

DOCUMENT RESUME

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**ABSTRACT**

Compiled are abstracts and indexes to selected print and non-print materials related to wastewater treatment and water quality education and instruction, as well as materials related to pesticides, hazardous wastes, and public participation. Sources of abstracted/indexed materials include all levels of government, private concerns, and educational institutions. Title, author(s), publication date, cross-references, descriptors, and availability are provided for each entry. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet the very general or highly specific requirements of their programs. This publication supplements and does not replace "Water Quality Instructional Resources Information System (IRIS): A Compilation of Abstracts to Water Quality and Water Resources" or IRIS supplements 1-23. (JN)

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Prepared by

Environmental Quality Instructional Resources Center  
SMEAC Information Reference Center  
The Ohio State University  
1200 Chambers Road, Room 310  
Columbus, OH 43212

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ED266968

WATER QUALITY INSTRUCTIONAL  
RESOURCES INFORMATION SYSTEM (IRIS)

A Compilation of Abstracts to  
Water Quality and Water Resources Materials

Supplement 24 (1985)

"PERMISSION TO REPRODUCE THIS  
MATERIAL HAS BEEN GRANTED BY

*Robert W. Howe*

TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC)."

December 1985

SE 046 480

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## 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:

Environmental Quality 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 Environmental Quality Instructional Resources Center 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 Environmental Quality 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:

Environmental Quality (EQ) 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 supplement, and also by computer.

When items are processed they are entered on the IRIS (water) computer tape. This tape is maintained by the EQ 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 the 1983 compilation and supplements that follow and (2) by computer.

The compilation produced in 1983 includes the original IRIS (1979) and Supplements 1-15. It is available for \$75.00.

Quarterly updates of the compilation are available by subscription on a yearly basis. Information regarding an annual subscription to IRIS (water) Quarterly Compilations can be obtained by writing to the EQ Instructional Resources Center. A subscription to the quarterly supplements for 1985 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 \$5.00 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. The IRIS tapes are available for searching at The Ohio State University and will again be available for computer searching at other sites in the future.

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 EQ 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 users can access them through Dialog, BRS, CompuServe and Systems Development Corporation (Orbit). For the address of search services in your state that can search these databases, contact the:

EQ 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 EQ 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 EQ 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. For prices and 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: EWO06023
  - 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 preceded 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. See letter references "a" and "b" below.

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 WATERSHED LANDS. (ED 197 941)

- a. 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)  
 3900 Wheeler Avenue  
 Alexandria, VA 22304  
 1-800-227-3742

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 EQ 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:

EQ 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 four times a year as information is available.

If you are not on the mailing list write to the EQ Instructional Resources Center for subscription information.

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

V. Requests for Assistance in Using IRIS

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

## 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 EQ Instructional Resources Center has developed or obtained some materials in these areas.

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. ERIC Clearinghouse on Adult, Career, and Vocational Education

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  
 1787 Agate Street  
 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, Room 030  
 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  
 1118 "22nd" Street, NW  
 Washington, DC 20037  
 Telephone: (202) 429-9292

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 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 a rental basis or purchased from the EQ Instructional Resources Center. Most items previously available from the NTOTC office are available from the EQ 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  
3900 Wheeler Avenue  
Alexandria, VA 22304  
1-800-227-3742

- C. The EQ 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 EQ 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

IRIS ACCESSION NUMBER: EW012138

PUBLICATION DATE: 85

TITLE: WARNING: WORKERS AT RISK, TRAIN EFFECTIVELY.

PERSONAL AUTHOR: KIMMERLING, GEORGE F.

DESCRIPTOR: \*ACCIDENT PREVENTION; \*CHEMICALS; \*CHEMICAL HAZARDS; \*ENFORCEMENT; \*OCCUPATIONAL HAZARDS; \*OSHA; \*SAFETY; \*TRAINING

DESCRIPTIVE NOTE: 50-55P.

ABSTRACT: OSHA'S RIGHT-TO-KNOW STANDARD REQUIRES CHEMICAL FIRMS TO INFORM EMPLOYEES OF HAZARDS RELATED TO THE WORK AREA. THE IMPORTANCE OF EFFECTIVE TRAINING FOR BEHAVIOR CHANGE IS STRESSED.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V39 N4

IRIS ACCESSION NUMBER: EW012139

PUBLICATION DATE: 85

TITLE: NO MORE PENCILS, NO MORE BOOKS.

PERSONAL AUTHOR: LEAN, ELIZABETH

DESCRIPTOR: \*MANAGERS; \*MANAGEMENT; \*TRAINING

DESCRIPTIVE NOTE: 62-67P.

ABSTRACT: DISCUSSED ARE VARIOUS APPROACHES TO MANAGEMENT TRAINING.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V39 N4

IRIS ACCESSION NUMBER: EW012140

PUBLICATION DATE: 85

TITLE: TRAINING 101: PICK THE RIGHT SELF-PACED PACKAGE.

PERSONAL AUTHOR: ROSENBERG, MARC J.

DESCRIPTOR: \*EVALUATION; \*INSTRUCTIONAL MATERIALS; \*INDIVIDUALIZED INSTRUCTION; \*MATERIALS EVALUATION

DESCRIPTIVE NOTE: 77-78P.

ABSTRACT: THIS ARTICLE PROVIDES SUGGESTIONS FOR EVALUATING SELF-PACED INSTRUCTIONAL MATERIALS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V39 N4

IRIS ACCESSION NUMBER: EW012141

PUBLICATION DATE: 85

TITLE: TRAINING 101: RATE YOUR TRAINING PROGRAM TRAITS.

PERSONAL AUTHOR: LUCKETT, DANIEL

DESCRIPTOR: \*EVALUATION; \*PERFORMANCE EVALUATION; \*RATING SCALES; \*TRAINING

DESCRIPTIVE NOTE: 79-80P.

ABSTRACT: LISTED ARE SEVERAL CHARACTERISTICS OF EFFECTIVE TRAINING PROGRAMS. THE ITEMS ARE LISTED IN THE FORM OF A RATING SCALE FOR EVALUATING TRAINING PROGRAMS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V39 N4

IRIS ACCESSION NUMBER: EW012167

PUBLICATION DATE: 85

TITLE: ABC DIRECTORY OF CERTIFICATION AND TRAINING CONTACTS - 1985.

DESCRIPTOR: \*ABC; \*ASSOCIATIONS; \*ASSOCIATION OF BOARDS OF CERTIFICATION; \*AGENCIES; \*DIRECTORIES; \*CERTIFICATION PROGRAMS; \*TRAINING

ABSTRACT: THE DIRECTORY CONTAINS AN ALPHABETICAL LISTING OF THE CERTIFICATION AND TRAINING CONTACT PERSONS IDENTIFIED BY EACH CERTIFICATION PROGRAM AND INCLUDES NAME, ADDRESS, AND PHONE NUMBER. THERE IS A LISTING OF ASSOCIATIONS AND AGENCIES AND INFORMATION ON THE ABC.

AVAILABILITY: ASSOCIATION OF BOARDS OF CERTIFICATION FOR OPERATING PERSONNEL (ABC), 520 GRAND AVENUE, AMES, IA 50016

IRIS ACCESSION NUMBER: EW012168

PUBLICATION DATE: 85

TITLE: ANAEROBIC TREATMENT OF FOREST INDUSTRY WASTEWATERS, VOLUME 17, NUMBER 1.

PERSONAL AUTHOR: RANTALA, P.; LUONSI, A. EDS.

DESCRIPTOR: \*ANAEROBIC TREATMENT; \*FOREST INDUSTRY; \*INDUSTRIAL WASTES; \*OPERATIONS (WASTEWATER); \*ENERGY; \*PULP INDUSTRY; \*PAPER INDUSTRY; \*BIOGAS; \*RECYCLING; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 326P. PRICE: \$44.00

ABSTRACT: THIS PUBLICATION OF THE INTERNATIONAL ASSOCIATION ON WATER POLLUTION RESEARCH AND CONTROL (IAWPRC) INCLUDES PAPERS AND POSTERS FROM THE FIRST IAWPRC SYMPOSIUM ON FOREST INDUSTRY WASTEWATERS HELD IN TAMPERE, FINLAND JUNE 11-15, 1984. CONTENTS INCLUDE ANAEROBIC WASTEWATER TREATMENT

PROCESSES; TREATMENT OF DIFFERENT WASTEWATERS FROM PULP AND PAPER INDUSTRY IN METHANE REACTORS; ANAEROBIC TREATMENT OF SULFITE PROCESS WASTES; AND NEW DOMESTIC RENEWABLE ENERGY THROUGH THE HIGH TECHNOLOGY OF BIOGASES.

AVAILABILITY: PERGAMON PRESS, INC., MAXWELL HOUSE, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW012169

PUBLICATION DATE: 85

TITLE: APPROPRIATE WASTE MANAGEMENT FOR DEVELOPING COUNTRIES.

PERSONAL AUTHOR: CURI, KRITON

DESCRIPTOR: \*APPROPRIATE TECHNOLOGY; \*DEVELOPING COUNTRIES; \*MANAGEMENT; \*ENVIRONMENTAL IMPACT; \*POLLUTION CONTROL; \*WASTE DISPOSAL

DESCRIPTIVE NOTE: 673P. PRICE: \$95.00

ABSTRACT: CLOSE COOPERATION AND DISSEMINATION OF KNOWLEDGE AND EXPERIENCE BETWEEN SCIENTISTS AND ENGINEERS IN DEVELOPING COUNTRIES IS NECESSARY TO SOLVE ENVIRONMENTAL PROBLEMS. TO INITIATE THIS CLOSE CONTACT, A SYMPOSIUM ON ENVIRONMENTAL TECHNOLOGY FOR DEVELOPING COUNTRIES, WHICH EMPHASIZED APPROPRIATE WASTE MANAGEMENT, WAS ORGANIZED IN JULY 1982. THE PROCEEDINGS FROM THIS SYMPOSIUM ARE PRESENTED IN THIS TEXT--A TOTAL OF 47 PAPERS FROM SCIENTISTS IN 20 DIFFERENT COUNTRIES.

AVAILABILITY: PLENUM PUBLISHING CORP., 233 SPRING ST., NEW YORK, NY 10013

IRIS ACCESSION NUMBER: EW012170

PUBLICATION DATE: 85

TITLE: WATER SUPPLY OPERATIONS REFERENCE HANDBOOK.

DESCRIPTOR: CHEMISTRY; \*CALCULATIONS; ELECTRICITY; \*HANDBOOKS; HYDRAULICS; MATHEMATICS; \*OPERATIONS (WATER); \*REFERENCE MATERIALS; \*WATER SUPPLY

DESCRIPTIVE NOTE: 765P. PRICE: \$31.00

ABSTRACT: THROUGH STEP-BY-STEP EXAMPLES THIS REFERENCE HANDBOOK ILLUSTRATES SCORES OF USEFUL CALCULATIONS USED IN THE EVERYDAY OPERATION OF A WATER SUPPLY SYSTEM. MATHEMATICS, HYDRAULICS, CHEMISTRY AND ELECTRICITY ARE THE FOUR MAJOR TOPICS COVERED IN THE HANDBOOK. SAMPLE TOPICS: HOUSEHOLD FIXTURES RATES, MUD BALL CALCULATION, HEAD LOSS, CHEMISTRY DOSAGE, FILTER LOADING RATE, WEIR OVERFLOW RATE.

AVAILABILITY: AWWA, 6666 W. QUINCY AVE., DENVER, CO 80235

IRIS ACCESSION NUMBER: EW012171

PUBLICATION DATE: 84

TITLE: BEYOND DUMPING: NEW STRATEGIES FOR CONTROLLING TOXIC CONTAMINATION.

PERSONAL AUTHOR: PIASECKI, BRUCE, ED.

DESCRIPTOR: \*ENVIRONMENT; \*DETOXIFICATION; \*ENERGY RECOVERY; \*HAZARDOUS MATERIALS; \*LAND DISPOSAL; \*POLICIES; \*MANAGEMENT; \*POLLUTION CONTROL; \*RECYCLING; \*SOURCE REDUCTION; \*REGULATIONS; \*TECHNOLOGY; \*TOXIC SUBSTANCES; \*WASTE DISPOSAL

DESCRIPTIVE NOTE: 239P. PRICE: \$35.00

ABSTRACT: THIS PUBLICATION REPRESENTS NINE CONTRIBUTORS WHO ARE RECOGNIZED EXPERTS IN RESEARCH AND POLICY ON LANDFILLS AND WASTE TREATMENT TECHNOLOGY. CONTENTS INCLUDE DISCUSSIONS OF THE SOCIAL, POLITICAL, AND TECHNICAL ISSUES RELATED TO CURRENT EFFORTS TO MOVE FROM LAND DISPOSAL OF CHEMICALS TO MORE EFFECTIVE AND ENVIRONMENTALLY SAFE METHODS OF MANAGEMENT. PROCESSES DISCUSSED INCLUDE SOURCE REDUCTION, RECYCLING, DETOXIFICATION, AND ENERGY RECOVERY. EXAMPLES OF WASTE MANAGEMENT IN EUROPE ARE ALSO DESCRIBED.

AVAILABILITY: QUORUM BOOKS, 88 POST RD., WEST, BOX 5007, WESTPORT, CT 06881

IRIS ACCESSION NUMBER: EW012172

PUBLICATION DATE: 85

TITLE: CENTRALIZED WASTE TREATMENT OF INDUSTRIAL WASTEWATER.

PERSONAL AUTHOR: SALTZBERG, EDWARD R.; CUSHNIE, GEORGE C.

DESCRIPTOR: \*ADMINISTRATION; \*CENTRALIZED WASTE TREATMENT; \*COSTS; \*ENGINEERING; \*INDUSTRIAL WASTES; \*INSTRUCTIONAL MATERIALS; \*OPERATIONS (WASTEWATER); \*POSTSECONDARY EDUCATION; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 415P. PRICE: \$45.00

ABSTRACT: INDUSTRIAL FIRMS THAT USE THE CENTRALIZED WASTE TREATMENT (CWT) APPROACH SEND THEIR WASTES TO A COMMON PROCESSING PLANT. THIS TEXT ADDRESSES THE ENGINEERING AND BUSINESS-RELATED PROBLEMS ENCOUNTERED BY PRIVATE CWT FIRMS, LOCAL GOVERNMENTS, AND INDUSTRY IN CREATING SUFFICIENT CWT CAPACITY TO MEET THE DEMANDS FOR SERVICES. IN THE RIGHT SITUATIONS, AND WITH THE PROPER KIND OF INEXPENSIVE RETROFITTING, CWT CAN DRASTICALLY REDUCE THE COSTS OF INDUSTRIAL WASTE TREATMENT. THE BASIC CONCEPTS ARE DEFINED ALONG WITH DETAILED CHAPTERS ON HOW TO SET UP SUCH A PROGRAM.

AVAILABILITY: NOYES PUBLICATIONS, PUBLICITY DEPT., HILL ROAD AT GRAND AVENUE, PARK RIDGE, NJ 07656



IRIS ACCESSION NUMBER: EW012173

PUBLICATION DATE: 85

TITLE: COMPUTER MODELS IN ENVIRONMENTAL PLANNING.

PERSONAL AUTHOR: CORDON, STEVEN I.

DESCRIPTOR: \*COMPUTER APPLICATIONS; \*COMPUTER SOFTWARE;  
\*ENVIRONMENT; \*HAZARDOUS WASTES; \*MODELS; \*PLANNING;  
\*SURFACE RUNOFF; \*WATER QUALITY

DESCRIPTIVE NOTE: 222P. PRICE: \$34.50

ABSTRACT: THIS GUIDE SHOWS HOW TO WORK WITH A WIDE RANGE OF MODELS FOR WATER QUALITY, STORM WATER RUNOFF, LAND CAPABILITY/LAND INFORMATION SYSTEMS, AND HAZARDOUS WASTE DISPOSAL. INFORMATION IS PROVIDED ON COMPUTER CODES USED IN ENVIRONMENTAL PLANNING; MODEL INPUT REQUIREMENTS AND SAMPLE OUTPUTS; WATER QUALITY MODELS; AND ATTRIBUTES OF STORM WATER MODELS THE AUTHOR REVIEWS, COMPARES, AND CRITIQUES MAJOR MODELS AND GIVE INSTRUCTIONS ON USING VARIOUS COMPUTER PROGRAMS.

AVAILABILITY: VAN NOSTRAND REINHOLD COMPANY, INC., 135 WEST 50TH STREET, NEW YORK, NY 10020

IRIS ACCESSION NUMBER: EW012174

PUBLICATION DATE: 85

TITLE: CONSERVING WATER: THE UNTAPPED ALTERNATIVE.

PERSONAL AUTHOR: POSTEL, SANDRA

DESCRIPTOR: \*AGRICULTURE; \*CONSERVATION; \*IRRIGATION;  
\*MANAGEMENT; \*NATURAL RESOURCES; \*RECYCLING; \*WATER; \*WATER  
RESOURCES; \*WORLD PROBLEMS; \*WATER USE

DESCRIPTIVE NOTE: 66P. PRICE: \$4.00

ABSTRACT: THIS REPORT ADDRESSES THE GLOBAL CONCERN OF WATER DEVELOPMENT AND STRESSES THE NEED FOR MANAGEMENT OF THE WATER DEMAND. INVESTMENTS IN WATER EFFICIENCY, RECYCLING, AND CONSERVATION ARE RECOMMENDED OVER CONVENTIONAL WATER SUPPLY PROJECTS FOR GREATER COST BENEFITS AND PRODUCTION YIELD. TOPIC AREAS THAT ADDRESS THIS APPROACH INCLUDE: (1) WATER USE TRENDS IN MAJOR CROP PRODUCING REGIONS; (2) INVESTMENTS IN IRRIGATION EFFICIENCY (WITH EXPLANATIONS AND ANALYSES OF GRAVITY SYSTEMS, SURGE IRRIGATION, SPRINKLER DESIGNS, MICRO-METHODS, AND PITCHER TECHNIQUES); (3) NEW CHOPPING PATTERNS (CONTAINING DATA ON THE EFFECTS OF CONSERVATION TILLAGE ON WATER STORAGE AND DATA ON WATER CONSUMPTION RATES OF SELECTED CROPS); (4) RECYCLING AND REUSE PROJECTS (INCLUDING A LISTING OF SELECTED SITES OF LARGE-SCALE WATER REUSE PROGRAMS); (5) URBAN WATER CONSERVATION PROBLEMS (SPECIFYING SAVINGS WITH WATER EFFICIENT HOUSEHOLD FIXTURES); AND (6) IMPACT FACTORS (TECHNOLOGY, MANAGEMENT PRACTICES, AND GOVERNMENTAL POLICIES).

AVAILABILITY: WORLDWATCH INST., 1776 MASSACHUSETTS AVE.,

NW, WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW012263

PUBLICATION DATE: 85

TITLE: TURBIDITY STANDARDS, TECHNICAL INFORMATION SERIES -  
PCOKLET NO. 12.

PERSONAL AUTHOR: HACH, CLIFFORD C.

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*FORMAZIN STOCK  
SOLUTION; \*LABORATORY PROCEDURES; \*STANDARDS; \*TURBIDITY;  
\*WATER ANALYSIS; \*WATER QUALITY

DESCRIPTIVE NOTE: 14P.

ABSTRACT: THIS IS ONE IN A SERIES OF TECHNICAL INFORMATION PUBLICATIONS FROM THE HACH COMPANY. INCLUDED IN THIS PUBLICATION ARE SECTIONS ON PRIMARY STANDARDS, A PRIMARY TURBIDITY STANDARD, USING FORMAZIN STOCK SOLUTION, AND SECONDARY STANDARDS.

AVAILABILITY: CLIFFORD C. HACH, HACH COMPANY, LOVELAND, CO

IRIS ACCESSION NUMBER: EW012413

PUBLICATION DATE: 85

TITLE: REGULATION OF UNDERGROUND STORAGE TANKS.

PERSONAL AUTHOR: ANDREWS, DAVID E.

DESCRIPTOR: \*CONTAMINATION; \*GROUNDWATER; \*REGULATIONS;  
\*REMEDIAL ACTION; \*STORAGE TANKS; \*UNDERGROUND STORAGE  
TANKS; \*WATER POLLUTION CONTROL; \*WATER QUALITY; \*WATER  
SUPPLY

DESCRIPTIVE NOTE: 1-6P.

ABSTRACT: APPROXIMATELY 50 PERCENT OF THE U.S. POPULATION USES GROUND WATER AS ITS SOURCE OF POTABLE WATER. ONE OF THE THREATS TO THIS WATER SUPPLY IS THE UNDERGROUND STORAGE TANK. THIS ARTICLE CONSIDERS FEDERAL, STATE, AND LOCAL REGULATIONS AND INVESTIGATIVE AND REMEDIAL ACTIONS.

AVAILABILITY: ERT NEWSLETTER; N1

IRIS ACCESSION NUMBER: EW012515

PUBLICATION DATE: 85

TITLE: DESIGN CONSIDERATIONS FOR CERAMIC FINE BUBBLE GRID  
DIFFUSER SYSTEMS.

PERSONAL AUTHOR: HOUCK, DANIEL H.

DESCRIPTOR: \*BUBBLE DIFFUSERS; \*CERAMIC BUBBLE DIFFUSERS;

\*DESIGN; \*EQUIPMENT; \*FACILITIES; \*OPERATIONS (WASTEWATER);  
\*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: R-8-13P.

ABSTRACT: THIS ARTICLE PRESENTS DESIGN CONSIDERATIONS FOR CERAMIC FINE BUBBLE GRID DIFFUSER SYSTEMS. THE ARTICLE IS BASED ON THE RESULTS OF PLANT SURVEYS IN EUROPE AND NORTH AMERICA AND FINDINGS FROM EXTENSIVE RESEARCH ON DESIGN AND OPERATIONS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N8

IRIS ACCESSION NUMBER: EW012516

PUBLICATION DATE: 85

TITLE: FLOW RECIRCULATION IN CENTRIFUGAL PUMPS.

PERSONAL AUTHOR: FRASER, WARREN H.

DESCRIPTOR: \*CENTRIFUGAL PUMPS; \*EQUIPMENT; \*FLUID FLOW;  
\*PUMPS; \*RECIRCULATION

DESCRIPTIVE NOTE: R-14-17P.

ABSTRACT: DISCUSSED ARE VARIOUS ASPECTS OF FLOW RECIRCULATION IN CENTRIFUGAL PUMPS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N8

IRIS ACCESSION NUMBER: EW012517

PUBLICATION DATE: 85

TITLE: SIZING AND SELECTING MODERN WATER METERS.

PERSONAL AUTHOR: SERUGA, ED

DESCRIPTOR: \*EQUIPMENT; \*METERS; \*OPERATIONS (WATER);  
\*WATER DISTRIBUTION; \*WATER METERS; \*WATER METER SELECTION

DESCRIPTIVE NOTE: R-33-35P.

ABSTRACT: DISCUSSED ARE VARIOUS VARIABLES TO CONSIDER IN THE SELECTION OF WATER METERS. DISCUSSED ARE THINGS TO CONSIDER IN DETERMINING SIZE AND TYPE OF METER NEEDED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N8

IRIS ACCESSION NUMBER: EW012518

PUBLICATION DATE: 85

TITLE: IT DOES COMPUTE.

PERSONAL AUTHOR: WALDO, JONATHAN

DESCRIPTOR: \*ANALYSIS; \*CALCULATIONS; \*CALCULATORS;  
SOFTWARE; \*DESIGN; \*PIPES; \*SEWERS; \*WATER DISTRIBUTION;  
\*WASTEWATER COLLECTION

DESCRIPTIVE NOTE: R-47-52P.

ABSTRACT: LISTED ARE SEVERAL PROGRAMS FOR PROGRAMMABLE CALCULATORS. THE PROGRAMS ARE FOR THE HP 19C AND 29C CALCULATORS. PROGRAMS ARE INCLUDED FOR SEWER PIPE DESIGN, PIPE CULVERT ANALYSIS, PIPE CULVERT DESIGN, OPEN CHANNEL DESIGN, AND PIPE NETWORK ANALYSIS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N8

IRIS ACCESSION NUMBER: EW012519

PUBLICATION DATE: 85

TITLE: VARIABLE FREQUENCY DRIVES - SOME APPLICATION PRINCIPLES.

PERSONAL AUTHOR: HAMILTON, RICHARD N.

DESCRIPTOR: COMPRESSORS; CONTROL VALVES; \*COSTS;  
\*EFFICIENCY; \*EQUIPMENT; FANS; \*MOTORS; \*VARIABLE FREQUENCY DRIVES; WATER TREATMENT; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: R-53-58P.

ABSTRACT: DISCUSSED ARE APPLICATIONS OF VARIABLE FREQUENCY DRIVES RELATED TO THE TREATMENT AND TRANSPORT OF WATER AND WASTEWATER.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N8

IRIS ACCESSION NUMBER: EW012564

PUBLICATION DATE: 85

TITLE: DEVELOPING A CROSS-CONNECTION CONTROL ORDINANCE.

DESCRIPTOR: BACKFLOW PREVENTION; \*CROSS CONNECTIONS; \*CROSS CONNECTION CONTROL; COMPLIANCE; ENFORCEMENT; \*ORDINANCES; WATER DISTRIBUTION

DESCRIPTIVE NOTE: 1, 3-4P.

ABSTRACT: THIS ARTICLE PROVIDES SUGGESTIONS TO CONSIDER FOR DEVELOPING AN ORDINANCE WHICH MAKES CROSS CONNECTIONS ILLEGAL AND PROVIDES FOR ENFORCEMENT ACTION, INSTALLATION REQUIREMENTS, AND COMPLIANCE PROCEDURES.

AVAILABILITY: BACKFLOW PREVENTION; V2 N8

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IRIS ACCESSION NUMBER: EW012565

PUBLICATION DATE: 85

TITLE: PUT A PROGRAMMABLE CONTROLLER TO WORK FOR YOU.

PERSONAL AUTHOR: BRAZILL, ANITA; AND OTHERS

DESCRIPTOR: \*COMPUTER APPLICATIONS; \*PROCESS CONTROL;  
\*PROGRAMMABLE CONTROLLERS

DESCRIPTIVE NOTE: 26-27P.

ABSTRACT: DESCRIBED ARE VARIOUS USES FOR PROGRAMMABLE CONTROLLERS. APPLICATIONS INCLUDE MANUFACTURING, BATCH PROCESS, AND CONTINUOUS PROCESS CONTROL.

AVAILABILITY: ENGINEER'S DIGEST; V10 N9

IRIS ACCESSION NUMBER: EW012566

PUBLICATION DATE: 85

TITLE: HOW TO TAME ELECTRICAL POWER PROBLEMS.

DESCRIPTOR: \*ELECTRIC POWER PROBLEMS; \*MICROPROCESSORS;  
\*POWER SOURCES; \*SURGE PROTECTORS; \*TRANSIENT SUPPRESSORS;  
\*VOLTAGE REGULATORS

DESCRIPTIVE NOTE: 54P.

ABSTRACT: THIS ARTICLE PRESENTS SEVERAL COMMON ELECTRICAL POWER PROBLEMS, SOME OF THE RESULTS OF THE PROBLEMS FOR MICROPROCESSORS, AND WAYS TO REDUCE THE POWER PROBLEMS.

AVAILABILITY: ENGINEER'S DIGEST; V13 N9

IRIS ACCESSION NUMBER: EW012567

PUBLICATION DATE: 85

TITLE: RATING MAINTENANCE MANAGEMENT SOFTWARE.

PERSONAL AUTHOR: GEHL, PATRICK

DESCRIPTOR: \*COMPUTER APPLICATIONS; \*COMPUTER SOFTWARE;  
\*INVENTORY CONTROL; \*MAINTENANCE; \*MAINTENANCE MANAGEMENT;  
\*REPORTS; \*SCHEDULING; \*WORK ORDERS

DESCRIPTIVE NOTE: 94P.

ABSTRACT: THIS ARTICLE IS A RATING SCALE FOR EVALUATING MAINTENANCE MANAGEMENT COMPUTER SOFTWARE. THE SCALE REQUIRES THE EVALUATOR TO IDENTIFY WHAT FEATURES THEY WANT IN THE SOFTWARE SYSTEM AND THEN TO CHECK THE SOFTWARE SYSTEMS THEY ARE CONSIDERING.

AVAILABILITY: ENGINEER'S DIGEST; V13 N9

IRIS ACCESSION NUMBER: EW012681

PUBLICATION DATE: 85

TITLE: GIARDIA' METHODS WORKSHOP.

PERSONAL AUTHOR: JAKUBOWSKI, W.

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*GIARDIA; \*LABORATORY PROCEDURES; \*WATER QUALITY; \*WORKSHOPS

DESCRIPTIVE NOTE: 16P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB85-170173/WEP

ABSTRACT: THE OBJECTIVES OF THE WORKSHOP WERE TO FAMILIARIZE PARTICIPANTS WITH THE USE AND LIMITATIONS OF GIARDIA CYST DETECTION METHODOLOGY; TO CRITICALLY REVIEW THE TENTATIVE GIARDIA METHOD APPEARING IN THE 10TH EDITION OF STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER; TO SHARE THE EXPERIENCES OF THE PANELISTS AND AUDIENCE IN WORKING WITH METHODS FOR DETECTING GIARDIA CYSTS IN WATER, AND TO MAKE RECOMMENDATIONS FOR IMPROVING THE METHODOLOGY.

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

IRIS ACCESSION NUMBER: EW012682

PUBLICATION DATE: 85

TITLE: GUIDE FOR DECONTAMINATING BUILDINGS, STRUCTURES, AND EQUIPMENT AT SUPERFUND SITES.

PERSONAL AUTHOR: ESPOSITO, M. P.; AND OTHERS

DESCRIPTOR: \*BUILDINGS; CASE STUDIES; COSTS;  
\*DECONTAMINATION; \*HAZARDOUS MATERIALS; \*EQUIPMENT; \*GUIDES;  
HEALTH; SAFETY; \*STRUCTURES; SAMPLING; \*TOXIC SUBSTANCES;  
\*SUPERFUND

DESCRIPTIVE NOTE: 266P. PRICE CODE: PC A12/MF A01. ORDER NO.: PB85-201234/WEP

ABSTRACT: GENERAL GUIDELINES FOR DECONTAMINATING BUILDINGS, STRUCTURES, AND EQUIPMENT AT SUPERFUND SITES ARE DESCRIBED IN THIS REPORT. INFORMATION INCLUDES STEPWISE GUIDANCE FOR DEVELOPING A COST-EFFECTIVE DECONTAMINATION STRATEGY, DESCRIPTIONS OF VARIOUS METHODS FOR TREATING OR REMOVING CONTAMINANTS FROM STRUCTURAL MATERIALS, CASE STUDIES ILLUSTRATING THE ACTUAL APPLICATION OF MANY DECONTAMINATION METHODS, COST ANALYSES FOR THE APPLICATION OF EACH METHOD TO A MODEL BUILDING, A DISCUSSION OF WORKER HEALTH AND SAFETY PRECAUTIONS, AND A SUMMARY OF AVAILABLE SAMPLING TECHNIQUES. ADDITIONAL RESEARCH IS RECOMMENDED TO (1) VERIFY THE EFFECTIVENESS OF EXISTING DECONTAMINATION METHODS FOR A WIDE RANGE OF CONTAMINANTS AND STRUCTURAL MATERIALS, (2) DEVELOP AND DEMONSTRATE NEW CLEANUP TECHNIQUES, AND (3) IMPROVE SAMPLING TECHNIQUES FOR DETERMINING STRUCTURAL CONTAMINATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285

PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW012683

PUBLICATION DATE: 85

TITLE: HAZARDOUS MATERIALS TRANSPORTATION. 1977-MAY 1985  
(CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;  
\*CHEMICALS; \*FUELS; \*HAZARDOUS MATERIALS; \*EXPLOSIVES;  
\*HAZARDOUS WASTES; \*LEGISLATION; \*RISK ASSESSMENT;  
\*TRANSPORTATION; \*WASTE DISPOSAL

DESCRIPTIVE NOTE: 218P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-858744/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
THE TRANSPORT OF HAZARDOUS MATERIALS PRIMARILY BY ROAD,  
RAIL, OR CARGO VESSEL. RISK ASSESSMENT, ACCIDENT ANALYSES,  
RESPONSE PROGRAMS, AND EXPLOSIVES CONTAINER DESIGN ASPECTS  
ARE AMONG THE TOPICS DISCUSSED. FEDERAL LEGISLATIVE ASPECTS  
AND STATE PROGRAMS, AND TEST PROCEDURES FOR A VARIETY OF  
CONTAINERS ARE ALSO CONSIDERED. SELECTED FOSSIL FUELS,  
EXPLOSIVES, AND HAZARDOUS CHEMICALS ARE AMONG THE MATERIALS  
PRESENTED. CITATIONS PERTAINING SPECIFICALLY TO RADIOACTIVE  
MATERIALS ARE EXCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS  
237 CITATIONS, 36 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS  
EDITION.)

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

IRIS ACCESSION NUMBER: EW012684

PUBLICATION DATE: 85

TITLE: HAZARDOUS MATERIALS TRANSPORTATION: RADIOACTIVE  
MATERIALS AND WASTES. OCT 1981-APR 1985 (CITATIONS FROM THE  
NTIS DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;  
\*HAZARDOUS MATERIALS; \*HAZARDOUS WASTES; \*LEGISLATION;  
\*NUCLEAR ENERGY; \*RADIOACTIVE MATERIALS; \*RISK ASSESSMENT;  
\*TRANSPORTATION; \*WASTE DISPOSAL

DESCRIPTIVE NOTE: 250P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-857696/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
THE TRANSPORTATION PORTION OF THE NUCLEAR FUEL CYCLE. TOPICS  
INCLUDE ROUTING PROCEDURES, PROGRAMS UNDERTAKEN BY NATIONAL  
LABORATORIES, APPROPRIATE STATE LEGISLATION, AND COST AND  
RISK ASSESSMENTS. CONSIDERABLE ATTENTION IS GIVEN TO  
CONTAINER DESIGN, DEVELOPMENT, AND TESTING. HIGH AND LOW  
LEVEL WASTES ARE CONSIDERED. (THIS UPDATED BIBLIOGRAPHY  
CONTAINS 292 CITATIONS, 191 OF WHICH ARE NEW ENTRIES TO THE  
PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285

PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW012685

PUBLICATION DATE: 84

TITLE: HEALTH ASSESSMENT DOCUMENT FOR BERYLLIUM. REVIEW  
DRAFT.

PERSONAL AUTHOR: ELIAS R.; AND OTHERS

DESCRIPTOR: \*ASSESSMENT; \*BERYLLIUM; \*CARCINOGENS; \*HEALTH  
EFFECTS; \*PUBLIC HEALTH

DESCRIPTIVE NOTE: 179P. PRICE CODE: PC A09/MF A01. ORDER  
NO.: PB85-168433/WEP

ABSTRACT: THE PROPERTIES OF BERYLLIUM RESEMBLE THOSE OF  
ALUMINUM, ZINC, AND MAGNESIUM. THE MAIN ROUTES OF BERYLLIUM  
INTAKE ARE INHALATION AND INGESTION. THE CHEMICAL PROPERTIES  
OF BERYLLIUM ARE SUCH THAT TRANSFORMATION OF SOLUBLE TO  
INSOLUBLE FORMS OF INHALED BERYLLIUM RESULTS IN LONG  
RETENTION TIME IN THE LUNGS. ABSORBED BERYLLIUM IS DEPOSITED  
MAINLY IN THE SKELETON, WHERE THE BIOLOGICAL HALF-TIME IS  
FAIRLY LONG. THE LUNG IS THE CRITICAL ORGAN OF BOTH ACUTE  
AND CHRONIC NONCARCINOGENIC EFFECTS. HOWEVER, THE LUNG  
EFFECTS CAUSED BY CHRONIC EXPOSURE MAY BE COMBINED WITH  
SYSTEMIC EFFECTS. CERTAIN BERYLLIUM COMPOUNDS HAVE BEEN  
SHOWN TO BE CARCINOGENIC IN VARIOUS EXPERIMENTAL ANIMALS  
UNDER DIFFERING ROUTES OF EXPOSURE. EPIDEMIOLOGIC STUDIES  
PRESENT EQUIVOCAL CONCLUSIONS ON THE CARCINOGENICITY OF  
BERYLLIUM AND BERYLLIUM COMPOUNDS. A LIFETIME CANCER RISK  
FOR CONTINUOUS INHALATION EXPOSURE AT 1 MICROGRAMS  
BERYLLIUM/CU M HAS BEEN ESTIMATED.

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

IRIS ACCESSION NUMBER: EW012686

PUBLICATION DATE: 85

TITLE: HEALTH EFFECTS OF LAND TREATMENT: TOXICOLOGICAL.

PERSONAL AUTHOR: KOWAL, N. E.

DESCRIPTOR: \*HEALTH EFFECTS; \*LAND TREATMENT; \*PUBLIC  
HEALTH; \*TOXIC SUBSTANCES; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 53P. PRICE CODE: PC A04/MF A01. ORDER  
NO.: PB85-178473/WEP

ABSTRACT: THE POTENTIAL HEALTH EFFECTS ARISING FROM THE  
LAND TREATMENT OF WASTEWATER ARE EXAMINED, AND AN APPRAISAL  
OF THESE EFFECTS MADE. THE AGENTS, OR POLLUTANTS, OF CONCERN  
FROM A HEALTH EFFECTS VIEWPOINT ARE DIVIDED INTO THE  
CATEGORIES OF PATHOGENS AND TOXIC SUBSTANCES. ONLY THE  
LATTER ARE CONSIDERED IN THIS VOLUME, THE FORMER HAVING BEEN  
DISCUSSED IN A PREVIOUS VOLUME. THE TOXIC SUBSTANCES INCLUDE  
ORGANICS, TRACE ELEMENTS, NITRATE AND SODIUM. THESE AGENTS

FORM THE BASIS OF THE MAIN SECTIONS OF THIS REPORT. FOR EACH AGENT OF CONCERN THE TYPES AND LEVELS COMMONLY FOUND IN MUNICIPAL WASTEWATER AND THE EFFICIENCY OF PREAPPLICATION TREATMENT (USUALLY STABILIZATION POND) ARE BRIEFLY REVIEWED. A DISCUSSION OF THE LEVELS, BEHAVIOR, AND SURVIVAL OF THE AGENT IN THE MEDIUM OR ROUTE OF POTENTIAL HUMAN EXPOSURE, I.E., AEROSOLS, SURFACE SOIL AND PLANTS, SUBSURFACE SOIL AND GROUNDWATER, AND ANIMALS, FOLLOWS AS APPROPRIATE. FINALLY, CONCLUSIONS AND RESEARCH NEEDS ARE PRESENTED.

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

IRIS ACCESSION NUMBER: EW012687

PUBLICATION DATE: 82

TITLE: IMPACT OF MAN ON THE COASTAL ENVIRONMENT.

PERSONAL AUTHOR: DUKE, T. W.

DESCRIPTOR: \*COASTAL ENVIRONMENT; \*ENVIRONMENTAL IMPACTS; \*OCEANOLOGY; \*PROBLEMS; \*RESEARCH; \*RESEARCH NEEDS; \*USEPA; \*WATER QUALITY

DESCRIPTIVE NOTE: 128P. PRICE CODE: PC A07/MF A01. ORDER NO.: PB85-193506/WEP

ABSTRACT: THIS VOLUME REPRESENTS EPA'S EFFORT TO TAKE STOCK OF SCIENTIFIC ADVANCES IN RESEARCH PERTAINING TO THE COASTAL ENVIRONMENT SINCE THE INCEPTION OF THE AGENCY AND TO GAUGE WHAT PROGRESS HAS BEEN MADE AND WHAT REMAINS TO BE ACCOMPLISHED. THE ESSAYS IN THIS VOLUME PRESENT A RANGE OF PERSPECTIVES ON THE SUBJECT, FROM THE VANTAGE POINTS OF THE SCIENTIFIC AND TECHNICAL DISCIPLINES WHICH HAVE BEEN CARRYING OUT RELEVANT RESEARCH. THE POINTS OF VIEW REPRESENTED ARE VARIED AND SOMETIMES CONFLICTING. THE AUTHORS HAVE SPECULATED ABOUT EMERGING PROBLEMS AND RESEARCH NEEDS.

IRIS ACCESSION NUMBER: EW012688

PUBLICATION DATE: 85

TITLE: INNOVATIVE THERMAL HAZARDOUS WASTE TREATMENT PROCESSES.

PERSONAL AUTHOR: FREEMAN, H. M.

DESCRIPTOR: \*INNOVATIVE TECHNOLOGY; \*HAZARDOUS WASTES; \*MANAGEMENT; \*ORGANIC WASTES; \*TECHNOLOGY; \*THERMAL PROCESSES; \*WASTE DISPOSAL

DESCRIPTIVE NOTE: 135P. PRICE CODE: PC A07/MF A01. ORDER NO.: PB85-192847/WEP

ABSTRACT: THIS REPORT CONTAINS DISCUSSIONS OF 21 THERMAL PROCESSES IDENTIFIED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY (U.S. EPA) AS INNOVATIVE PROCESSES FOR TREATING OR DESTROYING HAZARDOUS ORGANIC WASTES. THE SUBJECT PROCESSES

WERE IDENTIFIED THROUGH TWO NATIONAL SOLICITATIONS FOR INNOVATIVE PROCESSES AND SEVERAL EXTENSIVE LITERATURE SURVEYS. INFORMATION ABOUT THE SUBJECT PROCESSES WAS PROVIDED VOLUNTARILY BY THE PROCESS DEVELOPERS. THE CRITERIA USED FOR SELECTION OF A PROCESS FOR THE REPORT INCLUDED THE INNOVATIVENESS OF THE PROCESS WHEN COMPARED WITH CONVENTIONAL EXISTING PROCESSES AND THE POTENTIAL CONTRIBUTION THE PROCESS COULD MAKE TO THE EVOLVING FIELD OF HAZARDOUS WASTE MANAGEMENT TECHNOLOGY.

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

IRIS ACCESSION NUMBER: EW012689

PUBLICATION DATE: 84

TITLE: INSTITUTIONAL OPTIONS FOR IMPROVED WATER QUALITY MANAGEMENT: INVESTIGATION, RESEARCH, AND OTHER ACTIVITIES.

PERSONAL AUTHOR: MORRIS, F. A.; CARNEY, S. M.

DESCRIPTOR: \*MANAGEMENT; \*PLANNING; \*PUGET SOUND; \*RESEARCH; \*REPORTS; \*WATER QUALITY

DESCRIPTIVE NOTE: 60P. PRICE CODE: PC A04/MF A01. ORDER NO.: PB85-174597/WEP

ABSTRACT: THIS IS THE SECOND OF TWO REPORTS ANALYZING INSTITUTIONAL OPTIONS FOR THE IMPROVED MANAGEMENT OF WATER QUALITY IN PUGET SOUND. THE PRESENT REPORT EXAMINES OPTIONS FOR IMPROVING THE COORDINATION OF INVESTIGATION, RESEARCH, AND OTHER ACTIVITIES. FOR PURPOSES OF THESE REPORTS, PUGET SOUND WATER QUALITY MANAGEMENT IS DEFINED TO REFLECT THE STATED OBJECTIVES OF THE FEDERAL CLEAN WATER ACT. IT ENCOMPASSES ALL GOVERNMENTAL DECISIONS AND ACTIONS CONCERNING THE DEVELOPMENT AND USE OF LAND AND WATER RESOURCES OF THE SOUND, INCLUDING THE CONTROL OF POLLUTANT DISCHARGES, THAT COULD AFFECT THE CHEMICAL, PHYSICAL, OR BIOLOGICAL INTEGRITY OF PUGET SOUND.

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

IRIS ACCESSION NUMBER: EW012690

PUBLICATION DATE: 84

TITLE: INSTITUTIONAL OPTIONS FOR IMPROVED WATER QUALITY MANAGEMENT: POLICY DIRECTION.

PERSONAL AUTHOR: MORRIS, F. A.; CARNEY, S. M.

DESCRIPTOR: \*MANAGEMENT; \*POLICIES; \*PUGET SOUND; \*WATER QUALITY

DESCRIPTIVE NOTE: 120P. PRICE CODE: PC A06/MF A01. ORDER NO.: PB85-174589/WEP

ABSTRACT: THIS IS THE FIRST OF TWO REPORTS ANALYZING

**INSTITUTIONAL OPTIONS FOR THE IMPROVED MANAGEMENT OF WATER QUALITY IN PUGET SOUND. THE PRESENT REPORT EXAMINES OPTIONS FOR IMPROVING COORDINATION OF POLICY DIRECTION. A COMPANION VOLUME (EPA 910/9-83-116B) EXAMINES THE OPTIONS FOR IMPROVING THE COORDINATION OF INVESTIGATION, RESEARCH AND OTHER ACTIVITIES. FOR PURPOSES OF BOTH REPORTS, PUGET SOUND QUALITY MANAGEMENT IS DEFINED TO REFLECT THE STATED OBJECTIVES OF THE FEDERAL CLEAN WATER ACT. IT ENCOMPASSES ALL GOVERNMENT DECISIONS AND ACTIONS CONCERNING THE DEVELOPMENT AND USE OF LAND AND WATER RESOURCES OF THE SOUND, INCLUDING THE CONTROL OF POLLUTANT DISCHARGES THAT COULD AFFECT THE CHEMICAL, PHYSICAL, OR BIOLOGICAL INTEGRITY OF PUGET SOUND.**

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

**IRIS ACCESSION NUMBER: EW012691**

**PUBLICATION DATE: 85**

**TITLE: INTEGRATION OF BUILDING AND ENERGY TECHNOLOGY WITH ONSITE WASTE MANAGEMENT IN THE YEAR 2000.**

**PERSONAL AUTHOR: DEESE, P. L.; AND OTHERS**

**DESCRIPTOR: \*BUILDING TECHNOLOGY; \*COGENERATION; \*ENERGY TECHNOLOGY; \*MANAGEMENT; \*RESIDENCES; \*RESEARCH RECOVERY; \*UTILITY SYSTEMS; \*WASTE DISPOSAL; \*WASTE MANAGEMENT; \*WATER SUPPLY**

**DESCRIPTIVE NOTE: 174P. PRICE CODE: PC A08/MF A01. ORDER NO.: PB85-180479/WEP**

**ABSTRACT: DURING THIS STUDY THE POTENTIAL FEASIBILITY OF INTEGRATING WASTE MANAGEMENT, WATER SUPPLY AND ON-SITE ENERGY GENERATION WAS EXAMINED WITH THE OBJECTIVE OF IMPROVING THE OVERALL RESOURCE EFFICIENCY OF THE TYPICAL RESIDENTIAL UNIT. THIS REPORT CAN BE USED BY MEMBERS OF THE VARIOUS RESEARCH AND DEVELOPMENT COMMUNITIES TO GAIN UNDERSTANDING OF OTHER FIELDS AND IS MEANT TO FOSTER THE APPRECIATION OF THE INTERRELATIONSHIPS BETWEEN RESIDENTIAL UTILITY SYSTEMS.**

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

**IRIS ACCESSION NUMBER: EW012693**

**PUBLICATION DATE: 85**

**TITLE: LAKE AND RIVER BOTTOM SAMPLING. 1977-JUL 1985 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).**

**DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*LAKES; \*PONDS; \*RIVERS; \*SAMPLING; \*SEDIMENTS; \*WATER QUALITY**

**DESCRIPTIVE NOTE: 184P. PRICE CODE: PC N01/MF N01. ORDER**

**NO.: PB85-864882/WEP**

**ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING TECHNIQUES AND RESULTS RELATED TO THE COLLECTION OF SAMPLES FROM THE BOTTOM OF PONDS, LAKES, AND RIVERS. TECHNIQUES INCLUDE SAMPLING DEVICES, PLATFORMS FOR MOUNTING OR OPERATING THE SAMPLING DEVICES, AND ANALYTICAL TECHNIQUES FOR THE COLLECTED SAMPLES. RESULTS INCLUDE FINDINGS OF ORGANIC, CHEMICAL, AND METALLIC MATERIAL IN THE BOTTOM SEDIMENTS, WITH, IN MANY CASES, STATEMENTS ON RESULTING WATER QUALITY OR ENVIRONMENTAL ASPECTS AND CAUSES. IN SOME CASES, THE INVESTIGATIONS COVER POROSITY OF BOTTOM SOILS, AND GROUND WATER BENEATH THE LAKE OR RIVER. MANY OF THE SAMPLES INCLUDE BENTHIC FAUNA TO ASSESS THE CONDITION OF THE WATER. (THIS UPDATED BIBLIOGRAPHY CONTAINS 188 CITATIONS, 15 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)**

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

**IRIS ACCESSION NUMBER: EW012694**

**PUBLICATION DATE: 85**

**TITLE: LAND DISPOSAL OF HAZARDOUS WASTE. PROCEEDINGS OF THE ANNUAL RESEARCH SYMPOSIUM (11TH) HELD AT CINCINNATI, OHIO, APR - MAY 1985.**

**DESCRIPTOR: \*CONFERENCE PROCEEDINGS; \*HAZARDOUS WASTES; \*INCINERATION; \*LAND DISPOSAL; \*MANAGEMENT; \*REMEDIATION ACTION; \*WASTE DISPOSAL**

**DESCRIPTIVE NOTE: 335P. PRICE CODE: PC A17/MF A01. ORDER NO.: PB85-196376/WEP**

**ABSTRACT: THE ELEVENTH ANNUAL RESEARCH SYMPOSIUM ON LAND DISPOSAL, REMEDIATION ACTION, INCINERATION AND TREATMENT OF HAZARDOUS WASTE WAS HELD IN CINCINNATI, OH, APRIL 29 THROUGH MAY 1, 1985. THE PURPOSE OF THE SYMPOSIUM WAS TO PRESENT THE LATEST SIGNIFICANT RESEARCH FINDINGS OF ONGOING AND RECENTLY COMPLETED PROJECTS FUNDED BY THE LAND POLLUTION CONTROL DIVISION (LPCD), AND THE ALTERNATIVE TECHNOLOGIES DIVISION (ATD) OF THE HAZARDOUS WASTE ENGINEERING RESEARCH LABORATORY TO PERSONS CONCERNED WITH HAZARDOUS WASTE MANAGEMENT. THESE PROCEEDINGS ARE FOR SESSION A, HAZARDOUS WASTE LAND DISPOSAL AND SESSION C, LPCD POSTERS. PAPERS PRESENTED BY SYMPOSIUM SPEAKERS AND POSTER PRESENTATION ABSTRACTS IN THE AREAS OF (1) REMEDIATION ACTION (2) POLLUTANT ASSESSMENT AND (3) POLLUTANT CONTROL ARE COMPILED. SUBJECTS DISCUSSED INCLUDE LANDFILL DESIGN AND OPERATION, WASTE LEACHING AND ANALYSES, POLLUTANT MIGRATION AND CONTROL, WASTE MODIFICATION, SURFACE IMPOUNDMENTS, FLEXIBLE MEMBRANE LINERS, REMEDIATION ACTION TECHNIQUES AND UNDERGROUND MINE DISPOSAL. THIS DOCUMENT COVERS HAZARDOUS WASTE LAND DISPOSAL ONLY. A SEPARATE DOCUMENT CONCERNED WITH HAZARDOUS WASTE INCINERATION AND TREATMENT WILL BE PUBLISHED BY THE HAZARDOUS WASTE ENGINEERING RESEARCH LABORATORY.**

**BEST COPY AVAILABLE**

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IRIS ACCESSION NUMBER: EW012696

PUBLICATION DATE: 85

TITLE: MANUAL FOR EVALUATING PREDICTED AND ACTUAL IMPACTS OF CONSTRUCTION GRANTS PROJECTS.

PERSONAL AUTHOR: ADAMS-WALDEN, L.

DESCRIPTOR: \*CONSTRUCTION GRANTS PROJECTS; \*ENVIRONMENTAL EFFECTS; \*EVALUATION; \*FACILITIES; \*MANUALS; \*USEPA; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 106P. PRICE CODE: PC A06/MF A01. ORDER NO.: PB85-210136/WEP

ABSTRACT: A DETAILED METHODOLOGY HAS BEEN DEVELOPED WHICH DETERMINES THE ACCURACY WITH WHICH PLANNING AND ENVIRONMENTAL REVIEW DOCUMENTS (NEPA DOCUMENTS) ASSESSED PREDICTED ENVIRONMENTAL EFFECTS OF CONSTRUCTION GRANTS PROJECTS. THE METHODOLOGY WAS DEVELOPED TO EVALUATE THE ENTIRE SPECTRUM OF CONSTRUCTION GRANTS PROJECTS. IN GENERAL, EVALUATIONS ARE POSSIBLE FOR THREE TYPES OF SITUATIONS: SINGLE PROJECT; AGGREGATE OF PROJECTS; AND AN ENTIRE PROGRAM. SPECIFIC COMPONENTS OF THE METHODOLOGY INCLUDE THE USE OF: (1) A SIMPLE SET OF PROCEDURES; (2) A STANDARD SET OF ISSUES FOR EVALUATIONS; (3) SYSTEMATIC DATA RETRIEVAL; (4) UNIFORM MEASUREMENTS; AND (5) CONSISTENT DOCUMENTATION. USE OF THE MANUAL WILL NECESSITATE A COMBINATION OF STRUCTURED ANALYSIS WITH QUALIFIED PROFESSIONAL JUDGMENT; JUDGMENT THAT ASSUMES A DEGREE OF EXPERIENCE IN IMPACT ASSESSMENT. DOCUMENTATION OF JUDGMENTAL DECISIONS IS REQUIRED WITHIN THE METHODOLOGY TO INSURE AN UNDERSTANDING OF THE SUBJECTIVE FACTORS INFLUENCING THE EVALUATIONS.

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

IRIS ACCESSION NUMBER: EW012697

PUBLICATION DATE: 85

TITLE: METAL CONTAINING LIQUID WASTES. JUNE 1970-1983 (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*INDUSTRIAL WASTES; \*LIQUID WASTES; \*METALS; \*OPERATIONS (WASTEWATER); \*RECLAMATION; \*TOXIC SUBSTANCES; \*WASTEWATER TREATMENT; \*WASTE DISPOSAL

DESCRIPTIVE NOTE: 208P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-862928/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE CONTROL, TREATMENT, AND DISPOSAL OF METAL CONTAINING LIQUID WASTES. THE RECLAMATION, SEPARATION, ANALYSIS, AND TOXICITY EVALUATION OF METALS IN WASTES FROM SUCH INDUSTRIES AS ELECTRONICS, TEXTILE, MINING, AND CHEMICAL ARE INCLUDED. ELECTROPLATING WASTES ARE EMPHASIZED AND CONSIDERATION IS GIVEN TO SPECIFIC RECLAMATION PROCESSES. (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: EW012698

PUBLICATION DATE: 85

TITLE: METAL CONTAINING LIQUID WASTES. 1984-JUNE 1985 (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*INDUSTRIAL WASTES; \*LIQUID WASTES; \*METALS; \*OPERATIONS (WASTEWATER); \*RECLAMATION; \*TOXIC SUBSTANCES; \*WASTEWATER TREATMENT; \*WASTE DISPOSAL

DESCRIPTIVE NOTE: 89P. PRICE CODE: PC N01/MF A01. ORDER NO.: PB85-862936/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE CONTROL, TREATMENT AND DISPOSAL OF METAL CONTAINING LIQUID WASTES. THE RECLAMATION, SEPARATION, ANALYSIS, AND TOXICITY EVALUATION OF METALS IN WASTES FROM SUCH INDUSTRIES AS ELECTRONICS, TEXTILE, MINING, AND CHEMICAL ARE INCLUDED. ELECTROPLATING WASTES ARE EMPHASIZED AND CONSIDERATION IS GIVEN TO SPECIFIC RECLAMATION PROCESSES. (THIS UPDATED BIBLIOGRAPHY CONTAINS 109 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: EW012701

PUBLICATION DATE: 85

TITLE: METHODS TO IDENTIFY WATERBORNE PATHOGENS AND INDICATOR ORGANISMS.

PERSONAL AUTHOR: ERICKSEN, T. H.; AND DUFOUR, A. P.

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*BIOLOGICAL INDICATORS; \*LABORATORY PROCEDURES; \*MONITORING; \*PATHOGENS; \*SAMPLING; \*WATERBORNE PATHOGENS; \*WATER QUALITY

DESCRIPTIVE NOTE: 52P. PRICE CODE: PC A04/MF A01. ORDER NO.: PB85-176824/WEP

ABSTRACT: THE NUMBER OF METHODS DESCRIBED WERE SELECTED BECAUSE THEY HAVE BEEN SUCCESSFULLY USED TO MONITOR WATER QUALITY OR TO DETECT PATHOGENS ASSOCIATED WITH WATER CONTACT DISEASES. SOME ARE INCLUDED BECAUSE THEY HAVE CHARACTERISTICS THAT FULFILL A UNIQUE PURPOSE, I.E., HIGH VOLUME ENUMERATION TECHNIQUES FOR MEASURING BACTERIA THAT NORMALLY OCCUR IN WATER AT VERY LOW DENSITIES. THE BACTERIAL INDICATOR METHODS, IF USED PROPERLY, ARE AN EFFECTIVE MEANS OF MONITORING WATER QUALITY AND THEREBY PROTECTING GROUPS AT RISK AGAINST PATHOGENS ASSOCIATED WITH FECAL MATERIAL FROM HUMANS AND OTHER WARM-BLOODED ANIMALS. THE METHODS THAT ISOLATE FRANK AND OPPORTUNISTIC PATHOGENS FROM WATER SAMPLES ARE MOST USEFUL FOR IDENTIFYING THE SOURCE OF THESE

**ORGANISMS DURING DISEASE OUTBREAKS ASSOCIATED WITH WATER CONTACT. THIS REPORT CONTAINS A 127 REFERENCE BIBLIOGRAPHY.**

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

**IRIS ACCESSION NUMBER: EW012710**

**PUBLICATION DATE: 85**

**TITLE: NUTRIENT REMOVAL FROM LAKES, PONDS, AND RIVERS. 1977-JUNE 1985 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).**

**DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*LAKES; \*MANAGEMENT; NUTRIENTS; \*NUTRIENT REMOVAL; \*PONDS; \*RIVERS; \*WASTEWATER TREATMENT; \*WATER QUALITY**

**DESCRIPTIVE NOTE: 109P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-863231/WEP**

**ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING NUTRIENT REMOVAL TECHNIQUES IN LAKES, PONDS, RIVERS, AND STREAMS RELATIVE TO WATER QUALITY CONTROL AND WASTE WATER MANAGEMENT. NATURAL AND ARTIFICIAL REMOVAL PROCESSES SUCH AS REMOVAL BY BIOLOGICAL TREATMENT, SEDIMENTATION, RESERVOIR, AND FLOODED FIELD ARE DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 92 CITATIONS, 18 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)**

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

**IRIS ACCESSION NUMBER: EW012711**

**PUBLICATION DATE: 85**

**TITLE: OCEAN WASTE DISPOSAL: OUTFALL SEWERS. 1977-APRIL 1985 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).**

**DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*CONSTRUCTION; \*DESIGN; \*ENVIRONMENTAL EFFECTS; MONITORING; OCEANS; \*OUTFALL SEWERS; \*SEWERS; \*WASTE DISPOSAL; WASTEWATER**

**DESCRIPTIVE NOTE: 168P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-857662/WEP**

**ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING DESIGN, CONSTRUCTION, AND ENVIRONMENTAL EFFECTS OF OUTFALL SEWERS. EFFECTS OF DOMESTIC SEWAGE ON AQUATIC ENVIRONMENTAL AND BENTHIC ECOSYSTEMS, AND POLLUTION CONTROL OF OUTFALL SEWERS ARE DISCUSSED. MONITORING OF POLLUTANTS IN SEWAGE, SEDIMENTS, AND CONTAMINANTS FROM SEWERS, AND MODELING OF OUTFALL SEWERS ARE ALSO INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 168 CITATIONS, 19 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)**

**AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285**

**PORT ROYAL ROAD, SPRINGFIELD, VA 22161**

**IRIS ACCESSION NUMBER: EW012712**

**PUBLICATION DATE: 85**

**TITLE: OIL POLLUTION SAMPLING, DETECTION, AND ANALYSIS. 1976-JULY 1985 (CITATIONS FROM THE NTIS DATA BASE).**

**DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*DETECTION; \*MONITORING; \*OIL POLLUTION; \*SAMPLING; \*MARINE POLLUTION**

**DESCRIPTIVE NOTE: 170P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-863595/WEP**

**ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE MONITORING AND ANALYSIS OF OIL POLLUTION RESULTING FROM PRODUCTION AND TRANSPORT OPERATIONS. DESCRIPTIONS AND EVALUATIONS OF MONITORING METHODS AND DEVICES, TAGGING AND TRACING TECHNIQUES, ANALYTICAL TECHNIQUES, INCLUDING SPECTROSCOPY AND CHROMATOGRAPHY, ARE AMONG THE TOPICS REVIEWED. REMOTE SENSING METHODS, AND OIL-LADEN SEDIMENT SAMPLING AND ANALYSES ARE ALSO CONSIDERED. WHILE THE MAJORITY OF THE CITATIONS PERTAIN TO MARINE POLLUTION, SOME ATTENTION IS GIVEN TO TERRESTRIAL ASPECTS. CITATIONS PERTAINING SPECIFICALLY TO POLLUTION EFFECTS ON FLORA AND FAUNA ARE EXCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 176 CITATIONS, 24 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)**

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

**IRIS ACCESSION NUMBER: EW012713**

**PUBLICATION DATE: 85**

**TITLE: OIL SPILL REMOVAL TECHNIQUES AND EQUIPMENT. 1973-JULY 1985 (CITATIONS FROM FLUIDEX DATA BASE).**

**DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; CLEANUP; ENVIRONMENTAL EFFECTS; \*EQUIPMENT; \*OIL SPILLS; \*OIL SPILL REMOVAL; \*TECHNOLOGY; WATER QUALITY; \*WATER POLLUTION CONTROL**

**DESCRIPTIVE NOTE: 87P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-864809/WEP**

**ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING EQUIPMENT AND TECHNIQUES FOR THE CONTROL, DISPERSION, CLEANUP, AND DISPOSAL OF OIL SPILLS. TOPICS INCLUDE CHEMICAL DISPERSANTS, BOOMS, AND MECHANICAL SKIMMERS. HARBORS, ESTUARIES, SHORELINES, AND THE RESULTING IMPACT ON WATER BIRDS AND MARINE LIFE ARE EMPHASIZED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 118 CITATIONS, 15 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)**

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

IRIS ACCESSION NUMBER: EW012714

PUBLICATION DATE: 85

TITLE: OIL SPILLS: LEGAL ASPECTS. 1977-MAY 1985  
(CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA  
BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;  
\*LEGAL ASPECTS; \*LEGISLATION; \*OIL SPILLS

DESCRIPTIVE NOTE: 308P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-861664/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
THE LEGAL ASPECTS OF OIL SPILLS. TOPICS INCLUDE GENERAL  
PERSPECTIVES ON OIL SPILLS, EPA'S RESPONSE TO OIL SPILLS,  
LEGAL AND CORPORATE RESPONSE TO OIL SPILLS, PUBLIC INTEREST  
GROUPS' ATTITUDES ON OIL SPILLS, AND ECONOMIC AND POLITICAL  
APPROACHES TO THE PROBLEMS CAUSED BY OIL SPILLS. FEDERAL,  
STATE AND LOCAL LEGISLATION DEALING WITH THESE PROBLEMS ARE  
EMPHASIZED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 313  
CITATIONS, 163 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS  
EDITION.)

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

IRIS ACCESSION NUMBER: EW012715

PUBLICATION DATE: 85

TITLE: PARAQUAT TOXICITY. 1978-JUNE 1985 (CITATIONS FROM  
THE LIFE SCIENCES COLLECTION DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;  
\*ENVIRONMENTAL EFFECTS; \*HERBICIDES; \*PARAQUAT; \*PUBLIC  
HEALTH; \*TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 156P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-863314/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
THE TOXIC EFFECTS OF THE HERBICIDE PARAQUAT ON HUMANS AND  
ANIMALS. TOPICS INCLUDE CLINICAL AND PATHOLOGICAL FINDINGS,  
BIOCHEMICAL MECHANISMS, EFFECTS OF OXYGEN, PULMONARY EFFECTS  
OF EXPOSURE, AND EFFECTS ON FRESHWATER AND MARINE ORGANISMS.  
THE CONTAMINATION OF MARIJUANA PLANTS WITH PARAQUAT IS ALSO  
CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 203  
CITATIONS, 29 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS  
EDITION.)

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

IRIS ACCESSION NUMBER: EW012716

PUBLICATION DATE: 85

TITLE: PESTICIDE RESIDUES IN MILK AND OTHER DAIRY PRODUCTS.

1972-JULY 1985 (CITATIONS FROM THE FOOD SCIENCE AND  
TECHNOLOGY ABSTRACTS DATA

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*ANNOTATED  
BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*DAIRY PRODUCTS; \*MILKS;  
\*PESTICIDES; \*PUBLIC HEALTH

DESCRIPTIVE NOTE: 240P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-864429/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
THE OCCURENCE AND DETECTION OF PESTICIDE RESIDUES IN DAIRY  
PRODUCTS. CHARACTERISTICS AND EFFECTS OF THE PESTICIDES ARE  
CONSIDERED, AND THE MECHANISMS BY WHICH THEY ENTER THE FOOD  
CHAIN ARE DISCUSSED. METHODS USED TO ELIMINATE PESTICIDE  
CONTAMINATION, AND ANALYTICAL TECHNIQUES EMPLOYED IN  
QUANTITATION STUDIES ARE CONSIDERED. CONSIDERABLE ATTENTION  
IS GIVEN TO THE OCCURENCE OF ORGANOCHLORINE COMPOUNDS IN  
MILK. (THIS UPDATED BIBLIOGRAPHY CONTAINS 342 CITATIONS, 22  
OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW012717

PUBLICATION DATE: 85

TITLE: PESTICIDE TOXICITY IN AQUATIC ENVIRONMENTS. JUNE  
1983-APRIL 1985 (CITATIONS FROM THE SELECTED WATER RESOURCES  
ABSTRACTS DATA BASE)

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;  
\*AQUATIC ENVIRONMENTS; \*ENVIRONMENTAL EFFECTS; \*PESTICIDES;  
\*POLLUTION CONTROL; RESEARCH; \*TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 73P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-859106/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
DETERMINATION, RESEARCH, CAUSES, EFFECTS AND CONTROL OF  
PESTICIDE TOXICITY IN AQUATIC ENVIRONMENTS. BIOACCUMULATION  
OF TOXIC SUBSTANCES AND ASSAY METHODS TO DETERMINE THEIR  
EFFECTS ARE CONSIDERED. SYNERGISTIC EFFECTS OF COMBINATIONS  
OF CHEMICAL AGENTS ARE ALSO CONSIDERED. (THIS UPDATED  
BIBLIOGRAPHY CONTAINS 63 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: EW012720

PUBLICATION DATE: 85

TITLE: POLLUTION EFFECTS OF BERYLLIUM AND BERYLLIUM  
COMPOUNDS. 1970-MARCH 1985 (CITATIONS FROM THE NTIS DATA  
BASE).

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*ANNOTATED

**BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*BERYLLIUM; COAL;  
\*ENVIRONMENTAL EFFECTS; \*POLLUTION CONTROL; \*MONITORING;  
\*TOXIC SUBSTANCES**

**DESCRIPTIVE NOTE: 137P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-858694/WEP**

**ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
SOURCES AND ABATEMENT MEASURES UTILIZED TO CONTROL POLLUTION  
CAUSED BY BERYLLIUM AND BERYLLIUM COMPOUNDS. TOPICS INCLUDE  
EXPOSURE STANDARDS CHARACTERIZATION, TOXICOLOGICAL STUDIES,  
MONITORING PROGRAMS, AND ANALYTICAL PROCEDURES EMPLOYED IN  
DETECTION AND SAMPLING OPERATIONS. CONSIDERABLE ATTENTION IS  
GIVEN TO COAL COMBUSTION AND CONVERSION PROCESSES AS SOURCES  
OF BERYLLIUM CONTAMINANTS. (THIS UPDATED BIBLIOGRAPHY  
CONTAINS 139 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: EW012721**

**PUBLICATION DATE: 85**

**TITLE: POLYCHLORINATED BIPHENYLS IN FOODS. APRIL 1975-JULY  
1984 (CITATIONS FROM THE FOOD SCIENCE AND TECHNOLOGY  
ABSTRACTS DATA BASE).**

**DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*ANNOTATED  
BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*BIPHENYLS; \*FOODS;  
\*LEGISLATION; \*PCBS; \*POLYCHLORINATED BIPHENYLS; \*TOXIC  
SUBSTANCES**

**DESCRIPTIVE NOTE: 261P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-864387/WEP**

**ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
THE PRESENCE OF POLYCHLORINATED BIPHENYLS (PCB) IN FOOD  
PRODUCTS. THE TOXICOLOGY OF PCB'S, ANALYTICAL METHODS TO  
DETECT AND QUANTITATE THEIR PRESENCE, AND LEGISLATION ARE  
DISCUSSED. FOOD PRODUCTS CONSIDERED INCLUDE MEAT, FISH,  
FRUIT, DAIRY, VEGETABLE OILS, AND PACKAGING MATERIALS. (THIS  
UPDATED BIBLIOGRAPHY CONTAINS 355 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: EW012722**

**PUBLICATION DATE: 85**

**TITLE: POLYCHLORINATED BIPHENYLS IN FOODS. AUGUST 1984-  
JULY 1985 (CITATIONS FROM THE FOOD SCIENCE AND TECHNOLOGY  
ABSTRACTS DATA BASE).**

**DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*ANNOTATED  
BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*BIPHENYLS; \*FOODS;  
\*LEGISLATION; \*PCBS; \*POLYCHLORINATED BIPHENYLS; \*TOXIC**

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**SUBSTANCES**

**DESCRIPTIVE NOTE: 54P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-864395/WEP**

**ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
THE PRESENCE OF POLYCHLORINATED BIPHENYLS (PCB) IN FOOD  
PRODUCTS. THE TOXICOLOGY OF PCB'S, ANALYTICAL METHODS TO  
DETECT AND QUANTITATE THEIR PRESENCE, AND LEGISLATION ARE  
DISCUSSED. FOOD PRODUCTS CONSIDERED INCLUDE MEAT, FISH,  
FRUIT, DAIRY, VEGETABLE OILS, AND PACKAGING MATERIALS. (THIS  
UPDATED BIBLIOGRAPHY CONTAINS 62 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: EW012723**

**PUBLICATION DATE: 85**

**TITLE: POLYCHLORINATED BIPHENYLS IN THE ENVIRONMENT.  
SEPTEMBER 1980-APRIL 1985 (CITATIONS FROM THE NTIS DATA  
BASE).**

**DESCRIPTOR: \*AIR POLLUTION CONTROL; \*ANNOTATED  
BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*BIPHENYLS; \*ENVIRONMENTAL  
IMPACTS; \*PCBS; \*POLYCHLORINATED BIPHENYLS; \*TOXIC  
SUBSTANCES; \*WATER QUALITY; \*WATER POLLUTION CONTROL**

**DESCRIPTIVE NOTE: 221P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-858413/WEP**

**ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
SOURCES, DISTRIBUTION, AND TRANSPORT OF POLYCHLORINATED  
BIPHENYLS (PCB'S) IN THE ENVIRONMENT. TOPICS INCLUDE SITE  
SURVEYS TO ASSESS THE EXTENT OF POLLUTION PROBLEMS IN  
SPECIFIC AREAS, TOXICOLOGY, DETECTION AND REMOVAL METHODS,  
AND ENVIRONMENTAL IMPACT STUDIES. WATER AND AIR POLLUTION  
SURVEYS ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS  
243 CITATIONS, 35 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS  
EDITION.)**

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

**IRIS ACCESSION NUMBER: EW012724**

**PUBLICATION DATE: 85**

**TITLE: PULPING EFFLUENTS: BIOLOGICAL TREATMENT. 1976-JUNE  
1985 (CITATIONS FROM THE PAPER AND BOARD, PRINTING, AND  
PACKAGING INDUSTRIES R**

**DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;  
\*BIOLOGICAL TREATMENT; \*EFFLUENTS; \*INDUSTRIAL WASTES; \*PULP  
INDUSTRY; \*WASTE DISPOSAL; \*WASTEWATER TREATMENT**

**DESCRIPTIVE NOTE: 132P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-862787/WEP**



**ABSTRACT:** THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING EFFLUENT AND WASTEWATER BIOLOGICAL TREATMENT AND DISPOSAL IN THE PULPING INDUSTRY. EFFLUENT TOXICITY; TREATMENT PLANT MANAGEMENT, TREATMENT SYSTEMS AND EQUIPMENT DESIGN; COMBINED MECHANICAL AND BIOLOGICAL TREATMENT PROCESSES; BIOLOGICAL DEGRADATION TREATMENT IN CHEMICAL PULP MILLS; AND THE HANDLING AND DISPOSAL OF SOLID WASTES ARE AMONG THE TOPICS DISCUSSED. PERFORMANCE EVALUATIONS OF BIOLOGICAL TREATMENT PROCESSES IN DOMESTIC AND FOREIGN PLANTS IN FULL SCALE OPERATION AND PILOT PROGRAMS ARE CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 170 CITATIONS, 22 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

**IRIS ACCESSION NUMBER:** EW012725

**PUBLICATION DATE:** 82

**TITLE:** RETROSPECTIVE SEARCH ON BIOLOGICAL CONVERSION OF BIOMASS TO METHANE.

**DESCRIPTOR:** \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*BIOMASS; BIOCHEMISTRY; \*DIGESTERS; \*METHANE; ECONOMICS; FACILITIES; \*RECYCLING

**DESCRIPTIVE NOTE:** 265P. PRICE CODE: PC A12/MF A01. ORDER NO.: DE85901260/WEP

**ABSTRACT:** THIS LITERATURE SURVEY COVERS THE PERIOD 1969 TO DATE AND IS CONCERNED WITH THE BIOLOGICAL CONVERSION OF WASTES AND BIOMASS TO METHANE. AMONG THE ASPECTS DEALT WITH ARE: THE DESIGN AND CONSTRUCTION OF DIGESTERS; THE ECONOMICS AND FEASIBILITY OF METHANE PRODUCTION; INSTALLED AND DEMONSTRATION PLANTS AND SYSTEMS; AND INTERNATIONAL PROGRAMS AND RESOURCES. (ERA CITATION 10:020134)

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

**IRIS ACCESSION NUMBER:** EW012726

**PUBLICATION DATE:** 84

**TITLE:** RETROSPECTIVE SEARCH ON ENVIRONMENTAL ASPECTS OF BIOMASS SYSTEMS.

**DESCRIPTOR:** \*AGRICULTURE; \*BIOMASS; \*ENVIRONMENTAL IMPACT; \*FORESTRY; \*INDUSTRIAL WASTES; \*LITERATURE REVIEWS; \*MUNICIPAL WASTES; \*MICROBIAL PROCESSES; \*RECYCLING; \*THERMAL PROCESSES; \*WASTE DISPOSAL

**DESCRIPTIVE NOTE:** 135P. PRICE CODE: PC A07/MF A01. ORDER NO.: DE85901256/WEP

**ABSTRACT:** THIS LITERATURE SURVEY COVERS THE PERIOD 1977 TO DATE AND IS CONCERNED WITH THE ENVIRONMENTAL ASPECTS OF BIOMASS SYSTEMS. THE BIOMASS FEEDSTOCKS DEALT WITH ARE: AGRICULTURE, FORESTRY AND WOOD WASTES, AND INDUSTRIAL AND

**MUNICIPAL WASTES. SECTIONS ON MICROBIAL CONVERSION, THERMOCHEMICAL CONVERSION, COMBUSTION, WOOD BURNING APPLIANCES, AND SYNTHETIC FUELS ARE ALSO INCLUDED. (ERA CITATION 10:020174)**

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

**IRIS ACCESSION NUMBER:** EW012732

**PUBLICATION DATE:** 85

**TITLE:** SANITARY LANDFILLS. 1978-JULY 1985 (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

**DESCRIPTOR:** \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*ECONOMICS; \*MANAGEMENT; \*LANDFILLS; \*LEACHATES; \*SITE SELECTION; \*WASTE DISPOSAL

**DESCRIPTIVE NOTE:** 189P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-863587/WEP

**ABSTRACT:** THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING REFUSE DISPOSAL IN SANITARY LANDFILLS. SITE SELECTION CRITERIA, LEACHATE ANALYSIS AND TREATMENT, AND ECONOMIC AND MANAGEMENT ASPECTS ARE AMONG THE TOPICS CONSIDERED. HYDROLOGIC STUDIES PERTAINING TO CONTAMINANT TRANSPORT, AND THE UTILIZATION OF LINERS AND COVERS ARE DISCUSSED. CONSIDERABLE ATTENTION IS GIVEN TO GAS GENERATION AND RECOVERY, AND SPECIFIC OPERATIONS ARE DESCRIBED. CITATIONS PERTAINING SPECIFICALLY TO HAZARDOUS AND INDUSTRIAL WASTE MATERIALS ARE EXCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 256 CITATIONS, 80 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

**IRIS ACCESSION NUMBER:** EW012734

**PUBLICATION DATE:** 85

**TITLE:** SEDIMENT TRANSPORT IN RIVERS. 1978-MAY 1985 (CITATIONS FROM THE NTIS DATA BASE).

**DESCRIPTOR:** \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*RIVERS; \*SEDIMENTS; \*SEDIMENT TRANSPORT

**DESCRIPTIVE NOTE:** 131P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-858991/WEP

**ABSTRACT:** THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING A VARIETY OF TOPICS PERTAINING TO RIVER SEDIMENT TRANSPORT PROCESSES. CHANNEL DEGRADATION AND ACCRADATION, WATER QUALITY ASPECTS, AND EVALUATION AND MONITORING STUDIES IN SPECIFIC AREAS ARE AMONG THE SUBJECT AREAS CONSIDERED. CONSIDERABLE ATTENTION IS GIVEN TO COMPUTER SIMULATIONS OF TRANSPORT PROCESSES. (THIS UPDATED BIBLIOGRAPHY CONTAINS 139 CITATIONS, 20 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW012735

PUBLICATION DATE: 85

TITLE: SEWAGE TREATMENT COSTS AND ECONOMICS. 1979-JUNE  
1985 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;  
\*CONSTRUCTION; \*COSTS; \*ECONOMICS; \*FACILITIES; \*SEWAGE;  
\*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 255P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-863496/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
THE COSTS AND ECONOMICS INVOLVED IN TECHNOLOGY AND SYSTEMS  
FOR SEWAGE TREATMENT, SLUDGE DISPOSAL, AND SEWER LINES. MOST  
OF THE STUDIES COVER THE OVERALL CONSTRUCTION AND OPERATING  
COSTS OF SEWAGE TREATMENT PLANTS. OTHER STUDIES COVER RATE  
STRUCTURES, FINANCING, USER CHARGES, AND BENEFITS OF  
REGIONALIZED PLANTS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 278  
CITATIONS, 61 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS  
EDITION.)

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

IRIS ACCESSION NUMBER: EW012737

PUBLICATION DATE: 85

TITLE: SLUDGE DEWATERING: INDUSTRIAL WASTE AND SEWAGE.  
1976-JUNE 1985 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;  
DEWATERING; \*INDUSTRIAL WASTES; \*OPERATIONS (WASTEWATER);  
\*SEWAGE; SLUDGE; \*SLUDGE DEWATERING; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 239P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-862407/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
DEWATERING TECHNIQUES AND EQUIPMENT IN SEWAGE AND WASTE  
TREATMENT. SEWAGE SLUDGE AND WASTE DEWATERING DESIGN,  
PROCESSES, AND DEVICES ARE DISCUSSED. INDUSTRIAL AND  
MUNICIPAL SLUDGE DEWATERING TECHNIQUES ARE CONSIDERED. (THIS  
UPDATED BIBLIOGRAPHY CONTAINS 272 CITATIONS, 199 OF WHICH  
ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW012738

PUBLICATION DATE: 85

TITLE: SLUDGE DEWATERING IN THE PULP AND PAPER INDUSTRY.  
1977-JULY 1985 (CITATIONS FROM THE SELECTED WATER RESOURCES  
ABSTRACTS DATA BASE)

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;  
DEWATERING; INDUSTRY; \*OPERATIONS (WASTEWATER); \*PAPER  
INDUSTRY; \*PULP INDUSTRY; \*SLUDGE DEWATERING; \*SLUDGE;  
\*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 77P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-863744/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
SLUDGE DEWATERING METHODS AS USED IN SUCH PULP AND PAPER  
PRODUCTION AS SULFITE PULP, NEWSPRINT, CORRUGATED BOARD, AND  
KRAFT MILLS. PRIMARY AND SECONDARY SLUDGE DEWATERING SYSTEMS  
ARE DISCUSSED. GRAVITY, CENTRIFUGAL, FLAME AND FILTER PRESS  
PROCESSES FOR SEMI-SOLIDS AND SOLIDS ARE INCLUDED FOR PILOT,  
AS WELL AS ESTABLISHED PLANTS. (THIS UPDATED BIBLIOGRAPHY  
CONTAINS 76 CITATIONS, 17 OF WHICH ARE NEW ENTRIES TO THE  
PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW012739

PUBLICATION DATE: 84

TITLE: STORMWATER MANAGEMENT ALTERNATIVES: A COMPUTER-  
BASED PROGRAM FOR THE SELECTION OF TECHNIQUES TO MITIGATE  
THE IMPACT OF URBAN STORM

PERSONAL AUTHOR: TOURBIER, J. T.; SCARBOROUGH, E. N.

DESCRIPTOR: \*COMPUTER SOFTWARE; \*COMPUTER APPLICATIONS;  
\*DESIGN; \*MAINTENANCE; \*MANAGEMENT; \*OPERATIONS;  
\*STORMWATER; \*URBAN AREAS

DESCRIPTIVE NOTE: 147P. PRICE CODE: PC A07. ORDER NO.:  
PB85-157857/WEP

ABSTRACT: THE PURPOSE OF THIS PROJECT WAS TO DEVELOP A  
SOFTWARE PROGRAM FOR USE WITH AN IBM PERSONAL COMPUTER AS A  
TECHNOLOGY TRANSFER TOOL THAT AIDS IN THE SELECTION OF  
STORMWATER MANAGEMENT TECHNIQUES. USERS ARE ASKED TO SUPPLY  
INFORMATION ABOUT A DEVELOPMENT SITE AND DEFINE PLANNING  
OBJECTIVES. THE PROGRAM THEN QUANTIFIES RUNOFF CONDITIONS.  
THE PROGRAM PRE-SELECTS MEASURES APPLICABLE TO THE SITE. THE  
USER IS THEN ABLE TO EXPLORE MEASURES IN VARIOUS LEVELS OF  
DETAIL AND ASSIGN TO A GIVEN MEASURE A VALUE REPRESENTING  
ITS ASSUMED USEFULNESS. THE USER IS THEN DIRECTED TO  
ELIMINATE MEASURES THAT DUPLICATE FUNCTIONS AND REMINDED TO  
EXPLORE APPLICABLE CONCEPTS AND MEASURES THAT HAVE BEEN  
OVERLOOKED. FINALLY, THE PROGRAM OFFERS DESIGN, OPERATION,  
AND MAINTENANCE RECOMMENDATIONS FOR MEASURES SELECTED AND  
GIVES A PRINTOUT OF THE INFORMATION.

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

IRIS ACCESSION NUMBER: EW012740

PUBLICATION DATE: 85

TITLE: STRIP MINING: IMPACTS ON WATER RESOURCES. 1977-  
MARCH 1985 (CITATIONS FROM THE SELECTED WATER RESOURCES  
ABSTRACTS DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;  
\*ENVIRONMENTAL EFFECTS; \*LAND RECLAMATION; \*MINING; \*STRIP  
MINING; \*WASTE DISPOSAL; \*WATER RESOURCES

DESCRIPTIVE NOTE: 130P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-856409/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
STRIP MINE WASTES AND THE EFFECT ON WATER RESOURCES. THE  
STUDIES ARE BOTH GENERAL, INVESTIGATING THE HYDRAULICS OF  
WASTES AND RUNOFF, AND SPECIFIC, REPORTING ON RESULTS OF  
SURVEYS AT SOME STRIP MINES. A FEW CITATIONS REFERENCE LAND  
RECLAMATION TECHNIQUES AND EFFORTS. (THIS UPDATED  
BIBLIOGRAPHY CONTAINS 115 CITATIONS, 23 OF WHICH ARE NEW  
ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW012741

PUBLICATION DATE: 84

TITLE: STUDIES OF EFFECTIVENESS OF COMMERCIAL HOME  
TREATMENT SYSTEMS.

PERSONAL AUTHOR: TRIGG, W. W.; COUSER, R. D.

DESCRIPTOR: \*FILTRATION; \*FILTERS; \*HOME TREATMENT SYSTEMS;  
\*PERFORMANCE EVALUATION; \*WATER TREATMENT; \*WATER QUALITY

DESCRIPTIVE NOTE: 23P. PRICE CODE: PC A02/MF A01. ORDER  
NO.: PB85-211720/WEP

ABSTRACT: ELEVEN HOME WATER SYSTEMS WERE TESTED  
REPRESENTING SIX DIFFERENT TYPES OF FILTERING SYSTEMS. TESTS  
WERE MADE FOR SULFATES, NITRATES, PHOSPHATE, IRON AND  
ESCHERICHIA COLI AND ENTEROBACTER AEROGENES BEFORE AND AFTER  
PASSING THROUGH A HOME TREATMENT SYSTEM. ALL OF THE SYSTEMS  
REMOVED IRON ADEQUATELY BUT HAD LITTLE EFFECT ON THE REMOVAL  
OF NITRATES, PHOSPHATES, SULFATES OR CONTROL OF PH. SINCE  
NONE OF THE GROUND WATERS WAS CONTAMINATED BY COLIFORMS,  
NOTHING WAS ESTABLISHED REGARDING THE EFFECTIVENESS OF  
BACTERIAL REMOVAL BY THESE SYSTEMS.

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

IRIS ACCESSION NUMBER: EW012743

PUBLICATION DATE: 85

TITLE: TOXICITY OF ARSENIC. 1976-JUNE 1984 (CITATIONS FROM  
THE ENERGY DATA BASE).

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*ANNOTATED  
BIBLIOGRAPHIES; \*ARSENIC; BIBLIOGRAPHIES; \*MONITORING;  
\*TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 260P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-862902/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
THE TOXICITY, CARCINOGENICITY, ENVIRONMENTAL POLLUTION, AND  
OTHER HAZARDS OF ARSENIC. ENVIRONMENTAL POLLUTION ASSAYS,  
BIOLOGICAL MONITORING METHODS, AND CHEMICAL ASSAYS FOR THE  
DETECTION OF ARSENIC ARE AMONG THE TOPICS CONSIDERED.  
POLLUTION FROM COAL FIRED AND GEOTHERMAL POWER PLANTS IS  
ALSO DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 285  
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: EW012744

PUBLICATION DATE: 85

TITLE: TOXICITY OF ARSENIC. JULY 1984-JUNE 1985 (CITATIONS  
FROM THE ENERGY DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; \*ARSENIC;  
BIBLIOGRAPHIES; COAL; \*ENVIRONMENTAL EFFECTS; \*ENVIRONMENTAL  
POLLUTION; \*PUBLIC HEALTH; \*TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 158P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-862910/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
THE TOXICITY, CARCINOGENICITY, ENVIRONMENTAL POLLUTION, AND  
OTHER HAZARDS OF ARSENIC AND ARSENIC COMPOUNDS. TOPICS  
INCLUDE EFFECTS ON AQUATIC AND TERRESTRIAL ECOSYSTEMS, CROPS  
AND FARM ANIMALS, AND PUBLIC HEALTH STUDIES. POLLUTION FROM  
COAL FIRED POWER PLANTS AND COAL CONVERSION PROCESSES, AND  
SPECIFIC SITE STUDIES ARE ALSO DISCUSSED. (THIS UPDATED  
BIBLIOGRAPHY CONTAINS 164 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: EW012745

PUBLICATION DATE: 85

TITLE: TOXICITY OF FIBERS AND FIBER COMPOSITES. 1970-JULY  
1985 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: \*AIRBORNE FIBERS; \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*FIBERS; \*OCCUPATIONAL HAZARDS; \*POLLUTION CONTROL; \*TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 272P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-864619/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE TOXICITY OF OCCUPATIONAL EXPOSURES TO FIBERS AND FIBER COMPOSITES. TOPICS INCLUDE RESPIRATORY ILLNESSES DUE TO CHRONIC EXPOSURE TO ASBESTOS AND GLASS FIBERS, AND METHODS AND EQUIPMENT FOR CONTROL OF AIRBORNE FIBERS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 294 CITATIONS, 21 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW012746

PUBLICATION DATE: 85

TITLE: TOXICITY OF MANGANESE. 1970-JULY 1985 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*ENVIRONMENTAL EFFECTS; \*MANGANESE; \*METALS; \*PUBLIC HEALTH; \*TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 194P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-864593/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE TOXICITY, CARCINOGENICITY, ENVIRONMENTAL POLLUTION, AND OTHER HAZARDS AND ADVERSE EFFECTS OF MANGANESE. THE DETECTION, CHARACTERIZATION, ANALYTICAL METHODS, STANDARDS, AND REMOVAL FROM THE ENVIRONMENT ARE CONSIDERED. THESE ASPECTS OF MANGANESE ARE DEALT WITH IN RELATION TO AQUATIC AND TERRESTRIAL FLORA AND FAUNA, INCLUDING MAN. MANGANESE POLLUTION FROM MINING OPERATIONS IS ALSO DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 190 CITATIONS, 10 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW012747

PUBLICATION DATE: 85

TITLE: TOXICITY OF NICKEL. JUNE 1983-MAY 1985 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*ENVIRONMENTAL EFFECTS; \*METALS; \*MONITORING; \*NICKEL; \*PUBLIC HEALTH; \*TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 193P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-861623/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE TOXICITY, CARCINOGENICITY, ENVIRONMENTAL POLLUTION, AND OTHER HAZARDS OF NICKEL. ENVIRONMENTAL POLLUTION ASSAYS, BIOLOGICAL MONITORING METHODS, AND CHEMICAL ASSAYS FOR THE DETECTION OF NICKEL ARE DISCUSSED. THE TOXICITY OF NICKEL TO AQUATIC AND TERRESTRIAL FLORA AND FAUNA, INCLUDING MAN, ARE CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 183 CITATIONS, 90 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW012748

PUBLICATION DATE: 84

TITLE: TRANSPORTATION OF HAZARDOUS MATERIALS: PLANNING AND ACCIDENT ANALYSIS.

PERSONAL AUTHOR: CRUSBERG, T. C.; AND OTHERS

DESCRIPTOR: \*ACCIDENT ANALYSIS; COSTS; \*HAZARDOUS MATERIALS; \*SAFETY; RESEARCH; PLANNING; \*SPILLS; REPORTS; RISK ANALYSIS; \*TRANSPORTATION

DESCRIPTIVE NOTE: 52P. PRICE CODE: PC A04/MF A01. ORDER NO.: PB85-212355/WEP

ABSTRACT: THE 6 PAPERS IN THIS REPORT DEAL WITH THE FOLLOWING AREAS: PLANNING FOR A TRANSPORTATION-RELATED HAZARDOUS MATERIAL SPILL IN A MUNICIPAL WATERSHED; HAZARDOUS MATERIALS; DEVELOPING TRANSPORTATION SAFETY PROGRAMS ON A LIMITED BUDGET; RISK OF MULTIPLE SMALL-PACKAGE SPILLS OF HAZARDOUS SUBSTANCES; ESTIMATING THE RELEASE RATES AND COSTS OF TRANSPORTING HAZARDOUS WASTE; CHEMICAL SPILL RESPONSE INFORMATION SYSTEM OF THE ASSOCIATION OF AMERICAN RAILROADS; AND A SURVEY OF FOREIGN HAZARDOUS MATERIALS TRANSPORTATION SAFETY RESEARCH SINCE 1978.

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

IRIS ACCESSION NUMBER: EW012749

PUBLICATION DATE: 85

TITLE: TRIHALOMETHANES IN POTABLE WATER. 1978-APRIL 1985 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*DISINFECTION; \*DRINKING WATER; \*RESEARCH; \*TRIHALOMETHANES; \*TOXIC SUBSTANCES; \*WATER TREATMENT

DESCRIPTIVE NOTE: 161P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-857936/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING RESEARCH AND EXPERIMENTATION OF TRIHALOMETHANES IN DRINKING



**WATER. TRIHALOMETHANE FORMATION, CONCENTRATION DETERMINATION, TOXIC EFFECTS ON LABORATORY ANIMALS, STATISTICS RELATED TO HUMAN DISEASES, AND DISINFECTION PROCEDURES ARE AMONG THE TOPICS DISCUSSED. TRIHALOMETHANE REMOVAL PROCESSES IN WATER TREATMENT PLANTS ARE CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 147 CITATIONS, 29 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)**

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

**IRIS ACCESSION NUMBER: EW012750**

**PUBLICATION DATE: 85**

**TITLE: USE OF ENVIRONMENTAL HEALTH-RISK ANALYSIS FOR MANAGING TOXIC SUBSTANCES.**

**PERSONAL AUTHOR: MCKONE, T. E.**

**DESCRIPTOR: \*ENVIRONMENTAL IMPACT; \*HEALTH EFFECTS; \*MANAGEMENT; \*MODELS; \*PUBLIC HEALTH; \*RISK ANALYSIS; \*TOXIC SUBSTANCES**

**DESCRIPTIVE NOTE: 17P. PRICE CODE: PC A02/MF A01. ORDER NO.: DE85008964/WEP**

**ABSTRACT: THIS PAPER PRESENTS A SET OF SIMPLE MODELS USED TO ASSESS HEALTH RISKS BASED ON TOXICITY, ENVIRONMENTAL MOBILITY, AND PERSISTENCE. THESE MODELS USE A REPRESENTATIVE LANDSCAPE IN ORDER TO DESCRIBE THE STEADY-STATE DISTRIBUTION OF ARSENIC, TRITIATED WATER, AND TCDD AS A RESULT OF CONTINUOUS ADDITIONS TO SOIL. THIS INFORMATION IS USED TO ASSESS POTENTIAL EXPOSURES. APPLICATION OF THE SCREENING MODEL TO THREE CHEMICALLY DIFFERENT CARCINOGENS REVEALS THAT THE ENVIRONMENTAL HEALTH RISK DOES NOT SCALE WITH DIRECT MEASURES OF TOXICITY. AS ESTIMATED HERE, THE ENVIRONMENTAL HEALTH RISK OF TCDD RELATIVE TO TRITIATED WATER AND ARSENIC IS ROUGHLY AN ORDER OF MAGNITUDE LESS THAN ITS CANCER POTENCY RELATIVE TO THESE COMPOUNDS. THE DIFFERENCE IS ATTRIBUTABLE IN LARGE PART TO THE IMMOBILITY OF TCDD RELATIVE TO TRITIUM AND THE LOWER PERSISTENCE OF TCDD COMPARED TO ARSENIC. THE PURPOSE IS TO PRESENT A SIMPLE PROCEDURE FOR USING THE RELATIVE BEHAVIOR OF TOXIC SPECIES UNDER PROTOTYPE CONDITIONS AS A BASIS FOR RISK MANAGEMENT. 21 REFS., 4 TABS. (ERA CITATION 10:026203)**

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

**IRIS ACCESSION NUMBER: EW012751**

**PUBLICATION DATE: 84**

**TITLE: USE OF MICROCOMPUTERS TO AID WASTEWATER TREATMENT PLANT OPERATIONS.**

**PERSONAL AUTHOR: PARKER, D. G.; AND PARKER, S. C.**

**DESCRIPTOR: \*DATA MANAGEMENT; \*COMPUTER APPLICATIONS;**

**\*MANAGEMENT; \*MICROCOMPUTERS; \*OPERATIONS (WASTEWATER); \*WASTEWATER TREATMENT**

**DESCRIPTIVE NOTE: 86P. PRICE CODE: PC A05/MF A01. ORDER NO.: PB85-211738/WEP**

**ABSTRACT: THIS REPORT PRESENTS THE DEVELOPMENT OF A MICROCOMPUTER BASED DATA MANAGEMENT SYSTEM FOR WASTEWATER TREATMENT PLANTS. THE RELATIONAL DATABASE MODEL WAS SHOWN TO BE WELL SUITED FOR DATA MANAGEMENT APPLICATIONS IN WASTEWATER TREATMENT PLANTS. A GENERAL DATA MANAGEMENT SYSTEM WAS DEVELOPED FOR USE WITH A MICROCOMPUTER USING A COMMERCIALY AVAILABLE RELATIONAL DATABASE MANAGEMENT SYSTEM. USE OF THE DEVELOPED SYSTEM REQUIRES NO SPECIAL COMPUTER TRAINING. THE SYSTEM WAS TAILORED FOR USE AT THE WASTEWATER TREATMENT PLANT AT SPRINGDALE, ARKANSAS. THE CAPABILITIES OF THE SYSTEM WERE DEMONSTRATED WITH ACTUAL DATA FROM THE SPRINGDALE PLANT.**

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

**IRIS ACCESSION NUMBER: EW012752**

**PUBLICATION DATE: 85**

**TITLE: WASTEWATER TREATMENT: OZONATION PROCESSES AND EQUIPMENT. 1977-AUGUST 1985 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS**

**DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*DISINFECTION; \*EQUIPMENT; \*OPERATIONS (WASTEWATER); \*OZONE; \*PERFORMANCE EVALUATION; \*WASTEWATER TREATMENT**

**DESCRIPTIVE NOTE: 250P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-864270/WEP**

**ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE UTILIZATION OF OZONATION PROCESSES FOR WASTEWATER DISINFECTION. TOPICS INCLUDE SYSTEM DESCRIPTIONS AND EVALUATIONS, COMPARISONS WITH THE CHLORINATION PROCESS, REACTION KINETICS, AND THE USE OF THE PROCESS IN COMBINATION WITH OTHER WASTEWATER TREATMENT METHODS. THE TREATMENT OF ORGANIC AND INORGANIC COMPOUNDS IN WASTEWATER AND MUNICIPAL WATER SUPPLIES IS DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 249 CITATIONS, 14 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)**

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

**IRIS ACCESSION NUMBER: EW012753**

**PUBLICATION DATE: 84**

**TITLE: WASTEWATER TREATMENT AND HYDRAULICS.**

**PERSONAL AUTHOR: BROWN, C. A.; AND OTHERS**

**DESCRIPTOR: \*ICE JAMS; \*HYDRAULICS; \*RECREATIONAL VEHICLES;**

\*REPORTS; \*SEPTIC TANKS; \*STORMWATER; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 68P. PRICE CODE: PC A04/MF A01. ORDER NO.: PBB5-209880/WEP

ABSTRACT: THE 7 PAPERS IN THE REPORT DEAL WITH THE FOLLOWING AREAS: TREATABILITY OF RECREATIONAL VEHICLE WASTEWATER IN SEPTIC SYSTEMS AT HIGHWAY REST AREAS; IMPROVED PERCOLATION TEST FOR SEPTIC TANK LEACH FIELD SYSTEMS; ONSITE DISPOSAL OF RESTROOM AND RECREATIONAL VEHICLE WASTES; ICE JANS AT HIGHWAYS AND BRIDGES-CAUSES AND REMEDIAL MEASURES; IOWA DESIGN MANUAL FOR LOW WATER STREAM CROSSINGS; THE EFFECTIVENESS OF STORMWATER DETENTION; AND, SEMI-ARID STORM HYDROGRAPH PROPERTIES IN WYOMING.

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

IRIS ACCESSION NUMBER: EW012754

PUBLICATION DATE: 85

TITLE: WASTEWATER TREATMENT BY SAND FILTRATION. 1977-MARCH 1985 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*FACILITIES; \*FILTRATION; \*OPERATIONS (WASTEWATER); \*PERFORMANCE EVALUATION; \*SAND FILTRATION; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 82P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-856227/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE USE OF SAND FILTRATION IN THE TREATMENT OF WASTEWATER. TREATMENT SYSTEMS FOR BOTH DOMESTIC AND INDUSTRIAL EFFLUENTS ARE DISCUSSED. DESIGNS, PROCESSES, APPLICATIONS AND PERFORMANCE EVALUATIONS OF SAND FILTERS, COLUMNS, AND MOUNDS AS PRIMARY FILTERING MECHANISMS ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 71 CITATIONS, 16 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW012755

PUBLICATION DATE: 85

TITLE: WASTE OIL RECLAMATION. 1970-JULY 1985 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*LUBRICATING OIL; OIL; \*RECLAMATION; \*RECYCLING; \*REGULATIONS; \*WASTE OIL

DESCRIPTIVE NOTE: 122P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-863868/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE RECLAMATION AND RECYCLING OF USED LUBRICATING OILS. TOPICS INCLUDE SPECIFIC PROGRAM DESCRIPTIONS, RE-REFINING TECHNIQUES, CHEMICAL COMPONENT ANALYSIS, AND RECLAIMED OIL PERFORMANCE. APPROPRIATE REGULATIONS AND STANDARDS ARE ALSO DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 131 CITATIONS, 40 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW012756

PUBLICATION DATE: 84

TITLE: WASTE TREATMENT BY INNOVATIVE FLOTATION-FILTRATION (SANDFLOAT) AND OXYGENATION-OZONATION (OXYOZOSYNTHESIS) PROCESSES.

PERSONAL AUTHOR: KROFTA, M.; AND WANG, L. K.

DESCRIPTOR: \*FILTRATION; \*FLOTATION; OHIO; \*OPERATIONS (WASTEWATER); \*OXYGENATION; \*OZONATION; \*PERFORMANCE EVALUATION; \*WASTE TREATMENT; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 177P. PRICE CODE: PC A09/MF A01. ORDER NO.: PB85-174738/WEP

ABSTRACT: AN INNOVATIVE WASTE TREATMENT SYSTEM INVOLVING MAINLY THE USE OF FLOTATION-FILTRATION (SANDFLOAT(TM)) FOR WASTEWATER TREATMENT, AND THE USE OF OXYGENATION-OZONATION (OXYOZOSYNTHESIS(TM)) AND FLOTATION-PRESS (FLOATPRESS(TM)) FOR SLUDGE TREATMENT, HAS BEEN DEVELOPED. A SMALL COMMUNITY IN OHIO IS CHOSEN AS A PRACTICAL EXAMPLE. BOTH INNOVATIVE AND CONVENTIONAL SYSTEMS ARE INTRODUCED, CRITICALLY REVIEWED AND COMPARED WITH OTHER SYSTEMS. ACTUAL TECHNICAL DATA OF THE INNOVATIVE SANDFLOAT AND OXYOZOSYNTHESIS PROCESSES ARE PRESENTED.

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

IRIS ACCESSION NUMBER: EW012757

PUBLICATION DATE: 85

TITLE: WASTE WATER TREATMENT. JUNE 1976-MAY 1985 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*EQUIPMENT; \*HYDROCARBONS; \*INDUSTRIAL WASTES; \*METALS; \*OPERATIONS (WASTEWATER); \*REGULATIONS; \*RECYCLING; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 177P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-859015/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING TECHNIQUES AND EQUIPMENT FOR TREATMENT OF INDUSTRIAL (EXCEPT



MINING) EFFLUENT STREAMS. CONSIDERATION IS GIVEN TO THE REMOVAL, RECLAMATION, AND RECYCLING OF VARIOUS TRACE METALS, HEAVY-METALS, HYDROCARBONS, AND OILY WASTEWATERS TO MEET REGULATORY AGENCY DISCHARGE OR INPLANT REUSE STANDARDS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 194 CITATIONS, 110 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW012758

PUBLICATION DATE: 85

TITLE: WATER CHEMISTRY: ANALYSIS FOR HEAVY METALS. JUNE 1983-MAY 1985 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*CHEMISTRY; \*ECOLOGY; \*HEAVY METALS; \*METALS; \*WATER QUALITY

DESCRIPTIVE NOTE: 85P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-860849/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING WATER QUALITY PARAMETERS OF ON-STREAM AND OFF-STREAM SITES WITH SPECIFIC REFERENCE TO HEAVY METAL CONTAMINATION. METHODS FOR INDIVIDUAL AND SIMULTANEOUS MULTIELEMENT DETERMINATIONS ARE DISCUSSED. INTERFERENCE EFFECTS AND METHODS TO MINIMIZE THESE EFFECTS ARE EXPLAINED. THE ECOLOGICAL CONSEQUENCES OF HEAVY METAL CONTAMINATION ARE ALSO PRESENTED. (THIS BIBLIOGRAPHY CONTAINS 73 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: EW012760

PUBLICATION DATE: 85

TITLE: WATER CHLORINATION: CROSSROAD OF UNCERTAINTIES AND DECISIONS.

PERSONAL AUTHOR: DAVIS, W. P.; AND ROBERTS, M. H.

DESCRIPTOR: \*CARCINOGENS; \*CHLORINATION; \*CONFERENCE PROCEEDINGS; \*DISINFECTION; \*WASTEWATER TREATMENT; \*WATER TREATMENT; \*WATER QUALITY

DESCRIPTIVE NOTE: 8P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB85-156818/WEP

ABSTRACT: THIS OVERVIEW INTRODUCES PROCEEDINGS OF THE FIFTH WATER CHLORINATION CONFERENCE CONVENED TO REVIEW TECHNICAL REPORTS ON ALL ASPECTS OF THE USE OF CHLORINATION, ITS BY-PRODUCTS AND ENVIRONMENTAL EFFECTS. AUTHORS RAISE THE FOLLOWING ISSUES: (1) THE NEED TO BETTER DETECT, ANALYZE, AND TRACK CARCINOGENIC AND MUTAGENIC BY-PRODUCTS; (2) THE

NEED TO BE ABLE TO MODERATE IF NOT MINIMIZE CHLORINATION TO RATES THAT ARE REALISTIC FOR HIGH-USE WATERS AND TO BE ABLE TO CALCULATE AND ANALYZE WHAT REALISTIC MEANS; (3) THE NEED TO ASSESS AND TO ANTICIPATE THE POTENTIAL TO PRODUCE CHLORINE RESISTANT PATHOGENS; AND (4) THE NEED TO EXAMINE DISINFECTANT ALTERNATIVES, ESPECIALLY FOR MUNICIPAL AND INDUSTRIAL TREATMENT, TO MINIMIZE OR PREVENT FORMATION OF TOXIC BY-PRODUCTS IN THE CHLORINATION-REACTORS OF TREATMENT PLANTS.

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

IRIS ACCESSION NUMBER: EW012763

PUBLICATION DATE: 85

TITLE: WATER SCIENCE AND TECHNOLOGY BOARD ANNUAL REPORT, 1984.

DESCRIPTOR: \*ANNUAL REPORTS; \*ISSUES; \*PROGRAM DESCRIPTIONS; \*REPORTS; \*WATER SCIENCE AND TECHNOLOGY BOARD; \*WATER RESOURCES; \*WATER QUALITY; \*WATER SUPPLY

DESCRIPTIVE NOTE: 54P. PRICE CODE: PC A04/MF A01. ORDER NO.: PB85-204485/WEP

ABSTRACT: THE REPORT IS THE SECOND ANNUAL REPORT OF THE WATER SCIENCE AND TECHNOLOGY BOARD. IT SUMMARIZES THE BOARD'S ACTIVITIES DURING 1984, ONGOING ACTIVITIES (I.E., IN 1985) AND FUTURE PLANS. INFORMATION IS INCLUDED ALSO ON BOARD AND STUDY GROUP MEMBERSHIPS, PROGRAM ORGANIZATION, ISSUES OF CONCERN, AND REPORTS PUBLISHED.

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

IRIS ACCESSION NUMBER: EW012765

PUBLICATION DATE: 84

TITLE: BIOLOGICAL TREATMENT PROCESS CONTROL: REVIEW OF SOLIDS HANDLING - SLIDES.

DESCRIPTOR: \*AUDIOVISUAL AIDS; \*BIOLOGICAL TREATMENT; \*INSTRUCTIONAL MATERIALS; \*OPERATIONS (WASTEWATER); \*PROCESS CONTROL; \*POSTSECONDARY EDUCATION; \*SLIDES; \*SOLIDS HANDLING; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 72 SLIDES. PURCHASE: \$43.20. RENTAL: \$15.00

ABSTRACT: THESE ARE THE 35MM SLIDES TO GO WITH EW 012 071 AND EW 012 072 (PRINTED MATERIALS). THIS UNIT (WHICH CONSISTS OF A SINGLE LESSON) SUMMARIZES AND REVIEWS MOST OF THE SOLIDS HANDLING PROCESSES IN COMMON USE IN MUNICIPAL TREATMENT PLANTS. AFTER COMPLETING THE UNIT STUDENTS SHOULD BE ABLE TO BRIEFLY DESCRIBE HOW EACH SOLIDS HANDLING PROCESS WORKS AND DESCRIBE ITS MAIN FUNCTION WITHIN THE SOLIDS HANDLING PROGRAM. IN ADDITION, STUDENTS SHOULD BECOME AWARE

OF THE CRITICAL IMPORTANCE OF SOLIDS HANDLING TO THE OVERALL OPERATION AND EFFECTIVENESS OF THE TREATMENT PLANT.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012766

PUBLICATION DATE: 84

TITLE: BIOLOGICAL TREATMENT PROCESS CONTROL: TRICKLING FILTERS - SLIDES.

DESCRIPTOR: \*AUDIOVISUAL AIDS; \*BIOLOGICAL TREATMENT; \*FILTERS; \*INSTRUCTIONAL MATERIALS; \*OPERATIONS (WASTEWATER); \*PROCESS CONTROL; \*POSTSECONDARY EDUCATION; \*SLIDES; \*TRICKLING FILTERS; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PURCHASE: PART I - \$12.00. PART II - \$36.20. RENTAL: \$15.00 EACH.

ABSTRACT: THESE ARE THE 35MM SLIDES TO GO WITH EW 012 074 AND EW 012 073. THE UNIT CONTAINS TWO LESSONS ON TRICKLING FILTERS. THE FIRST LESSON (STRUCTURE AND THEORY) COVERS AN INTRODUCTION TO TRICKLING FILTERS, COMPONENTS, MODES OF OPERATION, AND THE MICROBIOLOGY OF TRICKLING FILTERS (EMPHASIZING THE FACTORS THAT AFFECT GROWTH). THE SECOND LESSON COVERS THE OPERATION OF TRICKLING FILTERS. THE LABORATORY TESTS RECOMMENDED FOR INFLUENT AND EFFLUENT MONITORING ARE PRESENTED AND RELATED TO THE FACTORS AFFECTING BIOMASS GROWTH. CALCULATIONS REGARDING LOADING, RECIRCULATION, AND EFFICIENCY ARE PRESENTED AND PRACTICED. PLANT OBSERVATION AND MONITORING IS DISCUSSED WITH AN EMPHASIS ON AWARENESS AND IDENTIFICATION OF EXISTING AND POTENTIAL PROBLEMS. FINALLY, A NUMBER OF OPERATIONAL PROBLEMS ARE PRESENTED WITH CORRECTIVE MEASURES RECOMMENDED.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012767

PUBLICATION DATE: 84

TITLE: BIOLOGICAL TREATMENT PROCESS CONTROL: FACULTATIVE LAGOONS - SLIDES.

DESCRIPTOR: \*AUDIOVISUAL AIDS; \*BIOLOGICAL TREATMENT; \*INSTRUCTIONAL MATERIALS; \*FACULTATIVE LAGOONS; \*OPERATIONS (WASTEWATER); \*PROCESS CONTROL; \*POSTSECONDARY EDUCATION; \*SLIDES; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PURCHASE: PART I - \$18.60. PART II - \$23.40. RENTAL: \$15.00 EACH.

ABSTRACT: THESE ARE THE 35MM SLIDES TO GO WITH EW 012 075 AND EW 012 076 (PRINTED MATERIALS). THE UNIT PRESENTS TWO LESSONS ON THE STRUCTURE AND COMPONENTS OF FACULTATIVE LAGOONS, THE BIOLOGICAL THEORY OF THEIR OPERATION, AND FACTORS AFFECTING THEIR OPERATION. CONTROL TESTING

RECOMMENDATIONS, MAINTENANCE GUIDELINES AND TROUBLESHOOTING HINTS ARE ALSO PROVIDED. THE FIRST LESSON IS A REVIEW OF MICROBIOLOGY, COMPONENTS, AND OPERATIONAL MODES. THE SECOND LESSON COVERS PROCESS CONTROL, MAINTENANCE, AND TROUBLESHOOTING.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012768

PUBLICATION DATE: 84

TITLE: BIOLOGICAL TREATMENT PROCESS CONTROL: AERATED LAGOONS - SLIDES.

DESCRIPTOR: \*AERATED LAGOONS; \*AUDIOVISUAL AIDS; \*BIOLOGICAL TREATMENT; \*INSTRUCTIONAL MATERIALS; \*OPERATIONS (WASTEWATER); \*PROCESS CONTROL; \*SLIDES; \*POSTSECONDARY EDUCATION; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PURCHASE: \$7.00. RENTAL: \$15.00

ABSTRACT: THESE ARE THE 35MM SLIDES TO GO WITH EW 012 077 AND EW 012 076 (PRINTED MATERIALS). THIS UNIT DESCRIBES THE STRUCTURAL AND OPERATIONALLY UNIQUE FEATURES OF AERATED LAGOONS. IN ADDITION, SPECIAL TROUBLESHOOTING AND MAINTENANCE PROBLEMS ARE DISCUSSED. THE UNIT IS HEAVILY DEPENDENT UPON INFORMATION PRESENTED IN THE FACULTATIVE LAGOON UNIT. MUCH OF THE BASIC THEORY AND DESCRIPTION OF SYSTEM COMPONENTS IS THE SAME FOR BOTH PROCESSES, SO THE REDUNDANT INFORMATION IS NOT INCLUDED IN THIS UNIT. THEREFORE, IT IS RECOMMENDED THAT BOTH UNITS BE PRESENTED AS A SET. IF IT IS NECESSARY TO PRESENT ONLY AERATED LAGOONS, MATERIAL FROM THE FACULTATIVE LAGOON UNIT SHOULD BE REFERENCED AND STUDENTS ENCOURAGED TO READ IT AHEAD OF TIME.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012769

PUBLICATION DATE: 84

TITLE: BIOLOGICAL TREATMENT PROCESS CONTROL: CONCEPTS OF BIOLOGICAL TREATMENT - SLIDES.

DESCRIPTOR: \*AUDIOVISUAL AIDS; \*BIOLOGICAL TREATMENT; \*INSTRUCTIONAL MATERIALS; \*OPERATIONS (WASTEWATER); \*PROCESS CONTROL; \*POSTSECONDARY EDUCATION; \*SLIDES; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PURCHASE: PART I - \$20.40. PART II - \$21.60. PART III - \$15.00. RENTAL: \$15.00 EACH.

ABSTRACT: THESE ARE THE 35MM SLIDES TO GO WITH EW 012 079 AND EW 012 080 (PRINTED MATERIALS). THE UNIT PROVIDES AN INTRODUCTION TO BASIC CONCEPTS WHICH ARE APPLICABLE TO ALL BIOLOGICAL TREATMENT SYSTEMS. IT CONSISTS OF THREE LESSONS WHICH FOCUS ON: THE MICROORGANISM FOUND IN BIOLOGICAL

SYSTEMS; THE FACTORS THAT AFFECT THE GROWTH AND HEALTH OF BIOLOGICAL SYSTEMS; AND THE INTERRELATIONSHIP BETWEEN GROUPS OF MICROORGANISMS, THEIR COMPETITION, PREDOMINANCE, AND SYMBIOSIS.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012770

PUBLICATION DATE: 84

TITLE: BIOLOGICAL TREATMENT PROCESS CONTROL: ANAEROBIC DIGESTION - SLIDES.

DESCRIPTOR: \*ANAEROBIC DIGESTION; \*AUDIOVISUAL AIDS; \*BIOLOGICAL TREATMENT; \*INSTRUCTIONAL MATERIALS; \*OPERATIONS (WASTEWATER); \*PROCESS CONTROL; \*POSTSECONDARY EDUCATION; \*SLIDES; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PURCHASE: PART I - \$24.00. PART II - \$27.00. PART III - \$18.00. RENTAL: \$15.00 EACH.

ABSTRACT: THESE ARE THE 35MM SLIDES FOR EW 012 081 AND EW 012 082 (PRINTED MATERIALS). THE UNIT INCLUDES FOUR LESSONS ON ANAEROBIC DIGESTION CONTROL. TOPICS COVERED IN LESSON 1 INCLUDE THE NATURE OF RAW SLUDGE, PURPOSES OF ANAEROBIC DIGESTION, THE BIOLOGICAL PROCESS, AND THE RESULTS OF DIGESTION. LESSON 2 COVERS CLASSIFICATION OF DIGESTERS AND SYSTEM COMPONENTS. CLASSIFICATION ON THE BASIS OF FUNCTION AND STRUCTURE IS DISCUSSED. THE COMPONENTS OF THE MIXING, HEATING, AND GAS SYSTEM ARE ALSO COVERED. LESSON 3 DEALS WITH PROCESS CONTROL. THE FACTORS WHICH AFFECT OPERATION, CONTROL PARAMETERS, AND SAMPLING AND TESTING ARE ADDRESSED. LESSON 4 IS ON MATHEMATICAL CALCULATIONS RELATING TO PROCESS CONTROL.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012771

PUBLICATION DATE: 84

TITLE: BIOLOGICAL TREATMENT PROCESS CONTROL: ACTIVATED SLUDGE - SLIDES.

DESCRIPTOR: \*ACTIVATED SLUDGE; \*AUDIOVISUAL AIDS; \*BIOLOGICAL TREATMENT; \*INSTRUCTIONAL MATERIALS; \*OPERATIONS (WASTEWATER); \*PROCESS CONTROL; \*POSTSECONDARY EDUCATION; \*SLIDES; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PURCHASE: PART I - \$15.00. PART II - \$22.20. PART III - \$15.00. PART IV - \$36.60. RENTAL: \$15.00 EACH.

ABSTRACT: THESE ARE THE 35MM SLIDES TO GO WITH EW 012 084 AND EW 012 083 (PRINTED MATERIALS). THE UNIT CONTAINS SEVEN LESSONS ON ACTIVATED SLUDGE. TOPIC AREAS ADDRESSED IN THE LESSONS INCLUDE: (1) REVIEW OF ACTIVATED SLUDGE CONCEPTS AND

COMPONENTS (INCLUDING AERATION TANKS, AERATION SYSTEMS, CLARIFIERS, AND SLUDGE PUMPING SYSTEMS); (2) ACTIVATED SLUDGE VARIATIONS AND MODES; (3) BIOLOGICAL NATURE OF ACTIVATED SLUDGE; (4) SLUDGE QUALITY AND RESPIROMETRY FOR PROCESS CONTROL; (5) RETURN SLUDGE CONTROL; (6) WASTE SLUDGE CONTROL; AND (7) TREND CHARTS, TESTING, AND DATA MANAGEMENT.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012772

PUBLICATION DATE: 84

TITLE: BIOLOGICAL TREATMENT PROCESS CONTROL: ACTIVATED BIO-FILTERS - SLIDES.

DESCRIPTOR: \*ACTIVATED BIOLOGICAL FILTERS; \*AUDIOVISUAL AIDS; \*BIOLOGICAL FILTERS; \*INSTRUCTIONAL MATERIALS; \*OPERATIONS (WASTEWATER); \*PROCESS CONTROL; \*POSTSECONDARY EDUCATION; \*SLIDES; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PURCHASE: \$16.20. RENTAL: \$15.00.

ABSTRACT: THESE ARE THE 35MM SLIDES FOR EW 012 085 AND EW 012 086 (PRINTED MATERIALS). THE UNIT PRESENTS TWO LESSONS ON ACTIVATED BIO-FILTERS (ABF). THE FIRST LESSON (THE SEWAGE TREATMENT PLANT) EXAMINES THOSE PROCESS UNITS THAT ARE UNIQUE TO THE ABF SYSTEM. THE LESSON INCLUDES A REVIEW OF THE STRUCTURAL COMPONENTS OF THE ABF SYSTEM AND THEIR FUNCTIONS AND A DISCUSSION OF SEVERAL OPERATIONAL MODES AND THE CONDITIONS UNDER WHICH THEY MIGHT BE USED. THE SECOND LESSON COVERS THE OPERATION OF ABF SYSTEMS.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012773

TITLE: BIOLOGICAL TREATMENT PROCESS CONTROL: ROTATING BIOLOGICAL CONTACTORS (RBC'S) - SLIDES.

DESCRIPTOR: \*AUDIOVISUAL AIDS; \*BIOLOGICAL CONTACTORS; \*BIOLOGICAL TREATMENT; \*INSTRUCTIONAL MATERIALS; \*OPERATIONS (WASTEWATER); \*POSTSECONDARY EDUCATION; \*PROCESS CONTROL; \*ROTATING BIOLOGICAL CONTACTORS; \*SLIDES; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PURCHASE: \$21.60. RENTAL: \$15.00.

ABSTRACT: THESE ARE THE 35MM SLIDES FOR EW 012 087 AND EW 012 088 (PRINTED MATERIALS). THIS TWO-LESSON UNIT ON ROTATING BIOLOGICAL CONTACTORS (RBC'S) IS DESIGNED TO BE USED WITH STUDENTS WHO HAVE HAD SOME EXPERIENCE IN WASTEWATER TREATMENT AND A BASIC UNDERSTANDING OF BIOLOGICAL TREATMENT.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012774

PUBLICATION DATE: 84

TITLE: BIOLOGICAL TREATMENT PROCESS CONTROL: AEROBIC DIGESTION.

DESCRIPTOR: \*AEROBIC DIGESTION; \*AUDIOVISUAL AIDS; \*BIOLOGICAL TREATMENT; \*INSTRUCTIONAL MATERIALS; \*OPERATIONS (WASTEWATER); \*PROCESS CONTROL; \*POSTSECONDARY EDUCATION; \*SLIDES; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PURCHASE: \$36.00. RENTAL: \$15.00.

ABSTRACT: THESE ARE THE 35MM SLIDES TO GO WITH EW 012 089 AND EW 012 090 (PRINTED MATERIALS). THIS UNIT ON AEROBIC SLUDGE DIGESTION COVERS THE THEORY OF THE PROCESS, SYSTEM COMPONENTS, FACTORS THAT AFFECT THE PROCESS PERFORMANCE, STANDARD OPERATIONAL CONCERNS, INDICATORS OF STEADY-STATE OPERATIONS AND OPERATIONAL PROBLEMS.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012775

PUBLICATION DATE: 84

TITLE: BIOLOGICAL TREATMENT PROCESS CONTROL: OXIDATION DITCHES.

DESCRIPTOR: \*AUDIOVISUAL AIDS; \*BIOLOGICAL TREATMENT; \*INSTRUCTIONAL MATERIALS; \*OPERATIONS (WASTEWATER); \*OXIDATION DITCHES; \*PROCESS CONTROL; \*POSTSECONDARY EDUCATION; \*SLIDES; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PURCHASE: \$20.40. RENTAL: \$15.00.

ABSTRACT: THESE ARE THE 35MM SLIDES TO GO WITH EW 012 091 AND EW 012 092 (PRINTED MATERIALS). THE UNIT CONTAINS TWO LESSONS ON OXIDATION DITCHES. THE FIRST LESSON: REVIEWS THE THEORY, STRUCTURE, AND COMPONENTS OF THE OXIDATION DITCH SYSTEM; DISCUSSES NITROFICATION/DENITRIFICATION AND ITS IMPORTANCE TO OXIDATION DITCH OPERATION; AND OUTLINES AND EXPLAINS PROCESS MONITORING AND PROCESS CONTROL TECHNIQUES. THE SECOND LESSON, WHICH IS MORE ADVANCED, COVERS THE TOPICS OF CARBONACEOUS AND NITROGENOUS OXIDATION AND THEIR IMPORTANCE ON OXIDATION DITCH PROCESS CONTROL.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012786

PUBLICATION DATE: 85

TITLE: POSTCOLUMN REACTION DETECTORS FOR HPLC.

PERSONAL AUTHOR: FREI, ROLAND W.; AND OTHERS

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*CHROMATOGRAPHY; \*EQUIPMENT; \*LIQUID CHROMATOGRAPHY; \*LABORATORY PROCEDURES; \*INSTRUMENTATION

DESCRIPTIVE NOTE: 1529A-39AP.

ABSTRACT: DERIVATIZATION TECHNIQUES CAN CONVERT LC ANALYTES WITH POOR DETECTION PROPERTIES INTO COMPOUNDS THAT CAN BE DETECTED WITH HIGH SENSITIVITY.

AVAILABILITY: ANALYTICAL CHEMISTRY; V57 N14

IRIS ACCESSION NUMBER: EW012787

PUBLICATION DATE: 85

TITLE: CLOSING THE GAP--1984 WASTEWATER SALARIES.

PERSONAL AUTHOR: REGAN, KATHLEEN

DESCRIPTOR: \*FRINGE BENEFITS; \*PERSONNEL; \*SALARIES; \*TRENDS; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 12-20P.

ABSTRACT: PRESENTED ARE DATA ON SALARIES OF SELECTED WASTEWATER TREATMENT OCCUPATIONS FROM A 1984 SURVEY. SALARIES FOR WASTEWATER TREATMENT EMPLOYEES SHOWED A SUBSTANTIAL INCREASE FROM 1982 TO 1984, BRINGING THEIR SALARIES MORE IN LINE WITH OTHER PUBLIC SERVICE EMPLOYEES. VARIABLES RELATED TO SALARIES ARE ALSO REPORTED.

AVAILABILITY: OPERATIONS FORUM; V2 N10

IRIS ACCESSION NUMBER: EW012788

PUBLICATION DATE: 85

TITLE: PCB'S IN TREATMENT PLANTS.

PERSONAL AUTHOR: BANOUB, ADEL

DESCRIPTOR: \*ACCIDENT PREVENTION; \*HAZARDOUS MATERIALS; \*PCB'S; \*SAFETY; \*TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 24-25P.

ABSTRACT: PCB'S CAN BE RELEASED FROM SUCH ITEMS AS TRANSFORMERS AND CAPACITORS. SOME SUGGESTIONS ON WAYS TO AVOID PROBLEMS AND WHAT TO DO IF YOU HAVE CONTAMINATION ARE PRESENTED.

AVAILABILITY: OPERATIONS FORUM; V2 N10

IRIS ACCESSION NUMBER: EW012789

PUBLICATION DATE: 85

TITLE: REPRODUCTIVE AND CARCINOGENIC HEALTH RISKS TO HOSPITAL PERSONNEL FROM CHEMICAL EXPOSURE--A LITERATURE REVIEW.

PERSONAL AUTHOR: BABICH, HARVEY

DESCRIPTOR: \*ACCIDENT PREVENTION; \*HEALTH; \*HAZARDOUS MATERIALS; \*HOSPITALS; \*PUBLIC HEALTH; \*SAFETY; \*TOXIC SUBSTANCES; \*TRAINING

DESCRIPTIVE NOTE: 52-56P.

ABSTRACT: HOSPITAL PERSONNEL MAY BE EXPOSED TO CHEMICALS THAT ARE POTENTIAL REPRODUCTIVE AND CARCINOGENIC HAZARDS. WASTE ANESTHETIC GASES, STERILANTS, ANTINEOPLASTIC DRUGS, METHYLMETHACRYLATE, ASBESTOS AND VARIOUS ORGANIC REAGENTS AND SOLVENTS CAN CAUSE BIOLOGICAL DAMAGE. THIS PAPER REVIEWS THE POTENTIAL HEALTH HAZARDS.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH; V48 N2

IRIS ACCESSION NUMBER: EW012790

PUBLICATION DATE: 85

TITLE: THE MICROCOMPUTER: DON'T LOVE IT TO DEATH.

PERSONAL AUTHOR: OHLES, JOHN F.

DESCRIPTOR: \*AUDIOVISUAL AIDS; MICROCOMPUTERS; \*EDUCATIONAL TECHNOLOGY; \*INSTRUCTION; MOTION PICTURES; RADIO; TEACHING MACHINES; TELEVISION; \*TRENDS

DESCRIPTIVE NOTE: 49-53P.

ABSTRACT: AS A FORM OF WARNING TO EDUCATORS WHO MIGHT MISTAKE NOVELTY FOR VALUE, A NATIONALLY RECOGNIZED EXPERT COMPARES THE PRESENT INFLUX OF MICROCOMPUTERS INTO ACADEMIA, WITH SIMILAR AND NOW HISTORIC MOVES BY MOTION PICTURES, EDUCATIONAL RADIO AND TELEVISION, LANGUAGE LABORATORIES, AND TEACHING MACHINES.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION JOURNAL; V13 N1

IRIS ACCESSION NUMBER: EW012791

PUBLICATION DATE: 85

TITLE: APPLYING COGNITIVE SCIENCE AND INTERACTIVE VIDEODISC TECHNOLOGY TO PRECALCULUS MATHEMATICS LEARNING MODULES.

PERSONAL AUTHOR: KARWIN, T. J.; AND OTHERS

DESCRIPTOR: \*COLLEGE MATHEMATICS; \*COMPUTER ASSISTED INSTRUCTION; \*INSTRUCTION; \*INSTRUCTIONAL MATERIALS;

\*MATHEMATICS; \*MODELS; \*VIDEODISCS

DESCRIPTIVE NOTE: 57-63P.

ABSTRACT: DESCRIBES A MODEL FOR ORGANIZING RESEARCH AND DEVELOPMENT ON EDUCATIONAL APPLICATIONS OF THE INFORMATION TECHNOLOGIES. THE DEVELOPMENT AND EVALUATION OF INTERACTIVE VIDEO COURSEWARE USING THE MODEL (AN INTERDISCIPLINARY TEAM APPROACH) FOR PRECALCULUS MATHEMATICS INSTRUCTION IS INCLUDED.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION JOURNAL; V13 N1

IRIS ACCESSION NUMBER: EW012792

PUBLICATION DATE: 85

TITLE: THE CONTRIBUTION OF TRAINING TECHNOLOGIES TO PRODUCTIVITY.

PERSONAL AUTHOR: SPILLER, REX

DESCRIPTOR: \*EDUCATIONAL TECHNOLOGY; \*INSTRUCTIONAL DESIGN; \*PRODUCTIVITY; \*TRAINING

DESCRIPTIVE NOTE: 64-66P.

ABSTRACT: WITHOUT PRACTICAL APPLICATION IN INDUSTRY, THE EMERGING TECHNOLOGIES NOW BEING EMBRACED BY THE ACADEMIC WORLD COULD BE CONSIDERED MERE CURIOSITIES. SUCH IS NOT THE CASE, HOWEVER, AS ILLUSTRATED BY THE ISSUES ADDRESSED, INCLUDING THE FOCUS OF INSTRUCTIONAL TECHNOLOGY ON LEARNERS AND IMPLEMENTATION CONCERNS.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION JOURNAL; V13 N1

IRIS ACCESSION NUMBER: EW012793

PUBLICATION DATE: 85

TITLE: ELECTRONIC TEXT: THE UNIVERSITY OF WISCONSIN EXPERIENCE.

PERSONAL AUTHOR: PFAEHLER, BRENDA

DESCRIPTOR: \*COMPUTER APPLICATIONS; \*COSTS; \*EDUCATIONAL TECHNOLOGY; \*EDUCATIONAL RESEARCH; \*PROGRAM EVALUATION; \*TECHNOLOGY; \*TELETEXT; \*VIDEOTEX

DESCRIPTIVE NOTE: 67-70P.

ABSTRACT: TO DISSOLVE MUCH OF THE CONFUSION SURROUNDING VIDEOTEX AND TELETEXT, AND THE RESPECTIVE MERITS OF THESE EMERGING TECHNOLOGIES FOR EDUCATION, THE ANNENBERG FOUNDATION JOINED WITH THE CORPORATION FOR PUBLIC BROADCASTING TO CONDUCT CONTROLLED COMPARISON TESTS. RESULTS OF THE PROJECT ARE DESCRIBED.

AVAILABILITY: TECHNOLOGICAL HORIZONS IN EDUCATION JOURNAL; V13 N1

\*LANDFILLS; \*MONITORING; \*POLLUTION CONTROL; \*WASTE DISPOSAL SITES; \*WATER POLLUTION CONTROL

IRIS ACCESSION NUMBER: EW012794

DESCRIPTIVE NOTE: 63-69P.

PUBLICATION DATE: 85

ABSTRACT: THE POTENTIAL AND THE PROBLEMS FOR GEOPHYSICAL MONITORING PROGRAMS AT WASTE DISPOSAL SITES ARE DISCUSSED.

TITLE: PITTING IN COPPER WATER TUBING.

AVAILABILITY: GROUND WATER MONITORING REVIEW; V5 N4

PERSONAL AUTHOR: ROSSUM, JOHN R.

IRIS ACCESSION NUMBER: EW012797

DESCRIPTOR: \*COPPER PIPES; \*HOMES; \*INTERNAL PITTING; \*MAINTENANCE; \*PIPES; \*WATER PIPES

PUBLICATION DATE: 85

DESCRIPTIVE NOTE: 70-73P.

TITLE: THROUGH PRIVATIZATION, INFRASTRUCTURE NEEDS CAN BE MET.

ABSTRACT: LEAKS CAUSED BY CORROSION OF COPPER TUBING IN NEW HOMES RESULTED FROM A FAILURE TO THOROUGHLY FLUSH THE PLUMBING.

PERSONAL AUTHOR: BRUSNIGHAN, JOHN M.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V77 N10

DESCRIPTOR: \*CAPITAL FUNDS; \*COSTS; \*CONSTRUCTION; \*FACILITIES; \*MAINTENANCE; \*MARYLAND; \*PRIVATIZATION; \*OPERATIONS (WATER); \*WATER STORAGE; \*WATER SUPPLY; \*WASTEWATER TREATMENT

IRIS ACCESSION NUMBER: EW012795

DESCRIPTIVE NOTE: 58P.

PUBLICATION DATE: FALL 19

ABSTRACT: DESCRIBED IS HOW PRIVATIZATION HELPED A MARYLAND SUBURBAN SANITARY COMMISSION TO MAINTAIN FINANCIAL FLEXIBILITY AND PERMIT SHIFTING CAPITAL FUNDS TO OTHER PURPOSES INCLUDING REPLACING WATER MAINS, SEWERS, AND OTHER INFRASTRUCTURE NEEDS.

TITLE: A SYSTEMATIC APPROACH FOR EVALUATING THE QUALITY OF GROUND WATER MONITORING DATA.

AVAILABILITY: PUBLIC WORKS; V116 N11

PERSONAL AUTHOR: CAMPBELL, JILL A.; MABEY, WILLIAM R.

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*DATA EVALUATION; \*DATA ANALYSIS; \*GROUNDWATER; \*LABORATORY PROCEDURES; \*MONITORING; \*FIELD MEASUREMENTS; \*WATER QUALITY

IRIS ACCESSION NUMBER: EW012798

DESCRIPTIVE NOTE: 58-62P.

PUBLICATION DATE: 85

ABSTRACT: THIS ARTICLE ADDRESSES AN APPROACH BEING DEVELOPED TO SYSTEMATICALLY EVALUATE THE QUALITY OF A GIVEN SET OF GROUNDWATER MONITORING DATA COLLECTED DURING SITE INVESTIGATION/REMEDIAL ACTION EFFORTS. THE SYSTEM CONSISTS OF A CHECKLIST OF CRITERIA, GROUPED INTO FOUR MAJOR CATEGORIES, WHICH CAN BE APPLIED TO LABORATORY OR FIELD MEASUREMENTS.

TITLE: COST AND ENERGY EFFICIENCIES FOR SMALL TREATMENT SYSTEMS.

AVAILABILITY: GROUND WATER MONITORING REVIEW; V5 N4

PERSONAL AUTHOR: LEU, JAMES E.

IRIS ACCESSION NUMBER: EW012796

DESCRIPTOR: \*ALTERNATIVE TECHNOLOGY; \*CASE HISTORIES; \*CONSERVATION; \*COSTS; \*ENERGY CONSERVATION; \*OPERATIONS (WASTEWATER); \*RURAL AREAS; \*URBAN AREAS; \*WASTEWATER TREATMENT

PUBLICATION DATE: FALL 19

DESCRIPTIVE NOTE: 67-68P.

TITLE: GEOPHYSICAL MONITORING OF GROUND WATER CONTAMINATION AROUND WASTE DISPOSAL SITES.

ABSTRACT: REVIEWED ARE CASE HISTORIES FOR SEVERAL SMALL WASTEWATER TREATMENT SYSTEMS. ALTERNATIVES FOR SAVING COSTS AND ENERGY ARE CONSIDERED.

PERSONAL AUTHOR: GREENHOUSE, JOHN P.; MONIER-WILLIAMS, MARK

AVAILABILITY: PUBLIC WORKS; V116 N11

DESCRIPTOR: \*CONTAMINATION; \*DESIGN; \*GROUNDWATER;

67

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IRIS ACCESSION NUMBER: EW012799

PUBLICATION DATE: 85

TITLE: THE COST OF REPAIRING PIPE BREAKS.

PERSONAL AUTHOR: WALSKI, THOMAS M.

DESCRIPTOR: \*COSTS; \*MAINTENANCE; \*OPERATIONS (WATER);  
\*PIPES; \*WATER PIPES; \*WATER DISTRIBUTION

DESCRIPTIVE NOTE: 69-70P.

ABSTRACT: DATA ON COSTS FOR REPAIRING PIPES WAS ASSEMBLED  
AND ANALYZED. THE INFORMATION CAN BE USED TO HELP BUDGET  
FUNDS FOR REPAIRS AND ALSO TO DETERMINE THE NEED FOR PIPE  
REPLACEMENT.

AVAILABILITY: PUBLIC WORKS; V116 N11

IRIS ACCESSION NUMBER: EW012800

PUBLICATION DATE: 85

TITLE: HAZARDOUS WASTE IN MUNICIPAL LANDFILLS: THE  
PROBLEM, ITS REGULATION.

PERSONAL AUTHOR: GRAHAM, STEPHEN J.

DESCRIPTOR: \*HAZARDOUS WASTES; \*LANDFILLS; \*LEGISLATION;  
\*PERMITS; \*PERMITTING PROCESS; \*MUNICIPALITIES; \*PROBLEMS;  
\*REGULATIONS; \*RCRA

DESCRIPTIVE NOTE: 73-75, 105-06P.

ABSTRACT: PROVIDED IS AN EXAMINATION OF THE RCRA PERMITTING  
PROCESS AND POTENTIAL LIABILITIES FOR LANDFILLS.

AVAILABILITY: PUBLIC WORKS; V116 N11

IRIS ACCESSION NUMBER: EW012801

PUBLICATION DATE: 85

TITLE: INFRARED SCANNING FINDS SEWER WEAK SPOTS.

PERSONAL AUTHOR: WEIL, GARY J.; COBLE, KENNETH L.

DESCRIPTOR: \*DETECTION; \*INFRARED; \*MAINTENANCE; \*MISSOURI;  
\*MONITORING; \*OPERATIONS (WASTEWATER); \*SEWERS; \*WASTEWATER  
COLLECTION

DESCRIPTIVE NOTE: 12-15P.

ABSTRACT: DESCRIBED ARE INFRARED PROCEDURES USED TO  
DISCOVER WEAK AREAS IN SEWERS. THE ARTICLE FOCUSES ON ST.  
LOUIS, MISSOURI.

AVAILABILITY: OPERATIONS FORUM; V2 N11

IRIS ACCESSION NUMBER: EW012802

PUBLICATION DATE: 85

TITLE: AGGRESSIVE MAINTENANCE.

PERSONAL AUTHOR: SANTY, LOUIS BARY

DESCRIPTOR: FLORIDA; \*MAINTENANCE; \*OPERATIONS;  
(WASTEWATER); \*PREVENTIVE MAINTENANCE; \*PLANNING; \*SEWERS;  
\*TRAINING; \*WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 16-19P.

ABSTRACT: DESCRIBED IS AN AGGRESSIVE PREVENTIVE MAINTENANCE  
PROGRAM USED BY THE ST. PETERSBURG (FLORIDA) UTILITIES  
MAINTENANCE DIVISION. THE PROGRAM HAS SUBSTANTIALLY REDUCED  
EMERGENCY REPAIRS OF SEWERS.

AVAILABILITY: OPERATIONS FORUM; V2 N11

IRIS ACCESSION NUMBER: EW012804

PUBLICATION DATE: 85

TITLE: PLANNING AND IMPLEMENTING A DUAL DISTRIBUTION  
SYSTEM.

PERSONAL AUTHOR: GALLIER, W. THOMAS

DESCRIPTOR: \*CONSERVATION; \*COLORADO; COSTS; \*DUAL  
DISTRIBUTION SYSTEMS; \*IRRIGATION; OPERATIONS (WATER);  
OPERATIONS (WASTEWATER); WATER RECYCLING; \*WATER REUSE;  
WASTEWATER TREATMENT; WATER TREATMENT; WATER QUALITY; WATER  
DISTRIBUTION; WATER SUPPLY; WATER RESOURCES

DESCRIPTIVE NOTE: 40-44P.

ABSTRACT: A COLORADO TOWN AUGMENTED ITS WATER SUPPLIES WITH  
TREATED WASTEWATER FOR IRRIGATION. THE TOWN WILL USE A DUAL  
DISTRIBUTION SYSTEM.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V77  
N11

IRIS ACCESSION NUMBER: EW012805

PUBLICATION DATE: 85

TITLE: POLYETHYLENE AND POLYBUTYLENE PIPE AND TUBING: A  
STATUS REPORT.

PERSONAL AUTHOR: CROWSON, DAVID L.; CHAMBERS, RICHARD

DESCRIPTOR: \*PERFORMANCE EVALUATION; \*PIPES; \*POLYETHYLENE  
PIPE; \*POLYBUTYLENE PIPE; \*STANDARDS; \*WATER DISTRIBUTION;  
\*WATER PIPES

DESCRIPTIVE NOTE: 45-46P.

**ABSTRACT:** THIS ARTICLE PRESENTS A STATUS REPORT ON POLYETHYLENE AND POLYBUTYLENE PIPE AND TUBING. REVISED STANDARDS FOR POLYOLEFIN PIPING WILL INCORPORATE IMPROVEMENTS IN THE MATERIALS AND EXPERIENCE GAINED FROM THEIR USE.

**AVAILABILITY:** AMERICAN WATER WORKS ASSOCIATION JOURNAL; V77 N11

**IRIS ACCESSION NUMBER:** EW012806

**PUBLICATION DATE:** 85

**TITLE:** REUSING POWER PLANT COOLING WATER TO REDUCE MAIN BREAKS.

**PERSONAL AUTHOR:** WETTERING, LAWRENCE A.

**DESCRIPTOR:** \*COSTS; \*PERFORMANCE EVALUATION; \*TEMPERATURE; WATER PIPES; \*WATER PIPE BREAKS; \*WISCONSIN; WATER SUPPLY; \*WATER DISTRIBUTION; \*WATER TREATMENT

**DESCRIPTIVE NOTE:** 47-52P.

**ABSTRACT:** WINTER WATER MAIN BREAKS IN A WISCONSIN COMMUNITY WERE REDUCED BY 33 PERCENT THROUGH THE USE OF WARM COOLING WATER FROM A POWER PLANT AS A RAW WATER SOURCE.

**AVAILABILITY:** AMERICAN WATER WORKS ASSOCIATION JOURNAL; V77 N11

**IRIS ACCESSION NUMBER:** EW012807

**PUBLICATION DATE:** 85

**TITLE:** EMERGING TRENDS IN INFRASTRUCTURE FINANCING.

**PERSONAL AUTHOR:** BODDE, DAVID L.

**DESCRIPTOR:** \*CAPITAL FUNDS; \*FUNDING SOURCES; \*FEDERAL ROLE; \*LOCAL ROLE; \*STATE ROLE; \*WATER SUPPLY; \*WASTEWATER TREATMENT; \*WATER TREATMENT

**DESCRIPTIVE NOTE:** 53-56P.

**ABSTRACT:** DESCRIBED ARE SEVERAL ALTERNATIVES TO FEDERAL GRANTS FOR WATER RELATED CAPITAL PROJECTS.

**AVAILABILITY:** AMERICAN WATER WORKS ASSOCIATION JOURNAL; V77 N11

**IRIS ACCESSION NUMBER:** EW012808

**PUBLICATION DATE:** 85

**TITLE:** PREDICTION OF ORGANIC CHEMICAL PERMEATION THROUGH PVC PIPE.

**PERSONAL AUTHOR:** BERENS, ALAN R.

**DESCRIPTOR:** \*CHEMICALS; \*CONTAMINATION; \*GROUNDWATER; \*ORGANIC CHEMICALS; \*PERFORMANCE EVALUATION; \*PVC PIPE; \*PIPE LEAKS; \*RESEARCH REPORTS; \*WATER PIPES

**DESCRIPTIVE NOTE:** 57-65P.

**ABSTRACT:** REPORTED ARE STUDIES THAT SHOW THAT RIGID UNDERGROUND PVC PIPE IS VIRTUALLY IMPERMEABLE EXCEPT FOR GROSS SPILLS OR LEAKS OF STRONG SWELLING SOLVENTS. A SCIENTIST AND WATER SUPPLIERS DISCUSS THE FINDINGS OF THE AUTHOR.

**AVAILABILITY:** AMERICAN WATER WORKS ASSOCIATION JOURNAL; V77 N11

**IRIS ACCESSION NUMBER:** EW012809

**PUBLICATION DATE:** 85

**TITLE:** LEAD DISSOLUTION FROM SOLDERED JOINTS.

**PERSONAL AUTHOR:** BIRDEN, HUDSON H., JR.; AND OTHERS

**DESCRIPTOR:** \*CONTAMINATION; \*LEAD; \*PERFORMANCE EVALUATION; \*PIPES; \*SOLDERED JOINTS; \*WATER PIPES; \*WATER DISTRIBUTION

**DESCRIPTIVE NOTE:** 66-70P.

**ABSTRACT:** PLUMBING RUNS SIMULATING SOLDERED JOINTS FOUND IN A HOME PRODUCED LEAD LEVELS IN EXCESS OF USEPA STANDARDS IF 50-50 LEAD SOLDER WAS USED.

**AVAILABILITY:** AMERICAN WATER WORKS ASSOCIATION JOURNAL; V77 N11

**IRIS ACCESSION NUMBER:** EW012810

**PUBLICATION DATE:** 85

**TITLE:** IDENTIFYING WATER MAIN LEAKS WITH TRIHALOMETHANE TRACERS.

**PERSONAL AUTHOR:** HARGESHEIMER, ERIKA E.

**DESCRIPTOR:** \*ANALYTICAL TECHNIQUES; \*LABORATORY PROCEDURES; \*WATER PIPE LEAKS; \*TRICHALOMETHANE; \*WATER DISTRIBUTION

**DESCRIPTIVE NOTE:** 71-75P.

**ABSTRACT:** DESCRIBED IS A WAY OF IDENTIFYING WATER MAIN LEAKS USING TRIHALOMETHANE TRACERS.

**AVAILABILITY:** AMERICAN WATER WORKS ASSOCIATION JOURNAL; V77 N11

IRIS ACCESSION NUMBER: EW012811

PUBLICATION DATE: 85

TITLE: CONFLUENCE: TAPPING THE PC FOR PROCESS CONTROL.

DESCRIPTOR: \*COMPUTER APPLICATIONS; \*MAINTENANCE;  
\*OPERATIONS (WATER); \*OPERATIONS (WASTEWATER); \*PROCESS  
CONTROL; \*WATER TREATMENT; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 90, 92P.

ABSTRACT: DESCRIBED IS THE DEVELOPMENT OF A COMPUTER  
OPERATION TO ASSIST WATER AND WASTEWATER OPERATIONS IN AN  
ARIZONA COMMUNITY.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V77  
N11

IRIS ACCESSION NUMBER: EW012812

PUBLICATION DATE: 85

TITLE: A NATIONAL SURVEY OF SEWER IMPACT FEES.

PERSONAL AUTHOR: FRANK, JAMES E.; AND OTHERS

DESCRIPTOR: \*DEVELOPMENT; \*FUNDS; \*OPERATIONS (WASTEWATER);  
\*PLANNING; \*REVENUE; \*SEWERS; \*SEWER IMPACT FEES; \*SURVEYS;  
\*USER CHARGES; \*WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 55-61P.

ABSTRACT: THIS ARTICLE REPORTS THE RESULTS OF A NATIONAL  
SURVEY OF SEWER IMPACT FEES THAT IDENTIFIED 190 COMMUNITIES  
USING THIS REVENUE DEVICE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;  
V57 N11

IRIS ACCESSION NUMBER: EW012813

PUBLICATION DATE: 85

TITLE: DEVELOPMENT OF AN ON-LINE ZERO CHLORINE RESIDUAL  
MEASUREMENT AND CONTROL SYSTEM.

PERSONAL AUTHOR: FINGER, RICHARD E.; AND OTHERS

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; CHLORINE; \*CHLORINE  
RESIDUAL; DECHLORINATION; DISINFECTION; \*EFFLUENT;  
\*INSTRUMENTS; INSTRUMENTATION; \*MEASUREMENT; MONITORING

DESCRIPTIVE NOTE: 1068-73P.

ABSTRACT: DESCRIBED IS A SYSTEM THAT USES PROVEN INSTRUMENT  
TECHNOLOGY, OVERCOMES LIMITATIONS IN MEASURING LOW CHLORINE  
RESIDUALS, AND AVOIDS ANALYZER FOULING DURING  
DECHLORINATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;  
V57 N11

IRIS ACCESSION NUMBER: EW012814

PUBLICATION DATE: 85

TITLE: SMALL-DIAMETER, VARIABLE GRADE GRAVITY SEWERS.

PERSONAL AUTHOR: SIMMONS, JOHN D.; NEWMAN, JERRY O.

DESCRIPTOR: \*ALABAMA; \*ALTERNATIVE TECHNOLOGY; DESIGN;  
\*COSTS; \*LAGOONS; \*OPERATIONS (WASTEWATER); \*RURAL AREAS;  
\*SEPTIC TANKS; \*SEWERS; \*WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 1074-77P.

ABSTRACT: WORKABLE SYSTEMS CAN BE BUILT USING STANDARD  
DESIGN PROCEDURES, BUT PROPER MANAGEMENT AFTER INSTALLATION  
IS IMPORTANT. DESCRIBED IS AN ALABAMA COMMUNITY AND THE  
SYSTEM THEY DEVELOPED. RECOMMENDATIONS FOR THE DESIGN OF  
SIMILAR SYSTEMS ARE PRESENTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;  
V57 N11

IRIS ACCESSION NUMBER: EW012815

PUBLICATION DATE: 85

TITLE: BACTERIOPHAGES AND FECAL BACTERIA AS INDICATORS OF  
CHLORINATION EFFICIENCY OF BIOLOGICAL TREATED WASTEWATER.

PERSONAL AUTHOR: HAVELAAR, A. H.; NIEUWSTAD, TH. J.

DESCRIPTOR: \*BACTERIA; \*BACTERIOPHAGES; \*BIOLOGICAL  
INDICATORS; \*CHLORINATION; \*COSTS; \*DISINFECTION;  
NITRIFICATION; \*PERFORMANCE EVALUATION; \*RESEARCH REPORTS;  
\*VIRUSES; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1084-88P.

ABSTRACT: AT HIGH DOSES NEEDED FOR VIRUS INACTIVATION  
PRODUCTION OF BYPRODUCTS AND THE COST OF DECHLORINATION  
BECOME PROHIBITIVE; THE SEARCH FOR ADDITIONAL DISINFECTANTS  
SHOULD CONTINUE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;  
V57 N11

IRIS ACCESSION NUMBER: EW012816

PUBLICATION DATE: 85

TITLE: APPLICATION OF POLYSULFIDE FOR PRETREATMENT OF SPENT  
CYANIDE LIQUORS.

PERSONAL AUTHOR: GANCZARCZYK, J. J.; AND OTHERS

DESCRIPTOR: \*CALCIUM POLYSULFIDE; \*CYANIDES; \*INDUSTRIAL WASTES; \*METALS; \*OPERATIONS (WASTEWATER); \*PRETREATMENT; \*RESEARCH REPORTS; \*WASTEWATER TREATMENT; \*TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 1089-93P.

ABSTRACT: CALCIUM POLYSULFIDE CONVERTS WASTE CYANIDES TO THIOCYANATES AND PRECIPITATES METALS TO LEVELS GENERALLY WITHIN SEWER USE ORDINANCES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V57 N11

IRIS ACCESSION NUMBER: EW012817

PUBLICATION DATE: 85

TITLE: EPA DESIGN INFORMATION REPORT: CONSIDERATION OF FIRST-STAGE ORGANIC OVERLOADING IN ROTATING BIOLOGICAL CONTACTOR DESIGN.

PERSONAL AUTHOR: EVANS, FRANCIS L.

DESCRIPTOR: \*BIOLOGICAL CONTACTORS; \*DESIGN; \*FACILITIES; \*OVERLOADING; \*OPERATIONS (WASTEWATER); \*RESEARCH; \*ROTATING BIOLOGICAL CONTACTORS; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1094-98P.

ABSTRACT: DISCUSSED IS FIRST-STAGE ORGANIC OVERLOADING IN ROTATING BIOLOGICAL CONTACTORS. AS A RESULT OF RESEARCH AND EXPERIENCE, DESIGN RECOMMENDATIONS ARE PRESENTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V57 N11

IRIS ACCESSION NUMBER: EW012818

PUBLICATION DATE: 85

TITLE: COLORIMETRIC BACTERIA DETECTION.

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*BACTERIA; \*DRINKING WATER; \*INSTRUMENTATION; \*LABORATORY PROCEDURES; \*WATER QUALITY

DESCRIPTIVE NOTE: 1, 5P.

ABSTRACT: DESCRIBED IS A COLORIMETRIC METHOD FOR RAPID DETERMINATION OF BACTERIA.

AVAILABILITY: BENCH SHEET; V7 N4

IRIS ACCESSION NUMBER: EW012819

PUBLICATION DATE: 85

TITLE: ALKALINITY/HARDNESS PROGRAM.

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*ALKALINITY; \*COMPUTER SOFTWARE; \*HARDNESS; \*LABORATORY PROCEDURES; \*WATER QUALITY

DESCRIPTIVE NOTE: 5P.

ABSTRACT: LISTED IS A SHORT COMPUTER PROGRAM WRITTEN IN BASIC FOR CALCULATING RESULTS OF ALKALINITY AND HARDNESS TITRATIONS.

AVAILABILITY: BENCH SHEET; V7 N4

IRIS ACCESSION NUMBER: EW012820

PUBLICATION DATE: 85

TITLE: WASTEWATER FACILITIES SURVEYED.

PERSONAL AUTHOR: GRICE, RUSSELL

DESCRIPTOR: DEMOGRAPHIC DATA; EQUIPMENT; \*FACILITIES; \*LABORATORY EQUIPMENT; \*LABORATORY PROCEDURES; \*OPERATIONS (WASTEWATER); \*WASTEWATER ANALYSIS; \*WASTEWATER TREATMENT; \*SURVEYS

DESCRIPTIVE NOTE: 6-7P.

ABSTRACT: REPORTED ARE SELECTED RESULTS OF A SURVEY OF 11 CITIES REGARDING FACILITIES AND EQUIPMENT BEING USED FOR WASTEWATER ANALYSIS. SALARY COMPARISONS FOR STAFF ARE ALSO REPORTED.

AVAILABILITY: BENCH SHEET; V7 N4

IRIS ACCESSION NUMBER: EW012821

PUBLICATION DATE: 85

TITLE: ADAPTING SOFTWARE IMPROVES DIGITAL CONTROL.

PERSONAL AUTHOR: ESKRIDGE, ROBERT J.; HUTCHINSON, WILLIAM

DESCRIPTOR: \*AUTOMATED CONTROLS; \*COMPUTER APPLICATIONS; \*COMPUTER SOFTWARE; \*OPERATIONS (WASTEWATER); \*OPERATIONS (WATER); \*PROCESS CONTROLS; \*WASTEWATER TREATMENT; \*WATER TREATMENT

DESCRIPTIVE NOTE: 22-25P.

ABSTRACT: THE CONCEPT OF STRUCTURED PROGRAMMING FOR COMPLEX SYSTEMS INCREASES THE RELIABILITY OF THE WHOLE BY ENSURING THE SUCCESS OF ITS PARTS. TWO EXAMPLES ARE GIVEN TO ILLUSTRATE THESE METHODS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N12



IRIS ACCESSION NUMBER: EW012822

PUBLICATION DATE: 85

TITLE: ULTRASONICS AND MICROCOMPUTERS MEASURE OPEN CHANNEL FLOW.

PERSONAL AUTHOR: SOLTZ, DAN

DESCRIPTOR: \*FLOW MEASUREMENT; \*FLOWMETERS; \*FLUID FLOW; \*INSTRUMENTATION; \*MEASUREMENT

DESCRIPTIVE NOTE: 25-27P.

ABSTRACT: WEIRS AND FLUMES, LONG USED FOR MEASURING OPEN CHANNEL FLOW, GET AN ASSIST FROM NON-WETTED ULTRASONIC INSTRUMENTATION.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N12

IRIS ACCESSION NUMBER: EW012823

PUBLICATION DATE: 85

TITLE: SELECTING AND APPLYING MAGNETIC FLOWMETERING SYSTEMS.

PERSONAL AUTHOR: GRIFFIN, M. F.

DESCRIPTOR: \*FLUID FLOW; \*FLOWMETERS; \*INSTRUMENTATION; \*MAGNETIC FLOWMETERS

DESCRIPTIVE NOTE: 33-36P.

ABSTRACT: LIKE MOST HARDWARE, SOME MAGNETIC FLOWMETERS WORK BETTER AND LONGER IN ONE SPOT AS OPPOSED TO ANOTHER. TWO BASIC TYPES ARE REVIEWED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N12

IRIS ACCESSION NUMBER: EW012824

PUBLICATION DATE: 85

TITLE: AUTOMATING THE WATER LAB--AND USING THE RESULTS.

PERSONAL AUTHOR: JONES, J. G.

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*AUTOMATION; \*DRINKING WATER; \*ENGLAND; \*LABORATORY FACILITIES; \*LABORATORY EQUIPMENT; \*LABORATORY PROCEDURES; \*WATER QUALITY; \*WATER TREATMENT

DESCRIPTIVE NOTE: 36-38P.

ABSTRACT: WITHIN THE SOMEWHAT CONSERVATIVE LIMITS OF THE WATER/WASTEWATER INDUSTRY, THIS AUTOMATED LAB IS UNUSUAL. THE LAB DESCRIBED IS OPERATED BY THE WESSEX WATER AUTHORITY IN SOUTHWEST ENGLAND.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N12

IRIS ACCESSION NUMBER: EW012825

PUBLICATION DATE: 85

TITLE: EXPERIENCE IS FRAMEWORK OF INSTRUMENTATION MANUAL.

DESCRIPTOR: \*GLOSSARIES; \*INSTRUMENTATION; \*MANUALS; \*OPERATIONS (WASTEWATER); \*TERMINOLOGY; \*VOCABULARY; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 40, 42-45P.

ABSTRACT: COMMISSIONED BY THE USEPA, THE WASTEWATER TREATMENT PLANT INSTRUMENTATION HANDBOOK HAS JUST BEEN PUBLISHED. THE GLOSSARY OF TERMINOLOGY FROM THE END OF THE PUBLICATION IS REPRINTED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N12

IRIS ACCESSION NUMBER: EW012826

PUBLICATION DATE: 85

TITLE: THINKING OF CONGENERATING? CALL IN THE CONSULTANTS.

PERSONAL AUTHOR: JAFEK, BEV

DESCRIPTOR: CALIFORNIA; \*COGENERATION; COSTS; ENERGY CONSERVATION; \*ENERGY PRODUCTION; \*PLANNING; \*POLLUTION CONTROL; \*TECHNOLOGY; \*REGULATIONS

DESCRIPTIVE NOTE: 12-15P.

ABSTRACT: DESCRIBED IS A COGENERATION PROJECT INVOLVING AN INDUSTRIAL PLANT IN CALIFORNIA. VARIOUS ELEMENTS IN PLANNING THE PROJECT ARE DISCUSSED.

AVAILABILITY: ENERGY MANAGEMENT TECHNOLOGY; V9 N8

IRIS ACCESSION NUMBER: EW012827

PUBLICATION DATE: 85

TITLE: GAS TURBINE HYBRIDS MEET NEW COGEN DEMANDS.

PERSONAL AUTHOR: JARBELIUS, ANDERS

DESCRIPTOR: \*COGENERATION; \*COSTS; \*EQUIPMENT; \*GAS TURBINE HYBRIDS; \*MAINTENANCE; \*TURBINES

DESCRIPTIVE NOTE: 18-20P.

ABSTRACT: THE COGENERATION MARKET MUST GEAR ITSELF FOR THE INCREASING DEMAND FOR MEDIUM TO SMALL-SIZED PROJECTS. A NEW HYBRID GAS TURBINE OFFERS COGENERATORS THE MAINTENANCE AND RELIABILITY ADVANTAGES OF HEAVY-DUTY UNITS WITH THE COMPACT,

**LIGHTWEIGHT CONVENIENCE OF AERO DERIVATIVES.****AVAILABILITY: ENERGY MANAGEMENT TECHNOLOGY; V9 N8****IRIS ACCESSION NUMBER: EW012828****PUBLICATION DATE: 85****TITLE: HOW TO INSURE A COGEN FACILITY.****PERSONAL AUTHOR: BROWN, ALAN****DESCRIPTOR: \*COGENERATION; \*EQUIPMENT; \*FACILITIES;  
\*INSURANCE; \*POLLUTION; \*PERSONNEL; \*PROPERTY****DESCRIPTIVE NOTE: 22-24P.****ABSTRACT: MOST COGEN PROGRCTS ARE INSURABLE. TO BE ADEQUATILY INSURED, A COMPANY OR BUSINESS MUST CAREFULLY CALCULATE POTENTIAL RISKS AND COMPIL AN INSURANCE PORTFOLIO WHICH MATCHES THE PROJECTS REAL NEEDS. THIS ARTICLE DISCUSSES RISKS, INSURANCE, AND RESPONSIBILITIES.****AVAILABILITY: ENERGY MANAGEMENT TECHNOLOGY; V9 N8****IRIS ACCESSION NUMBER: EW012829****PUBLICATION DATE: 85****TITLE: COGENERATION: A WINNING GAME FOR THE PLAYERS WHO RISK IT.****DESCRIPTOR: \*COSTS; \*DESIGN; \*COGENERATION; \*ENERGY CONSERVATION; \*FINANCING; \*FACILITIES; \*MAINTENANCE; \*EQUIPMENT; \*OPERATIONS; \*PLANNING; \*PRIVATIZATION****DESCRIPTIVE NOTE: 26, 28P.****ABSTRACT: COGENERATION HOLDS OUT THE ATTRACTIVE PROSPECT OF LOWER UTILITY RATES AND AFFORDABLE ENERGY. "EXPERT" PLAYERS-THE COGEN DEVELOPERS-OFFER TO NEGOTIATE VARIOUS ASPECTS OF THE OPERATION AND GUARANTEE SUCCESS TO THOSE WILLING TO TAKE A CHANCE ON THEIR SERVICES. DESCRIBED ARE SOME FUNCTIONS OF ONE DEVELOPMENT COMPANY AND A DESCRIPTION OF ONE PROJECT.****AVAILABILITY: ENERGY MANAGEMENT TECHNOLOGY; V9 N8****IRIS ACCESSION NUMBER: EW012830****PUBLICATION DATE: 85****TITLE: CURRENT STATUS IN USE OF FLEXIBLE EFFLUENT STANDARDS.****PERSONAL AUTHOR: LAMB, JAMES C.; HULL, DANIEL B.****DESCRIPTOR: \*EFFLUENT; \*STANDARDS; \*SURVEYS; \*STATE ROLE;  
\*WASTEWATER DISCHARGE STANDARDS; \*WASTEWATER TREATMENT****DESCRIPTIVE NOTE: 993-98P.****ABSTRACT: THIS STUDY DESCRIBES RESULTS OF A RECENT SURVEY OF REGULATORY PRACTICES THAT WAS CONDUCTED TO UPDATE EARLIER INFORMATION. ALMOST ALL STATES USE FLEXIBLE STANDARDS NOW, AND OVER HALF EXPECT TO USE THEM MORE IN THE FUTURE.****AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V57 N10****IRIS ACCESSION NUMBER: EW012831****PUBLICATION DATE: 85****TITLE: FACTORS CONTROLLING SENSITIVITY IN ULTRAVIOLET DISINFECTION OF SECONDARY EFFLUENTS.****PERSONAL AUTHOR: QUALLS, ROBERT G.; AND OTHERS****DESCRIPTOR: \*MUTAGENS; \*OPERATIONS (WASTEWATER); \*ORGANIC COMPOUNDS; \*PERFORMANCE EVALUATION; \*PILOT STUDIES; \*RESEARCH REPORTS; \*TOXIC SUBSTANCES; \*WASTEWATER TREATMENT****DESCRIPTIVE NOTE: 1006-11P.****ABSTRACT: THIS STUDY WAS UNDERTAKEN TO DETERMINE THE ABILITY OF CONVENTIONAL TREATMENT PROCESSES TO REMOVE MUTAGENICITY FROM MUNICIPAL WASTEWATER. RESULTS OF THE STUDY ARE REPORTED.****AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V57 N10****IRIS ACCESSION NUMBER: EW012832****PUBLICATION DATE: 85****TITLE: START-UP OF A HIGH-PURITY, OXYGEN-ACTIVATED SLUDGE SYSTEM AT THE LOS ANGELES COUNTY SANITATION DISTRICTS' JOINTS WPCP.****PERSONAL AUTHOR: WUNDERLICH, RICHARD; AND OTHERS****DESCRIPTOR: \*ACTIVATED SLUDGE SYSTEMS; \*CALIFORNIA; \*EQUIPMENT TESTING; \*MANUALS; \*OPERATIONS (WASTEWATER); \*PROGRAM DESCRIPTIONS; \*PERSONNEL; \*PERFORMANCE EVALUATION; \*PROCESS EVALUATION; \*START-UP; \*TRAINING; \*WASTEWATER TREATMENT****DESCRIPTIVE NOTE: 1012-18P.****ABSTRACT: SEVERAL YEARS OF PLANNING AND PREPARATION PAID HIGH DIVIDENDS WHEN THE PROJECT ENTERED ITS FINAL PHASE-START-UP OF A FULL-SCALE OPERATION. EACH PHASE OF THE OPERATION IS DESCRIBED.****AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V57 N10**

IRIS ACCESSION NUMBER: EW012833

PUBLICATION DATE: 85

TITLE: THE INFLUENCE OF WASTE ACTIVATED SLUDGE ON PRIMARY CLARIFIER OPERATION.

PERSONAL AUTHOR: ROSS, ROBERT D.; CRAWFORD, GEORGE V.

DESCRIPTOR: \*ACTIVATED SLUDGE; \*CANADA; \*CLARIFIERS; \*EFFLUENT; \*OPERATIONS (WASTEWATER); \*PERFORMANCE EVALUATION; \*RESEARCH REPORTS; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1022-26P.

ABSTRACT: NEITHER THE SIZE AND SHAPE OF THE PRIMARY CLARIFIER NOR THE ADDITION OF WASTE ACTIVATED SLUDGE HAD ANY EFFECT ON PRIMARY EFFLUENT QUALITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V57 N10

IRIS ACCESSION NUMBER: EW012834

PUBLICATION DATE: 85

TITLE: ELIMINATION OF ODOR AT SIX MAJOR WASTEWATER TREATMENT PLANTS.

PERSONAL AUTHOR: WALTRIP, G. DAVID; SNYDER, EDWIN G.

DESCRIPTOR: \*ODORS; \*ODOR CONTROL; \*OPERATIONS (WASTEWATER); \*PERFORMANCE EVALUATION; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1027-32P.

ABSTRACT: A COMBINATION OF PREAERATION AND PACKED-TOWER SCRUBBING WITH CAUSTIC SODA FORMED THE BASIS FOR AN ODOR CONTROL STRATEGY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V57 N10

IRIS ACCESSION NUMBER: EW012840

PUBLICATION DATE: 85

TITLE: LOCATING LEAKING UNDERGROUND STORAGE TANKS.

PERSONAL AUTHOR: TAINTER, DAVIES

DESCRIPTOR: \*CONTAMINATION; \*GROUNDWATER; \*LEAK DETECTION; \*MONITORING; \*STORAGE TANKS; \*UNDERGROUND STORAGE TANKS; \*WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 11P.

ABSTRACT: DESCRIBED ARE PROBLEMS OF LEAKING UNDERGROUND STORAGE TANKS AND MEASURES ONE COMPANY IS TAKING TO PREVENT FURTHER POLLUTION FROM UNDERGROUND STORAGE TANKS.

AVAILABILITY: WATERWORLD NEWS; V1 N6

IRIS ACCESSION NUMBER: EW012841

PUBLICATION DATE: 85

TITLE: INVESTIGATING CONTAMINATED GROUNDWATER: AN INTERIM REPORT.

PERSONAL AUTHOR: SCHROETER, JOHN

DESCRIPTOR: \*CONTAMINATION; \*GROUNDWATER; \*INVESTIGATIONS; \*MINNESOTA; \*MONITORING; \*WATER POLLUTION CONTROL; \*WATER QUALITY

DESCRIPTIVE NOTE: 12-13P.

ABSTRACT: REPORTED ARE THE PROCEDURES USED TO ANALYZE GROUNDWATER CONTAMINATION PROBLEMS IN MINNESOTA.

AVAILABILITY: WATERWORLD NEWS; V1 N6

IRIS ACCESSION NUMBER: EW012842

PUBLICATION DATE: 85

TITLE: THE RIGHT TO KNOW.

PERSONAL AUTHOR: KOWALSKY, MICHAEL J.

DESCRIPTOR: \*ACCIDENT PREVENTION; \*CHEMICALS; \*COMPLIANCE; \*HAZARDOUS MATERIALS; \*LEGISLATION; \*OCCUPATIONAL SAFETY; \*REGULATIONS; \*RIGHT TO KNOW; \*SAFETY; \*TOXIC SUBSTANCES; \*TRAINING

DESCRIPTIVE NOTE: 14-15P.

ABSTRACT: THIS ARTICLE BRIEFLY PRESENTS SOME OF THE ITEMS TO CONSIDER REGARDING "RIGHT TO KNOW" LAWS AND THE USE OF CHEMICALS IN THE WORK PLACE. SEVERAL STEPS TO FOLLOW ARE OUTLINED, INCLUDING REQUIRED TRAINING.

AVAILABILITY: WATERWORLD NEWS; V1 N6

IRIS ACCESSION NUMBER: EW012843

PUBLICATION DATE: 85

TITLE: CONTAMINATION AFTERMATH: RELOCATING A CITY'S WELL FIELD.

PERSONAL AUTHOR: SEWARD, WILLIAM B., JR.

DESCRIPTOR: \*CONTAMINATION; \*GROUNDWATER; \*HAZARDOUS WASTES; \*LANDFILLS; \*NEW JERSEY; \*WATER RESOURCES; \*WATER SUPPLY; \*WATER QUALITY; \*WATER POLLUTION CONTROL; \*WATER WELLS; \*WELLS

DESCRIPTIVE NOTE: 16P.

ABSTRACT: DESCRIBED ARE CONTAMINATION PROBLEMS OF GROUNDWATER WELLS IN ATLANTIC CITY, N.J. THE PROBLEMS DEVELOPED DUE TO CONTAMINATION FROM LANDFILLS AND REQUIRED MOVING THE WELLS.

AVAILABILITY: WATERWORLD NEWS; V1 N6

IRIS ACCESSION NUMBER: EW012844

PUBLICATION DATE: 85

TITLE: HIGHLY CORROSIVE ACID PUMPED WITHOUT A HITCH.

PERSONAL AUTHOR: MARGUS, EDWARD

DESCRIPTOR: \*DRINKING WATER; \*FLUORINE; \*OPERATIONS (WATER); \*WATER TREATMENT

DESCRIPTIVE NOTE: 17P.

ABSTRACT: DESCRIBED ARE PROCEDURES USED BY A WATER TREATMENT PLANT IN MASSACHUSETTS FOR PUTTING FLUORINE IN THE WATER. THE ACID USED AS A SOURCE OF FLUORINE IS HIGHLY CORROSIVE AND REQUIRES CARE IN HANDLING.

AVAILABILITY: WATERWORLD NEWS; V1 N6

IRIS ACCESSION NUMBER: EW012845

PUBLICATION DATE: 85

TITLE: MAIN REHABILITATION IN RECORD TIME.

PERSONAL AUTHOR: HARPER, HAROLD

DESCRIPTOR: \*CALCIUM CARBONATE; \*MAINTENANCE; \*MISSOURI; \*OPERATIONS (WATER); \*PIPES; \*REHABILITATION; \*WATER DISTRIBUTION; \*WATER PIPES

DESCRIPTIVE NOTE: 18-19P.

ABSTRACT: DESCRIBED IS A PROJECT TO REHABILITATE WATER PIPES IN A MISSOURI COMMUNITY. THE PRIMARY PROBLEM WAS A BUILD-UP OF CALCIUM CARBONATE.

AVAILABILITY: WATERWORLD NEWS; V1 N6

IRIS ACCESSION NUMBER: EW012846

PUBLICATION DATE: 85

TITLE: CORROSION PREVENTION AND CONTROL IN WATER TREATMENT AND SUPPLY SYSTEMS.

PERSONAL AUTHOR: SINGLEY, J. E.; AND OTHERS

DESCRIPTOR: \*CORROSION; \*CORROSION CONTROL; \*CORROSION PREVENTION; \*INSTRUCTIONAL MATERIALS; \*MONITORING; \*POSTSECONDARY EDUCATION; \*WATER TREATMENT; \*WATER SUPPLY

DESCRIPTIVE NOTE: 313P. PRICE: \$42.00

ABSTRACT: THIS TEXT IS DESIGNED TO PROVIDE WATER TREATMENT MANAGERS AND OPERATORS WITH AN UNDERSTANDING OF THE CAUSES AND CONTROL OF CORROSION. PART I IS BASICALLY A GUIDANCE MANUAL FOR CORROSION CONTROL WITH SECTIONS ON HOW AND WHY CORROSION OCCURS AND THE BEST HANDLING METHODS. PART II REVIEWS VARIOUS MATERIALS USED IN THE INDUSTRY AND THEIR CORROSION CHARACTERISTICS, AS WELL AS MONITORING AND DETECTION TECHNIQUES.

AVAILABILITY: NOYES PUBLICATIONS, MILL ROAD AT GRAND AVENUE, PARK RIDGE, N. 07656

IRIS ACCESSION NUMBER: EW012847

TITLE: CROSS-CONNECTION CONTROL TRAINING.

DESCRIPTOR: \*AUDIOVISUAL AIDS; \*CROSS-CONNECTION CONTROL; \*INSTRUCTIONAL MATERIALS; \*TRAINING; \*POSTSECONDARY EDUCATION; \*SLIDES; \*WATER DISTRIBUTION; \*WATER SUPPLY

DESCRIPTIVE NOTE: PRICE: \$130.00 PER SET FOR MEMBERS. \$156.00 PER SET FOR NONMEMBERS

ABSTRACT: CROSS-CONNECTION CONTROL IS A FLEXIBLE TRAINING PACKAGE WITH FOUR COMPLETE PROGRAMS TO FIT ANY TRAINING NEED YOU HAVE. SCRIPTS, STUDENT HANDOUT MATERIALS, TEACHERS' PLANNING GUIDES, AND MORE THAN 100 SLIDES ARE INCLUDED. THIS PACKAGE INCLUDES PROGRAMS COVERING: (1) SMALL COMMUNITIES AND RURAL WATER DISTRICTS (ONE- OR TWO-DAY PROGRAM); (2) URBAN AND INDUSTRIAL AREAS (ONE- OR TWO-DAY PROGRAM); AND (3) AN OVERVIEW OF CROSS-CONNECTION CONTROL (ONE- OR TWO-HOUR PROGRAM).

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 W. QUINCY AVE., DENVER, CO 80235

IRIS ACCESSION NUMBER: EW012848

PUBLICATION DATE: 85

TITLE: DETERMINATION OF ORGANIC SUBSTANCES IN WATER, VOLUME 1.

PERSONAL AUTHOR: CROMPTON, T. R.

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*CHEMICALS; \*DETERGENTS; \*HYDROCARBONS; \*HERBICIDES; \*ORGANIC COMPOUNDS; \*PCB'S; \*PESTICIDES; \*WATER QUALITY; \*WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 560P.

ABSTRACT: THIS VOLUME DRAWS TOGETHER AND SYSTEMATIZES THE BODY OF INFORMATION AVAILABLE WORLDWIDE ON THE OCCURRENCE

AND DETERMINATION OF ORGANICS IN ALL TYPES OF WATER AND EFFLUENTS. THE FOUR CHAPTERS IN THE WORK DEAL WITH HYDROCARBONS, DETERGENTS, PESTICIDES AND PCBs, AND HERBICIDES. IN ADDITION TO DISCUSSING THE ANALYSIS OF RIVER, SURFACE, AND UNDERGROUND WATERS AND POTABLE WATER, VARIOUS SECTIONS INCLUDE DISCUSSION OF OCEAN AND BEACH WATERS, SEWAGE AND TRADE EFFLUENTS, AND MUD AND STREAMS. THE ANALYSIS OF FISH, CRUSTACEAE, AND PLANT LIFE FOR ORGANIC POLLUTANTS IS ALSO DISCUSSED.

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

IRIS ACCESSION NUMBER: EW012850

PUBLICATION DATE: 85

TITLE: ECOLOGICAL CONSIDERATIONS IN WETLANDS.

PERSONAL AUTHOR: GODFREY, P.; AND OTHERS

DESCRIPTOR: \*CONFERENCE PROCEEDINGS; \*DESIGN; \*ECOLOGY; \*ENGINEERING; \*MANAGEMENT; \*WETLANDS; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 473P. PRICE: \$27.50

ABSTRACT: THIS PUBLICATION CONTAINS A SERIES OF PAPERS THAT ADDRESS THE ENVIRONMENTAL CONSEQUENCES OF APPLYING MUNICIPAL WASTEWATER TO WETLANDS. THE PAPERS, MOST OF WHICH WERE PRESENTED AT A WORKSHOP HELD AT THE UNIVERSITY OF MASSACHUSETTS IN AMHERST ON JUNE 23-25, 1982, ARE PRESENTED IN THE FORM OF A PROCEEDINGS, FOLLOWED BY DISCUSSION SESSIONS. THE PROCEEDINGS ARE DIVIDED INTO SEVEN TOPICAL SESSIONS: ENGINEERING; ECOLOGY; ECOSYSTEM DYNAMICS; COMMUNITY CHANGES; ENVIRONMENTAL HEALTH; LONG-TERM EFFECTS; MANAGEMENT; AND SYNTHESIS AND CONCLUSIONS. THE ISSUES DISCUSSED INCLUDE WETLAND SYSTEMS FOR WASTEWATER TREATMENT; ENGINEERING APPLICATIONS; DESIGN AND USE OF ARTIFICIAL WETLANDS; WASTEWATER INPUT TO COASTAL WETLANDS; MANAGEMENT CONCERNS; VEGETATION IN WETLANDS RECEIVING SEWAGE EFFLUENT; AND MICROBIOLOGICAL STUDIES OF MUNICIPAL WASTE RELEASE TO AQUATIC ENVIRONMENTS.

AVAILABILITY: VAN NOSTRAND REINHOLD CO., 135 WEST 50TH STREET, NEW YORK, NY 10020

IRIS ACCESSION NUMBER: EW012851

PUBLICATION DATE: 85

TITLE: GROUND WATER POLLUTION CONTROL.

PERSONAL AUTHOR: CANTER, LARRY W.; KNOX, ROBERT C.

DESCRIPTOR: \*CASE STUDIES; \*DECISION-MAKING; \*GROUNDWATER; \*RECOMMENDATIONS; \*TECHNOLOGY; \*WATER POLLUTION CONTROL; \*WATER QUALITY

DESCRIPTIVE NOTE: 526P.

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ABSTRACT: AS A RESULT OF THE INCREASING RECOGNITION OF GROUNDWATER POLLUTION PROBLEMS, THERE IS A GROWING INTEREST IN, AND IMPLEMENTATION OF, GROUNDWATER POLLUTION CONTROL PROGRAMS. THESE PROGRAMS ARE AN OUTGROWTH OF GOVERNMENTAL INCENTIVES, PUBLIC PRESSURES, AND THE EXPANDING KNOWLEDGE BASE ON TECHNICAL ALTERNATIVES. THIS BOOK SUMMARIZES THESE ALTERNATIVES AND PROPOSES DECISION MAKING TECHNIQUES USEFUL IN SELECTING THE APPROPRIATE POLLUTION CONTROL MEASURE. THE TEXT IS ORGANIZED INTO THREE PARTS: TECHNOLOGIES; DECISION MAKING; AND CASE STUDIES AND APPLICATIONS. OVER 200 SELECTED REFERENCES RELATED TO GROUNDWATER POLLUTION CONTROL ARE ALSO INCLUDED.

AVAILABILITY: LEWIS PUBLISHERS, INC., 121 SOUTH MAIN ST., CHELESA, MI 48118

IRIS ACCESSION NUMBER: EW012852

PUBLICATION DATE: 85

TITLE: HANDBOOK OF LAND TREATMENT SYSTEMS FOR INDUSTRIAL AND MUNICIPAL WASTES.

PERSONAL AUTHOR: REED, SHERWOOD C.; CRITES, RONALD W.

DESCRIPTOR: FACILITIES; ECONOMICS; \*HANDBOOKS; \*INDUSTRIAL WASTES; \*LAND TREATMENT; OPERATIONS (WASTEWATER); \*MUNICIPAL WASTES; TECHNOLOGY; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 427P. PRICE: \$45.00

ABSTRACT: SIXTEEN CHAPTERS PROVIDE THE CRITERIA AND PROCEDURES NECESSARY FOR THE SUCCESSFUL INVESTIGATION AND APPLICATION OF LAND TREATMENT SYSTEMS FOR MUNICIPAL AND INDUSTRIAL WASTE. TOPICS COVERED INCLUDE THE BASIC TECHNOLOGY, WASTEWATER PARAMETERS AND SYSTEM INTERACTIONS, SOIL SYSTEMS HYDRAULICS, VEGETATION, SITE IDENTIFICATION AND SELECTION, FIELD INVESTIGATION, TRANSMISSION AND DISTRIBUTION SYSTEMS, PROCESS DESIGN (SLOW, RAPID, AND OVERLAND SYSTEMS), ECONOMICS, AND ENERGY. PHOTOGRAPHS, DRAWINGS, GRAPHS, TABLES, AND REFERENCES COMPLEMENT THE TEXT.

AVAILABILITY: NOYES PUBLICATIONS, MILL ROAD AT GRAND AVENUE, PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW012853

PUBLICATION DATE: 83

TITLE: METHODS OF CHARACTERIZATION OF SEWAGE SLUDGE.

PERSONAL AUTHOR: CASEY, T. J.; AND OTHERS

DESCRIPTOR: \*CHARACTERIZATION METHODS; \*CONFERENCE PROCEEDINGS; \*RESEARCH; \*SEWAGE SLUDGE; \*SLUDGE PROCESSING; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 160P. PRICE: \$23.85

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86

ABSTRACT: THIS PUBLICATION IS THE PROCEEDINGS OF A WORKSHOP HELD IN DUBLIN IN 1983.

AVAILABILITY: KLUWER ACADEMIC PUBLISHERS GROUP, PO BOX 322, AH DORDRECHT, HOLLAND

IRIS ACCESSION NUMBER: EW012854

PUBLICATION DATE: 84

TITLE: OCEAN DISPOSAL SYSTEMS FOR SEWAGE SLUDGE AND EFFLUENT.

DESCRIPTOR: \*DESIGN; \*ENGINEERING; \*EFFLUENTS; \*OCEAN DISPOSAL; \*SLUDGE; \*WASTE DISPOSAL; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 126P.

ABSTRACT: THE PURPOSE OF THIS REPORT IS TO EXPLAIN HOW OCEAN DISPOSAL CAN BE DESIGNED AS AN ENGINEERING SYSTEM TO MEET WATER QUALITY REQUIREMENTS. THE WORK IS THE RESULT OF DISCUSSIONS FROM A 1981 NATIONAL RESEARCH COUNCIL SYMPOSIUM, WHICH WAS HELD TO ASSESS THE STATE OF KNOWLEDGE AND IDENTIFY ENGINEERING PROBLEMS ASSOCIATED WITH USING THE OCEAN AS A MEANS OF DISPOSING WASTEWATER AND SLUDGE. THIS REPORT DISCUSSES WASTEWATER CHARACTERISTICS OF IMPORTANCE TO TREATMENT AND DESCRIBES COMMONLY PRACTICED DISPOSAL TECHNIQUES AND THE SYSTEM ENGINEERING APPROACH FOR DESIGNING DISPOSAL TRANSPORTATION SYSTEMS.

AVAILABILITY: NATIONAL ACADEMY PRESS, 1201 CONSTITUTION AVE. N.W., WASHINGTON, DC 20418

IRIS ACCESSION NUMBER: EW012855

PUBLICATION DATE: 85

TITLE: OPERATING THE ACTIVATED SLUDGE PROCESS.

PERSONAL AUTHOR: HARTLEY, K. J.

DESCRIPTOR: \*ACTIVATED SLUDGE; \*INSTRUCTIONAL MATERIALS; \*OPERATIONS (WASTEWATER); \*PROCESS CONTROL; \*POSTSECONDARY EDUCATION; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 117P. PRICE: \$19.00

ABSTRACT: THE PURPOSE OF THIS BOOK IS TO EXPLAIN THE OPERATIONAL PRINCIPLES OF THE ACTIVATED SLUDGE PROCESS AND TO STIMULATE DEMAND FOR BETTER PERFORMANCE. THE AUTHOR EMPHASIZES UNDERSTANDING PROCESS BEHAVIOR AND SIMPLICITY OF OPERATION. THE TEXT DEVELOPED FROM THE OPERATING MANUALS WRITTEN FOR A SERIES OF QUEENSLAND TREATMENT PLANTS AND THE ASSOCIATED COMMISSIONING EXERCISES. BOTH NEW AND EXPERIENCED OPERATORS SHOULD FIND THIS BOOK ENLIGHTENING.

AVAILABILITY: GUTTERIDGE HASKINS AND DAVEY PTY. LTD., 87 WICKHAM TERRACE, BRISBANE, QUEENSLAND, 4000 AUSTRALIA

IRIS ACCESSION NUMBER: EW012856

PUBLICATION DATE: 85

TITLE: DESIGN MANUAL: SULFIDE AND CORROSION PREDICTION AND CONTROL.

PERSONAL AUTHOR: MCLAREN, FREDERICK R.; HALL, GARY H.

DESCRIPTOR: \*DESIGN; \*CORROSION; \*CORROSION CONTROL; \*DESIGN MANUALS; \*HYDROGEN SULFIDE; \*PIPES; \*WASTEWATER COLLECTION; \*WATER DISTRIBUTION

DESCRIPTIVE NOTE: PRICE: \$15.00

ABSTRACT: A PRACTICAL, "HOW-TO" DESIGN MANUAL THAT AIDS THE DESIGNER IN DETERMINING THE EXTENT OF HYDROGEN SULFIDE GENERATION AND THE EXTENT OF CORROSION IN A PIPE. THE TEXT INCLUDES DESIGN EXAMPLES, EASY TO USE FORMULAS, DESIGN CHARTS AND GRAPHS, AND OTHER USEFUL INFORMATION.

AVAILABILITY: AMERICAN CONCRETE PIPE ASSOCIATION, 8320 OLD COURTHOUSE RD., VIENNA, VA 22180

IRIS ACCESSION NUMBER: EW012957

PUBLICATION DATE: 85

TITLE: POLLUTION CONTROL FOR AGRICULTURE, SECOND EDITION.

PERSONAL AUTHOR: LOEHR, RAYMOND C.

DESCRIPTOR: \*AGRICULTURE; \*ENVIRONMENT; \*INSTRUCTIONAL MATERIALS; \*POLLUTION CONTROL; \*POSTSECONDARY EDUCATION

DESCRIPTIVE NOTE: 467P. PRICE: \$44.00

ABSTRACT: IN THE YEARS SINCE THE FIRST EDITION OF THIS TEXT WAS WRITTEN, THERE HAS BEEN CONSIDERABLE PROGRESS AND NEW KNOWLEDGE IN SUCH AREAS AS BIOGAS RESIDUES, LAND TREATMENT AS A WASTE MANAGEMENT ALTERNATIVE, NONPOINT SOURCE MANAGEMENT PRACTICES, AND THE USE OF AGRICULTURAL RESIDUES AS SOIL CONDITIONER AND SUPPLEMENTAL ANIMAL FEED. IN UPDATING AND REVISING THE ORIGINAL CHAPTERS TO INCLUDE THIS NEW INFORMATION, THE SECOND EDITION ATTEMPTS TO IDENTIFY ENVIRONMENTAL PROBLEMS THAT RESULT FROM POORLY MANAGED AGRICULTURAL OPERATIONS AND THE ACTION THAT CAN BE TAKEN TO SUSTAIN A VIABLE AGRICULTURE. THE TEXT IS INTENDED FOR UPPER LEVEL UNDERGRADUATE OR GRADUATE-LEVEL COURSES AND CAN SERVE AS A USEFUL REFERENCE AND INTRODUCTION FOR INDIVIDUALS INTERESTED IN THIS TOPIC.

AVAILABILITY: ACADEMIC PRESS, INC., PUBLISHERS, ORLANDO, FL 32887

IRIS ACCESSION NUMBER: EW012858

PUBLICATION DATE: 85

TITLE: PRETREATMENT IMPLEMENTATION REVIEW TASK FORCE:

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**FINAL REPORT TO THE ADMINISTRATOR.**

**DESCRIPTOR:** \*ENFORCEMENT; \*OPERATIONS (WASTEWATER); \*PRETREATMENT; \*RECOMMENDATIONS; \*REPORTS; \*REGULATIONS; \*RESOURCES; \*USEPA; \*WASTEWATER TREATMENT

**ABSTRACT:** ON FEBRUARY 3, 1984, THE PRETREATMENT IMPLEMENTATION REVIEW TASK FORCE (PIRT) WAS FORMED TO PROVIDE THE ENVIRONMENTAL PROTECTION AGENCY (EPA) WITH RECOMMENDATIONS ON THE DAY-TO-DAY PROBLEMS FACED BY PUBLICLY OWNED TREATMENT WORKS, STATES, AND INDUSTRY IN IMPLEMENTING THE AGENCY'S PRETREATMENT PROGRAM. THIS IS THE FINAL REPORT OF THAT TASK FORCE. THE REPORT INCLUDES RECOMMENDATIONS ON PROGRAM SIMPLIFICATION AND CLARIFICATION, ENFORCEMENT, RESOURCES, AND REGULATORY CHANGES.

**AVAILABILITY:** US GOVERNMENT PRINTING OFFICE, WASHINGTON, DC

**IRIS ACCESSION NUMBER:** EW012859

**PUBLICATION DATE:** 83

**TITLE:** PROCESSING AND USE OF SEWAGE SLUDGE.

**PERSONAL AUTHOR:** HERMITE, P. L.; OTT, H.

**DESCRIPTOR:** \*AGRICULTURE; \*FERTILIZER; \*LAND APPLICATION; \*PUBLIC HEALTH; \*RECYCLING; \*SLUDGE; \*WASTE DISPOSAL; \*WASTEWATER TREATMENT

**DESCRIPTIVE NOTE:** 496P. PRICE: \$52.04

**ABSTRACT:** THIS MONOGRAPH IS A COLLECTION OF TECHNICAL PAPERS WHICH ADDRESS PROBLEMS RELATED TO SEWAGE SLUDGE DISPOSAL. WITH PARTICULAR EMPHASIS ON RECYCLING SLUDGE TO AGRICULTURAL LAND. DISCUSSION OF TECHNICAL PAPERS ARE PRESENTED UNDER SEVERAL SESSION TITLES: SLUDGE PROCESSING, CHEMICAL POLLUTION OF SLUDGE, HYGIENIC CONSTRAINTS TO THE USE OF SLUDGE IN AGRICULTURE DUE TO THE CONTENT OF PATHOGENS; VAPORIZATION OF SLUDGES; AND, ENVIRONMENTAL EFFECTS OF SLUDGES.

**AVAILABILITY:** KLUWER ACADEMIC PUBLISHERS GROUP, PO BOX 322, AH DORDRECHT, HOLLAND

**IRIS ACCESSION NUMBER:** EW012860

**PUBLICATION DATE:** 85

**TITLE:** RECYCLING FUEL AND RESOURCE RECOVERY: ECONOMIC AND ENVIRONMENTAL FACTORS.

**PERSONAL AUTHOR:** GRAYSON, MARTIN, ED.

**DESCRIPTOR:** \*ENERGY; \*ENERGY CONSERVATION; \*FUELS; \*MANAGEMENT; \*RECYCLING; \*RESOURCE RECOVERY; \*WASTE DISPOSAL; \*WATER REUSE

**DESCRIPTIVE NOTE:** 232P. PRICE: \$39.95

**ABSTRACT:** THIS BOOK IS COMPOSED OF A SERIES OF ARTICLES REPRINTED FROM THE KIRK-OTTMER ENCYCLOPEDIA OF CHEMICAL TECHNOLOGY AND PRESENTS A HISTORICAL PERSPECTIVE, ENERGY MANAGEMENT, FUELS FROM BIOMASS, FUELS FROM WASTE, RECYCLING, SULFUR RECOVERY, AND WATER REUSE. THE SOURCE INFORMATION MAKES A GOOD DESK-TOP REFERENCE FOR ALL THOSE INVOLVED IN THE FIELD.

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

**IRIS ACCESSION NUMBER:** EW012861

**PUBLICATION DATE:** 85

**TITLE:** SEPTIC TANK SYSTEM EFFECTS ON GROUND WATER QUALITY.

**PERSONAL AUTHOR:** CANTER, LARRY W.; KNOX, ROBERT C.

**DESCRIPTOR:** \*ENVIRONMENT; \*GROUNDWATER; \*MAINTENANCE; \*OPERATIONS (WASTEWATER); \*ONSITE DISPOSAL; \*SEPTIC TANKS; \*WATER QUALITY; \*WASTEWATER TREATMENT; \*WATER POLLUTION CONTROL

**DESCRIPTIVE NOTE:** 336P.

**ABSTRACT:** SEPTIC TANK SYSTEMS HAVE BEEN FREQUENTLY IDENTIFIED AS SOURCES OF LOCALIZED AND REGIONAL GROUNDWATER POLLUTION. THE AUTHORS SUMMARIZE CURRENT LITERATURE ON TYPES AND MECHANISMS OF GROUNDWATER POLLUTION FROM SEPTIC TANKS SYSTEMS, AND PROVIDE INFORMATION ON TECHNICAL METHODOLOGIES FOR EVALUATING THEIR GROUNDWATER POLLUTION POTENTIAL. ORGANIZED INTO FIVE CHAPTERS, THE BOOK INCLUDES HISTORICAL INFORMATION, OPERATION AND MAINTENANCE PROCEDURES, AND THE TRANSPORT AND FATE OF BACTERIA, VIRUSES, AND INORGANIC CONTAMINANTS IN SOILS AND GROUNDWATER.

**AVAILABILITY:** LEWIS PUBLISHERS, INC., 121 SOUTH MAIN ST., CHELSEA, MI 48118

**IRIS ACCESSION NUMBER:** EW012862

**PUBLICATION DATE:** 84

**TITLE:** WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS): SUPPLEMENT 20.

**DESCRIPTOR:** \*ANNOTATED BIBLIOGRAPHIES; \*AUDIOVISUAL AIDS; INDEXES; \*INSTRUCTIONAL MATERIALS; POSTSECONDARY EDUCATION; TECHNOLOGY; WASTE DISPOSAL; \*WASTEWATER; WATER; \*WATER POLLUTION CONTROL; \*WATER QUALITY; \*WATER RESOURCES; \*WATER TREATMENT; \*WASTEWATER TREATMENT; \*OPERATIONS (WATER); \*OPERATIONS (WASTEWATER)

**DESCRIPTIVE NOTE:** 139P. PRICE: \$5.00

**ABSTRACT:** COMPILED ARE ABSTRACTS AND INDEXES TO SELECTED PRINT AND NON-PRINT MATERIALS RELATED TO WASTEWATER TREATMENT AND WATER QUALITY EDUCATION AND INSTRUCTION, AS WELL AS MATERIALS RELATED TO PESTICIDES, HAZARDOUS WASTES,

AND PUBLIC PARTICIPATION. SOURCES OF ABSTRACTED/INDEXED MATERIALS INCLUDE ALL LEVELS OF GOVERNMENT, PRIVATE CONCERNS, AND EDUCATIONAL INSTITUTIONS. TITLE, AUTHOR(S), PUBLICATION DATE, CROSS-REFERENCES, DESCRIPTORS, AND AVAILABILITY ARE PROVIDED FOR EACH ENTRY. 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 OF THEIR PROGRAMS. THIS PUBLICATION SUPPLEMENTS AND DOES NOT REPLACE "WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY AND WATER RESOURCES" OR IRIS SUPPLEMENTS 1-19.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1209 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012063

PUBLICATION DATE: 85

TITLE: INSITUFORM AND OTHER SEWER REHABILITATION TECHNIQUES.

PERSONAL AUTHOR: OLSON, MICHAEL R.

DESCRIPTOR: \*COSTS; \*DESIGN; \*INSITUFORM; \*MAINTENANCE; \*PERFORMANCE EVALUATION; \*RECOMMENDATIONS; \*REHABILITATION; \*SEWERS; \*SEWER REPAIRS; \*WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 127P. PRICE: 98.62

ABSTRACT: IN 1979 THE CITY OF HAGERSTOWN, MARYLAND EMBARKED UPON A VERY AGGRESSIVE SANITARY SEWER COLLECTION SYSTEM REHABILITATION PROGRAM UTILIZING SEWER LINING BY THE "INSITUFORM" METHOD, TESTING AND SEALING OF JOINTS AND MANHOLES WITH CHEMICAL GROUT, AND THE POINT REPAIR OF SEWER MAINS. A REVIEW HAS BEEN MADE OF RESULTS. IN ADDITION, THE AUTHOR OR HIS REPRESENTATIVE REVIEWED A SITE IN LAGRANCE HIGHLANDS, ILLINOIS, WHERE SLIPLINING WITH A CONVENTIONAL POLYETHYLENE LINER WAS BEING PERFORMED, AND THIRTEEN "INSITUFORM" SITES. THE STUDY COMPARES THESE REPAIR OPTIONS. FOR THE "INSITUFORM" PROCESS DISCUSSION INCLUDES INSTALLATION PROCEDURES AND PROBLEMS, THE PRODUCT LIMITATIONS, SPATIAL REQUIREMENTS OF THE EQUIPMENT, AND SAFETY HAZARDS AND PROCEDURES.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012864

PUBLICATION DATE: 85

TITLE: DEMONSTRATION OF SERVICE LATERAL TESTING AND REHABILITATION TECHNIQUES.

PERSONAL AUTHOR: STEKETEE, C. H.

DESCRIPTOR: \*COSTS; \*INFILTRATION; \*INFLOW; \*MAINTENANCE;

\*PERFORMANCE EVALUATION; \*REHABILITATION; \*REPAIR METHODS; \*SEWERS; \*WASTEWATER COLLECTION; \*SERVICE LATERALS

DESCRIPTIVE NOTE: 123P. PRICE: \$8.38

ABSTRACT: THE REHABILITATION OF SANITARY SEWERS, SIGNIFICANTLY REDUCING INFILTRATION/INFLOW HAS BEEN DIFFICULT TO ACHIEVE. A MAJOR REASON FOR THE DISAPPOINTING I/I REDUCTIONS ACHIEVED BY MANY SEWER REHABILITATION EFFORTS IS THE INABILITY TO SATISFACTORILY LOCATE AND REPAIR FAULTY SERVICE LATERALS. SERVICE LATERALS ARE FREQUENTLY MAJOR I/I CONTRIBUTORS. THE IDENTIFICATION OF I/I CONTRIBUTING SERVICE LATERALS IS OFTEN DIFFICULT. FEW METHODS AND LITTLE EQUIPMENT HAVE BEEN DEVELOPED TO EITHER LOCATE FAULTY SERVICE LATERALS OR REPAIR THEM. THIS PROJECT UTILIZED AND EVALUATED MOST SERVICE LATERAL TESTING, AND REPAIR METHODS USED IN THE USA TODAY. IT ALSO REPORTS THE COSTS AND EFFECTIVENESS OF SEWER REHABILITATION WHERE VARIOUS COMBINATIONS OF MAIN, MANHOLE AND SERVICE LATERAL REPAIRS WERE EMPLOYED. REPAIRS TO SERVICE LATERAL PIPING INCLUDED REPLACEMENT, CHEMICAL GROUTING, INSTALLATION OF POLYETHYLENE PIPE LINERS AND INSTALLATION OF INSITUFORM LINERS.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012865

PUBLICATION DATE: 85

TITLE: ALTERNATIVE SEWER STUDIES.

DESCRIPTOR: \*ALTERNATIVE TECHNOLOGY; \*DESIGN; \*HYDRAULICS; \*OPERATIONS (WASTEWATER); \*PERFORMANCE EVALUATION; \*SULFIDES; \*SEWERS; \*WASTEWATER COLLECTION; \*PRESSURE SEWERS; \*GRAVITY SEWERS

DESCRIPTIVE NOTE: 46P. PRICE: \$3.76.

ABSTRACT: AN EVALUATION OF DESIGN AND OPERATIONAL ASPECTS FOR TWO POPULAR ALTERNATIVE SEWERING TECHNIQUES, I.E., PRESSURE AND SMALL-DIAMETER GRAVITY SEWERS, WAS PERFORMED. THE RESULTS PROVIDED INSIGHTS USEFUL TO DESIGNERS OF THESE SYSTEMS WITH REGARD TO SULFIDE CONCENTRATIONS IN THESE SEWERS AND HYDRAULIC DESIGNS FOR DOWNHILL RUNS.

AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012866

PUBLICATION DATE: 85

TITLE: FATE OF SELECTED METALS AND EMISSIONS FROM A SLUDGE/WASTEWATER GASIFIER.

PERSONAL AUTHOR: SORBO, N. W.; TCHOBANOGLOUS, G.

DESCRIPTOR: \*AIR POLLUTION CONTROL; \*EMISSIONS; \*INCINERATION; \*METALS; \*PERFORMANCE EVALUATION; \*PILOT

**STUDIES; \*SOLID WASTES; \*SEWAGE SLUDGE; \*SLUDGE;  
\*WASTEPAPER; \*WASTE DISPOSAL; \*WASTEWATER TREATMENT**

**DESCRIPTIVE NOTE: 183P. PRICE: \$11.98**

**ABSTRACT: A STUDY WAS CONDUCTED TO QUANTIFY A PILOT-SCALE SLUDGE AND WASTEPAPER GASIFICATION SYSTEM FOR ITS GASEOUS, PARTICULATE AND METAL EMISSIONS. THE GASIFIER PRODUCED UP TO 1800 MJ/HR USING A FUEL MIXTURE OF SOURCE-SEPARATED WASTEPAPER AND SLUDGE. EMISSIONS VARIED BETWEEN 15.1 AND 16.5 PPM FOR CO, 1.39 AND 12.7 PPM FOR HYDROCARBONS, 98.6 AND 121 PPM FOR NO<sub>x</sub>, AND 55.5 AND 105 PPM FOR SO<sub>2</sub>. PARTICULATE CONCENTRATIONS VARIED BETWEEN 35.70 AND 192.96 MG/DRY STANDARD CUBIC METER CORRECTED TO 12 PERCENT CO<sub>2</sub>. METALS BALANCE DATA INDICATED THAT CD, PB, AND ZN INCREASED IN CONCENTRATION (COMPARED TO THE FUEL) IN GASEOUS MATERIALS LEAVING THE GASIFIER AND THAT CU, CR, AND FE INCREASED IN CONCENTRATION (COMPARED TO THE FUEL) IN THE CHAR-ASHES LEAVING THE GASIFIER. THE PARTICULATE EMISSIONS IN THE BURNED GAS FROM THE GASIFIER WERE LESS THAN THE ALLOWABLE LIMITS FOR SOLID WASTE INCINERATION.**

**AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS OH 43212**

**IRIS ACCESSION NUMBER: EW012867**

**PUBLICATION DATE: 84**

**TITLE: GUIDELINES FOR OVERVIEWING CONSTRUCTION GRANT ACTIVITIES CONDUCTED UNDER THE INTERAGENCY AGREEMENT WITH THE CORPS OF ENGINEERS.**

**DESCRIPTOR: \*CONSTRUCTION GRANTS; \*CORPS OF ENGINEERS;  
\*GUIDELINES; \*INTERAGENCY AGREEMENTS; \*PROGRAM EVALUATION;  
\*REPORTING; \*USEPA**

**DESCRIPTIVE NOTE: 23P. PRICE: \$2.38**

**ABSTRACT: THE PURPOSE OF THIS DOCUMENT IS TO PROVIDE GENERAL OPERATING GUIDANCE TO USEPA REGIONAL OFFICES AS WELL AS TO THE CORPS OF ENGINEERS DIVISION AND DISTRICT OFFICES IN DISCHARGING THEIR MANAGEMENT RESPONSIBILITIES IN OVERVIEWING ACTIVITIES CONDUCTED UNDER THE INTERAGENCY AGREEMENT ON PROJECTS FUNDED UNDER EPA'S CONSTRUCTION GRANTS PROGRAM. THE PUBLICATION CONTAINS THREE MAIN SECTIONS: (1) REPORTING, (2) OVERVIEWING, AND (3) APPENDICES.**

**AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212**

**IRIS ACCESSION NUMBER: EW012868**

**PUBLICATION DATE: 84**

**TITLE: FINANCIAL CAPABILITY SUMMARY FOLDOUT: A SIMPLIFIED APPROACH.**

**DESCRIPTOR: \*CONSTRUCTION; \*COSTS; \*ECONOMICS; \*FINANCES;  
\*GUIDEBOOK; \*FACILITIES; \*MANAGEMENT; \*OPERATIONS**

**(WASTEWATER); \*PLANNING; \*WASTEWATER TREATMENT**

**DESCRIPTIVE NOTE: 8P. PRICE: \$1.42**

**ABSTRACT: YOUR COMMUNITY MAYBE PLANNING TO CONSTRUCT, OPERATE, AND/OR MANAGE A WASTEWATER TREATMENT SYSTEM OR OTHER COMMUNITY FACILITIES. THIS FOLDOUT PROVIDES AN APPROACH TO ANALYZING FINANCIAL CAPABILITY, AND IS INTENDED TO BE USED BY THE LOCAL OFFICIALS WHO ARE BEST ACQUAINTED WITH THEIR COMMUNITY, TOWN MANAGER, PUBLIC WORKS DIRECTOR, PLANNER, BUDGET OFFICER OR CLERK. A MORE COMPREHENSIVE ANALYTICAL APPROACH MAY BE FOUND IN EPA'S FINANCIAL CAPABILITY GUIDEBOOK (EW 011 329).**

**AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212**

**IRIS ACCESSION NUMBER: EW012869**

**PUBLICATION DATE: 82**

**TITLE: A COMPILATION OF WATER QUALITY STANDARDS FOR MARINE WATERS.**

**DESCRIPTOR: \*CLEAN WATER ACT; \*COMPILATIONS; \*MARINE WATERS;  
\*POLICIES; \*REFERENCE MATERIALS; \*REGULATIONS;  
\*STANDARDS; \*STATE ROLE; \*WATER QUALITY; \*WATER RESOURCES;  
\*WATER POLLUTION CONTROL**

**DESCRIPTIVE NOTE: 544P. PRICE: \$33.64**

**ABSTRACT: THIS COMPILATION OF MARINE WATER QUALITY STANDARDS HAS BEEN PREPARED IN COMPLIANCE WITH SECTION 304(A),(B) OF THE CLEAN WATER ACT AND SUPERCEDES THE PREVIOUS PUBLICATION PRODUCED IN 1978. STANDARDS AS OF THIS DATE (1982) ARE LISTED ALPHABETICALLY BY STATE AND TERRITORY.**

**AVAILABILITY: ENVIRONMENTAL QUALITY INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212**

**IRIS ACCESSION NUMBER: EW012870**

**PUBLICATION DATE: 85**

**TITLE: ILLEGAL DISPOSAL OF HAZARDOUS WASTE: DIFFICULT TO DETECT OR DETER.**

**DESCRIPTOR: CALIFORNIA; \*COMPLIANCE; \*ENFORCEMENT;  
\*HAZARDOUS WASTES; ILLINOIS; MASSACHUSETTS; NEW JERSEY;  
\*PERFORMANCE EVALUATION; \*RECOMMENDATIONS; \*REGULATIONS;  
USEPA; \*WASTE DISPOSAL; \*WASTE STORAGE; \*WASTE TREATMENT**

**DESCRIPTIVE NOTE: 77P. SINGLE COPIES FREE OF CHARGE AS LONG AS SUPPLY LASTS.**

**ABSTRACT: CAO REVIEWED EFFORTS TO DETER ILLEGAL DISPOSALS OF HAZARDOUS WASTES IN FOUR STATES. THIS REPORT PROVIDES INFORMATION ON THE EXTENT TO WHICH (1) THE USEPA AND THESE STATES HAVE KNOWLEDGE OF ILLEGAL DISPOSALS, (2) REGULATORY**

CONTROLS HAVE BEEN EFFECTIVE IN DETECTING OR DETERRING SUCH ACTIVITY, AND (3) ENFORCEMENT ACTIONS HAVE BEEN TAKEN AGAINST VIOLATORS. GAO CONCLUDED THAT ADDITIONAL REGULATORY MEASURES MAY INCREASE DETERRENCE, BUT MAY NOT DETECT THE DETERMINED VIOLATOR. THE USE OF AWARENESS AND PUBLIC INFORMANT PROGRAMS APPEARS BETTER SUITED FOR DETECTING VIOLATORS.

AVAILABILITY: US GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P.O. BOX 6015, GAITHERSBURG, MD 20877

IRIS ACCESSION NUMBER: EW012871

PUBLICATION DATE: 85

TITLE: EPA'S INVENTORY OF POTENTIAL HAZARDOUS WASTE SITES IS INCOMPLETE.

DESCRIPTOR: \*FEDERAL ROLE; GAO; \*HAZARDOUS WASTES; \*HAZARDOUS WASTE SITES; INDUSTRIAL WASTES; LEGISLATION; MONITORING; \*PERFORMANCE EVALUATION; REGULATIONS; \*SITE INVENTORIES; SITE EVALUATION; \*STATE ROLE; \*SURVEYS; \*USEPA

DESCRIPTIVE NOTE: 41P. SINGLE COPIES FREE OF CHARGE AS LONG AS SUPPLY LASTS.

ABSTRACT: THE GENERAL ACCOUNTING OFFICE CONDUCTED A REVIEW IN SIX OF EPA'S 10 REGIONS AND IN SEVEN STATES TO DETERMINE (1) WHAT SITE DISCOVERY ACTIVITIES WERE BEING CARRIED OUT BY EPA AND THE STATES, (2) WHETHER STATES ARE MAKING EPA AWARE OF THE SITES THEY DISCOVER, AND (3) HOW FEDERAL AND STATE SITE EVALUATION AND CLEANUP ROLES ARE DEFINED. RESULTS INDICATED THAT A COMPLETE INVENTORY OF HAZARDOUS WASTE SITES DID NOT EXIST. EPA WAS CONCENTRATING ITS RESOURCES ON EVALUATING AND CLEANING UP KNOWN SITES. THREE OF THE SEVEN STATES REVIEWED HAD SYSTEMATIC DISCOVERY PROGRAMS; ALL OF THE STATES HAD SOME PROCEDURES FOR IDENTIFYING SITES. WHILE EPA'S CLEANUP AUTHORITY IS BROAD, DUE TO LIMITED RESOURCES EPA HAS FOCUSED PRIMARILY ON THE NATIONAL PRIORITIES LIST.

AVAILABILITY: US GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, PO BOX 6015, GAITHERSBURY, MD 20877

IRIS ACCESSION NUMBER: EW012872

PUBLICATION DATE: 85

TITLE: GREATER USE OF VALUE ENGINEERING HAS THE POTENTIAL TO SAVE MILLIONS ON WASTEWATER TREATMENT PROJECTS.

DESCRIPTOR: \*CONSTRUCTION COSTS; \*CONSTRUCTION GRANTS PROGRAM; \*COSTS; \*CAO; \*DESIGN; \*PROJECT COSTS; \*PERFORMANCE EVALUATION; \*RECOMMENDATIONS; \*VALUE ENGINEERING; \*USEPA; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 69P. SINGLE COPIES FREE OF CHARGE AS LONG AS COPIES ARE AVAILABLE.

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ABSTRACT: THIS REPORT DESCRIBES HOW VALUE ENGINEERING CAN BE EXTENDED TO MORE GRANT-FUNDED WASTEWATER TREATMENT PROJECTS TO REDUCE CONSTRUCTION COSTS AND THEREBY HELP FUND THE \$109 BILLION WORTH OF ADDITIONAL TREATMENT PROJECTS THAT THE ENVIRONMENTAL PROTECTION AGENCY ESTIMATES WILL BE NEEDED BY THE YEAR 2000. GAO FOUND THAT VALUE ENGINEERING TECHNIQUES WERE SELDOM USED ON TREATMENT PROJECTS WHEN THERE WAS NO FEDERAL OR STATE REQUIREMENT TO DO SO.

AVAILABILITY: US GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICE FACILITY, PO BOX 6015, GAITHERSBURG, MD 20877

IRIS ACCESSION NUMBER: EW012873

PUBLICATION DATE: 84

TITLE: REVIEW OF GROUND WATER PROTECTION STRATEGY RECENTLY PROPOSED BY THE ENVIRONMENTAL PROTECTION AGENCY.

DESCRIPTOR: \*CONGRESSIONAL HEARINGS; \*GROUNDWATER; \*HOUSE OF REPRESENTATIVES; \*POLICIES; \*USEPA; \*WATER RESOURCES; \*WATER QUALITY; \*WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 611P.

ABSTRACT: THIS PUBLICATION PRESENTS THE HEARINGS BEFORE A SUBCOMMITTEE OF THE COMMITTEE ON GOVERNMENT OPERATIONS OF THE HOUSE OF REPRESENTATIVES ON APRIL 11 AND 12, 1984. TESTIMONY OF VARIOUS PEOPLE AND PRINTED MATERIALS SUBMITTED ARE INCLUDED.

AVAILABILITY: US GOVERNMENT PRINTING OFFICE, WASHINGTON, DC

IRIS ACCESSION NUMBER: EW012874

PUBLICATION DATE: 85

TITLE: SAFE DRINKING WATER AMENDMENTS OF 1985.

DESCRIPTOR: \*PUBLIC HEALTH; \*CONGRESSIONAL HEARINGS; \*DRINKING WATER; \*ENVIRONMENT; \*POLICIES; \*PUBLIC WORKS; \*REGULATIONS; \*SAFE DRINKING WATER AMENDMENTS; \*WATER RESOURCES; \*WATER QUALITY; WATER TREATMENT

DESCRIPTIVE NOTE: 271P.

ABSTRACT: THIS IS A PRINTED RECORD OF THE HEARING BEFORE THE SUBCOMMITTEE ON TOXIC SUBSTANCES AND ENVIRONMENTAL OVERSIGHT OF THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS OF THE U.S. SENATE ON MARCH 21, 1985 REGARDING THE SAFE DRINKING WATER AMENDMENTS OF 1985. TESTIMONY OF WITNESSES AND PRINTED MATERIALS ARE INCLUDED.

AVAILABILITY: US GOVERNMENT PRINTING OFFICE, WASHINGTON, DC

IRIS ACCESSION NUMBER: EW012875

PUBLICATION DATE: 85

TITLE: AMENDING THE CLEAN WATER ACT.

DESCRIPTOR: \*CONGRESSIONAL HEARINGS; \*CLEAN WATER ACT;  
ENVIRONMENT; \*POLICIES; \*REGULATIONS; WATER TREATMENT;  
\*WASTEWATER TREATMENT; \*WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 667P.

ABSTRACT: THIS PUBLICATION PRESENTS HEARINGS BEFORE THE SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION OF THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS OF THE U.S. SENATE ON MARCH 26, 27, AND 28, 1985. THE HEARINGS WERE RELATED TO AMENDING THE CLEAN WATER ACT. INCLUDED ARE TESTIMONY OF VARIOUS PEOPLE AND PRINTED MATERIALS SUBMITTED.

AVAILABILITY: US GOVERNMENT PRINTING OFFICE, WASHINGTON, DC

IRIS ACCESSION NUMBER: EW012876

PUBLICATION DATE: 85

TITLE: EPA'S ASBESTOS REGULATIONS.

DESCRIPTOR: \*ASBESTOS; \*CONGRESSIONAL HEARINGS; \*FEDERAL  
ROLE; \*OFFICE OF MANAGEMENT AND BUDGET; \*POLICIES;  
\*POLLUTION CONTROL; \*REGULATIONS; \*USEPA

DESCRIPTIVE NOTE: 703P.

ABSTRACT: THIS PUBLICATION PRESENTS HEARINGS BEFORE THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS OF THE COMMITTEE ON ENERGY AND COMMERCE OF THE HOUSE OF REPRESENTATIVES ON APRIL 16, 1985. THESE HEARINGS FOCUSED ON THE INVOLVEMENT OF THE OFFICE OF MANAGEMENT AND BUDGET IN RULEMAKING.

AVAILABILITY: US GOVERNMENT PRINTING OFFICE, WASHINGTON, DC

IRIS ACCESSION NUMBER: EW012877

PUBLICATION DATE: 84

TITLE: PROCESS DESIGN MANUAL FOR LAND TREATMENT OF MUNICIPAL WASTEWATER. SUPPLEMENT ON RAPID INFILTRATION AND OVER LAND FLOW.

DESCRIPTOR: DESIGN; CONSTRUCTION; \*DESIGN MANUALS;  
FACILITIES; LAND USE; \*LAND TREATMENT; OPERATIONS  
(WASTEWATER); \*OVERLAND FLOW; PLANNING; \*RAPID INFILTRATION;  
\*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 121P. FREE WHILE SUPPLY LASTS.

ABSTRACT: THIS DOCUMENT IS INTENDED AS A SUPPLEMENT TO THE 1981 TECHNOLOGY TRANSFER PROCESS DESIGN MANUAL FOR LAND TREATMENT OF MUNICIPAL WASTEWATER. PART I PROVIDES

ADDITIONAL GUIDANCE AND DETAIL ON PLANNING, DESIGN, CONSTRUCTION, AND OPERATION OF RAPID INFILTRATION SYSTEMS TO AVOID PROBLEMS THAT HAVE BEEN OBSERVED AT SOME SITES. PART II SUPPLEMENTS THE 1981 DESIGN BASIS FOR OVERLAND FLOW WITH INFORMATION FROM OPERATING MUNICIPAL FACILITIES, AS WELL AS ADDITIONAL RESULTS FROM RESEARCH STUDIES COMPLETED BETWEEN 1980 AND 1984.

AVAILABILITY: USEPA, CENTER FOR ENVIRONMENTAL RESEARCH INFORMATION, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW012880

PUBLICATION DATE: 80

TITLE: WASTEWATER IRRIGATION OF RICE.

DESCRIPTOR: \*AGRICULTURE; \*EFFLUENT; \*IRRIGATION;  
\*RECOMMENDATIONS; \*PUBLIC HEALTH; \*RECYCLING; \*WASTEWATER  
TREATMENT; \*WASTEWATER REUSE; \*WATER RESOURCES; \*WATER  
QUALITY

DESCRIPTIVE NOTE: 22P. PRICE: \$2.32

ABSTRACT: THIS PUBLICATION REPORTS ON (1) THE POTENTIAL FOR AND THE EXTENT OF WASTEWATER REUSE IN RICE PRODUCTION (2) THE RESULTING FOOD CHAIN EFFECTS AND (3) THE COST EFFECTIVENESS OF THIS REUSE.

AVAILABILITY: EQ/IRC, 1200 CHAMBERS RD., ROOM 310,  
COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW012881

PUBLICATION DATE: 85

TITLE: PROCEEDINGS OF CONFERENCE ON INORGANICS IN DRINKING WATER AND CARDIOVASCULAR DISEASE HELD AT AMHERST, MASSACHUSETTS, MAY 1985.

PERSONAL AUTHOR: CALABRESE, E. J.; AND OTHERS

DESCRIPTOR: \*CARDIOVASCULAR DISEASE; \*CONFERENCE  
PROCEEDINGS; \*DRINKING WATER; \*DISEASES; \*HEALTH; \*MINERALS;  
\*PUBLIC HEALTH; \*REGULATIONS; \*SODIUM; \*WATER TREATMENT

DESCRIPTIVE NOTE: 432P. PRICE CODE: PC A19/MF A01. ORDER  
NO.: PB85-216513/WEP

ABSTRACT: THIS PUBLICATION CONTAINS THE PROCEEDINGS FROM THE CONFERENCE ON INORGANICS IN DRINKING WATER AND CARDIOVASCULAR DISEASE, SPONSORED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY AND HELD AT THE UNIVERSITY OF MASSACHUSETTS, AMHERST, MA, ON MAY 1-3, 1984. PAPERS INCLUDE THE FOLLOWING TOPICS: INFLUENCE OF ELEVATED LEVELS OF SODIUM IN DRINKING WATER ON HUMAN HEALTH, EPIDEMIOLOGICAL AND TOXICOLOGICAL STUDIES DESCRIBING THE RELATIONSHIP OF HARD WATER/SOFT WATER TO CARDIOVASCULAR DISEASE, UPTAKE AND AVAILABILITY OF MINERALS FROM WATER, AND RESEARCH REGULATORY CONSIDERATIONS.

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

IRIS ACCESSION NUMBER: EW012882

PUBLICATION DATE: 85

TITLE: HIGH PERFORMANCE LIQUID CHROMATOGRAPHY. JULY 1983-  
SEPTEMBER 1985 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;  
\*CHROMATOGRAPHY; \*LIQUID CHROMATOGRAPHY; \*ANALYTICAL  
TECHNIQUES; \*LABORATORY PROCEDURES; \*ORGANIC COMPOUNDS

DESCRIPTIVE NOTE: 203P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-837786/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
HIGH-PERFORMANCE (OR HIGH-PRESSURE OR HIGH-SPEED) LIQUID  
CHROMATOGRAPHY TECHNIQUES AND APPLICATIONS. THE  
CHARACTERIZATION, ANALYSIS, DETECTION, AND SEPERATION OF  
VARIOUS SUBSTANCES (INCLUDING ORGANIC COMPOUNDS SUCH AS  
POLYCYCLIC AROMATIC COMPOUNDS, WATER, POLLUTANTS, AND  
WASTES) ARE CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS  
195 CITATIONS, 122 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS  
EDITION).

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

IRIS ACCESSION NUMBER: EW012883

PUBLICATION DATE: 85

TITLE: EFFECTS OF LAND USE PRACTICES ON WATER RESOURCES IN  
VIRGINIA.

PERSONAL AUTHOR: JONES, R. C.; HOLMES, B. H.

DESCRIPTOR: \*AGRICULTURE; \*FORESTRY; \*LAND USE;  
\*MANAGEMENT; \*RESEARCH NEEDS; \*URBAN AREAS; \*VIRGINIA;  
\*WATER RESOURCES

DESCRIPTIVE NOTE: 137P. PRICE CODE: PC A07/MF A01. ORDER  
NO.: PB85-216927/WEP

ABSTRACT: THE STUDY REVIEWS THE RELATIONSHIP BETWEEN LAND  
USE AND WATER RESOURCES IN VIRGINIA. IT EXAMINES THREE MAJOR  
LAND USES IN THE STATE--AGRICULTURAL, URBAN, AND FORESTRY  
ACTIVITIES. FOR EACH LAND USE, THE RELEVANT LITERATURE AND  
STATE MANAGEMENT PROGRAMS ARE REVIEWED. IN ADDITION, THE  
REPORT OUTLINES RESEARCH NEEDS IN EACH AREA.

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

IRIS ACCESSION NUMBER: EW012884

PUBLICATION DATE: 85

TITLE: CHROMATOGRAPHY FOR WATER POLLUTION ANALYSIS. 1977-  
AUGUST 1985 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: \*ANALYTICAL TECHNIQUES; \*ANNOTATED  
BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*CHROMATOGRAPHY; \*LABORATORY  
PROCEDURES; \*WATER ANALYSIS; \*WATER QUALITY; \*WATER  
POLLUTION CONTROL

DESCRIPTIVE NOTE: 159P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-866226/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
CHROMATOGRAPHIC ANALYSIS OF WATER POLLUTANTS.  
CHROMATOGRAPHIC DETERMINATION, SOURCE IDENTIFICATION, AND  
CHARACTERIZATION OF POLLUTANTS GENERATED BY OIL SPILLS,  
INDUSTRIAL PROCESSES, AND MUNICIPAL WASTES ARE DISCUSSED.  
WATER POLLUTION EFFECTS ON AQUATIC ECOSYSTEMS AND POLLUTANTS  
IN DRINKING WATER; GROUNDWATER; AND LAKE, SEA, AND RIVER  
WATER ARE EVALUATED AND ANALYZED. (THIS UPDATED BIBLIOGRAPHY  
CONTAINS 168 CITATIONS, 50 OF WHICH ARE NEW ENTRIES TO THE  
PREVIOUS EDITION).

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

IRIS ACCESSION NUMBER: EW012885

PUBLICATION DATE: 85

TITLE: BIOACCUMULATION OF HEAVY METALS BY FISH. 1977-  
AUGUST 1985 (CITATIONS FROM THE SELECTED WATER RESOURCES  
ABSTRACTS DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;  
\*FISH; \*HEAVY METALS; \*METALS; \*CONTAMINATION; PHYSIOLOGY

DESCRIPTIVE NOTE: 122P. PRICE CODE: PC N01/MF N01. ORDER  
NO.: PB85-866200/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING  
DISTRIBUTION AND BIOACCUMULATION OF HEAVY METALS IN MARINE  
AND FRESHWATER FISH. SURVEYS, TOXICOLOGICAL EFFECTS,  
MECHANISMS OF ACCUMULATION, AS WELL AS TEMPERATURE AND  
CONCENTRATION EFFECTS ARE DISCUSSED. (THIS UPDATED  
BIBLIOGRAPHY CONTAINS 119 CITATIONS, 49 OF WHICH ARE NEW  
ENTRIES TO THE PREVIOUS EDITION).

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

IRIS ACCESSION NUMBER: EW012886

PUBLICATION DATE: 85

TITLE: ACTIVATED CHARCOAL. 1970-SEPTEMBER 1985 (CITATIONS  
FROM THE ENGINEERING INDEX DATA BASE).

DESCRIPTOR: \*AIR POLLUTION CONTROL; \*ANNOTATED BIBLIOGRAPHIES; \*ACTIVATED CHARCOAL; \*WATER TREATMENT; \*WATER POLLUTION CONTROL; \*WATER TREATMENT

DESCRIPTIVE NOTE: 80P. PRICE CODE: PC N01/MF N01. ORDER NO.: PBB5-867265/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THEORETICAL ASPECTS AND INDUSTRIAL APPLICATIONS OF ACTIVATED CHARCOAL. TOPICS INCLUDE ADSORPTION CAPACITY AND MECHANISM STUDIES, KINETIC AND THERMODYNAMIC ASPECTS, AND PROPERTIES DESCRIPTIONS AND EVALUATIONS. APPLICATIONS INCLUDE UTILIZATION IN WATER ANALYSES AND WASTE TREATMENT, AIR POLLUTION CONTROL AND MEASUREMENT, AND IN NUCLEAR FACILITIES. (THIS UPDATED BIBLIOGRAPHY CONTAINS 104 CITATIONS, 26 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION).

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

IRIS ACCESSION NUMBER: EW012889

PUBLICATION DATE: 85

TITLE: WASTE TREATMENT BY REVERSE OSMOSIS AND MEMBRANE PROCESSING. 1978-SEPTEMBER 1985 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; \*INDUSTRIAL WASTES; \*MEMBRANES; \*REVERSE OSMOSIS; \*MUNICIPAL WASTES; \*WASTE TREATMENT; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 232P. PRICE CODE: PC N01/MF N01. ORDER NO.: PBB5-868222/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE UTILIZATION OF REVERSE OSMOSIS AND MEMBRANE PROCESSING IN SEWAGE AND INDUSTRIAL WASTE TREATMENT. TOPICS INCLUDE USES IN COAL CONVERSION PLANTS, MINING AND MUNITIONS INDUSTRIES, AND MUNICIPAL SEWAGE TREATMENT PLANTS. CITATIONS PERTAINING SPECIFICALLY TO THE DESALTING OF GROUND WATER, SURFACE WATERS AND SEA WATER ARE EXCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 231 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: EW012890

PUBLICATION DATE: 85

TITLE: WATER QUALITY MODELING: HYDROLOGICAL AND LIMNOLOGICAL SYSTEMS. OCTOBER 1981-SEPTEMBER 1985 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: \*ANNOTATED BIBLIOGRAPHIES; \*HYDROLOGY; \*LIMNOLOGY; \*MODELS; \*WATER QUALITY

DESCRIPTIVE NOTE: 72P. PRICE CODE: PC N01/MF N01. ORDER NO.: PBB5-867984/WEP

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE APPLICATION OF MATHEMATICAL MODELING TO HYDROLOGICAL AND LIMNOLOGICAL SYSTEMS. NUTRIENT REMOVAL IN LAKES AND RESERVOIRS, EFFECTS OF MINE DRAINAGE ON WATER QUALITY, AND VARIOUS PARAMETERS AFFECTING POLLUTANT FLOW IN AQUIFERS, STREAMS, AND RIVERS ARE DISCUSSED. PHYSICAL PROCESSES AFFECTING WATER QUALITY ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 68 CITATIONS, 20 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION).

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

IRIS ACCESSION NUMBER: EW012891

PUBLICATION DATE: 85

TITLE: A SLUDGE MANAGEMENT METHOD GETS UPDATES.

PERSONAL AUTHOR: ROBINSON, JOHN H., JR.; KUCHENRITHER, RICHARD D.

DESCRIPTOR: \*COMPOSTING; \*FACILITIES; \*RECYCLING; \*OPERATIONS (WASTEWATER); \*SEWAGE SLUDGE; \*SLUDGE; \*WASTE DISPOSAL; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 24-27P.

ABSTRACT: FUNDAMENTAL COMPOSTING PRINCIPLES REMAIN, BUT TRADITIONAL METHODS ARE BEING MODIFIED IN THE ENGINEERING OF MODERN FACILITIES. SOME PROCEDURES BEING USED ARE DESCRIBED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N13

IRIS ACCESSION NUMBER: EW012892

PUBLICATION DATE: 85

TITLE: PILOT STUDIES INDICATE COMPOSTING CHOICES.

PERSONAL AUTHOR: DONOVAN, JOHN

DESCRIPTOR: \*COMPOSTING; \*PILOT PROJECTS; \*OPERATIONS (WASTEWATER); \*PERFORMANCE EVALUATION; \*RECYCLING; \*WASTE DISPOSAL; \*WASTEWATER TREATMENT; \*SLUDGE; \*SEWAGE SLUDGE

DESCRIPTIVE NOTE: 28-31P.

ABSTRACT: A NUMBER OF ACTUAL PILOT SCALE PROJECTS WERE USED TO DEMONSTRATE HOW DIFFERENT SLUDGE COMPOSTING OBJECTIVES WOULD BE MET. SEVERAL OF THE PROJECTS ARE DESCRIBED.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N13

IRIS ACCESSION NUMBER: EW012893

PUBLICATION DATE: 85

TITLE: SMALL PLANT CAPTURES GAS ECONOMICALLY.

PERSONAL AUTHOR: HERINGTON, GORDON

DESCRIPTOR: \*DIGESTER GAS; \*ENERGY; \*ENERGY RECOVERY;  
\*EQUIPMENT; \*METHANE; \*OPERATIONS (WASTEWATER); \*WASTEWATER  
TREATMENT

DESCRIPTIVE NOTE: 32-34P.

ABSTRACT: A USED PROPANE GAS TANK PROVIDES THE SOLUTION TO  
A WASTEWATER PLANTS' DIGESTER GAS UTILIZATION PROBLEM.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N13

IRIS ACCESSION NUMBER: EW012894

PUBLICATION DATE: 85

TITLE: COST-SAVING INSTRUMENT IMPROVES WATER QUALITY.

DESCRIPTOR: \*INSTRUMENTATION; \*MONITORING; \*WATER QUALITY;  
\*WATER TREATMENT

DESCRIPTIVE NOTE: 35, 41P.

ABSTRACT: A STREAMING CURRENT DETECTOR REQUIRES NO  
ADJUSTMENT, MAINTENANCE OR CHEMICALS FOR OPERATION-AND IT  
NEVER TAKES A BREAK.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V132 N13

IRIS ACCESSION NUMBER: EW012900

PUBLICATION DATE: 85

TITLE: AUDIENCE ANALYSIS

PERSONAL AUTHOR: HON, DAVID

DESCRIPTOR: \*AUDIOVISUAL AIDS; \*AUDIENCE ANALYSIS;  
\*INSTRUCTIONAL MATERIALS; \*MATERIAL DEVELOPMENT; \*VIDEO  
INSTRUCTION

DESCRIPTIVE NOTE: 63-64P.

ABSTRACT: THIS ARTICLE STRESSES WAYS TO DEVELOP VIDEO  
INSTRUCTION FOR APPROPRIATE AUDIENCES.

AVAILABILITY: E-I TV; V17 N11

IRIS ACCESSION NUMBER: EW012905

PUBLICATION DATE: 85

TITLE: SEVEN STRATEGIES THAT GUARANTEE TRAINING TRANSFER.

PERSONAL AUTHOR: KELLY, ANN I.; AND OTHERS

DESCRIPTOR: \*INSTRUCTION; \*POSTSECONDARY INSTRUCTION;  
\*TRAINING; \*TRANSFER OF TRAINING

DESCRIPTIVE NOTE: 78-82P.

ABSTRACT: PRESENTED ARE SEVEN STRATEGIES TO HELP TRAINING  
TRANSFER.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V39 N11

IRIS ACCESSION NUMBER: EW012906

PUBLICATION DATE: 85

TITLE: INCINERATION OF HAZARDOUS WASTES AT SEA.

PERSONAL AUTHOR: ZURER, PAMELA S.

DESCRIPTOR: \*HAZARDOUS WASTES; \*INCINERATION; ENVIRONMENT;  
\*ENVIRONMENTAL IMPACT; \*OCEAN INCINERATION; OCEANS;  
REGULATIONS; \*RESEARCH NEEDS; \*TECHNOLOGY; USEPA

DESCRIPTIVE NOTE: 24-26P.

ABSTRACT: THIS IS A REPORT ON INCINERATION OF HAZARDOUS  
WASTES AT SEA. TECHNOLOGY FOR OCEAN INCINERATION IS  
AVAILABLE, BUT COMMERCIAL OPERATORS, FACING OPPOSITION OF  
ENVIRONMENTAL ACTIVISTS, MUST AWAIT LPA REGULATIONS.

AVAILABILITY: CHEMICAL AND ENGINEERING NEWS; V63 N49

IRIS ACCESSION NUMBER: EW012907

TITLE: A WATERTIGHT CASE: DECISION TIME FOR THE WORLD'S  
WETLANDS.

PERSONAL AUTHOR: MALTBY, EDWARD; DUGAN, PATRICK

DESCRIPTOR: CONSERVATION; \*ECOSYSTEMS; ENVIRONMENT; IUCN;  
\*MANAGEMENT; \*NATURAL RESOURCES; \*PLANNING; \*TRENDS;  
\*WETLANDS; WATER RESOURCES; \*WORLD PROBLEMS

DESCRIPTIVE NOTE: 109-24P.

ABSTRACT: THIS IS A SPECIAL REPORT ON THE WORLD'S WETLANDS.  
NINE SHORT ARTICLES ARE INCLUDED.

AVAILABILITY: IUCN BULLETIN; V16 N10-12

IRIS ACCESSION NUMBER: EW012908

PUBLICATION DATE: 85

TITLE: THE HEALTH EFFECTS OF RADIATION: THE CONTROVERSY CONTINUES.

PERSONAL AUTHOR: TAYLOR, LYNDA

DESCRIPTOR: ENVIRONMENT; \*HAZARDOUS MATERIALS; \*HEALTH; OCCUPATIONAL RADIATION; MEDICAL HEALTH; \*PUBLIC HEALTH; NUCLEAR RADIATION; \*RADIATION; \*REGULATIONS; \*STANDARDS

DESCRIPTIVE NOTE: 147-59P.

ABSTRACT: THIS ARTICLE EXPLORES THE CONTROVERSY ABOUT HOW MUCH RADIATION IS DANGEROUS.

AVAILABILITY: WORKBOOK; V10 N4

IRIS ACCESSION NUMBER: EW012913

PUBLICATION DATE: 86

TITLE: REHABILITATION OF AN ACTIVE WATER TREATMENT PLANT.

PERSONAL AUTHOR: ASHLEY, WILLIAM M.; SIGMAN, JOHN G.

DESCRIPTOR: \*FACILITIES; \*MAINTENANCE; \*RENOVATION; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 64-66P.

ABSTRACT: REVIEWED ARE STEPS TAKEN TO RENOVATE AN AGING WATER TREATMENT PLANT.

AVAILABILITY: PUBLIC WORKS; V117 N1

IRIS ACCESSION NUMBER: EW012914

PUBLICATION DATE: 86

TITLE: CONTROL OF ACTINOMYCETIC FOAM AND SCUM PRODUCTION.

PERSONAL AUTHOR: GERARDI, MICHAEL H.

DESCRIPTOR: \*ACTINOMYCETES; \*CONTROL MEASURES; \*FOAM; \*OPERATIONS (WASTEWATER); \*SCUM; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 82-83P.

ABSTRACT: DESCRIBED IS A NEW METHOD FOR CONTROLLING ACTINOMYCETIC FOAM AND SCUM PRODUCTION AT ACTIVATED SLUDGE PLANTS.

AVAILABILITY: PUBLIC WORKS; V117 N1

IRIS ACCESSION NUMBER: EW012915

PUBLICATION DATE: 86

TITLE: DEVELOPING TRAINING STEP-BY-STEP.

PERSONAL AUTHOR: KELLO, JOHN E.

DESCRIPTOR: \*PLANNING; \*PROGRAM DEVELOPMENT; \*TRAINING

DESCRIPTIVE NOTE: 50-52P.

ABSTRACT: PRESENTED ARE EIGHT STEPS FOR DEVELOPING AN EFFECTIVE TRAINING PROGRAM.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V40 N1

IRIS ACCESSION NUMBER: EW012916

PUBLICATION DATE: 86

TITLE: SELF-MANAGED SKILL RETENTION.

PERSONAL AUTHOR: MARX, ROBERT D.

DESCRIPTOR: \*SKILL DEVELOPMENT; \*SKILL USE; \*TRAINING; \*TRANSFER OF TRAINING

DESCRIPTIVE NOTE: 54-57P.

ABSTRACT: DESCRIBED ARE STRATEGIES FOR RETAINING SKILLS LEARNED IN TRAINING PROGRAMS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V40 N1

IRIS ACCESSION NUMBER: EW012917

PUBLICATION DATE: 85

TITLE: ACTIVATED CARBON. 1979-SEPTEMBER 1985 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: \*ACTIVATED CARBON; \*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; \*INDUSTRIAL WASTES; \*PERFORMANCE EVALUATION; \*SEWAGE; \*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 264P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB85-867539/WEF

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE UTILIZATION OF ACTIVATED CARBON FOR THE TREATMENT OF SEWAGE AND INDUSTRIAL WASTES. TOPICS INCLUDE PERFORMANCE EVALUATIONS AT SPECIFIC SITES, ENGINEERING STUDIES, AND REGENERATION TECHNIQUES. APPLICATIONS IN SEWAGE TREATMENT, COAL CONVERSION, PETROCHEMICAL, AND VARIOUS OTHER INDUSTRIES ARE PRESENTED. CITATIONS PERTAINING TO AIR POLLUTION CONTROL ARE EXCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 269 CITATIONS, 25 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION).

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

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		EW012757	EW012816	EW012852	EW012889	EW012917			
INDUSTRIAL WASTES	(1)	EW012871							
INDUSTRY	(1)	EW012738							
*INFILTRATION	(1)	EW012864							
*INFLOW	(1)	EW012864							

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*INFRARED	(1)	EW012801							
*INNOVATIVE TECHNOLOGY	(1)	EW012688							
*INSITUFORM	(1)	EW012863							
*INSTRUCTION	(3)	EW012790	EW012791	FW012905					
*INSTRUCTIONAL DESIGN	(1)	EW012792							
*INSTRUCTIONAL MATERIALS	(19)	EW012140	EW012172	EW012765	EW012766	EW012767	EW012769	EW012770	
		EW012771	EW012772	EW012773	EW012774	EW012775	EW012791	EW012846	EW012847
		EW012855	EW012857	EW012862	EW012900				
*INSTRUCTURAL MATERIALS	(1)	EW012768							
*INSTRUMENTATION	(6)	EW012786	EW012818	EW012822	EW012823	EW012825	EW012894		
INSTRUMENTATION	(1)	EW012813							
*INSTRUMENTS	(1)	EW012813							
*INSURANCE	(1)	EW012828							
*INTERAGENCY AGREEMENTS	(1)	EW012867							
*INTERNAL PITTING	(1)	EW012794							
*INVENTORY CONTROL	(1)	EW012567							
*INVESTIGATIONS	(1)	EW012841							
*IRRIGATION	(3)	EW012174	EW012804	EW012880					
*ISSUES	(1)	EW012763							
LUCN	(1)	EW012907							
*LABORATORY EQUIPMENT	(2)	EW012820	EW012824						
*LABORATORY FACILITIES	(1)	EW012824							
*LABORATORY PROCEDURES	(12)	EW012263	EW012681	EW012701	EW012786	EW012795	EW012810	EW012818	
		EW012819	EW012820	EW012824	EW012882	EW012884			
*LAGOONS	(1)	EW012814							
*LAKES	(2)	EW012693	EW012710						
*LAND APPLICATION	(1)	EW012859							
*LAND DISPOSAL	(2)	EW012171	EW012694						
*LANDFILLS	(4)	EW012732	EW012796	EW012800	EW012843				
*LAND RECLAMATION	(1)	EW012740							
*LAND TREATMENT	(3)	EW012686	EW012852	EW012877					
*LAND USE	(1)	EW012883							
LAND USE	(1)	EW012877							
*LEACHATES	(1)	EW012732							

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*LEAD	(1)	EW012809							
*LEAK DETECTION	(1)	EW012840							
*LEGAL ASPECTS	(1)	EW012714							
*LEGISLATION	(7)	EW012683	EW012684	EW012714	EW012721	EW012722	EW012800	EW012842	
LEGISLATION	(1)	EW012871							
*LIMNOLOGY	(1)	EW012890							
*LIQUID CHROMATOGRAPHY	(2)	EW012786	EW012882						
*LIQUID WASTES	(2)	EW012697	EW012698						
*LITERATURE REVIEWS	(1)	EW012726							
*LOCAL ROLE	(1)	EW012807							
*LUBRICATING OIL	(1)	EW012755							
*MAGNETIC FLOWMETERS	(1)	EW012823							
*MAINTENANCE	(15)	EW012567	EW012739	EW012794	EW012797	EW012799	EW012801	EW012802	
		EW012811	EW012827	EW012829	EW012845	EW012861	EW012863	EW012864	EW012913
*MAINTENANCE MANAGEMENT	(1)	EW012567							
*MANAGEMENT	(19)	EW012139	EW012169	EW012171	EW012174	EW012688	EW012689	EW012690	
		EW012691	EW012694	EW012710	EW012732	EW012739	EW012750	EW012751	EW012850
		EW012860	EW012868	EW012883	EW012907				
*MANAGERS	(1)	EW012139							
*MANGANESE	(1)	EW012746							
*MANUALS	(3)	EW012696	EW012825	EW012832					
*MARINE POLLUTION	(1)	EW012712							
*MARINE WATERS	(1)	EW012869							
*MARYLAND	(1)	EW012797							
MASSACHUSETTS	(1)	EW012870							
*MATERIAL DEVELOPMENT	(1)	EW012900							
*MATERIALS EVALUATION	(1)	EW012140							
*MATHEMATICS	(1)	EW012791							
MATHEMATICS	(1)	EW012170							
*MEASUREMENT	(2)	EW012813	EW012822						
MEDICAL HEALTH	(1)	EW012908							
*MEMBRANES	(1)	EW012889							
*METALS	(9)	EW012697	EW012698	EW012746	EW012747	EW012757	EW012758	EW012816	
		EW012866	EW012885						



*METERS	(1)	EW012517							
*METHANE	(2)	EW012725	EW012893						
*MICROBIAL PROCESSES	(1)	EW012726							
*MICROCOMPUTERS	(1)	EW012751							
MICROCOMPUTERS	(1)	EW012790							
*MICROPROCESSORS	(1)	EW012566							
*MILKS	(1)	EW012716							
*MINERALS	(1)	EW012881							
*MINING	(1)	EW012740							
*MINNESOTA	(1)	EW012841							
*MISSOURI	(2)	EW012801	EW012845						
*MODELS	(4)	EW012173	EW012750	EW012791	EW012890				
*MONITORING	(12)	EW012701	EW012712	EW012720	EW012743	EW012747	EW012795	EW012796	
MONITORING	(3)	EW012711	EW012813	EW012871					
MONITORING		EW012801	EW012840	EW012841	EW012846	EW012894			
MOTION PICTURES	(1)	EW012790							
*MOTORS	(1)	EW012519							
*MUNICIPALITIES	(1)	EW012800							
*MUNICIPAL WASTES	(3)	EW012726	EW012852	EW012889					
*MUTAGENS	(1)	EW012831							
*NATURAL RESOURCES	(2)	EW012174	EW012907						
*NEW JERSEY	(1)	EW012843							
NEW JERSEY	(1)	EW012870							
*NICKEL	(1)	EW012747							
NITRIFICATION	(1)	EW012815							
*NUCLEAR ENERGY	(1)	EW012684							
NUCLEAR RADIATION	(1)	EW012908							
*NUTRIENT REMOVAL	(1)	EW012710							
NUTRIENTS	(1)	EW012710							
*OCCUPATIONAL HAZARDS	(2)	EW012138	EW012745						
OCCUPATIONAL RADIATION	(1)	EW012908							
*OCCUPATIONAL SAFETY	(1)	EW012842							
*OCEAN DISPOSAL	(1)	EW012854							

*OCEAN INCINERATION	(1)	EW012906							
*OCEANOLOGY	(1)	EW012687							
OCEANS	(2)	EW012711	EW012906						
*ODOR CONTROL	(1)	EW012834							
*ODORS	(1)	EW012834							
*OFFICE OF MANAGEMENT AND BUDGET	(1)	EW012876							
OHIO	(1)	EW012756							
OIL	(1)	EW012755							
*OIL POLLUTION	(1)	EW012712							
*OIL SPILL REMOVAL	(1)	EW012713							
*OIL SPILLS	(2)	EW012713	EW012714						
*ONSITE DISPOSAL	(1)	EW012861							
*OPERATIONS	(2)	EW012739	EW012829						
*OPERATIONS (WASTEWATER)	(48)	EW012168	EW012172	EW012515	EW012697	EW012698	EW012737	EW012738	
		EW012751	EW012752	EW012754	EW012756	EW012757	EW012765	EW012766	EW012767
		EW012768	EW012769	EW012770	EW012771	EW012772	EW012773	EW012774	EW012775
		EW012798	EW012801	EW012802	EW012811	EW012812	EW012814	EW012816	EW012817
		EW012820	EW012821	EW012825	EW012831	EW012832	EW012833	EW012834	EW012835
		EW012858	EW012861	EW012862	EW012865	EW012868	EW012891	EW012892	EW012893
		EW012914							
OPERATIONS (WASTEWATER)	(3)	EW012804	EW012852	EW012877					
*OPERATIONS (WATER)	(9)	EW012170	EW012517	EW012797	EW012799	EW012811	EW012821	EW012844	
		EW012845	EW012862						
OPERATIONS (WATER)	(1)	EW012804							
*ORDINANCES	(1)	EW012564							
*ORGANIC CHEMICALS	(1)	EW012808							
*ORGANIC COMPOUNDS	(3)	EW012831	EW012848	EW012882					
*ORGANIC WASTES	(1)	EW012688							
*OSHA	(1)	EW012138							
*OUTFALL SEWERS	(1)	EW012711							
*OVERLAND FLOW	(1)	EW012877							
*OVERLOADING	(1)	EW012817							
*OXIDATION DITCHES	(1)	EW012775							
*OXYGENATION	(1)	EW012756							
*OZONATION	(1)	EW012756							
*CZONE	(1)	EW012752							



*PAPER INDUSTRY	(2)	EW012168	EW012738						
*PARAQUAT	(1)	EW012715							
*PATHOGENS	(1)	EW012701							
*PCB'S	(2)	EW012788	EW012848						
*PCBS	(3)	EW012721	EW012722	EW012723					
*PERFORMANCE EVALUATION	(23)	EW012141	EW012741	EW012752	EW012754	EW012756	EW012805	EW012806	
		EW012808	EW012809	EW012815	EW012831	EW012832	EW012833	EW012834	EW012863
		EW012864	EW012865	EW012866	EW012870	EW012871	EW012872	EW012892	EW012917
*PERMITS	(1)	EW012800							
*PERMITTING PROCESS	(1)	EW012800							
*PERSONNEL	(3)	EW012787	EW012828	EW012832					
*PESTICIDES	(3)	EW012716	EW012717	EW012848					
PHYSIOLOGY	(1)	EW012885							
*PILOT PROJECTS	(1)	EW012892							
*PILOT STUDIES	(2)	EW012831	EW012866						
*PIPE LEAKS	(1)	EW012868							
*PIPES	(7)	EW012518	EW012794	EW012799	EW012805	EW012809	EW012845	EW012856	
*PLANNING	(9)	EW012173	EW012689	EW012802	EW012812	EW012826	EW012829	EW012868	
		EW012907	EW012915						
PLANNING	(2)	EW012748	EW012877						
*POLICIES	(7)	EW012171	EW012690	EW012869	EW012873	EW012874	EW012875	EW012876	
*POLLUTION	(1)	EW012828							
*POLLUTION CONTROL	(9)	EW012169	EW012171	EW012717	EW012720	EW012745	EW012796	EW012826	
		EW012857	EW012876						
*POLYBUTYLENE PIPE	(1)	EW012805							
*POLYCHLORINATED BIPHENYLS	(3)	EW012721	EW012722	EW012723					
*POLYETHYLENE PIPE	(1)	EW012805							
*PONDS	(2)	EW012693	EW012710						
*POSTSECONDARY EDUCATION	(16)	EW012172	EW012765	EW012766	EW012767	EW012768	EW012769	EW012770	
		EW012771	EW012772	EW012773	EW012774	EW012775	EW012846	EW012847	EW012855
		EW012857							
POSTSECONDARY EDUCATION	(1)	EW012862							
*POSTSECONDARY INSTRUCTION	(1)	EW012905							
*POWER SOURCES	(1)	EW012566							
*PRESSURE SEWERS	(1)	EW012865							

*PRETREATMENT	(2)	EW012816	EW012858					
*PREVENTIVE MAINTENANCE	(1)	EW012802						
*PRIVATIZATION	(2)	EW012797	EW012829					
*PROBLEMS	(2)	EW012687	EW012800					
*PROCESS CONTROL	(14)	EW012565	EW012765	EW012766	EW012767	EW012768	EW012769	EW012770
		EW012771	EW012772	EW012773	EW012774	EW012775	EW012811	EW012855
*PROCESS CONTROLS	(1)	EW012821						
*PROCESS EVALUATION	(1)	EW012832						
*PRODUCTIVITY	(1)	EW012792						
*PROGRAM DESCRIPTIONS	(2)	EW012763	EW012832					
*PROGRAM DEVELOPMENT	(1)	EW012915						
*PROGRAM EVALUATION	(2)	EW012793	EW012867					
*PROGRAMMABLE CONTROLLERS	(1)	EW012565						
*PROJECT COSTS	(1)	EW012872						
*PROPERTY	(1)	EW012828						
*PUBLIC HEALTH	(14)	EW012685	EW012686	EW012715	EW012716	EW012744	EW012746	EW012747
		EW012750	EW012789	EW012859	EW012874	EW012880	EW012881	EW012908
*PUBLIC WORKS	(1)	EW012874						
*PUCET SOUND	(2)	EW012689	EW012690					
*PULP INDUSTRY	(3)	EW012168	EW012724	EW012738				
*PUMPS	(1)	EW012516						
*PVC PIPE	(1)	EW012808						
*RADIATION	(1)	EW012908						
RADIO	(1)	EW012790						
*RADIOACTIVE MATERIALS	(1)	EW012684						
*RAPID INFILTRATION	(1)	EW012877						
*RATING SCALES	(1)	EW012141						
*RCRA	(1)	EW012800						
*RECIRCULATION	(1)	EW012516						
*RECLAMATION	(3)	EW012697	EW012698	EW012755				
*RECOMMENDATIONS	(6)	EW012851	EW012858	EW012863	EW012870	EW012872	EW012880	
*RECREATIONAL VEHICLES	(1)	EW012753						
*RECYCLING	(12)	EW012168	EW012171	EW012174	EW012725	EW012726	EW012755	EW012757
		EW012859	EW012860	EW012880	EW012891	EW012892		

*REFERENCE MATERIALS	(2)	EW012170	EW012869					
*REGULATIONS	(15)	EW012171	EW012413	EW012755	EW012757	EW012800	EW012826	EW012842
		EW012858	EW012869	EW012870	EW012874	EW012875	EW012876	EW012881
REGULATIONS	(2)	EW012871	EW012906					
*REHABILITATION	(3)	EW012845	EW012863	EW012864				
*REMEDIAL ACTION	(2)	EW012413	EW012694					
*RENOVATION	(1)	EW012913						
*REPAIR METHODS	(1)	EW012864						
*REPORTING	(1)	EW012867						
*REPORTS	(5)	EW012567	EW012689	EW012753	EW012763	EW012858		
REPORTS	(1)	EW012748						
*RESEARCH	(5)	EW012687	EW012689	EW012749	EW012817	EW012853		
RESEARCH	(2)	EW012717	EW012748					
*RESEARCH NEEDS	(3)	EW012687	EW012883	EW012906				
*RESEARCH RECOVERY	(1)	EW012691						
*RESEARCH REPORTS	(5)	EW012808	EW012815	EW012816	EW012831	EW012833		
*RESIDENCES	(1)	EW012691						
*RESOURCE RECOVERY	(1)	EW012860						
*RESOURCES	(1)	EW012858						
*REVENUE	(1)	EW012812						
*REVERSE OSMOSIS	(1)	EW012889						
*RIGHT TO KNOW	(1)	EW012842						
*RISK ANALYSIS	(1)	EW012750						
RISK ANALYSIS	(1)	EW012748						
*RISK ASSESSMENT	(2)	EW012683	EW012684					
*RIVERS	(3)	EW012693	EW012710	EW012734				
*ROTATING BIOLOGICAL CONTACTORS	(2)	EW012773	EW012817					
*RURAL AREAS	(2)	EW012798	EW012814					
*SAFE DRINKING WATER AMENDMENTS	(1)	EW012874						
*SAFETY	(5)	EW012138	EW012748	EW012788	EW012789	EW012842		
SAFETY	(1)	EW012682						
*SALARIES	(1)	EW012787						
*SAMPLING	(3)	EW012693	EW012701	EW012712				

SAMPLING	(1)	EW012682							
*SAND FILTRATION	(1)	EW012754							
*SCHEDULING	(1)	EW012567							
*SCUM	(1)	EW012914							
*SEDIMENTS	(2)	EW012693	EW012734						
*SEDIMENT TRANSPORT	(1)	EW012734							
*SEPTIC TANKS	(3)	EW012753	EW012814	EW012861					
*SERVICE LATERALS	(1)	EW012864							
*SEWAGE	(3)	EW012735	EW012737	EW012917					
*SEWAGE SLUDGE	(4)	EW012853	EW012866	EW012891	EW012892				
*SEWER IMPACT FEES	(1)	EW012812							
*SEWER REPAIRS	(1)	EW012863							
*SEWERS	(9)	EW012518	EW012711	EW012801	EW012802	EW012812	EW012814	EW012863	
		EW012864	EW012865						
SITE EVALUATION	(1)	EW012871							
*SITE INVENTORIES	(1)	EW012871							
*SITE SELECTION	(1)	EW012732							
*SKILL DEVELOPMENT	(1)	EW012916							
*SKILL USE	(1)	EW012916							
*SLIDES	(12)	EW012765	EW012766	EW012767	EW012768	EW012769	EW012770	EW012771	
		EW012772	EW012773	EW012774	EW012775	EW012847			
*SLUDGE	(6)	EW012738	EW012854	EW012859	EW012866	EW012891	EW012892		
SLUDGE	(1)	EW012707							
*SLUDGE DEWATERING	(2)	EW012737	EW012738						
*SLUDGE PROCESSING	(1)	EW012853							
*SODIUM	(1)	EW012881							
SOFTWARE	(1)	EW012518							
*SOLDERED JOINTS	(1)	EW012809							
*SOLIDS HANDLING	(1)	EW012765							
*SOLID WASTES	(1)	EW012866							
*SOURCE REDUCTION	(1)	EW012171							
*SPILLS	(1)	EW012748							
*STANDARDS	(5)	EW012263	EW012805	EW012830	EW012869	EW012908			



*START-UP	(1)	EW012832							
*STATE ROLE	(4)	EW012807	EW012830	EW012869	EW012871				
*STORAGE TANKS	(2)	EW012413	EW012840						
*STORMWATER	(2)	EW012739	EW012753						
*STRIP MINING	(1)	EW012740							
*STRUCTURES	(1)	EW012682							
*SULFIDES	(1)	EW012865							
*SUPERFUND	(1)	EW012682							
*SURFACE RUNOFF	(1)	EW012173							
*SURGE PROTECTORS	(1)	EW012566							
*SURVEYS	(4)	EW012812	EW012820	EW012830	EW012871				
TEACHING MACHINES	(1)	EW012790							
*TECHNOLOGY	(7)	EW012171	EW012688	EW012713	EW012793	EW012826	EW012851	EW012906	
TECHNOLOGY	(2)	EW012852	EW012862						
*TELETEXT	(1)	EW012793							
TELEVISION	(1)	EW012790							
*TEMPERATURE	(1)	EW012806							
*TERMINOLOGY	(1)	EW012825							
*THERMAL PROCESSES	(2)	EW012688	EW012725						
*TOXIC SUBSTANCES	(23)	EW012171	EW012682	EW012686	EW012697	EW012698	EW012715	EW012717	
		EW012720	EW012721	EW012722	EW012723	EW012743	EW012744	EW012745	EW012746
		EW012747	EW012749	EW012750	EW012788	EW012789	EW012816	EW012831	EW012842
*TRAINING	(13)	EW012138	EW012139	EW012141	EW012167	EW012789	EW012792	EW012802	
		EW012832	EW012842	EW012847	EW012905	EW012915			
*TRANSFER OF TRAINING	(2)	EW012905	EW012916						
*TRANSIENT SUPPRESSORS	(1)	EW012566							
*TRANSPORTATION	(3)	EW012683	EW012684	EW012748					
*TRENDS	(3)	EW012787	EW012790	EW012907					
*TRIHALOMETHANE	(1)	EW012810							
*TRIHALOMETHANES	(1)	EW012749							
*TRUCKLING FILTERS	(1)	EW012766							
*TURBIDITY	(1)	EW012263							
*TURBINES	(1)	EW012827							
*UNDERGROUND STORAGE TANKS	(2)	EW012413	EW012840						

*URBAN AREAS	(3)	EW012739	EW012798	EW012883				
*USEPA	(8)	EW012687	EW012696	EW012858	EW012867	EW012871	EW012872	EW012873
		EW012876						
USEPA	(2)	EW012870	EW012906					
*USER CHARGES	(1)	EW012812						
*UTILITY SYSTEMS	(1)	EW012691						
*VALUE ENGINEERING	(1)	EW012872						
*VARIABLE FREQUENCY DRIVES	(1)	EW012519						
*VIDEODISCS	(1)	EW012791						
*VIDEO INSTRUCTION	(1)	EW012900						
*VIDEOTEX	(1)	EW012793						
*VIRGINIA	(1)	EW012883						
*VIRUSES	(1)	EW012815						
*VOCABULARY	(1)	EW012825						
*VOLTAGE REGULATORS	(1)	EW012566						
*WASTE DISPOSAL	(21)	EW012169	EW012171	EW012683	EW012684	EW012688	EW012691	EW012694
		EW012697	EW012698	EW012711	EW012724	EW012726	EW012732	EW012740
		EW012859	EW012860	EW012866	EW012870	EW012891	EW012892	EW012854
WASTE DISPOSAL	(1)	EW012862						
*WASTE DISPOSAL SITES	(1)	EW012796						
*WASTE MANAGEMENT	(1)	EW012691						
*WASTE OIL	(1)	EW012755						
*WASTEPAPER	(1)	EW012866						
*WASTE STORAGE	(1)	EW012870						
*WASTE TREATMENT	(3)	EW012756	EW012870	EW012889				
*WASTEWATER	(1)	EW012862						
WASTEWATER	(1)	EW012711						
*WASTEWATER ANALYSIS	(1)	EW012820						
*WASTEWATER COLLECTION	(9)	EW012518	EW012801	EW012802	EW012812	EW012814	EW012856	EW012863
		EW012864	EW012865					
*WASTEWATER DISCHARGE STANDARDS	(1)	EW012830						
*WASTEWATER REUSE	(1)	EW012880						
*WASTEWATER TREATMENT	(68)	EW012168	EW012172	EW012515	EW012686	EW012696	EW012697	EW012698
		EW012710	EW012724	EW012735	EW012737	EW012738	EW012751	EW012752
		EW012754	EW012756	EW012757	EW012760	EW012765	EW012766	EW012767
		EW012769	EW012770	EW012771	EW012772	EW012773	EW012774	EW012775
								EW012787

	EW012797	EW012798	EW012807	EW012811	EW012815	EW012816	EW012817	EW012820
	EW012821	EW012825	EW012830	EW012831	EW012832	EW012833	EW012834	EW012850
	EW012852	EW012853	EW012854	EW012855	EW012858	EW012859	EW012851	EW012862
	EW012866	EW012868	EW012872	EW012875	EW012877	EW012880	EW012889	EW012891
	EW012892	EW012893	EW012913	EW012914	EW012917			
WASTEWATER TREATMENT	(2)	EW012519	EW012804					
*WATER	(1)	EW012174						
WATER	(1)	EW012862						
*WATER ANALYSIS	(2)	EW012263	EW012884					
*WATERBORNE PATHOGENS	(1)	EW012701						
*WATER DISTRIBUTION	(10)	EW012517	EW012518	EW012799	EW012805	EW012806	EW012809	EW012810
	EW012845	EW012847	EW012856					
WATER DISTRIBUTION	(2)	EW012564	EW012804					
*WATER METERS	(1)	EW012517						
*WATER METER SELECTION	(1)	EW012517						
*WATER PIPE BREAKS	(1)	EW012806						
*WATER PIPE LEAKS	(1)	EW012810						
*WATER PIPES	(6)	EW012794	EW012799	EW012805	EW012808	EW012809	EW012845	
WATER PIPES	(1)	EW012806						
*WATER POLLUTION CONTROL	(15)	EW012413	EW012723	EW012796	EW012840	EW012841	EW012843	EW012848
	EW012851	EW012861	EW012862	EW012869	EW012873	EW012875	EW012884	EW012886
*WATER QUALITY	(32)	EW012173	EW012263	EW012413	EW012681	EW012687	EW012689	EW012690
	EW012693	EW012701	EW012710	EW012723	EW012741	EW012758	EW012760	EW012763
	EW012795	EW012818	EW012819	EW012824	EW012841	EW012843	EW012848	EW012851
	EW012861	EW012862	EW012869	EW012873	EW012874	EW012880	EW012884	EW012890
	EW012894							
WATER QUALITY	(1)	EW012804						
WATER RECYCLING	(1)	EW012804						
*WATER RESOURCES	(10)	EW012174	EW012740	EW012763	EW012843	EW012862	EW012869	EW012873
	EW012874	EW012880	EW012883					
WATER RESOURCES	(2)	EW012804	EW012907					
*WATER REUSE	(2)	EW012804	EW012860					
*WATER SCIENCE AND TECHNOLOGY BOARD	(1)	EW012763						
*WATER STORAGE	(1)	EW012797						
*WATER SUPPLY	(9)	EW012170	EW012413	EW012691	EW012763	EW012797	EW012807	EW012843
	EW012846	EW012847						
WATER SUPPLY	(2)	EW012804	EW012806					
*WATER TREATMENT	(15)	EW012741	EW012749	EW012760	EW012806	EW012807	EW012811	EW012821
	EW012824	EW012844	EW012846	EW012862	EW012881	EW012886	EW012886	EW012894

WATER TREATMENT	(4)	EW012519	EW012804	EW012874	EW012875
*WATER USE	(1)	EW012174			
*WATER WELLS	(1)	EW012843			
*WELLS	(1)	EW012843			
*WETLANDS	(2)	EW012850	EW012907		
*WISCONSIN	(1)	EW012806			
*WORK ORDERS	(1)	EW012567			
*WORKSHOPS	(1)	EW012681			
*WORLD PROBLEMS	(2)	EW012174	EW012907		

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