | | | | | | |
| SPERSANTS | (1) | EW010800 | | | | | | |
| SPOSAL SITES | (1) | EW010776 | | | | | | |
| ISSOLVED OXYGEN | (1) | EW010769 | | | | | | |
| ISSOLVED SOLIDS | (1) | EW010559 | | | | | | |
| OMESTIC WASTES | (1) | EW010823 | | | | | | |
| OSIMETERS | (1) | EW010708 | | | | | | |
| RAINAGE | (1) | EW010779 | | | | | | |
| REDGING | (1) | EW010532 | | | | | | |
| RILLING DISCHARGES | (1) | EW010943 | | | | | | |
| RINKING WATER | (17) | EW010476 | EW010488 | EW010666 | EW010677 | EW010707 | EW010715 | EW010716 |
| | EW010718 | EW010719 | EW010733 | EW010764 | EW010781 | EW010783 | EW010840 | EW010875 |
| | EW010883 | EW010932 | | | | | | |
| RINKING WATER | (1) | EW010528 | | | | | | |
| COLOGY | (9) | EW010481 | EW010498 | EW010529 | EW010542 | EW010549 | EW010760 | EW010827 |
| | EW010831 | EW010941 | | | | | | |
| ECOLOGY | (3) | EW010531 | EW010548 | EW010946 | | | | |
| ECONOMICS | (28) | EW010378 | EW010471 | EW010473 | EW010474 | EW010480 | EW010484 | EW010552 |
| | EW010553 | EW010680 | EW010730 | EW010751 | EW010754 | EW010755 | EW010778 | EW010784 |
| | EW010786 | EW010791 | EW010795 | EW010798 | EW010815 | EW010829 | EW010853 | EW010854 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *ECOSYSTEMS | EW010856 (3) | EW010876 EW010481 | EW010878 EW010531 | EW010884 EW010760 | EW010895 | | | |
| *EDUCATION | (1) | EW010721 | | | | | | |
| EDUCATION | (1) | EW010722 | | | | | | |
| *EFFLUENT | (1) | EW010711 | | | | | | |
| *EFFLUENT GUIDELINES | (1) | EW010829 | | | | | | |
| *EFFLUENTS | (9) EW010854 | EW010527 EW010878 | EW010684 | EW010692 | EW010742 | EW010756 | EW010830 | EW010853 |
| *ELECTRIC POWER GENERATION | (1) | EW010902 | | | | | | |
| *ELECTRONIC SPEED CONTROLS | (1) | EW010796 | | | | | | |
| *EMERGENCY RESCUE | (1) | EW010539 | | | | | | |
| *EMISSION REDUCTION | (1) | EW010550 | | | | | | |
| EMPLOYEE PARTICIPATION | (1) | EW010926 | | | | | | |
| ENDOTOXINS | (1) | EW010883 | | | | | | |
| ENERGY | (6) | EW010551 | EW010671 | EW010738 | EW010759 | EW010760 | EW010902 | |
| ENERGY CONSERVATION | (1) | EW010704 | | | | | | |
| ENERGY EFFICIENCY | (1) | EW010902 | | | | | | |
| ENFORCEMENT | (1) | EW010770 | | | | | | |
| ENFORCEMENT | (1) | EW010527 | | | | | | |
| ENGINEERING | (8) EW010879 | EW010499 | EW010739 | EW010741 | EW010766 | EW010774 | EW010775 | EW010782 |
| ENGINEERS | (1) | EW010675 | | | | | | |
| ENGINEERS | (1) | EW010724 | | | | | | |
| ENVIRONMENT | (7) | EW010691 | EW010721 | EW010749 | EW010757 | EW010817 | EW010827 | EW010947 |
| ENVIRONMENTAL EFFECTS | (5) | EW010784 | EW010786 | EW010787 | EW010839 | EW010846 | | |
| ENVIRONMENTAL IMPACT | (12) EW010752 | EW010468 EW010842 | EW010469 EW010843 | EW010481 EW010944 | EW010483 EW010947 | EW010491 | EW010495 | EW010496 |
| ENVIRONMENTAL IMPACT | (2) | EW010548 | EW010946 | | | | | |
| ENVIRONMENTAL LAW | (2) | EW010738 | EW010767 | | | | | |
| ENVIRONMENTAL TECHNICIANS | (1) | EW010464 | | | | | | |
| ENZYMES | (1) | EW010749 | | | | | | |
| ENZYMES | (1) | EW010856 | | | | | | |
| EPA | (6) | EW010559 | EW010668 | EW010753 | EW010754 | EW010770 | EW010820 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| AMAC | (1) | EW010477 | | | | | | |
| UATIONS | (1) | EW010740 | | | | | | |
| UIPMENT | (20) | EW010460 | EW010461 | EW010462 | EW010463 | EW010490 | EW010492 | EW010497 |
| | EW010541 | EW010675 | EW010730 | EW010755 | EW010756 | EW010766 | EW010769 | EW010771 |
| | EW010794 | EW010796 | EW010843 | EW010896 | EW010910 | | | |
| UIPMENT SELECTION | (1) | EW010794 | | | | | | |
| OSION | (1) | EW010690 | | | | | | |
| TIMATING | (2) | EW010695 | EW010702 | | | | | |
| TUARIES | (1) | EW010548 | | | | | | |
| HANOL | (1) | EW010551 | | | | | | |
| JROPE | (2) | EW010729 | EW010948 | | | | | |
| JTROPHICATION | (1) | EW010530 | | | | | | |
| VALUATION | (10) | EW010390 | EW010493 | EW010526 | EW010528 | EW010537 | EW010540 | EW010736 |
| | EW010741 | EW010752 | EW010909 | | | | | |
| VALUATION | (1) | EW010527 | | | | | | |
| ACILITIES | (31) | EW009267 | EW009268 | EW009546 | EW010461 | EW010462 | EW010463 | EW010473 |
| | EW010477 | EW010478 | EW010489 | EW010527 | EW010553 | EW010666 | EW010667 | EW010668 |
| | EW010671 | EW010681 | EW010684 | EW010695 | EW010697 | EW010722 | EW010778 | EW010779 |
| | EW010822 | EW010831 | EW010879 | EW010901 | EW010903 | EW010911 | EW010944 | EW010945 |
| EDERAL FUNDING | (1) | EW010461 | | | | | | |
| EDERAL GOVERNMENT | (1) | EW010559 | | | | | | |
| EDERAL LEGISLATION | (1) | EW010470 | | | | | | |
| EDERAL PROGRAMS | (3) | EW010461 | EW010486 | EW010924 | | | | |
| EDERAL ROLE | (2) | EW010770 | EW010819 | | | | | |
| EDERAL ROLE | (1) | EW010487 | | | | | | |
| ERRIC CHLORIDE | (1) | EW010788 | | | | | | |
| ERROZINE | (1) | EW010888 | | | | | | |
| FERTILIZER | (2) | EW010729 | EW010758 | | | | | |
| FIELD GUIDES | (1) | EW010727 | | | | | | |
| FIELD STUDIES | (1) | EW010871 | | | | | | |
| FIELD TESTS | (1) | EW010800 | | | | | | |
| FILTRATION | (4) | EW010541 | EW010666 | EW010927 | EW010932 | | | |
| FINANCES | (1) | EW010867 | | | | | | |
| FINANCIAL REPORTING SYSTEMS | (1) | EW010867 | | | | | | |
| FISH | (1) | EW010542 | | | | | | |

| | | | | |
|---|---|---|---|---|
| FISH | (1) | EW010531 | | |
| *FIXED-FILM BIOLOGICAL PROCESSES | (1) | EW010731 | | |
| *FLOCCULATION | (1) | EW010541 | | |
| *FLOOD CONTROL | (1) | EW010892 | | |
| *FLORIDA | (1) | EW010893 | | |
| *FLOW ANALYSIS | (1) | EW010477 | | |
| *FLOW CALIBRATION | (1) | EW010484 | | |
| *FLOW MEASUREMENT | (3) | EW010737 | EW010744 | EW010777 |
| *FLOWMETERS | (1) | EW010777 | | |
| FLOWS | (1) | EW010740 | | |
| FLUID FLOW | (3) | EW010737 | EW010739 | EW010777 |
| FLUIDIZED BED COMBUSTION | (1) | EW010730 | | |
| FLUID MECHANICS | (1) | EW010739 | | |
| FLUIDS | (1) | EW010744 | | |
| FOOD CHAINS | (1) | EW010760 | | |
| FOODS | (1) | EW010764 | | |
| FORECASTING | (3) | EW010555 | EW010689 | EW010933 |
| FORESTRY | (1) | EW010466 | | |
| FRESH WATER | (1) | EW010548 | | |
| FRESHWATER | (1) | EW010846 | | |
| FRESHWATER ORGANISMS | (1) | EW010483 | | |
| FUEL | (1) | EW010704 | | |
| FUELS | (1) | EW010699 | | |
| GAMMA EMITTERS | (1) | EW010718 | | |
| GARBAGE | (1) | EW010759 | | |
| GAS | (1) | EW010873 | | |
| GASIFIERS | (1) | EW010704 | | |
| GENERAL SERVICES | (1) | EW010782 | | |
| GEOLOGY | (1) | EW010390 | | |
| GEORGIA | (1) | EW010486 | | |
| GOVERNMENT ROLE | (1) | EW010948 | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DUATE STUDY | (4) | EW010533 | EW010534 | EW010535 | EW010721 | | | |
| NULAR ACTIVATED CARBON | (3) | EW010715 | EW010873 | EW010885 | | | | |
| AT LAKES | (6) | EW010526 | EW010528 | EW010529 | EW010530 | EW010531 | EW010532 | |
| AT LAKES BASIN | (1) | EW010527 | | | | | | |
| INDER PUMPS | (1) | EW010688 | | | | | | |
| OUNDWATER | (15) | EW010390 | EW010476 | EW010544 | EW010556 | EW010696 | EW010723 | EW010732 |
| | EW010740 | EW010792 | EW010793 | EW010819 | EW010834 | EW010835 | EW010852 | EW010894 |
| OUNDWATER | (2) | EW010554 | EW010870 | | | | | |
| IDEBOOKS | (2) | EW010753 | EW010754 | | | | | |
| IDELINES | (6) | EW010532 | EW010692 | EW010781 | EW010820 | EW010829 | EW010926 | |
| IDES | (1) | EW010497 | | | | | | |
| BITATS | (1) | EW010498 | | | | | | |
| NDBOOKS | (3) | EW010537 | EW010550 | EW010767 | | | | |
| ZARDOUS MATERIALS | (3) | EW010546 | EW010734 | EW010797 | | | | |
| ZARDOUS WASTES | (6) | EW010552 | EW010776 | EW010797 | EW010798 | EW010924 | EW010945 | |
| ALTH | (9) | EW010378 | EW010470 | EW010495 | EW010535 | EW010677 | EW010733 | EW010734 |
| | EW010747 | EW010817 | | | | | | |
| ALTH HAZARDS | (1) | EW010751 | | | | | | |
| ALTH SCIENCES | (1) | EW010535 | | | | | | |
| AVY EQUIPMENT | (1) | EW010497 | | | | | | |
| AVY METALS | (6) | EW010755 | EW010828 | EW010837 | EW010838 | EW010857 | EW010946 | |
| IGHER EDUCATION | (3) | EW010533 | EW010534 | EW010535 | | | | |
| IGH SCHOOLS | (1) | EW010500 | | | | | | |
| ISTORY | (1) | EW010941 | | | | | | |
| OME SYSTEMS | (1) | EW010883 | | | | | | |
| UMAN RESOURCE DEVELOPMENT | (1) | EW010882 | | | | | | |
| UMAN RESOURCES | (1) | EW010882 | | | | | | |
| YACINTHS | (2) | EW010877 | EW010880 | | | | | |
| YDRALUICS | (1) | EW010499 | | | | | | |
| YDRAULICS | (2) | EW010737 | EW010739 | | | | | |
| YDRAZINE | (1) | EW010699 | | | | | | |
| YDROCARBONS | (1) | EW010710 | | | | | | |
| YDROCARBONS | (1) | EW010531 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| HYDROGEN PEROXIDE | (1) | EW010898 | | | | | | |
| HYDROGEN SULFIDE | (1) | EW010898 | | | | | | |
| HYDROLOGISTS | (1) | EW010724 | | | | | | |
| HYDROLOGY | (6) | EW010390 | EW010540 | EW010556 | EW010721 | EW010722 | EW010852 | |
| HYDROMETEOROLOGY | (1) | EW010555 | | | | | | |
| ILLINOIS | (4) | EW010669 | EW010671 | EW010892 | EW010908 | | | |
| IMPLEMENTATION | (1) | EW010703 | | | | | | |
| INCINERATORS | (1) | EW010799 | | | | | | |
| INDEXES | (1) | EW010817 | | | | | | |
| INDIRECT CROSS CONNECTIONS | (1) | EW010907 | | | | | | |
| INDIVIDUALIZED INSTRUCTION | (2) | EW010735 | EW010746 | | | | | |
| INDUSTRIAL CONTROL | (1) | EW010728 | | | | | | |
| INDUSTRIAL PLANTS | (1) | EW010944 | | | | | | |
| INDUSTRIAL POLLUTION | (1) | EW010714 | | | | | | |
| INDUSTRIAL WASTES | (24) | EW010492 | EW010541 | EW010692 | EW010698 | EW010710 | EW010754 | EW010756 |
| | EW010757 | EW010758 | EW010759 | EW010770 | EW010823 | EW010827 | EW010829 | EW010854 |
| | EW010856 | EW010859 | EW010860 | EW010864 | EW010870 | EW010871 | EW010879 | EW010881 |
| | EW010924 | | | | | | | |
| INDUSTRIAL WASTES | (1) | EW010487 | | | | | | |
| INDUSTRIES | (1) | EW010944 | | | | | | |
| NDUSTRY | (1) | EW010753 | | | | | | |
| NFILTRATION | (10) | EW010462 | EW010463 | EW010484 | EW010669 | EW010687 | EW010697 | EW010866 |
| | EW010896 | EW010906 | EW010907 | | | | | |
| NFLOW | (8) | EW010462 | EW010463 | EW010484 | EW010669 | EW010687 | EW010896 | EW010906 |
| | EW010907 | | | | | | | |
| NNOVATIVE TECHNOLOGY | (1) | EW010461 | | | | | | |
| NORGANIC COMPOUNDS | (1) | EW010729 | | | | | | |
| NSERVICE TEACHER EDUCATION | (1) | EW010500 | | | | | | |
| NSITUFORM | (2) | EW010866 | EW010906 | | | | | |
| NSPECTION | (3) | EW010540 | EW010727 | EW010781 | | | | |
| NSPECTOR GENERAL | (1) | EW010820 | | | | | | |
| NSTITUTE OF WATER RESOURCES | (1) | EW010700 | | | | | | |
| NSTITUTIONAL ISSUES | (1) | EW010834 | | | | | | |
| NSTITUTIONAL REQUIREMENTS | (1) | EW010478 | | | | | | |
| NSTRUCTION | (11) | EW010387 | EW010537 | EW010538 | EW010539 | EW010664 | EW010665 | EW010721 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NSTRUCTIONAL MATERIALS | EW010724 | EW010735 | EW010903 | EW010904 | | | | |
| | (35) | EW009267 | EW009268 | EW009269 | EW009270 | EW009546 | EW010387 | EW010464 |
| | EW010497 | EW010546 | EW010664 | EW010665 | EW010678 | EW010724 | EW010725 | EW010726 |
| | EW010727 | EW010728 | EW010735 | EW010736 | EW010737 | EW010738 | EW010739 | EW010740 |
| | EW010744 | EW010745 | EW010746 | EW010747 | EW010766 | EW010769 | EW010771 | EW010774 |
| | EW010775 | EW010814 | EW010815 | EW010927 | | | | |
| NSTRUCTIONAL MATERIALS | (2) | EW010722 | EW010945 | | | | | |
| NSTRUCTOR'S MANUAL | (1) | EW010539 | | | | | | |
| NSTRUCTOR TRAINING | (1) | EW010537 | | | | | | |
| NSTRUMENTATION | (4) | EW010546 | EW010555 | EW010667 | EW010728 | | | |
| NSTRUMENTS | (1) | EW010686 | | | | | | |
| NTERCEPTORS | (1) | EW010906 | | | | | | |
| NTERLABORATORY STUDIES | (1) | EW010875 | | | | | | |
| NTERNATIONAL PROBLEMS | (3) | EW010526 | EW010723 | EW010948 | | | | |
| NTERSTATE SYSTEMS | (1) | EW010894 | | | | | | |
| NVENTIONS | (2) | EW010490 | EW010699 | | | | | |
| NVESTIGATIONS | (1) | EW010820 | | | | | | |
| ODINE | (2) | EW010482 | EW010719 | | | | | |
| ODINE-131 | (1) | EW010719 | | | | | | |
| ON EXCHANGE | (2) | EW010755 | EW010756 | | | | | |
| ON EXCHANGE RESINS | (2) | EW010837 | EW010838 | | | | | |
| RON | (1) | EW010888 | | | | | | |
| RRADIATION | (1) | EW010856 | | | | | | |
| RRIGATION | (4) | EW010750 | EW010751 | EW010766 | EW010869 | | | |
| RRIGATION METHODS | (1) | EW010751 | | | | | | |
| OINT POWER AGREEMENTS | (1) | EW010685 | | | | | | |
| OINT PROJECT DEVELOPMENT | (1) | EW010884 | | | | | | |
| ABORATORIES | (2) | EW009268 | EW010722 | | | | | |
| LABORATORY EQUIPMENT | (1) | EW010769 | | | | | | |
| LABORATORY PROCEDURES | (17) | EW009268 | EW010485 | EW010493 | EW010718 | EW010719 | EW010747 | EW010756 |
| | EW010765 | EW010769 | EW010800 | EW010818 | EW010826 | EW010828 | EW010875 | EW010887 |
| | EW010888 | EW010909 | | | | | | |
| LABORATORY TECHNIQUES | (1) | EW010889 | | | | | | |
| LAGOONS | (2) | EW010492 | EW010869 | | | | | |
| LAKE ERIE | (1) | EW010532 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LAKES | (3) | EW010468 | EW010774 | EW010775 | | | | |
| LAKES | (1) | EW010530 | | | | | | |
| LAND APPLICATION | (7) | EW010466 | EW010729 | EW010758 | EW010768 | EW010853 | EW010881 | EW010927 |
| LANDFILLS | (1) | EW009270 | | | | | | |
| LAND TREATMENT | (9) | EW010697 | EW010839 | EW010844 | EW010845 | EW010853 | EW010869 | EW010870 |
| | EW010871 | EW010945 | | | | | | |
| LAND USE | (6) | EW010711 | EW010751 | EW010767 | EW010776 | EW010944 | EW010947 | |
| LAWS | (2) | EW010732 | EW010738 | | | | | |
| LEARNING | (2) | EW010537 | EW010903 | | | | | |
| LEARNING ENVIRONMENT | (1) | EW010903 | | | | | | |
| LEGAL ASPECTS | (1) | EW010470 | | | | | | |
| LEGAL ISSUES | (1) | EW010834 | | | | | | |
| LEGISLATION | (12) | EW010378 | EW010470 | EW010550 | EW010732 | EW010753 | EW010754 | EW010767 |
| | EW010784 | EW010834 | EW010878 | EW010893 | EW010947 | | | |
| LIABILITY | (3) | EW010668 | EW010669 | EW010675 | | | | |
| LIFT STATIONS | (1) | EW010901 | | | | | | |
| LIME | (1) | EW010542 | | | | | | |
| LIMING TECHNIQUES | (1) | EW010542 | | | | | | |
| LINERS | (1) | EW010776 | | | | | | |
| LIQUIDS | (1) | EW010746 | | | | | | |
| LIQUID SCINTILLATION COUNTING | (1) | EW010889 | | | | | | |
| LITERATURE REVIEWS | (3) | EW010819 | EW010835 | EW010844 | | | | |
| LIVESTOCK | (2) | EW010757 | EW010758 | | | | | |
| LOADERS | (1) | EW010497 | | | | | | |
| LOVE CANAL | (1) | EW010378 | | | | | | |
| LOW-INCOME COMMUNITIES | (1) | EW010473 | | | | | | |
| MAINTENANCE | (17) | EW010497 | EW010553 | EW010669 | EW010670 | EW010685 | EW010687 | EW010769 |
| | EW010778 | EW010780 | EW010822 | EW010866 | EW010886 | EW010896 | EW010900 | EW010905 |
| | EW010906 | EW010908 | | | | | | |
| MAINTENANCE | (2) | EW010527 | EW010771 | | | | | |
| MANAGEMENT | (50) | EW010390 | EW010465 | EW010466 | EW010477 | EW010480 | EW010489 | EW010530 |
| | EW010545 | EW010552 | EW010556 | EW010557 | EW010558 | EW010663 | EW010668 | EW010676 |
| | EW010683 | EW010685 | EW010689 | EW010723 | EW010736 | EW010757 | EW010758 | EW010774 |
| | EW010775 | EW010787 | EW010790 | EW010791 | EW010793 | EW010798 | EW010814 | EW010815 |
| | EW010831 | EW010834 | EW010840 | EW010841 | EW010853 | EW010856 | EW010867 | EW010871 |
| | EW010880 | EW010882 | EW010891 | EW010892 | EW010893 | EW010894 | EW010895 | EW010924 |
| | EW010926 | EW010945 | EW010948 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MANAGEMENT | (1) | EW010526 | | | | | | |
| MANAGEMENT MODELS | (1) | EW010840 | | | | | | |
| MANUALS | (7) | EW010464 | EW010465 | EW010477 | EW010489 | EW010832 | EW010833 | EW010841 |
| MANUFACTURERS | (1) | EW010460 | | | | | | |
| MAPS | (1) | EW010702 | | | | | | |
| MARINE ENVIRONMENT | (1) | EW010943 | | | | | | |
| MARINE PLANTS | (1) | EW010857 | | | | | | |
| MARKETING | (1) | EW010795 | | | | | | |
| MASSACHUSETTS | (2) | EW010382 | EW010906 | | | | | |
| MASS BALANCE TECHNIQUE | (1) | EW010706 | | | | | | |
| MATHEMATICS | (2) | EW010533 | EW010740 | | | | | |
| MATHEMATICS EDUCATION | (1) | EW010533 | | | | | | |
| MEASUREMENT | (3) | EW010467 | EW010543 | EW010746 | | | | |
| MEDIATION | (2) | EW010672 | EW010674 | | | | | |
| METABOLISM | (1) | EW010483 | | | | | | |
| METAL FINISHING INDUSTRIES | (1) | EW010692 | | | | | | |
| METAL FINISHING OPERATIONS | (1) | EW010860 | | | | | | |
| METAL PLATING | (1) | EW010714 | | | | | | |
| METALS | (8) | EW010692 | EW010829 | EW010832 | EW010833 | EW010857 | EW010859 | EW010860 |
| | EW010946 | | | | | | | |
| METEOROLOGY | (1) | EW010556 | | | | | | |
| METHANE | (3) | EW010551 | EW010759 | EW010902 | | | | |
| METHANOL | (2) | EW010551 | EW010710 | | | | | |
| MICHIGAN | (2) | EW010869 | EW010897 | | | | | |
| MICROBIOLOGY | (4) | EW010476 | EW010747 | EW010847 | EW010858 | | | |
| MICROCOMPUTERS | (1) | EW010901 | | | | | | |
| MICROORGANISMS | (1) | EW010883 | | | | | | |
| MICROPROCESSORS | (1) | EW010728 | | | | | | |
| MODELING | (1) | EW010555 | | | | | | |
| MODELS | (11) | EW010475 | EW010477 | EW010478 | EW010481 | EW010695 | EW010762 | EW010774 |
| | EW010775 | EW010844 | EW010879 | EW010933 | | | | |
| MODELS | (1) | EW010544 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ONITORING | (25) | EW010485 | EW010528 | EW010543 | EW010546 | EW010554 | EW010686 | EW010696 |
| | EW010708 | EW010732 | EW010733 | EW010747 | EW010765 | EW010768 | EW010770 | EW010777 |
| | EW010783 | EW010785 | EW010786 | EW010793 | EW010835 | EW010839 | EW010846 | EW010897 |
| | EW010901 | EW010945 | | | | | | |
| ONITORING | (2) | EW010526 | EW010870 | | | | | |
| ONTE CARLO SIMULATION | (1) | EW010933 | | | | | | |
| ORT | (1) | EW010841 | | | | | | |
| OTIVATION | (1) | EW010736 | | | | | | |
| OTORS | (1) | EW010796 | | | | | | |
| UNICIPALITIES | (1) | EW010480 | | | | | | |
| UNICIPAL WASTES | (1) | EW010756 | | | | | | |
| ATIONAL PROBLEMS | (1) | EW010382 | | | | | | |
| ATIONAL SURVEYS | (2) | EW010462 | EW010463 | | | | | |
| ATURAL RESOURCES | (2) | EW010486 | EW010547 | | | | | |
| EEDS ASSESSMENT | (2) | EW010462 | EW010463 | | | | | |
| EGOTIATION | (1) | EW010673 | | | | | | |
| EW MEXICO | (1) | EW010905 | | | | | | |
| EW YORK | (2) | EW010378 | EW010898 | | | | | |
| IGHT SOIL | (1) | EW010472 | | | | | | |
| ITRATES | (1) | EW010755 | | | | | | |
| ITRIFICATION | (1) | EW010726 | | | | | | |
| ITROGEN | (3) | EW010549 | EW010681 | EW010726 | | | | |
| ITROGEN REMOVAL | (1) | EW010681 | | | | | | |
| OISE | (2) | EW010767 | EW010817 | | | | | |
| ONPOINT SOURCE CONTROL | (1) | EW010530 | | | | | | |
| ONPOINT SOURCE POLLUTION | (1) | EW010526 | | | | | | |
| ORTH AMERICA | (1) | EW010549 | | | | | | |
| ORTH CAROLINA | (1) | EW010683 | | | | | | |
| UCLEAR WASTES | (1) | EW010756 | | | | | | |
| UTRIENT FILM TECHNIQUE | (1) | EW010876 | | | | | | |
| BJECTIVES | (1) | EW010736 | | | | | | |
| CCUPATIONAL SAFETY | (1) | EW010841 | | | | | | |
| CEAN DUMPING | (2) | EW010547 | EW010691 | | | | | |
| CEANOGRAPHY | (3) | EW010761 | EW010762 | EW010857 | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CEANS | (7) | EW010491 | EW010547 | EW010548 | EW010690 | EW010691 | EW010698 | EW010701 |
| DOR CONTROL | (2) | EW010881 | EW010898 | | | | | |
| DORS | (3) | EW010789 | EW010885 | EW010898 | | | | |
| FFSHORE DRILLING | (1) | EW010842 | | | | | | |
| IL | (4) | EW010800 | EW010864 | EW010870 | EW010943 | | | |
| IL DEBRIS | (1) | EW010799 | | | | | | |
| IL DRILLING | (1) | EW010943 | | | | | | |
| IL INDUSTRY | (1) | EW010498 | | | | | | |
| IL REFINERIES | (1) | EW010864 | | | | | | |
| IL SPILL REMOVAL | (1) | EW010843 | | | | | | |
| IL SPILLS | (6) | EW010498 | EW010762 | EW010799 | EW010800 | EW010827 | EW010843 | |
| ILSPILLS | (1) | EW010701 | | | | | | |
| NLINE SYSTEMS | (1) | EW010500 | | | | | | |
| NSITE TREATMENT | (3) | EW010742 | EW010743 | EW010883 | | | | |
| NSITE WASTEWATER TREATMENT | (1) | EW010847 | | | | | | |
| PERATIONS (EQUIPMENT) | (1) | EW010497 | | | | | | |
| PERATIONS (WASTEWATER) | (58) | EW009267 | EW009268 | EW009269 | EW009270 | EW009546 | EW010461 | EW010462 |
| | EW010463 | EW010464 | EW010465 | EW010466 | EW010475 | EW010479 | EW010489 | EW010490 |
| | EW010492 | EW010494 | EW010527 | EW010544 | EW010545 | EW010667 | EW010679 | EW010680 |
| | EW010681 | EW010683 | EW010684 | EW010685 | EW010687 | EW010688 | EW010692 | EW010693 |
| | EW010699 | EW010706 | EW010725 | EW010726 | EW010731 | EW010741 | EW010742 | EW010743 |
| | EW010755 | EW010756 | EW010778 | EW010794 | EW010796 | EW010822 | EW010825 | EW010836 |
| | EW010856 | EW010859 | EW010864 | EW010866 | EW010869 | EW010876 | EW010877 | EW010897 |
| | EW010898 | EW010926 | EW010927 | | | | | |
| PERATIONS (WASTEWATER) | (1) | EW010881 | | | | | | |
| PERATIONS (WATER) | (22) | EW010476 | EW010482 | EW010553 | EW010666 | EW010683 | EW010689 | EW010695 |
| | EW010715 | EW010733 | EW010741 | EW010771 | EW010781 | EW010788 | EW010789 | EW010873 |
| | EW010884 | EW010885 | EW010891 | EW010910 | EW010911 | EW010930 | EW010932 | |
| RGANIC COMPOUNDS | (15) | EW010531 | EW010545 | EW010708 | EW010710 | EW010712 | EW010715 | EW010729 |
| | EW010760 | EW010826 | EW010860 | EW010869 | EW010883 | EW010885 | EW010940 | EW010942 |
| RGANIC POLYELECTROLYTES | (1) | EW010930 | | | | | | |
| RGANIC SOLVENTS | (1) | EW010714 | | | | | | |
| RGANIZATION | (1) | EW010904 | | | | | | |
| RGANIZATIONS | (1) | EW010486 | | | | | | |
| VERLAND FLOW | (2) | EW010697 | EW010711 | | | | | |
| XIDATION | (1) | EW010715 | | | | | | |
| XYGEN | (1) | EW010725 | | | | | | |

| | | |
|---|---|---|
| 'ZONATION | (1) | EW010715 |
| 'ZONE | (4) | EW010680 EW010830 EW010885 EW010887 |
| 'ACIFIC REGION | (1) | EW010723 |
| 'AINT | (1) | EW010670 |
| 'ARASITES | (1) | EW010828 |
| 'ATENTS | (1) | EW010699 |
| 'ATHOGENIC BACTERIA | (1) | EW010858 |
| 'ATHOGENS | (2) | EW010471 EW010858 |
| 'CBS | (2) | EW010749 EW010846 |
| 'ENNSYLVANIA | (1) | EW010785 |
| ERCOLATION | (1) | EW010742 |
| ERCOLATION TECHNIQUES | (1) | EW010544 |
| ERFORMANCE | (1) | EW010527 |
| ERFORMANCE APPRAISAL | (1) | EW010663 |
| ERFORMANCE EVALUATION | (34) | EW010475 EW010482 EW010672 EW010676 EW010680 EW010681 EW010708 EW010714 EW010715 EW010725 EW010770 EW010776 EW010778 EW010799 EW010800 EW010820 EW010822 EW010823 EW010830 EW010836 EW010859 EW010864 EW010869 EW010870 EW010871 EW010873 EW010875 EW010876 EW010880 EW010883 EW010885 EW010898 EW010906 EW010911 |
| ERFORMANCE EVALUATION | (1) | EW010881 |
| ERFORMANCE MANAGEMENT SYSTEMS | (1) | EW010882 |
| ERSONNEL | (3) | EW010663 EW010793 EW010882 |
| ESTICIDES | (3) | EW010738 EW010749 EW010817 |
| ETROCHEMICALS | (1) | EW010870 |
| ETROLEUM WASTES | (1) | EW010864 |
| HENOL | (1) | EW010752 |
| HENOLIC PAINT STRIPPERS | (1) | EW010714 |
| HENOLS | (1) | EW010493 |
| HOSPHORUS | (1) | EW009546 |
| HOTOGRAPHY | (2) | EW010678 EW010690 |
| HYSICAL SCIENCES | (2) | EW010533 EW010534 |
| HYSICS | (2) | EW010740 EW010761 |
| HYSIOLOGY | (1) | EW010495 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| TYTOTOXICITY | (1) | EW010870 | | | | | | |
| LOT PROJECTS | (1) | EW010500 | | | | | | |
| LOT STUDIES | (1) | EW010476 | | | | | | |
| PE LINING | (1) | EW010905 | | | | | | |
| PES | (6) | EW010499 | EW010737 | EW010780 | EW010886 | EW010900 | EW010905 | |
| ANNING | (38) | EW010465 | EW010473 | EW010477 | EW010478 | EW010480 | EW010489 | EW010537 |
| | EW010538 | EW010549 | EW010555 | EW010557 | EW010558 | EW010687 | EW010688 | EW010689 |
| | EW010700 | EW010702 | EW010703 | EW010775 | EW010779 | EW010784 | EW010792 | EW010793 |
| | EW010794 | EW010798 | EW010815 | EW010839 | EW010844 | EW010845 | EW010892 | EW010893 |
| | EW010895 | EW010897 | EW010904 | EW010926 | EW010945 | EW010947 | EW010948 | |
| ANTS | (3) | EW010498 | EW010857 | EW010877 | | | | |
| INT SOURCE CONTROL | (1) | EW010530 | | | | | | |
| LICIES | (14) | EW010378 | EW010382 | EW010487 | EW010545 | EW010549 | EW010557 | EW010669 |
| | EW010754 | EW010878 | EW010893 | EW010894 | EW010940 | EW010947 | EW010948 | |
| LICY | (2) | EW010700 | EW010834 | | | | | |
| LITICS | (1) | EW010382 | | | | | | |
| LLUTANT IDENTIFICATION | (1) | EW010485 | | | | | | |
| LLUTANTS | (3) | EW010493 | EW010559 | EW010752 | | | | |
| LLUTION | (22) | EW010495 | EW010498 | EW010690 | EW010708 | EW010714 | EW010732 | EW010738 |
| | EW010740 | EW010747 | EW010749 | EW010761 | EW010762 | EW010763 | EW010764 | EW010817 |
| | EW010940 | EW010941 | EW010943 | EW010944 | EW010946 | EW010947 | EW010948 | |
| LLUTION ABATEMENT | (1) | EW010527 | | | | | | |
| LLUTION CONTROL | (17) | EW010495 | EW010526 | EW010528 | EW010530 | EW010531 | EW010532 | EW010547 |
| | EW010554 | EW010749 | EW010753 | EW010754 | EW010763 | EW010817 | EW010944 | EW010946 |
| | EW010947 | EW010948 | | | | | | |
| LYCHLORINATED BIPHENYLS | (1) | EW010846 | | | | | | |
| LYMERS | (2) | EW010756 | EW010930 | | | | | |
| PULATION GROWTH | (1) | EW010893 | | | | | | |
| STGRADUATE STUDY | (1) | EW010722 | | | | | | |
| STSECONDARY EDUCATION | (21) | EW009546 | EW010464 | EW010539 | EW010725 | EW010726 | EW010727 | EW010728 |
| | EW010735 | EW010736 | EW010737 | EW010738 | EW010739 | EW010740 | EW010744 | EW010745 |
| | EW010746 | EW010747 | EW010766 | EW010769 | EW010774 | EW010927 | | |
| STSECONDARY EDUCATION | (2) | EW010546 | EW010945 | | | | | |
| TATO INDUSTRY | (1) | EW010881 | | | | | | |
| RECIPITATION | (1) | EW010788 | | | | | | |
| RESENTATIONS | (1) | EW010904 | | | | | | |
| RESSURE SEWERS | (1) | EW010688 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| REVENTIVE MAINTENANCE | (2) | EW010896 | EW010908 | | | | | |
| RIMARY TREATMENT | (1) | EW009267 | | | | | | |
| RINT PAPERS | (1) | EW010678 | | | | | | |
| RIORITIES | (1) | EW010818 | | | | | | |
| RIORITY POLLUTANTS | (2) | EW010483 | EW010493 | | | | | |
| RIVATE SOURCES | (1) | EW010669 | | | | | | |
| ROCESS CONTROLS | (3) | EW010744 | EW010745 | EW010746 | | | | |
| ROCESS DESIGN | (2) | EW010465 | EW010466 | | | | | |
| RODUCTIVITY | (1) | EW010882 | | | | | | |
| RODUCT LIABILITY | (1) | EW010675 | | | | | | |
| ROGAMMER MANUALS | (1) | EW010833 | | | | | | |
| ROGRAM DESCRIPTIONS | (6) | EW009267 | EW010486 | EW010533 | EW010534 | EW010535 | EW010721 | |
| ROGRAM DEVELOPMENT | (1) | EW010478 | | | | | | |
| ROJECT MANAGEMENT | (1) | EW010668 | | | | | | |
| UBLIC HEALTH | (36) | EW010378 | EW010471 | EW010472 | EW010474 | EW010476 | EW010479 | EW010488 |
| | EW010528 | EW010529 | EW010531 | EW010677 | EW010696 | EW010707 | EW010716 | EW010729 |
| | EW010733 | EW010734 | EW010747 | EW010752 | EW010753 | EW010754 | EW010764 | EW010767 |
| | EW010768 | EW010781 | EW010783 | EW010784 | EW010785 | EW010786 | EW010787 | EW010797 |
| | EW010798 | EW010818 | EW010847 | EW010853 | EW010941 | | | |
| UBLIC INVOLVEMENT | (1) | EW010700 | | | | | | |
| UBLIC OPINION | (1) | EW010941 | | | | | | |
| UBLIC PARTICIPATION | (3) | EW010466 | EW010700 | EW010892 | | | | |
| UBLIC RELATIONS | (1) | EW010815 | | | | | | |
| UBLIC WORKS | (1) | EW010782 | | | | | | |
| ULP AND PAPER INDUSTRY | (1) | EW010710 | | | | | | |
| UMPS | (2) | EW010737 | EW010796 | | | | | |
| UANTITATIVE METHODS | (1) | EW010768 | | | | | | |
| ADIATION | (1) | EW010817 | | | | | | |
| ADIOACTIVE WASTES | (3) | EW010698 | EW010837 | EW010838 | | | | |
| ADIOACTIVITY | (1) | EW010718 | | | | | | |
| ADIONUCLIDES | (1) | EW010718 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| RADIUM | (1) | EW010889 | | | | | | |
| RATES | (1) | EW010929 | | | | | | |
| RECLAIMED WATER | (1) | EW010487 | | | | | | |
| RECLAMATION | (1) | EW010466 | | | | | | |
| RECOMMENDATIONS | (22) | EW010387 | EW010526 | EW010527 | EW010528 | EW010529 | EW010530 | EW010531 |
| | EW010532 | EW010664 | EW010679 | EW010680 | EW010691 | EW010768 | EW010770 | EW010820 |
| | EW010822 | EW010869 | EW010880 | EW010881 | EW010894 | EW010924 | EW010926 | |
| RECORDKEEPING | (2) | EW010814 | EW010815 | | | | | |
| RECORDS | (1) | EW010781 | | | | | | |
| RECREATION | (1) | EW010840 | | | | | | |
| RECURSIVE ESTIMATION | (1) | EW010933 | | | | | | |
| RECYCLED WATER | (1) | EW010487 | | | | | | |
| RECYCLING | (5) | EW010476 | EW010759 | EW010763 | EW010795 | EW010902 | | |
| REFERENCE MATERIALS | (2) | EW010726 | EW010734 | | | | | |
| REGULATIONS | (18) | EW010378 | EW010526 | EW010549 | EW010550 | EW010552 | EW010732 | EW010757 |
| | EW010765 | EW010767 | EW010784 | EW010792 | EW010819 | EW010842 | EW010877 | EW010878 |
| | EW010941 | EW010944 | EW010947 | | | | | |
| REGULATIONS | (1) | EW010531 | | | | | | |
| REGULATORY AGENCIES | (1) | EW010815 | | | | | | |
| REHABILITATION | (7) | EW010669 | EW010687 | EW010866 | EW010900 | EW010905 | EW010906 | EW010907 |
| REMOTE METERS | (1) | EW010910 | | | | | | |
| REMOTE REGISTERS | (1) | EW010910 | | | | | | |
| REMOTE SENSING | (2) | EW010543 | EW010556 | | | | | |
| REMOTE SENSING | (1) | EW010548 | | | | | | |
| REPORTING | (1) | EW010867 | | | | | | |
| REPORTS | (1) | EW010532 | | | | | | |
| REPORTS | (1) | EW010526 | | | | | | |
| RESEARCH | (38) | EW010494 | EW010496 | EW010543 | EW010549 | EW010679 | EW010680 | EW010681 |
| | EW010696 | EW010704 | EW010706 | EW010707 | EW010710 | EW010711 | EW010712 | EW010714 |
| | EW010716 | EW010719 | EW010759 | EW010768 | EW010783 | EW010784 | EW010785 | EW010786 |
| | EW010788 | EW010789 | EW010795 | EW010797 | EW010823 | EW010830 | EW010832 | EW010833 |
| | EW010836 | EW010839 | EW010869 | EW010870 | EW010871 | EW010881 | EW010940 | |
| RESEARCH NEEDS | (6) | EW010528 | EW010531 | EW010768 | EW010818 | EW010819 | EW010847 | |
| RESEARCH PRIORITIES | (1) | EW010691 | | | | | | |
| RESEARCH PROJECTS | (1) | EW010864 | | | | | | |
| RESEARCH REPORTS | (15) | EW010474 | EW010483 | EW010491 | EW010529 | EW010544 | EW010545 | EW010729 |
| | EW010817 | EW010818 | EW010837 | EW010838 | EW010840 | EW010846 | EW010859 | EW010876 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| :RESERVOIRS | (2) | EW010540 | EW010840 | | | | | |
| :RESOURCE ALLOCATIONS | (1) | EW010691 | | | | | | |
| :RESPONSIBILITIES | (1) | EW010793 | | | | | | |
| :RETURN FLOWS | (1) | EW010679 | | | | | | |
| :RISK | (1) | EW010841 | | | | | | |
| :RISK ANALYSIS | (1) | EW010752 | | | | | | |
| :RISK ASSESSMENT | (1) | EW010819 | | | | | | |
| :RIVER BASINS | (1) | EW010557 | | | | | | |
| :RIVERS | (2) | EW010557 | EW010558 | | | | | |
| :RURAL AREAS | (3) | EW010478 | EW010814 | EW010884 | | | | |
| :SAFETY | (8) EW010926 | EW010497 | EW010539 | EW010540 | EW010734 | EW010767 | EW010817 | EW010841 |
| :SAFETY PROGRAMS | (1) | EW010926 | | | | | | |
| SALARIES | (1) | EW010882 | | | | | | |
| :SALINITY | (1) | EW010750 | | | | | | |
| :SAMPLE PRESERVATION | (1) | EW010460 | | | | | | |
| :SAMPLING | (5) | EW010460 | EW010490 | EW010710 | EW010765 | EW010835 | | |
| SAMPLING | (1) | EW010771 | | | | | | |
| :SAMPLING PROCEDURES | (1) | EW010460 | | | | | | |
| :SANITATION | (5) | EW010471 | EW010472 | EW010473 | EW010474 | EW010478 | | |
| :SCALE-DOWN | (1) | EW010741 | | | | | | |
| :SCALE-UP | (2) | EW010739 | EW010741 | | | | | |
| :SCIENCE EDUCATION | (3) | EW010533 | EW010534 | EW010535 | | | | |
| :SCIENCES | (3) | EW010533 | EW010534 | EW010535 | | | | |
| :SEASONAL EFFECTS | (1) | EW010911 | | | | | | |
| :SECONDARY SCHOOL SCIENCE | (1) | EW010500 | | | | | | |
| :SECONDARY TREATMENT | (3) | EW010462 | EW010463 | EW010878 | | | | |
| :SEDIMENTS | (1) | EW010762 | | | | | | |
| :SENSING DEVICES | (1) | EW010746 | | | | | | |
| :SEPTIC TANKS | (2) | EW010742 | EW010743 | | | | | |
| SEWAGE | (4) | EW010491 | EW010711 | EW010759 | EW010764 | | | |
| SEWAGE PIPES | (1) | EW010780 | | | | | | |
| SEWAGE SLUDGE | (2) | EW010729 | EW010795 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EWER OVERFLOW | (3) | EW010527 | EW010706 | EW010897 | | | | |
| EWER REPAIRS | (1) | EW010906 | | | | | | |
| EWERS | (16) | EW010462 | EW010463 | EW010475 | EW010477 | EW010484 | EW010499 | EW010499 |
| | EW010669 | EW010687 | EW010688 | EW010706 | EW010866 | EW010896 | EW010897 | EW010907 |
| | EW010908 | | | | | | | |
| EWERS | (2) | EW010527 | EW010906 | | | | | |
| EWER SYSTEMS | (1) | EW010896 | | | | | | |
| SHELLFISH | (1) | EW010857 | | | | | | |
| SHORELINES | (1) | EW010690 | | | | | | |
| SIMULATIONS | (1) | EW010701 | | | | | | |
| *SITE REHABILITATION | (1) | EW010852 | | | | | | |
| *SITE SELECTION | (1) | EW010944 | | | | | | |
| *SITING | (1) | EW010944 | | | | | | |
| *SLIDES | (1) | EW010769 | | | | | | |
| *SLIP-LINING | (1) | EW010905 | | | | | | |
| *SLUDGE | (15) | EW009269 | EW009270 | EW010466 | EW010490 | EW010494 | EW010671 | EW010704 |
| | EW010725 | EW010729 | EW010759 | EW010764 | EW010795 | EW010823 | EW010853 | EW010927 |
| SLUDGE | (1) | EW010870 | | | | | | |
| *SLUDGE CONDITIONING | (1) | EW010930 | | | | | | |
| *SLUDGE DEWATERING | (1) | EW010796 | | | | | | |
| SLUDGE DISPOSAL | (1) | EW009270 | | | | | | |
| *SLUDGES | (1) | EW010860 | | | | | | |
| *SLUDGE SAMPLER | (1) | EW010490 | | | | | | |
| *SLUDGE TREATMENT | (1) | EW010898 | | | | | | |
| *SMALL SYSTEMS | (5) | EW010482 | EW010489 | EW010695 | EW010771 | EW010814 | | |
| *SMOKE TESTING | (1) | EW010896 | | | | | | |
| *SNOW MOUNTAIN AGENT | (1) | EW010716 | | | | | | |
| *SOIL | (2) | EW010549 | EW010847 | | | | | |
| *SOIL ADSORPTION | (1) | EW010847 | | | | | | |
| *SOIL CHEMISTRY | (1) | EW010847 | | | | | | |
| *SOIL PERCOLATION | (1) | EW010544 | | | | | | |
| *SOILS | (2) | EW010742 | EW010750 | | | | | |
| *SOLAR HEAT | (1) | EW010671 | | | | | | |
| | (5) | EW009269 | EW010704 | EW010738 | EW010765 | EW010817 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | (1) | EW010860 | | | | | |
| *SPECTROSCOPY | (1) | EW010765 | | | | | |
| *SPIKE ELIMINATION | (1) | EW010777 | | | | | |
| *STABILIZATION PONDS | (1) | EW010465 | | | | | |
| *STAFF DEVELOPMENT | (1) | EW010387 | | | | | |
| *STANDARDS | (6) | EW010529 | EW010541 | EW010559 | EW010692 | EW010734 | EW010752 |
| *STATE-OF-THE-ART REVIEWS | (1) | EW010471 | | | | | |
| *STATE PROGRAMS | (1) | EW010486 | | | | | |
| *STATE ROLE | (2) | EW010770 | EW010819 | | | | |
| *STATES | (1) | EW010559 | | | | | |
| *STATISTICS | (1) | EW010488 | | | | | |
| *STORM RUNOFF | (1) | EW010779 | | | | | |
| *STORM SEWERS | (1) | EW010907 | | | | | |
| STORMWATER | (1) | EW010477 | | | | | |
| *STREAMS | (2) | EW010468 | EW010785 | | | | |
| *STRIP MINING | (1) | EW010852 | | | | | |
| *SULFUR | (1) | EW010549 | | | | | |
| *SUPERVISION | (1) | EW010736 | | | | | |
| *SUPPLIERS | (1) | EW010675 | | | | | |
| *SURFACE PREPARATION | (1) | EW010670 | | | | | |
| *SURFACE RUNOFF | (4) | EW010693 | EW010706 | EW010779 | EW010785 | | |
| *SURFACE WATER | (2) | EW010556 | EW010852 | | | | |
| SURFACE WATER | (1) | EW010554 | | | | | |
| *SURVEYS | (5) | EW010390 | EW010462 | EW010463 | EW010690 | EW010892 | |
| *SWIMMING POOLS | (1) | EW010694 | | | | | |
| *SYSTEMS APPROACH | (1) | EW010724 | | | | | |
| *TANKS | (1) | EW010670 | | | | | |
| TANKS | (1) | EW010901 | | | | | |
| TASTES | (2) | EW010789 | EW010885 | | | | |
| TEACHER EDUCATION | (1) | EW010537 | | | | | |
| TEACHING GUIDES | (1) | EW010664 | | | | | |
| TEACHING METHODS | (2) | EW010537 | EW010538 | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| TECHNOLOGY | (27) | EW009546 | EW010474 | EW010479 | EW010490 | EW010529 | EW010534 | EW010550 |
| | EW010552 | EW010688 | EW010699 | EW010730 | EW010731 | EW010797 | EW010825 | EW010831 |
| | EW010836 | EW010839 | EW010842 | EW010843 | EW010853 | EW010856 | EW010864 | EW010876 |
| | EW010877 | EW010924 | EW010927 | EW010942 | | | | |
| TEMPERATURE | (1) | EW010788 | | | | | | |
| TERRESTRIAL ECOSYSTEMS | (1) | EW010469 | | | | | | |
| TEST PROCEDURES | (1) | EW010875 | | | | | | |
| THEORY | (1) | EW010541 | | | | | | |
| TILT SENSING | (1) | EW010667 | | | | | | |
| TIME-SERIES ANALYSIS | (1) | EW010933 | | | | | | |
| TOXIC CHEMICALS | (1) | EW010530 | | | | | | |
| TOXICITY TESTING | (1) | EW010818 | | | | | | |
| TOXICOLOGY | (4) | EW010495 | EW010496 | EW010832 | EW010833 | | | |
| TOXICOLOGY | (1) | EW010528 | | | | | | |
| TOXIC SUBSTANCES | (11) | EW010378 | EW010481 | EW010483 | EW010485 | EW010496 | EW010529 | EW010738 |
| | EW010753 | EW010754 | EW010767 | EW010818 | | | | |
| TOXIC SUBSTANCES | (2) | EW010527 | EW010946 | | | | | |
| TOXIC SUBSTANCES CONTROL ACT | (2) | EW010753 | EW010754 | | | | | |
| TRACTORS | (1) | EW010497 | | | | | | |
| TRAINING | (7) | EW010387 | EW010478 | EW010537 | EW010663 | EW010664 | EW010665 | EW010735 |
| TRAINING AIDS | (1) | EW010387 | | | | | | |
| TRANSPORT | (1) | EW010819 | | | | | | |
| TRANSPORTATION SERVICES | (1) | EW010782 | | | | | | |
| TRENDS | (2) | EW010677 | EW010721 | | | | | |
| TRICKLING FILTERS | (1) | EW010464 | | | | | | |
| TROUBLESHOOTING | (1) | EW010771 | | | | | | |
| TURBIDITY | (2) | EW010548 | EW010788 | | | | | |
| ULTRASONIC METHODS | (1) | EW010777 | | | | | | |
| ULTRAVIOLET LIGHT | (2) | EW010482 | EW010680 | | | | | |
| UNDERGRADUATE STUDY | (2) | EW010721 | EW010722 | | | | | |
| UNITED STATES | (4) | EW010488 | EW010533 | EW010534 | EW010535 | | | |
| UNITED STATES | (1) | EW010526 | | | | | | |
| UNIT OPERATION | (1) | EW010739 | | | | | | |
| UNIT OPERATIONS | (1) | EW010741 | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *UNIT PROCESSES | (1) | EW010715 | | | | | | |
| *UNSTEADY FLOW | (1) | EW010737 | | | | | | |
| *URANIUM | (1) | EW010875 | | | | | | |
| *URBAN AREAS | (3) | EW010693 | EW010884 | EW010893 | | | | |
| *UTILITIES | (2) | EW010683 | EW010685 | | | | | |
| *VACUUM FILTRATION | (1) | EW010927 | | | | | | |
| *VIDEOCASETTES | (1) | EW010546 | | | | | | |
| *VIDEOCASSETTES | (1) | EW009546 | | | | | | |
| *VIRAL GASTROENTERITIS | (1) | EW010716 | | | | | | |
| *VIRUSES | (7) | EW010494 | EW010707 | EW010716 | EW010733 | EW010764 | EW010768 | EW010828 |
| *VIRUS INDICATORS | (1) | EW010768 | | | | | | |
| *VISUAL AIDS | (1) | EW010678 | | | | | | |
| *VOLATILE ORGANICS | (1) | EW010708 | | | | | | |
| *WASHINGTON | (1) | EW010791 | | | | | | |
| *WASTE CHARACTERISTICS | (1) | EW010871 | | | | | | |
| *WASTE DISCHARGERS | (1) | EW010770 | | | | | | |
| *WASTE DISPOSAL | (37) | EW009270 | EW010464 | EW010466 | EW010471 | EW010472 | EW010473 | EW010474 |
| | EW010491 | EW010547 | EW010551 | EW010552 | EW010685 | EW010691 | EW010692 | EW010698 |
| | EW010704 | EW010729 | EW010757 | EW010758 | EW010763 | EW010776 | EW010795 | EW010797 |
| | EW010798 | EW010799 | EW010819 | EW010839 | EW010844 | EW010845 | EW010853 | EW010854 |
| | EW010860 | EW010870 | EW010871 | EW010924 | EW010943 | EW010945 | | |
| *WASTES | (3) | EW010547 | EW010551 | EW010552 | | | | |
| *WASTE STORAGE | (1) | EW010798 | | | | | | |
| *WASTE TREATMENT | (3) | EW010798 | EW010854 | EW010860 | | | | |
| *WASTE USE | (1) | EW010763 | | | | | | |
| *WASTEWATER | (6) | EW010460 | EW010494 | EW010764 | EW010765 | EW010817 | EW010827 | |
| WASTEWATER | (1) | EW010554 | | | | | | |
| *WASTEWATER COLLECTION | (18) | EW010462 | EW010463 | EW010475 | EW010477 | EW010484 | EW010499 | EW010669 |
| | EW010685 | EW010687 | EW010688 | EW010706 | EW010780 | EW010866 | EW010896 | EW010897 |
| | EW010905 | EW010907 | EW010908 | | | | | |
| WASTEWATER COLLECTION | (1) | EW010906 | | | | | | |
| *WASTEWATER SYSTEMS | (1) | EW010901 | | | | | | |
| *WASTEWATER TREATMENT | (84) | EW009267 | EW009268 | EW009269 | EW009270 | EW009546 | EW010461 | EW010462 |
| | EW010463 | EW010464 | EW010465 | EW010466 | EW010479 | EW010485 | EW010487 | EW010489 |
| | EW010490 | EW010491 | EW010492 | EW010494 | EW010527 | EW010544 | EW010545 | EW010667 |
| | EW010671 | EW010679 | EW010680 | EW010681 | EW010683 | EW010684 | EW010685 | EW010692 |
| | EW010694 | EW010697 | EW010699 | EW010706 | EW010710 | EW010711 | EW010725 | EW010726 |
| | EW010729 | EW010731 | EW010733 | EW010741 | EW010742 | EW010743 | EW010755 | EW010756 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | EW010770 | EW010777 | EW010778 | EW010782 | EW010791 | EW010794 | EW010796 | EW010797 |
| | EW010822 | EW010823 | EW010825 | EW010830 | EW010831 | EW010836 | EW010839 | EW010844 |
| | EW010845 | EW010847 | EW010853 | EW010856 | EW010858 | EW010859 | EW010864 | EW010869 |
| | EW010873 | EW010876 | EW010877 | EW010878 | EW010879 | EW010880 | EW010881 | EW010898 |
| | EW010902 | EW010909 | EW010926 | EW010927 | EW010942 | | | |
| WASTEWATER TREATMENT | (1) | EW010472 | | | | | | |
| *WATER | (7) | EW010460 | EW010549 | EW010760 | EW010817 | EW010837 | EW010838 | EW010911 |
| *WATER ANALYSIS | (1) | EW010828 | | | | | | |
| *WATER ASSESSMENT | (1) | EW010703 | | | | | | |
| *WATER AUDITS | (1) | EW010891 | | | | | | |
| *WATERBORNE DISEASES | (2) | EW010488 | EW010677 | | | | | |
| *WATER CHARACTERISTICS | (1) | EW010543 | | | | | | |
| *WATER CONSERVATION | (2) | EW010891 | EW010895 | | | | | |
| *WATER DEMAND | (1) | EW010895 | | | | | | |
| *WATER DISTRIBUTION | (9) | EW010382 | EW010499 | EW010677 | EW010683 | EW010689 | EW010790 | EW010886 |
| | EW010891 | EW010900 | | | | | | |
| WATER DISTRIBUTION | (1) | EW010771 | | | | | | |
| *WATER HYACINTHS | (2) | EW010877 | EW010880 | | | | | |
| *WATER METERS | (1) | EW010910 | | | | | | |
| *WATER PIPES | (2) | EW010886 | EW010900 | | | | | |
| *WATER POLLUTION | (5) | EW010485 | EW010752 | EW010764 | EW010852 | EW010857 | | |
| *WATER POLLUTION CONTROL | (24) | EW010476 | EW010493 | EW010496 | EW010696 | EW010698 | EW010701 | EW010714 |
| | EW010732 | EW010747 | EW010752 | EW010755 | EW010761 | EW010762 | EW010767 | EW010792 |
| | EW010793 | EW010799 | EW010800 | EW010819 | EW010829 | EW010846 | EW010940 | EW010942 |
| | EW010943 | | | | | | | |
| WATER POLLUTION CONTROL | (2) | EW010464 | EW010870 | | | | | |
| *WATER QUALITY | (52) | EW010390 | EW010460 | EW010485 | EW010493 | EW010496 | EW010526 | EW010528 |
| | EW010529 | EW010530 | EW010531 | EW010532 | EW010543 | EW010544 | EW010546 | EW010547 |
| | EW010554 | EW010555 | EW010556 | EW010558 | EW010559 | EW010677 | EW010686 | EW010689 |
| | EW010693 | EW010718 | EW010721 | EW010732 | EW010747 | EW010750 | EW010764 | EW010765 |
| | EW010768 | EW010770 | EW010774 | EW010775 | EW010783 | EW010784 | EW010785 | EW010786 |
| | EW010787 | EW010789 | EW010792 | EW010819 | EW010827 | EW010832 | EW010833 | EW010840 |
| | EW010858 | EW010875 | EW010889 | EW010933 | EW010942 | | | |
| WATER QUALITY | (1) | EW010771 | | | | | | |
| *WATER RATES | (4) | EW010480 | EW010689 | EW010815 | EW010929 | | | |
| *WATER RECLAMATION | (1) | EW010487 | | | | | | |
| *WATER RESOURCES | (31) | EW010382 | EW010390 | EW010480 | EW010486 | EW010526 | EW010529 | EW010540 |
| | EW010555 | EW010557 | EW010558 | EW010696 | EW010700 | EW010703 | EW010721 | EW010722 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | EW010723 | EW010724 | EW010732 | EW010740 | EW010750 | EW010751 | EW010766 | EW010774 |
| | EW010775 | EW010792 | EW010793 | EW010834 | EW010884 | EW010892 | EW010893 | EW010894 |
| WATER RESOURCES | (3) | EW010464 | EW010554 | EW010895 | | | | |
| *WATER REUSE | (3) | EW010476 | EW010487 | EW010733 | | | | |
| *WATERSHEDS | (1) | EW010783 | | | | | | |
| *WATER STORAGE | (2) | EW010540 | EW010553 | | | | | |
| WATER STORAGE | (1) | EW010771 | | | | | | |
| *WATER SUPPLY | (33) | EW010382 | EW010471 | EW010472 | EW010474 | EW010478 | EW010480 | EW010488 |
| | EW010553 | EW010555 | EW010677 | EW010695 | EW010702 | EW010716 | EW010719 | EW010723 |
| | EW010724 | EW010733 | EW010781 | EW010783 | EW010784 | EW010785 | EW010786 | EW010787 |
| | EW010790 | EW010792 | EW010793 | EW010815 | EW010867 | EW010884 | EW010886 | EW010893 |
| | EW010895 | EW010929 | | | | | | |
| WATER SUPPLY | (2) | EW010473 | EW010771 | | | | | |
| *WATER SYSTEMS | (2) | EW010695 | EW010901 | | | | | |
| *WATER TANKS | (1) | EW010670 | | | | | | |
| WATER TANKS | (1) | EW010901 | | | | | | |
| *WATER TREATMENT | (24) | EW010476 | EW010482 | EW010666 | EW010677 | EW010683 | EW010689 | EW010694 |
| | EW010695 | EW010707 | EW010715 | EW010733 | EW010741 | EW010764 | EW010771 | EW010786 |
| | EW010787 | EW010788 | EW010789 | EW010790 | EW010883 | EW010885 | EW010930 | EW010932 |
| | EW010942 | | | | | | | |
| *WATER USE | (4) | EW010556 | EW010750 | EW010751 | EW010893 | | | |
| *WATER UTILITIES | (5) | EW010782 | EW010814 | EW010815 | EW010867 | EW010929 | | |
| *WEATHER MODIFICATION | (1) | EW010555 | | | | | | |
| *WELLS | (1) | EW010835 | | | | | | |
| WELLS | (1) | EW010901 | | | | | | |
| *WETLANDS | (2) | EW010556 | EW010831 | | | | | |
| WILDLIFE | (1) | EW010531 | | | | | | |
| *WINERIES | (1) | EW010854 | | | | | | |
| *WISCONSIN | (1) | EW010684 | | | | | | |
| *WORLD PROBLEMS | (3) | EW010476 | EW010498 | EW010723 | | | | |