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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 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 1-12. (JN)

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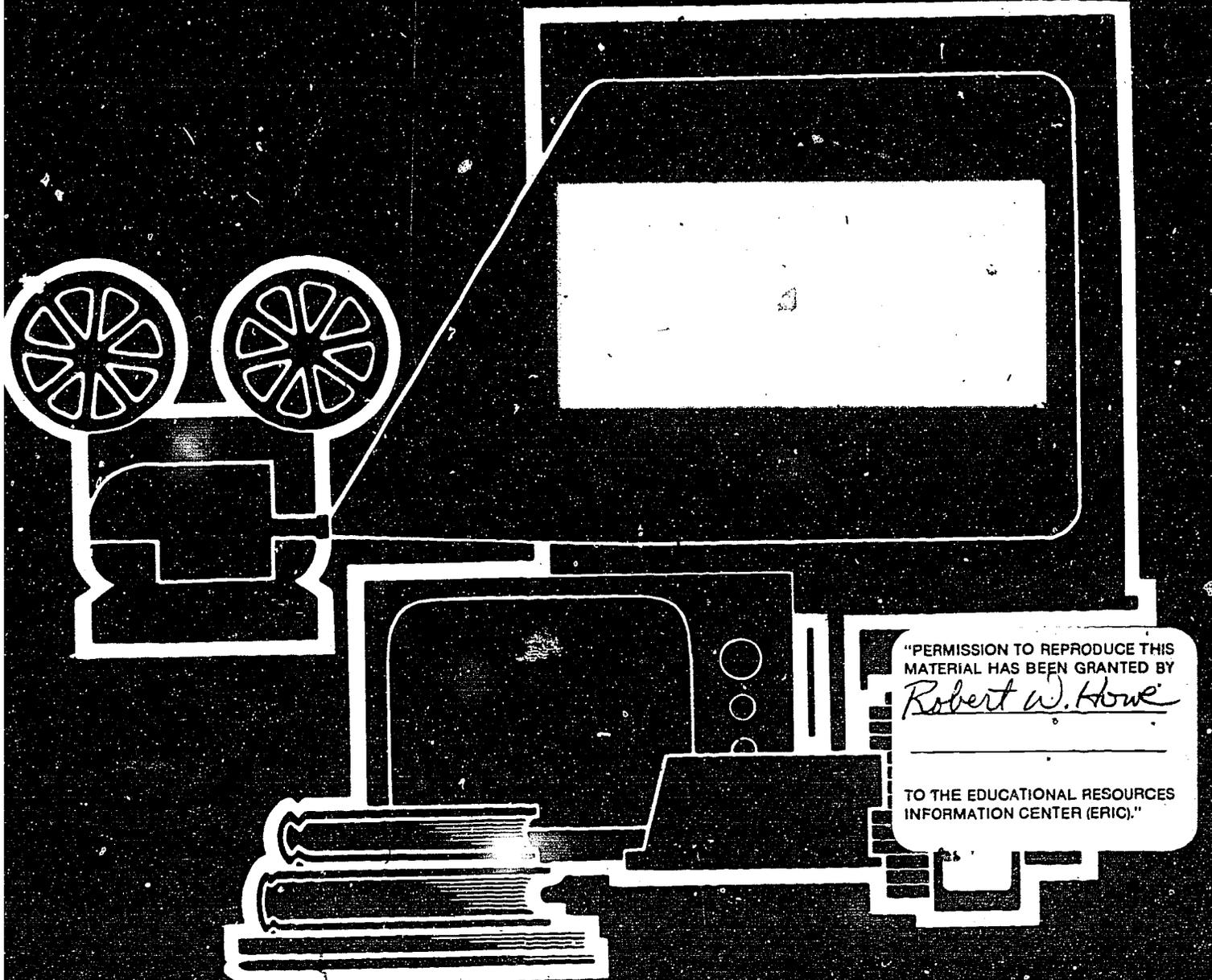
Water Quality Instructional Resources Information System

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Prepared by

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1200 Chambers Road, Room 310
Columbus, Ohio 43212

as part of
Grant No. T-901366010

WATER QUALITY INSTRUCTIONAL
RESOURCES INFORMATION SYSTEM (IRIS)

A Compilation of Abstracts
to Water Quality and Water
Resources Materials

Supplement XIII (1983)
April, 1983

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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:

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

(614) 422-6717

I. General Information about Materials in IRIS.

A. What types of materials are included in IRIS?

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

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

B. How are materials entered into IRIS?

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

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

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

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

C. How can a user locate materials in IRIS??

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

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

The first compilation contained resumes of selected materials processed for the previous IRIS (water) collection and resumes of selected materials of items added to the IRIS (water) collection. A limited number of copies of the compilation in paper copy and microfiche are available free of charge as long as the supply lasts from the EPA Instructional Resources Center. After the free copies of the compilations are gone, copies will be available for purchase from the EPA Instructional Resources Center.

Quarterly updates of the compilation are available by subscription on a yearly basis beginning November, 1979. Information regarding an annual subscription to IRIS (water) Quarterly Compilations can be obtained by writing to the EPA Instructional Resources Center. A subscription to the quarterly supplements for 1983 is \$12.00 (within the U.S.). Price to Canada and Mexico is \$14.00. Prices in other Countries is \$18.00. Separate quarterly supplements are \$4.00 each.

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

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

Information regarding BRS may be obtained by writing or phoning BRS, 1200 Route 7, Latham, NY 12110, (518) 783-1161.

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

Plans are being made to mount IRIS tapes with other on-line vendors. Information regarding this service will be announced in a future EPA IRC Bulletin and in mailings from the EPA Instructional Resources Center.

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

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

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

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

Many libraries subscribe to RIE. Materials announced in RIE can be searched manually each month by scanning RIE or by checking the index terms in the back of each issue. Materials announced in RIE can be searched by computer also. ERIC computer tapes may be purchased outright, but most users of the tapes gain access to them through three major database vendors: Dialog, Systems Development Corporation (Orbit), and Bibliographic Retrieval Services. For the addresses of search services in your state that can search these databases, contact the:

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

Most of the materials announced in RIE are available on microfiche (microfilm) at over 700 sites throughout the United States and the world. Users can view these materials on site at many locations to identify what they believe will be useful to them at no cost. Microfiche copies (or in most cases Xerox copies) can be ordered through the ERIC Document Reproduction Service. The address and order information is in the back of each issue of RIE. Xerox copies of many items related to water quality and resource education and training can also be ordered through the EPA Instructional Resources Center for \$0.03 per page plus \$1.00 per document.

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

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

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

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

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

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

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

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

II. How to Use the Compilation

A. Description of Information in Resumes

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

1. Sample resume of materials not entered in ERIC

- a. IRIS NUMBER: EW006023
 - b. PUBLICATION DATE: FEB 81
 - c. TITLE: PROGRAMMED APPROACH TO WATER/MASS ANALYSES.
 - d. PERSONAL AUTHOR: SPENCE, GEORGE R., JR.
 - e. DESCRIPTOR: *DESIGN; *ENGINEERING; *EQUIPMENT; *MASS BALANCE; *PROJECT DESIGN; *POLLUTION ENGINEERING; *PIPES; *WATER RESOURCES
 - f. DESCRIPTIVE NOTE: 30-33P.
 - g. ABSTRACT: DURING THE ENGINEERING PHASE OF A PROJECT DESIGN, WATER REQUIREMENTS OFTEN CHANGE AS NEW INFORMATION BECOMES AVAILABLE. THIS ARTICLE DETAILS A PROGRAMMED APPROACH TO CALCULATION OF A WATER/MASS BALANCE WHICH PROVIDES THE USER WITH THE ABILITY TO READILY ASSESS THE IMPACT OF VARYING WATER QUALITIES, FLOW PATTERNS, AND FLOW RATES. THIS INFORMATION IS THEN USED IN DETERMINING PIPE AND EQUIPMENT SIZES.
 - h. AVAILABILITY: POLLUTION ENGINEERING; V13 N2
- a. IRIS NUMBER -- this is the identification number sequentially assigned to materials as they are processed. Gaps in numbers mean that some items have been deleted, are being processed to add new information, or have been delayed in processing for some reason.
 - b. PUBLICATION DATE -- date material was published according to information on the material.
 - c. TITLE
 - d. PERSONAL AUTHOR -- person or persons who wrote, compiled, or edited the material. Up to two personal authors can be listed.
 - e. DESCRIPTOR -- subject terms which characterize substantive contents and form of the materials. The major terms are 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 resumé of material entered into ERIC (Resources in Education)

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

IRIS ACCESSION NUMBER: EW006664

PUBLICATION DATE: 80

TITLE: RESOURCE DEVELOPMENT OF WATERSHED LANDS: A SIX WEEK SHORT COURSE.

DESCRIPTOR: ADMINISTRATION; ECOLOGICAL FACTORS; ECONOMIC FACTORS; INSTRUCTIONAL MATERIALS; *LAND USE; NATURAL RESOURCES; *POST SECONDARY EDUCATION; *TECHNICAL EDUCATION; *WATER RESOURCES; HYDROLOGY; NATURAL RESOURCES MANAGEMENT; WATER QUALITY; *WATERSHEDS

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

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

- a. WATERSHED LANDS. (ED 197 941)

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

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

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

ERIC Document Reproduction Service (EDRS)
 P. O. Box 190
 Arlington, Virginia 22210
 (703) 841-1212

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

B. How to Locate Desired Materials

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

1. Subject Index

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

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

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

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

2. Author Index

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

III. Correcting an Existing IRIS Record

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

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

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

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

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

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

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

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

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

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

V. Requests for Assistance in Using IRIS

A. Assistance in use of IRIS manuals

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

B. Assistance in accessing IRIS by computer

1. Conducting searches.

See section VIII.

2. Subscribing to BRS, Inc. for computer searching of IRIS.

Contact: Bibliographic Retrieval Services, Inc.
1200 Route 7
Latham, New York 12110
(518) 783-1161

3. Subscribing to Dialog for computer searching of IRIS.

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

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

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

Phone or write to obtain information for your area.

VI. How to Locate Other Relevant Educational Materials

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

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

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

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

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

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

A. 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
 Eugene, Oregon 97403
 Telephone: (503) 686-5043

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

VII. How to Structure a Computer Search of IRIS

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

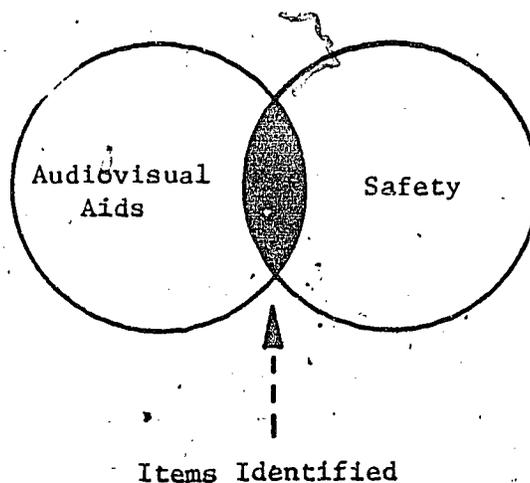
A few notes about the service are important. The following fields are searchable by computer: (1) IRIS Accession Number (EW Number), (2) ERIC Accession Number (ED Number), (3) Authors, (4) Institution, (5) Title, (6) Subject Index terms, and (7) Abstracts.

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

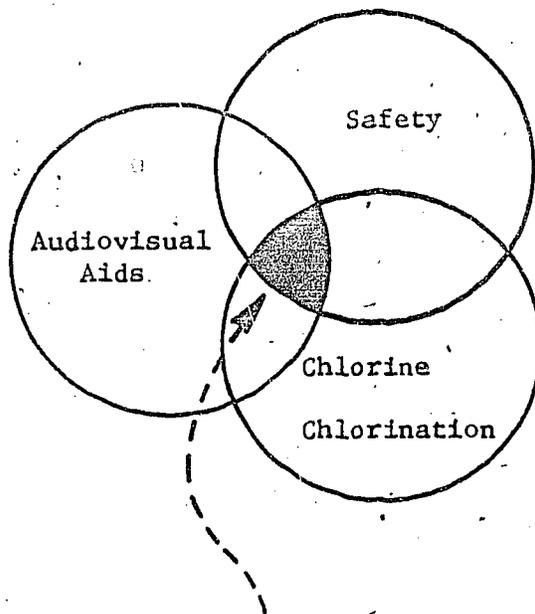
Several sample searches are listed below and on the following pages.

A. Sample 1

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



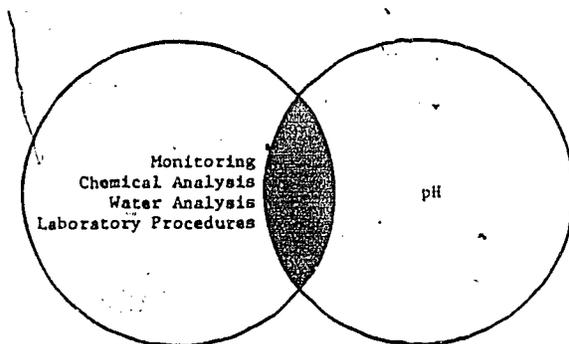
The computer program can tell you the number of items, the title of the items, or print the entire resume of each item. If you were primarily interested in audiovisual aids, safety, and chlorine you would submit a search of these three terms. You might want to include chlorides and chlorination as well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



Sample 2

Items Identified

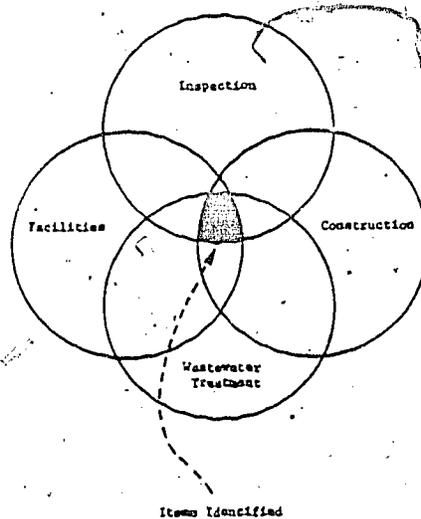
If you want to identify materials related to monitoring, you should include several related terms and the chemical, material, or situation that is being monitored. See the example below.



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

C. Sample 3

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



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

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

VIII. How to Order Materials

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

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

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

Order forms for these materials can be obtained from:

ERIC Document Reproduction Service
P. O. Box 190
Arlington, Virginia 22210
(703) 841-1212

- C. The EPA Instructional Resources Center will provide Xerox copies of materials that are not copyrighted for \$1.00 per document plus \$0.03 per page.

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

RESUME SECTION

NUMBER: EW004174

BACHELOR OF ENGINEERING TECHNOLOGY CURRICULUM IN
MANAGEMENT PROGRAM IMPLEMENTATION.

AUTHOR: COLE, CHARLES A.; AND OTHERS

*COLLEGE SCIENCE; *DEGREE PROGRAMS;
*ENGINEERING EDUCATION; *GUIDELINES; *HIGHER
*IMPLEMENTATION; *MANAGEMENT; *PROGRAM
*WATER QUALITY

NOTE: 52P.

THIS PUBLICATION PROVIDES IMPLEMENTATION
FOR INSTITUTIONS DESIRING TO DEVELOP BACHELOR OF
ENGINEERING TECHNOLOGY PROGRAMS. THIS PROGRAM WAS DESIGNED
AS AN ADDITION PROGRAM TO THE FOUR-YEAR WASTEWATER
CURRICULUM. INCLUDED IN THE PUBLICATION ARE SELF-
SUGGESTIONS FOR INSTITUTIONS, SUGGESTED
COURSE DESCRIPTIONS. APPENDICES INCLUDE
COURSE MANAGEMENT FUNCTIONS, LICENSING, AND
ACCREDITATION.

EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS ROAD, COLUMBUS, OH 43212

NUMBER: EW007668

PROCESS DESCRIPTION OF A COURSE IN WASTEWATER
PLANT OPERATION DEVELOPED FOR SELF-DIRECTED

*ADULT EDUCATION; *ANDRAGOGY; *COURSE
*EDUCATIONAL PROGRAMS; *FACILITIES;
*LEARNING MATERIALS; *OPERATIONS (WASTEWATER); *PROCESS
*SELF PACED INSTRUCTION; *WASTEWATER TREATMENT

NOTE: 24P.

THIS PAPER DESCRIBES A PROCESS FOR HELPING ADULTS
LEARN ABOUT WASTEWATER TREATMENT PLANT OPERATION
PRINCIPLES OF ANDRAGOGY. INCLUDED ARE A DETAILED
DESCRIPTION OF ANDRAGOGY, PROGRAM OBJECTIVES, INSTRUCTIONAL
MATERIALS AND PROGRAM EVALUATION.

VOCATIONAL-TECHNICAL EDUCATION DEPARTMENT,
THE UNIVERSITY OF KANSAS, PITTSBURG, KS 66762

NUMBER: EW007946

DATE: JUN. 82

IS CHLORINATION TRUSTWORTHY.

AUTHOR: NAGEL, WILLIAM H.

*CHLORINATION; *DISINFECTION; *INSTRUMENTATION;
*OPERATIONS (WATER); *WATER QUALITY; *WATER

DESCRIPTIVE NOTE: 38-39P.

ABSTRACT: WATER CHLORINATION CAN BE MADE DEPENDABLE THROUGH
THE USE OF MONITORS THAT CHECK THE AMOUNT OF CHLORINE GOING
INTO THE WATER AND THE AMOUNT OF CHLORINE REMAINING. VARIOUS
PROCEDURES ARE DESCRIBED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V129 N7

IRIS ACCESSION NUMBER: EW008101

TITLE: WATER UTILITY SLIDE CONVERTER.

DESCRIPTOR: *CALCULATIONS; *CONVERSION TABLES; *DATA
ANALYSIS; *INSTRUMENTATION; *MATHEMATICAL APPLICATIONS;
PIPES (WATER); PROCESS CONTROL; SCALES; *SLIDE RULES;
*SPECIFICATIONS; WATER QUALITY; *WATER RESOURCES

ABSTRACT: THIS WATER UTILITY DATA CONVERTER CONTAINS
RELEVANT INFORMATION TO AID AN OPERATOR IN PROCESS CONTROL
AND IN THE DETERMINATION OF DISCHARGE REQUIREMENT DATA. THE
CONVERTER INCLUDES THE FOLLOWING: PH SCALE, DETENTION TIME,
PIPE FLOW VELOCITY, MOTOR HORSEPOWER, SINGLE PHASE AND THREE
PHASE MOTORS, TANK DIMENSIONS, PIPE FRICTION LOSS, DISSOLVED
OXYGEN SATURATION, TEMPERATURE CONVERSION, WEIR FLOW,
CONCRETE YARDAGE, SEWER SIZE, PARTS PER MILLION TO POUNDS
PER DAY, CHLORINE FEED, AND DAILY FLOW.

AVAILABILITY: OKLAHOMA WATER CONSULTANTS & SUPPLY CO., P.
O. BOX 236, TECUMSEH, OK 74873

IRIS ACCESSION NUMBER: EW008289

PUBLICATION DATE: 81

TITLE: QUALITY CONTROL IN WATER AND WASTEWATER LABORATORIES
- HANDOUTS FOR COURSE 151.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CERTIFICATION; *DATA
HANDLING; *LABORATORIES; *INSTRUCTIONAL MATERIALS; *POST
SECONDARY EDUCATION; *QUALITY CONTROL; *REGULATIONS;
*SAFETY; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER
ANALYSIS

DESCRIPTIVE NOTE: 525P. PRICE: \$1.00 PER DOCUMENT PLUS
\$.03 PER PAGE.

ABSTRACT: THESE MATERIALS WERE HAND-OUT MATERIALS FOR THE
EPA COURSE "QUALITY CONTROL IN WATER AND WASTEWATER
LABORATORIES" PRESENTED AT CINCINNATI, OHIO IN MARCH, 1981.
MATERIALS ARE INCLUDED ON REGULATIONS, STATISTICAL QUALITY
CONTROL, CERTIFICATION OF LABORATORIES, ELEMENTS OF QUALITY
ASSURANCE, DATA HANDLING, AND SAFETY. SOME OF THE MATERIALS
ARE PARTS OF SEVERAL OTHER EPA MANUALS AND PUBLICATIONS. A
FEW PAGES ARE OF MARGINAL LEGIBILITY.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO
STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS,
OH 43212-1792

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ON NUMBER: EW008350

DATE: JUN 82

N WASTE DISPOSAL: OUTFALL SEWERS. 1977-JUNE,
IONS FROM THE SELECTED WATER RESOURCES ABSTRACTS

AQUATIC ENVIRONMENTS; *BIBLIOGRAPHIES;
*DESIGN; *ENVIRONMENTAL IMPACTS; *MARINE
MODELING; MONITORING; *OCEANS; *OUTFALL SEWERS;
ONTRON; *RESEARCH REPORTS; SEWAGE; *WASTEWATER
WASTE DISPOSAL

NOTE: 179P. PB82-868720; PRICE CODE: PC

THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING
STRUCTION, AND ENVIRONMENTAL EFFECTS OF OUTFALL
ECTS OF DOMESTIC SEWAGE ON AQUATIC ENVIRONMENTS
ECOSYSTEMS, AND POLLUTION CONTROL OF OUTFALL
DISCUSSED. MONITORING OF POLLUTANTS IN SEWAGE,
AND CONTAMINANTS FROM SEWERS, AND MODELING OF
ERS ARE ALSO INCLUDED. (CONTAINS 128 CITATIONS
D AND INCLUDES A TITLE LIST.)

: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
OAD, SPRINGFIELD, VA 22161

ON NUMBER: EW008482

DATE: DEC 76

D INFILTRATION OF PRIMARY SEWAGE EFFLUENT AT
MASSACHUSETTS. CRREL REPORT 76-48.

OR: SATTERWHITE, M. B.; AND OTHERS

*CASE STUDIES; CHEMICAL ANALYSES; DESIGN;
*FACILITIES; *OPERATIONS (WASTEWATER);
EVALUATION; PHYSICAL PROPERTIES; PROCESS
; *RAPID INFILTRATION; *SEWAGE; *WASTEWATER
WATER QUALITY

NOTE: 48P.

THIS PUBLICATION REPORTS ON INVESTIGATIONS
T THE FORT DEVENS, MASSACHUSETTS, WASTEWATER
ACILITY WHICH SHOWED THAT RAPID INFILTRATION CAN
RENOVATE UNCHLORINATED PRIMARY EFFLUENT TO A
TER THAN THAT ACHIEVED BY CONVENTIONAL TERTIARY
TREATMENT IN A NORTHERN ENVIRONMENT.

: CORPS OF ENGINEERS, U. S. ARMY, COLD REGIONS
ENGINEERING LABORATORY, HANOVER, NEW HAMPSHIRE

IRIS ACCESSION NUMBER: EW008483

PUBLICATION DATE: JUN 76

TITLE: WASTEWATER RENOVATION: BY A PROTOTYPE SLOW
INFILTRATION LAND TREATMENT SYSTEM. CRREL REPORT 76-19

PERSONAL AUTHOR: ISKANDAR, I. K.; AND OTHERS

DESCRIPTOR: *CASE STUDIES; DECONTAMINATION; *EFFLUENTS;
*FACILITIES; LAND APPLICATION; *LAND TREATMENT; *PERFORMANCE
EVALUATION; PILOT PLANTS; *RESEARCH REPORTS; *SLOW
INFILTRATION; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 54P.

ABSTRACT: SIX OUTDOOR TEST CELLS WERE CONSTRUCTED AT THE
U.S. ARMY COLD REGIONS RESEARCH AND ENGINEERING LABORATORY
TO INVESTIGATE SLOW INFILTRATION LAND TREATMENT AS A VIABLE
ALTERNATIVE TO CONVENTIONAL ADVANCED WASTEWATER TREATMENT.
THIS REPORT DESCRIBES THE RESEARCH FACILITIES AND SUMMARIZES
THE WATER QUALITY DATA OBTAINED FROM OPERATION OF THE
RESEARCH FACILITY.

AVAILABILITY: CORPS OF ENGINEERS, U.S. ARMY, COLD REGIONS
RESEARCH AND ENGINEERING LABORATORY, HANOVER, NEW HAMPSHIRE
03755

IRIS ACCESSION NUMBER: EW008510

TITLE: THE USE OF DBC PLUS DRIED BACTERIA CULTURES IN
DOMESTIC WASTEWATER TREATMENT FACILITIES.

DESCRIPTOR: *BACTERIA; *BIOLOGICAL TREATMENT; *COSTS;
*OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 4P.

ABSTRACT: DESCRIBED IS THE USE OF DBC PLUS DRIED BACTERIA
CULTURES IN WASTEWATER TREATMENT. A NUMBER OF ADVANTAGES IN
THE USE OF THE BACTERIA ARE REPORTED. USE OF THE BACTERIA
ALSO ARE REPORTED TO SAVE A SUBSTANTIAL AMOUNT OF MONEY.
GENERAL PROCEDURES FOR THE USE OF THE BACTERIA ARE
DESCRIBED.

AVAILABILITY: FLOW LABORATORIES, INC., ENVIRONMENTAL
CULTURES DIVISION, 828 W. HILLCREST BOULEVARD, INGLEWOOD,
CALIFORNIA 90301 (213) 641-7722

IRIS ACCESSION NUMBER: EW008568

PUBLICATION DATE: NOV 82

TITLE: SAFETY AND THE HUMAN FACTOR.

PERSONAL AUTHOR: SMITH, ANN

DESCRIPTOR: *ACCIDENT PREVENTION; *LABORATORY SAFETY; POST
SECONDARY EDUCATION; *PROGRAM DESCRIPTIONS; *SAFETY; SAFETY

24

23

30

*WATER TREATMENT; *WASTEWATER TREATMENT

NOTE: 32-34P.

DISCUSSES FOUR ELEMENTS OF SAFETY PROGRAMS: (1) TRAINING; (2) SAFETY INSPECTIONS; (3) ACCIDENT INVESTIGATIONS; AND (4) PROTECTIVE SAFETY EQUIPMENT. ALSO SAFETY CONSIDERATIONS IN WATER/WASTEWATER FACILITIES FOCUSING ON FALLS, DROWNING HAZARDS, FILTERS, CONFINED SPACE ENTRY, DISTRIBUTION SYSTEM SAFETY, CHLORINE, FIRE HAZARDS, CHEMICALS, AND LABORATORY SAFETY.

TOPIC: WATER ENGINEERING AND MANAGEMENT; V129 N12

IRIS ACCESSION NUMBER: EW008583

PUBLICATION DATE: APR 81

TITLE: SYNTHETIC ORGANIC PESTICIDES AND TERATOGENESIS A LITERATURE REVIEW.

PERSONAL AUTHOR: GAUTSCHE, JULIA

DESCRIPTOR: *CHEMICALS; *EMBRYOTOXINS; *HEALTH EFFECTS; *LITERATURE REVIEWS; *PESTICIDES; *PUBLIC HEALTH; *RESEARCH REPORTS; *TERATOGENESIS

NOTE: 36P. PRICE: \$1.00 PER DOCUMENT PLUS POSTAGE.

THE PURPOSE OF THIS REVIEW OF LITERATURE WAS TO DETERMINE THE EXISTENCE OF DOCUMENTATION OF EMBRYOTOXIC AND TERATOGENIC EFFECTS RESULTING FROM MATERNAL PESTICIDE EXPOSURE. SECTIONS INCLUDE: SUMMARY OF PESTICIDE USAGE, CLASSIFICATION OF PESTICIDES, PESTICIDES AND TERATOGENESIS, GENERAL PATTERN, ORGANOPHOSPHATES AND CARBAMATES, ORGANIC PHOSPHINES, NITRO-AND CHLOROPHENOLS, AND REVIEW OF STUDIES OF UNSPECIFIED PESTICIDES.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43210

IRIS ACCESSION NUMBER: EW008584

PUBLICATION DATE: MAY 82

TITLE: AQUIFER RESTORATION & GROUND WATER REHABILITATION - A CASE STUDY AT THE END OF THE TUNNEL. THE PROCEEDINGS OF THE SECOND ANNUAL SYMPOSIUM ON AQUIFER RESTORATION AND GROUND WATER MONITORING.

DESCRIPTOR: *AQUIFER REHABILITATION; *AQUIFERS; *CONFERENCE PROCEEDINGS; *CONTAMINATION; *EQUIPMENT; *GROUNDWATER; *MONITORING; *PLANNING; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS; *WATER QUALITY; *WATER TREATMENT; *WELLS

NOTE: 374P. PRICE: \$25.00

ABSTRACT: THIS PUBLICATION CONTAINS THE PROCEEDINGS FROM THE SECOND ANNUAL SYMPOSIUM ON AQUIFER RESTORATION AND GROUNDWATER MONITORING HELD IN COLUMBUS, OHIO, ON MAY 26-28, 1982. GOVERNMENT OFFICIALS, CONSULTING ENGINEERS AND GEOLOGISTS, RESEARCHERS, AND INDUSTRY REPRESENTATIVES MET TO LEARN AND DISCUSS STATE-OF-THE-ART TECHNIQUES EMPLOYED AND VARIABLES TO CONSIDER IN GROUNDWATER MONITORING STUDIES AND AQUIFER CLEANUP PROJECTS. IN ADDITION, THE LATEST IN STATE-OF-THE-ART INSTRUMENTATION AND EQUIPMENT WAS DISCUSSED.

AVAILABILITY: NATIONAL WATER WELL ASSOCIATION, 500 W. WILSON BRIDGE ROAD, WORTHINGTON, OH 43085

IRIS ACCESSION NUMBER: EW008595

PUBLICATION DATE: JAN 83

TITLE: ECONOMIC RESEARCH NEEDS RELEVANT TO IMPROVED DRINKING WATER QUALITY.

PERSONAL AUTHOR: RUSSELL, CLIFFORD S.

DESCRIPTOR: *DRINKING WATER; *ECONOMICS; *DOSE-RESPONSE; *POLICIES; *PUBLIC HEALTH; *RESEARCH; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 6-9P.

ABSTRACT: THE ROLE ECONOMISTS CAN ASSUME IN ASSESSING PUBLIC POLICIES FOR IMPROVING DRINKING WATER QUALITY IS DISCUSSED. ECONOMETRIC TECHNIQUES CAN AND SHOULD BE APPLIED TO FIELDS OF INVESTIGATION THAT HAVE TRADITIONALLY BEEN LIMITED TO HEALTH RESEARCH.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V75 N1

IRIS ACCESSION NUMBER: EW008596

PUBLICATION DATE: JAN 83

TITLE: RESEARCH NEEDS FOR WATER SUPPLY COST ESTIMATING.

PERSONAL AUTHOR: CLARK, ROBERT M.

DESCRIPTOR: *COSTS; *COST ESTIMATES; *DRINKING WATER; *ECONOMICS; *FINANCES; *MANAGEMENT; *OPERATIONS (WATER); *RESEARCH; *WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: 10-13P.

ABSTRACT: THIS REPORT SUMMARIZES THE NEED FOR RESEARCH TO DEVELOP COST-ESTIMATING METHODOLOGIES PERTAINING TO UNIT PROCESS COSTS, WATER DELIVERY COSTS, TOTAL MANAGEMENT COSTS, AND FINANCING COSTS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V75 N1

ON NUMBER: EW008597

DATE: JAN 83

ARCH NEEDS FOR CAPACITY PLANNING.

THOR: LAURIA, DONALD T.

*COSTS; *CAPACITY PLANNING; *DESIGN; *PLANNING;
*WATER RESOURCES; *WATER SUPPLY; *WATER
WATER DISTRIBUTION

NOTE: 14-19P.

THE GOAL OF THIS SUBCOMMITTEE REPORT IS TO
PS IN EXISTING KNOWLEDGE REGARDING CAPACITY
R COMMUNITY WATER SUPPLY FACILITIES SO THAT AN
RESEARCH PRIORITIES CAN BE IDENTIFIED AND ADOPTED
DEFICIENCIES.

: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V75

ON NUMBER: EW008598

DATE: JAN 83

RESEARCH AGENDA FOR MUNICIPAL WATER DEMAND

THOR: BOLAND, JOHN J.

*BIBLIOGRAPHIES; *FORECASTING; *MANAGEMENT;
*RESEARCH NEEDS; *WATER DEMAND; *WATER SUPPLY;
RCES

NOTE: 20-23P.

LONG-RANGE FORECASTING OF THE DEMAND FOR WATER IS
VITAL IMPORTANCE WHEN INVESTMENT DECISIONS DEPEND
PREDICTIONS. SHORT-RANGE FORECASTS ARE LESS
ED, BUT ARE NEEDED FOR OPERATIONAL PLANNING AND
IMPROVEMENTS IN THE ACCURACY OF FORECASTING
BOTH PURPOSES ARE NEEDED, AND THE WATER INDUSTRY
EXISTING TECHNIQUES MORE FULLY.

: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V75

ION NUMBER: EW008599

DATE: JAN 83

ER PRICING RESEARCH NEEDS.

THOR: MANN, PATRICK C.

*COSTS; *ECONOMICS; *RATES; *RESEARCH NEEDS;
S; *WATER SUPPLY; *WATER SERVICE; *WATER USE

DESCRIPTIVE NOTE: 24-27P.

ABSTRACT: THIS REPORT REVIEWS THE EXISTING KNOWLEDGE OF
WATER PRICING, IDENTIFIES GAPS IN KNOWLEDGE ABOUT THE
EFFECTS OF WATER RATES, AND DESIGNATES AREAS IN WHICH
PRIORITY RESEARCH IS NEEDED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V75
N1

IRIS ACCESSION NUMBER: EW008600

PUBLICATION DATE: JAN 83

TITLE: THE ECONOMICS OF LEAK DETECTION AND REPAIR--A CASE
STUDY.

PERSONAL AUTHOR: MOYER, ELLEN E.; AND OTHERS

DESCRIPTOR: *COSTS; *COST-BENEFIT; *LEAK DETECTION; *LEAKS;
*MAINTENANCE; *PERFORMANCE EVALUATION; *REPAIRS; *RESEARCH;
*WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: 29-34P.

ABSTRACT: THIS ARTICLE ANALYZES THE COSTS AND BENEFITS OF A
LEAK DETECTION AND REPAIR PROGRAM FOR A PUBLICLY OWNED WATER
UTILITY. THE CHARACTERISTICS OF DIFFERENT TYPES OF LEAKS AND
THE ACCURACY OF THE DETECTION METHOD USED ARE ALSO
DISCUSSED. THE RESULTS OF THE ANALYSIS DEMONSTRATE THAT
BENEFITS OUTWEIGH COSTS AND THAT THE PROGRAM HAS LED TO A
SUBSTANTIAL DECREASE IN UNACCOUNTED-FOR-WATER WITHOUT
INCURRING GREATER REPAIR COSTS FOR THE SYSTEM.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V75
N1

IRIS ACCESSION NUMBER: EW008601

PUBLICATION DATE: JAN 83

TITLE: EFFICIENCY OF POINT-OF-USE TREATMENT DEVICES.

PERSONAL AUTHOR: REGUNATHAN, P.; AND OTHERS

DESCRIPTOR: *BACTERIA; *CHEMICAL REMOVAL; *EQUIPMENT;
*FACILITIES; *ONSITE TREATMENT; *POINT-OF-USE TREATMENT;
*POTABLE WATER; *PARTICULATES; *PERFORMANCE EVALUATION;
*WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 42-50P.

ABSTRACT: PERFORMANCES OF TWO DEVICES FOR POINT-OF-USE
TREATMENT ARE REPORTED. THESE DEVICES WERE STUDIED IN ORDER
TO DETERMINE THE EXTENT TO WHICH THEY WERE ABLE TO REMOVE
VARIOUS ORGANIC, INORGANIC, MICROBIOLOGIC, AND PARTICULATE
CONTAMINANTS FROM POTABLE WATER.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V75
N1

26

ION NUMBER: EW008602

DATE: JAN 83

INFECTION, WATER QUALITY CONTROL, AND SAFETY OF THE WATER UTILITY INDUSTRY IN 1978 IN THE US.

*DISINFECTION; *FACILITIES; *OPERATIONS SAFETY; *SURVEYS; *WATER QUALITY CONTROL; *WATER TREATMENT PRACTICES

NOTE: 51-56P.

MORE THAN 300 UTILITIES ANSWERED QUESTIONS ABOUT INFECTION, WATER QUALITY CONTROL, AND SAFETY AN ANALYSIS OF THE ANSWERS IS PROVIDED IN THIS

Y: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V75

ION NUMBER: EW008603

DATE: JAN 83

DY OF PLANT PERFORMANCE AT KEY WEST ADVANCES OSIS TECHNOLOGY.

*DESALINATION; *FACILITIES; *FLORIDA; (WATER); *POTABLE WATER; *REVERSE OSMOSIS; *WATER TREATMENT

NOTE: 26-28 HENSP.

DESCRIBED IS A REVERSE OSMOSIS DESALINATION PLANT ST. FLORIDA FOR PRODUCING POTABLE WATER. THE HAS BEEN EFFECTIVE AND FUNCTIONED BETTER THAN S.

Y: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V75

ION NUMBER: EW008611

DATE: JUN 82

COURSE ON OPERATIONAL CONSIDERATIONS IN WASTEWATER PLANT DESIGN. INSTRUCTOR'S MANUAL.

THOR: COOPER, JOHN W.; AND OTHERS

*COURSE CONTENT; *FACILITY IMPROVEMENT; GUIDELINES; POST SECONDARY EDUCATION; SLUDGE; GUIDES; *FACILITIES; *DESIGN; *OPERATIONS D); *WASTEWATER TREATMENT

NOTE: 249P. PRICE: \$8.47

THIS MANUAL CONTAINS 17 INSTRUCTIONAL UNITS

(SEQUENCED TO CORRESPOND TO PARALLEL CHAPTERS IN A STUDENT'S MANUAL) FOCUSING ON UPGRADING THE DESIGN OF WASTEWATER PLANT FACILITIES AND SERVING AS A REFERENCE SOURCE FOR ESTABLISHING CRITERIA FOR UPGRADING WASTEWATER TREATMENT PLANTS. THE MANUAL ALSO FURNISHES INFORMATION FOR MODIFYING PLANT DESIGN TO COMPENSATE FOR CURRENT ORGANIC AND HYDRAULIC OVERLOADS AND/OR TO MEET MORE STRINGENT FUTURE TREATMENT REQUIREMENTS, EMPHASIZING THE IMPORTANCE OF MODIFYING EXISTING PLANTS AND DESIGNING NEW PLANT FACILITIES TO ACCOMMODATE OPERATIONS, MAINTENANCE, AND OTHER ROUTINE PLANT FUNCTIONS. EACH INSTRUCTIONAL UNIT CONTAINS TITLE PAGE, LESSON PLAN, OBJECTIVES, INDEX TO VISUAL AIDS, AND PRESENTATION GUIDE. TOPICS CONSIDERED INCLUDE: FIELD EXPERIENCE - DESIGNING FOR OPERABILITY; MAXIMIZING PLANT OPERATIONS FEEDBACK; PLANS AND SPECIFICATIONS REVIEWS; GENERAL DESIGN CONSIDERATIONS; UNIT PROCESS DESIGNS (HEADWORKS, PRIMARY SEDIMENTATION, AERATION BASINS, SECONDARY SEDIMENTATION, DISINFECTION, EFFLUENT DISCHARGE, SLUDGE TREATMENT, OTHER BIOLOGICAL PROCESSES, AND OTHER FACTORS-SAFETY, ENERGY CONSERVATION AND EMERGENCIES); SYSTEMS APPROACH TO UNIT PROCESS SELECTION; EQUIPMENT SELECTION AND PLACEMENT FOR OPERABILITY (FLEXIBILITY AND MAINTAINABILITY); AND AN OPERATOR SPEAKS TO THE DESIGN ENGINEER. A STUDENT MANUAL (EW 008 612), A VISUAL AID PACKAGE (EW 008 613), AND A FINAL REPORT (EW 008 614) ARE ALSO AVAILABLE.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS RD - ROOM 310, COLUMBUS, OH 43212-1792

IRIS ACCESSION NUMBER: EW008612

PUBLICATION DATE: JUN 82

TITLE: A COURSE ON OPERATIONAL CONSIDERATIONS IN WASTEWATER TREATMENT PLANT DESIGN. STUDENT MANUAL.

DESCRIPTOR: *DESIGN; *FACILITY GUIDELINES; *FACILITIES; *FACILITY IMPROVEMENT; POST SECONDARY EDUCATION; RESOURCE MATERIALS; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT; INSTRUCTIONAL MATERIALS

DESCRIPTIVE NOTE: 363P. PRICE: \$11.89

ABSTRACT: THIS MANUAL WAS DESIGNED TO FURNISH INFORMATION FOR UPGRADING THE DESIGN OF WASTEWATER TREATMENT PLANT FACILITIES AND TO SERVE AS A RESOURCE FOR ESTABLISHING CRITERIA FOR UPGRADING THESE PLANTS. THE MANUAL ALSO FURNISHES INFORMATION FOR MODIFYING PLANT DESIGN TO COMPENSATE FOR CURRENT ORGANIC AND HYDRAULIC OVERLOADS AND/OR TO MEET MORE STRINGENT FUTURE TREATMENT REQUIREMENTS. IN ADDITION, THE IMPORTANCE OF MODIFYING EXISTING PLANT AND DESIGNING NEW PLANT FACILITIES TO ACCOMMODATE OPERATION, MAINTENANCE, AND OTHER ROUTINE PLANT FUNCTIONS IS EMPHASIZED. INFORMATION IS PRESENTED IN 17 UNITS, WITH OBJECTIVES, TEXT MATERIAL/FIGURES, AND RESOURCES PROVIDED FOR EACH UNIT. UNIT TOPICS INCLUDE: MAXIMIZING PLANT OPERATIONS FEEDBACK IN WASTEWATER TREATMENT PLANT DESIGN; PLANS AND SPECIFICATIONS REVIEWS; GENERAL DESIGN CONSIDERATIONS; UNIT PROCESS DESIGN FOR PRELIMINARY TREATMENT, PRIMARY SEDIMENTATION, AERATION BASINS, SECONDARY

27

36

35

ON, DISINFECTION, EFFLUENT DISCHARGE, SLUDGE
ADDITIONAL BIOLOGICAL PROCESSES, AND OTHER
INCLUDING (SAFETY, ENERGY CONSERVATION, AND
SYSTEMS APPROACH TO UNIT PROCESS SELECTION;
SELECTION/PLACEMENT FOR OPERABILITY,
ITY; AND OPERATOR/DESIGN ENGINEER RELATIONSHIP.
COMPUTER PROGRAM (WITH ABRIDGED USERS GUIDE) FOR
INARY DESIGN OF WASTEWATER TREATMENT SYSTEMS IS
UNIT 15. IT IS ASSUMED THAT THE USER OF THIS
AN ENGINEERING BACKGROUND AND IS FAMILIAR WITH
TREATMENT PLANT DESIGN. AN INSTRUCTOR GUIDE (EW
A VISUAL AID PACKAGE (EW 008 613), AND A FINAL
008 614) ARE ALSO AVAILABLE.

: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO
ERSITY, 1200 CHAMBERS ROAD - ROOM 310, COLUMBUS,
92

ON NUMBER: EW008613

DATE: JUN 82

COURSE ON OPERATIONAL CONSIDERATIONS IN WASTEWATER
TREATMENT PLANT DESIGN - VISUAL AIDS PACKAGE.

THOR: SOUTHWEST RESEARCH INST.

*DESIGN; *FACILITY GUIDELINES; *FACILITIES;
IMPROVEMENT; AUDIOVISUAL AIDS; *OPERATIONS
; *WASTEWATER TREATMENT; POST SECONDARY
RESOURCE MATERIALS

NOTE: 444 SLIDES & 65 VIEWGRAPHS; PURCHASE
0.40/SLIDE, WITH A 10% DISCOUNT FOR OVER 100
75 EACH FOR VIEW GRAPHS; RENTAL PRICE: 5 SETS OF
AVAILABLE @ \$15.00 PER SET

THIS MANUAL WAS DESIGNED TO FURNISH INFORMATION
ING THE DESIGN OF WASTEWATER TREATMENT PLANT
AND TO SERVE AS A RESOURCE FOR ESTABLISHING
FOR UPGRADING THESE PLANTS. THE MANUAL ALSO
INFORMATION FOR MODIFYING PLANT DESIGN TO
FOR CURRENT ORGANIC AND HYDRAULIC OVERLOADS
MEET MORE STRINGENT FUTURE TREATMENT REQUIREMENTS.
N, THE IMPORTANCE OF MODIFYING EXISTING PLANT AND
NEW PLANT FACILITIES TO ACCOMMODATE OPERATION,
AND OTHER ROUTINE PLANT FUNCTIONS IS
INFORMATION IS PRESENTED IN 17 UNITS, WITH
TEXT MATERIAL/FIGURES, AND RESOURCES PROVIDED
UNIT. UNIT TOPICS INCLUDE: MAXIMIZING PLANT
FEEDBACK IN WASTEWATER TREATMENT PLANT DESIGN;
O SPECIFICATIONS REVIEWS; GENERAL DESIGN
ONS; UNIT PROCESS DESIGN FOR PRELIMINARY
PRIMARY SEDIMENTATION, AERATION BASINS, SECONDARY
ON, DISINFECTION, EFFLUENT DISCHARGE, SLUDGE
ADDITIONAL BIOLOGICAL PROCESSES, AND OTHER
INCLUDING (SAFETY, ENERGY CONSERVATION, AND
SYSTEMS APPROACH TO UNIT PROCESS SELECTION;
SELECTION/PLACEMENT FOR OPERABILITY,
ITY; AND OPERATOR/DESIGN ENGINEER RELATIONSHIP.
COMPUTER PROGRAM (WITH ABRIDGED USERS GUIDE) FOR
INARY DESIGN OF WASTEWATER TREATMENT SYSTEMS IS

INCLUDED IN UNIT 15. IT IS ASSUMED THAT THE USER OF THIS
MANUAL HAS AN ENGINEERING BACKGROUND AND IS FAMILIAR WITH
WASTEWATER TREATMENT PLANT DESIGN. AN INSTRUCTOR'S MANUAL
(EW 008 611), A STUDENT MANUAL (EW 008 612) AND A FINAL
REPORT (EW 008 614) ARE ALSO AVAILABLE.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO
STATE UNIVERSITY, 1200 CHAMBERS ROAD - ROOM 310, COLUMBUS,
OH 43212-1792

IRIS ACCESSION NUMBER: EW008614

PUBLICATION DATE: JUN 82

TITLE: A COURSE ON OPERATIONAL CONSIDERATIONS IN WASTEWATER
TREATMENT PLANT DESIGN. FINAL REPORT

PERSONAL AUTHOR: SOUTHWEST RESEARCH INST.,

DESCRIPTOR: *DESIGN; *EVALUATION; *FACILITIES; *FINAL
REPORTS; *FIELD TESTS; *INSTRUCTIONAL MATERIALS; *OPERATIONS
(WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: AN INSTRUCTOR'S MANUAL (EW 008 611) A
STUDENT'S MANUAL (EW 008 612) AND A VISUAL AIDS PACKAGE (EW
008 613) ARE ALSO AVAILABLE.

ABSTRACT: THIS PROGRAM WAS INITIATED WITH THE OVERALL
OBJECTIVE OF UPGRADING AND THEN TESTING EXISTING COURSE
MATERIAL ON OPERATIONAL CONSIDERATIONS IN WASTEWATER
TREATMENT PLANT DESIGN. EXISTING MATERIAL ALONG WITH NEW
MATERIAL WAS USED TO UPGRADE THE STUDENT MANUAL. A MAJOR
REVISION AND UPGRADING OF THE INSTRUCTOR'S MANUAL, INCLUDING
A DETAILED INSTRUCTOR'S PRESENTATION GUIDE, WAS THEN
PREPARED. EXISTING AND NEW SLIDES WERE EDITED FOR INCLUSION
IN THE VISUAL AIDS PACKAGE ALONG WITH VIEWGRAPHS OF ALL
FIGURES AND TABLES IN THE STUDENT MANUAL. FINALLY, THE
COURSE WAS FIELD TESTED AT THE AREA TRAINING CENTER OF THE
UNIVERSITY OF MASSACHUSETTS, AMHERST AND THE PRESENTATION
EVALUATED. THE STUDENT MANUAL, INSTRUCTOR'S MANUAL AND
VISUAL AIDS PACKAGE ARE ACCOMPANYING VOLUMES IN THIS REPORT.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO
STATE UNIVERSITY, 1200 CHAMBERS ROAD - ROOM 310, OH 43212-
1792

IRIS ACCESSION NUMBER: EW008615

PUBLICATION DATE: JAN 81

TITLE: ENVIRONMENTAL IMPACT STATEMENT - ALTERNATIVE WASTE
TREATMENT SYSTEMS FOR RURAL LAKE PROJECTS. CASE STUDY
NUMBER 4 STEUBEN LAKES REGIONAL WASTE DISTRICT, STEUBEN
COUNTY, INDIANA.

DESCRIPTOR: *CASE STUDIES; DESIGN; ECONOMIC FACTORS;
*ENVIRONMENTAL IMPACT STATEMENTS; EVALUATION; *FACILITIES;
*INDIANA; *ONSITE TREATMENT; PLANNING; *SEWAGE SYSTEMS;
*WASTEWATER TREATMENT; *WATER QUALITY

28

NOTE: 152P.

THIS PUBLICATION CONTAINS THE FINAL ENVIRONMENTAL IMPACT STATEMENT FOR A WASTE TREATMENT SYSTEM FOR THE INDIAN LAKE (INDIANA) REGIONAL WASTE DISTRICT. INCLUDED ARE RECOMMENDED ACTIONS WHICH ADDRESS ON-SITE TREATMENT AND ECONOMIC AND ENVIRONMENTAL FACTORS.

US ENVIRONMENTAL PROTECTION AGENCY, REGION V,
230 SOUTH DEARBORN, CHICAGO, IL 60604

IRIS NUMBER: EW000616

PUBLICATION DATE: DEC 80

ENVIRONMENTAL IMPACT STATEMENT - ALTERNATIVE WASTE TREATMENT SYSTEMS FOR RURAL LAKE PROJECTS. CASE STUDY OF SPRINGVALE-BEAR CREEK SEWAGE DISPOSAL AUTHORITY, MICHIGAN.

*CASE STUDIES; DESIGN; ECONOMIC FACTORS;
*ENVIRONMENTAL IMPACT STATEMENTS; *FACILITIES;
*ON-SITE TREATMENT; *PLANNING; *SEWAGE SYSTEMS;
*WATER QUALITY

NOTE: 73P.

THIS PUBLICATION CONTAINS THE FINAL ENVIRONMENTAL IMPACT STATEMENT FOR A WASTE TREATMENT SYSTEM FOR THE BEAR CREEK (MICHIGAN) SEWAGE DISPOSAL AUTHORITY. INCLUDED ARE RECOMMENDED ACTIONS WHICH ADDRESS ON-SITE TREATMENT AND ECONOMIC AND ENVIRONMENTAL FACTORS.

US ENVIRONMENTAL PROTECTION AGENCY, REGION V,
230 SOUTH DEARBORN, CHICAGO, IL 60604

IRIS NUMBER: EW000617

PUBLICATION DATE: JUN 79

ENVIRONMENTAL IMPACT STATEMENT - ALTERNATIVE WASTE TREATMENT SYSTEMS FOR RURAL LAKE PROJECTS. CASE STUDY OF TATAL LAKE AREA, SEWAGE DISPOSAL AUTHORITY BENZIE, MICHIGAN.

*CASE STUDIES; DESIGN; ECONOMIC FACTORS;
*ENVIRONMENTAL IMPACT STATEMENTS; EVALUATION; *FACILITIES;
*ON-SITE TREATMENT; *PLANNING; *SEWAGE SYSTEMS;
*WATER QUALITY

NOTE: 213P.

THIS PUBLICATION CONTAINS THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR A WASTE TREATMENT SYSTEM FOR THE (MICHIGAN) FACILITY PLANNING AREA. THIS EIS EXAMINES EXISTING WASTEWATER TREATMENT PLANTS IN THE AREA TO BE REPLACED, BUT COMPLETE ABANDONMENT OF ON-SITE TREATMENT IS JUSTIFIED. INCLUDED ARE ALTERNATIVE PLANS WHICH ADDRESS ECONOMIC AND ENVIRONMENTAL FACTORS.

39

AVAILABILITY: US ENVIRONMENTAL PROTECTION AGENCY, REGION 5,
230 SOUTH DEARBORN, CHICAGO, IL 60604

IRIS ACCESSION NUMBER: EW000619

TITLE: ENVIRONMENTAL IMPACT STATEMENT - INDIAN LAKE -
SISTER LAKES WASTEWATER TREATMENT SYSTEM. BERUEN, CASS,
AND VAN BUREN COUNTIES, MICHIGAN.

DESCRIPTOR: *CASE STUDIES; DESIGN; ECONOMIC FACTORS;
*ENVIRONMENTAL IMPACT STATEMENTS; *FACILITIES; LAKES;
*MICHIGAN; *PLANNING; SEWAGE; *WASTEWATER TREATMENT; *WATER
QUALITY

ABSTRACT: THIS PUBLICATION IS THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE CONSTRUCTION OF WASTEWATER TREATMENT FACILITIES AT INDIAN LAKE-SISTER LAKES, MICHIGAN. THIS REPORT CONTAINS AN EVALUATION OF THE EXISTING WASTEWATER-RELATED PROBLEMS AND THE TREATMENT NEEDS OF THE FACILITIES PLANNING AREA. CENTRALIZED COLLECTION AND TREATMENT ALTERNATIVES WERE RE-EVALUATED AND DECENTRALIZED ALTERNATIVES WERE DEVELOPED AND ANALYZED.

AVAILABILITY: US ENVIRONMENTAL PROTECTION AGENCY, REGION 5,
230 SOUTH DEARBORN STREET, CHICAGO, IL 60604

IRIS ACCESSION NUMBER: EW000620

PUBLICATION DATE: FEB 76

TITLE: MUNICIPAL WATERSHED MANAGEMENT SURVEY.

PERSONAL AUTHOR: DISSMEYER, GEORGE E.; SWANK, WAYNE T.

DESCRIPTOR: FORESTRY; HYDROLOGY; *INFORMATION NEEDS; *LAND
USE; *MANAGEMENT; *MUNICIPALITIES; PLANNING; RESEARCH
REPORTS; SOUTHEASTERN U.S.; *SURVEYS; WATER QUALITY; *WATER
RESOURCES; *WATERSHEDS

ABSTRACT: THIS REPORT PROVIDES A GENERAL SUMMARY OF THE NATURE AND EXTENT OF LAND USES, MANAGEMENT PROBLEMS, AND INFORMATIONAL NEEDS FOR MUNICIPAL WATERSHEDS IN THE SOUTHEASTERN U.S. EMPHASIS IS PLACED ON SMALL AND HEAVILY FORESTED WATERSHEDS AND RELATED FORESTRY ACTIVITIES.

AVAILABILITY: JOURNAL AMERICAN WATER WORKS ASSOCIATION, V68
N2

IRIS ACCESSION NUMBER: EW000633

PUBLICATION DATE: 82

TITLE: TROUBLESHOOTING THE TROUBLESHOOTING COURSE OR DEBUG
D'BUGS.

PERSONAL AUTHOR: MAGER, ROBERT F.

DESCRIPTOR: *CONTENT SELECTION; *EVALUATION; *INSTRUCTION;

129

00 40

L IMPROVEMENT; *INSTRUCTIONAL MATERIALS;
*PERFORMANCE EVALUATION; *POST SECONDARY
TROUBLESHOOTING; *TRAINING

OTE: 208P. PRICE: \$9.95

IS PUBLICATION IS DESIGNED TO SHOW HOW TO
RENCES BETWEEN WHAT IS AND WHAT OUGHT TO BE
COURSES DESIGNED TO TEACH EQUIPMENT MAINTENANCE.
HOW TO DETECT ERRORS IN INSTRUCTIONAL CONTENT
IONAL PRACTICE. SECTIONS IN THE BOOK INCLUDE:
ESTING STRATEGY; (2) INSTRUCTIONAL CONTENT; (3)
PRACTICE; AND (4) TROUBLESHOOTING AIDS.
LOW CHARTS ARE PROVIDED TO HELP DESIGN
IMPROVE CONTENT SELECTION, IMPROVE INSTRUCTION,
INSTRUCTIONAL OUTCOMES.

PITMAN MANAGEMENT AND TRAINING, PITMAN
., 6 DAVIS DRIVE. BELMONT, CA 94002

N NUMBER: EW008634

ATE: 80

LABORATORY SKILLS FOR WATER AND WASTEWATER

OR: CLARK, DOUGLAS

*ANALYTICAL TECHNIQUES; *EQUIPMENT; *HANDBOOKS;
L MATERIALS; *LABORATORY PROCEDURES;
SKILLS; *LABORATORY TECHNIQUES; *POST SECONDARY
KILL DEVELOPMENT; *WASTEWATER TREATMENT; *WATER

OTE: 72P.

IS HANDBOOK PRESENTS THE BASIC SKILLS NECESSARY
N A WATER OR WASTEWATER LABORATORY. IT EXPLAINS
TES THE TECHNIQUES AND PRINCIPLES INVOLVED WITH
ON CORRECT USE OF ROUTINE EQUIPMENT AND PROPER
PROCEDURES. SECTIONS INCLUDE GENERAL TECHNIQUES,
LIGHTS, MEASURING VOLUMES, OTHER MEASUREMENTS,
RECORDS.

DIVISION OF GOVERNMENT RESEARCH, INSTITUTE
RESEARCH SERVICES, THE UNIVERSITY OF NEW MEXICO,
NM 87108

N NUMBER: EW008645

ATE: APR 82

OGRAPHIES ON THE WATER SUPPLY INDUSTRY - RATES
ERVICE.

*BIBLIOGRAPHIES; *ANNOTATED BIBLIOGRAPHIES;
CONSERVATION; *ECONOMICS; *INDUSTRIAL USE;
USE; *RATES; *WATER RATES; *WATER SUPPLY; *WATER

DESCRIPTIVE NOTE: 10P.

ABSTRACT: THIS BIBLIOGRAPHY ON RATES AND COSTS OF SERVICE
WAS OBTAINED FROM ARTICLES FROM THE JOURNAL OF THE AWWA AND
OTHER AWWA PUBLICATIONS. MOST ENTRIES ARE ANNOTATED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 WEST
QUINCY AVENUE, DENVER, CO 80235

IRIS ACCESSION NUMBER: EW008636

PUBLICATION DATE: NOV 82

TITLE: AWWA WATERNET USER GUIDE.

DESCRIPTOR: *AWWA; *DATABASES; *BIBLIOGRAPHIES; *INDEXES;
*INFORMATION RETRIEVAL; *PUBLICATIONS; *WATERNET; *WATER
TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 50P.

ABSTRACT: THE WATERNET DATABASE IS THE ONLINE INDEX TO ALL
PERIODICALS, BOOKS, MANUALS, HANDBOOKS, STANDARDS, AND
CONFERENCE PROCEEDINGS PUBLISHED BY AWWA AND AWWARP SINCE
1971. THE INFORMATION IS AVAILABLE THROUGH DIALOG. THIS
GUIDE CONTAINS FOUR PARTS: (1) WATERNET THESAURUS; (2)
WATERNET SUBJECT CODE LIST; (3) CODEN SEARCHING; AND (4)
DATABASE COVERAGE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, 6666 WEST
QUINCY AVENUE DENVER, CO 80235

IRIS ACCESSION NUMBER: EW008647

TITLE: SEWAGE TREATMENT AND DISPOSAL.

DESCRIPTOR: *AUDIOVISUAL AIDS; *EFFLUENTS; *FACILITIES;
*INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST
SECONDARY EDUCATION; *SEWAGE; *SLIDES; *WASTEWATER
TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 40 FULL-FRAME SLIDES AND TEACHER'S
BOOKLET. PRICE: \$11.00

ABSTRACT: THIS IS A SLIDE PACK OF 40 FULL-FRAME SLIDES AND
A TEACHER'S BOOKLET IN A PLASTIC SLIDE WALLET WITH OPTIONAL
STIFF BINDER. THE SLIDES DESCRIBE SEWAGE TREATMENT, GIVE AN
ACCOUNT OF PROBLEMS OF TREATED AND UNTREATED SEWAGE,
CONSIDER PLANTS FOR SMALL COMMUNITIES, AND CONSIDER DISPOSAL
OF THE PRODUCTS OF SEWAGE TREATMENT WORKS. THE TEACHERS
GUIDE PROVIDES COMPREHENSIVE NOTES.

AVAILABILITY: FOCAL POINT AUDIO VISUAL LTD, 251 COPNOR
ROAD, PORTSMOUTH, HANTS PO3 5EE

IRIS ACCESSION NUMBER: EW008648

PUBLICATION DATE: WIN 83

TITLE: PROCEEDINGS OF PRACTICAL GROUND-WATER MONITORING TECHNIQUES FOR THE MINING INDUSTRY.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *GROUNDWATER; *INDUSTRIES; *MINING; *MINING INDUSTRY; *NATURAL RESOURCES; *PROBLEMS; *RESEARCH; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 29-154P.

ABSTRACT: THIS ISSUE CONTAINS 24 PAPERS RELATED TO STATE-OF-THE-ART PRACTICES AND TECHNIQUES AND PROBLEMS ENCOUNTERED IN MONITORING GROUNDWATER AT MINING SITES. THE PAPERS WERE PRESENTED AT TWO CONFERENCES HELD IN JULY, 1982.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V3 N1

IRIS ACCESSION NUMBER: EW008649

PUBLICATION DATE: FEB 83

TITLE: CASE STUDY IN APPLYING ADULT LEARNING THEORY IN MANAGERIAL TRAINING.

AUTHOR: DALOISIO, TONY; FIRESTONE, MARSHA

DESCRIPTOR: *ADULT LEARNERS; *CASE STUDIES; *INSTRUCTION; *LEARNING THEORY; *MANAGERS; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 73-78P.

ABSTRACT: THIS ARTICLE IS A DISCUSSION OF APPLYING ADULT LEARNING THEORY IN DEVELOPING MANAGERS. THE COMPETENCY MODEL OFFERED BY THE AMERICAN MANAGEMENT ASSOCIATIONS AS A BASIS FOR THE TRAINING OF THESE IDEAS IS DESCRIBED.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL; V37 N2

IRIS ACCESSION NUMBER: EW008651

PUBLICATION DATE: FEB 83

TITLE: ENVIRONMENTAL DATA DISPLAY.

AUTHOR: HUSSEY, KEVIN J.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER GRAPHICS; *ANALYSIS; *DATA DISPLAYS; *ENVIRONMENTAL DATA; *SOFTWARE; *IMAGE PROCESSING

DESCRIPTIVE NOTE: 78A-85AP.

ABSTRACT: DESCRIBED IS THE USE OF A COMBINATION OF COLOR-GRAPHICS AND IMAGE PROCESSING TECHNIQUES FOR DISPLAYING ENVIRONMENTAL INFORMATION. THE COMBINATION OF THESE TECHNIQUES HAS BEEN MADE POSSIBLE BY LOW-COST COMPUTERS.

HARDWARE. THE EXAMPLE USED TO ILLUSTRATE THE METHODOLOGY RELATES TO AIR QUALITY.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY; V17 N2

IRIS ACCESSION NUMBER: EW008652

PUBLICATION DATE: FEB 83

TITLE: LABORATORY INFORMATION MANAGEMENT SYSTEMS: PART II.

PERSONAL AUTHOR: DESSY, RAYMOND E.

DESCRIPTOR: *COMPUTER APPLICATIONS; *INDUSTRIES; *INFORMATION MANAGEMENT SYSTEMS; *LABORATORIES; *LIMS; *MANAGEMENT

DESCRIPTIVE NOTE: P277A-282A, 286A, 290A, 294A, 296A, 300A, 303A

ABSTRACT: INCLUDED ARE CAPSULE REPORTS THAT EXPLORE IMPLEMENTATIONS OF LABORATORY INFORMATION MANAGEMENT SYSTEMS (LIMS) BY EIGHT DIFFERENT INDUSTRIAL FIRMS, EACH UNIQUE IN ITS PROBLEMS AND SOLUTIONS. THE APPROACHES VARY EXTENSIVELY AND PROVIDE EXAMPLES FOR OTHER IMPLEMENTORS.

AVAILABILITY: ANALYTICAL CHEMISTRY; V55 N2

IRIS ACCESSION NUMBER: EW008653

PUBLICATION DATE: FEB 83

TITLE: CONTINUOUS FLOW DETERMINATION OF FREE CHLORINE IN WATER.

PERSONAL AUTHOR: AOKI, TOYOAKI; MUNEMORI, MAKOTO

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHLORINE; *DRINKING WATER; *LABORATORY TECHNIQUES; *WATER SUPPLY

DESCRIPTIVE NOTE: 209-212P.

ABSTRACT: REPORTED IS A TECHNIQUE FOR CONTINUOUS FLOW DETERMINATION OF FREE CHLORINE IN WATER USING SEPARATION OF MOLECULAR CHLORINE BY MICROPOROUS PIPE TUBING AND UV ABSORPTION OF CLO₂.

AVAILABILITY: ANALYTICAL CHEMISTRY; V55 N2

IRIS ACCESSION NUMBER: EW008654

PUBLICATION DATE: FEB 83

TITLE: DETERMINATION OF ARSENIC IN THE PRESENCE OF COPPER BY DIFFERENTIAL PULSE CATHODIC STRIPPING VOLTAMMETRY AT A HANGING MERCURY DROP ELECTRODE.

PERSONAL AUTHOR: SADANA, RAM S.

*ANALYTICAL TECHNIQUES; *ARSENIC; *DRINKING
ORATORY TECHNIQUES; *MONITORING; *WATER SUPPLY;
MENT

NOTE: 304-307P.

DESCRIBED IS A SIMPLIFIED METHOD FOR DETERMINING
THE PRESENCE OF COPPER BY DIFFERENTIAL PULSE
STRIPPING VOLTAMMETRY (DPCSU). ADDITIONALLY, THE
MODIFIED AND STREAMLINED FOR ROUTINE ANALYSIS OF
ER.

: ANALYTICAL CHEMISTRY; V55 N2

ION NUMBER: EW008655

DATE: FEB 83

POTENTIOMETRIC STRIPPING WITH MATRIX EXCHANGE
IN FLOW INJECTION ANALYSIS OF HEAVY METALS IN
S.

THOR: HU, ALEX; AND OTHERS

*ANALYTICAL TECHNIQUES; *CADMIUM; *COPPER;
APPLICATIONS; *GROUNDWATER; *LABORATORY
*LEAD; *METALS; *MONITORING; *PERFORMANCE
*TRACE METALS; *WATER SUPPLY

NOTE: 320-320P.

POTENTIOMETRIC STRIPPING ANALYSIS, IN CONJUNCTION
INJECTION ANALYSIS TECHNIQUES, PROVIDES A
AUTOMATED METHOD FOR THE DETERMINATION OF CU, CD,
GROUNDWATER. THE THEORY BEHIND THE METHOD IS
AND THE HARDWARE, SOFTWARE, AND INSTRUMENTATION
E PRESENTED.

ION NUMBER: EW008656

DATE: JAN 83

KALAMAZOO GUIDED BY LONG-RANGE "OPERATIONS MANUALS."

*COSTS; *ECONOMICS; *MANAGEMENT; *MICHIGAN;
(WATER); *OPERATIONS (WASTEWATER); *PERFORMANCE
*PROGRAM DESCRIPTIONS; *WATER SUPPLY;
TREATMENT

NOTE: 18, 49P.

DESCRIBED IS THE KALAMAZOO (MICHIGAN)
WATER SYSTEM. THE SYSTEM HAS BEEN OPERATED
MAINTAINING WATER SUPPLIES, PROVIDING GOOD
CONTROLLING COSTS AND DEVELOPING PLANS FOR FUTURE

Y: WATER ENGINEERING & MANAGEMENT; V130 N1

IRIS ACCESSION NUMBER: EW008657

PUBLICATION DATE: JAN 83

TITLE: ELECTROLYTIC SIDESTREAM PROCESS SOLVES ODOR AND
OTHER PROBLEMS.

DESCRIPTOR: *ELECTROLYTIC SIDESTREAM PROCESS; *MISSOURI;
*ODOR; *ODOR CONTROL; *OPERATIONS (WASTEWATER); *PROCESS
DESCRIPTIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 22-23P.

ABSTRACT: DESCRIBED IS AN ELECTROLYTIC SIDESTREAM PROCESS
THAT SOLVED ODOR AND OTHER PROBLEMS IN KANSAS CITY,
MISSOURI.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N1

IRIS ACCESSION NUMBER: EW008658

PUBLICATION DATE: JAN 83

TITLE: GROUNDWATER DEVICE DOES DOUBLE DUTY.

DESCRIPTOR: *GEOMON; *GROUNDWATER; *EQUIPMENT;
*INSTRUMENTATION; *PIEZOMETERS; *SAMPLERS; *SAMPLING; *WATER
QUALITY

DESCRIPTIVE NOTE: 22P.

ABSTRACT: DESCRIBED IS THE GEOMON, A DUAL-PURPOSE DEVICE
WHICH FUNCTIONS AS A GROUNDWATER SAMPLER AND PIEZOMETER.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N1

IRIS ACCESSION NUMBER: EW008659

PUBLICATION DATE: JAN 83

TITLE: WHAT MAKES A SLUDGE COLLECTOR DRIVE TICK?

PERSONAL AUTHOR: SAFFRAN, E. P.

DESCRIPTOR: *EQUIPMENT; *OPERATIONS (WASTEWATER); *SLUDGE;
*SLUDGE COLLECTORS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 24-28, 45P.

ABSTRACT: THE HEART OF A CIRCULAR SLUDGE COLLECTOR IS THE
DRIVE AND ITS GEARING. UNDERSTANDING THESE SYSTEMS IS A MUST
FOR THOSE WHO DEAL WITH THEM. TYPES OF COLLECTORS ARE
DESCRIBED IN THIS ARTICLE.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N1

32

46

45

IRIS NUMBER: EW008660

DATE: JAN 83

UNIFORM DISTRIBUTION IN WASTEWATER COLLECTION

AUTHOR: HOLLENBECK, ALAN J.; NOCAJ, RICHARD J.

*INFILTRATION; *INFLOW; *MONITORING; *SURVEYS; *TREATMENT; *WASTEWATER COLLECTION

NOTE: 30-33P.

IDENTIFICATION AND REDUCTION OF EXCESSIVE FLOW IN WASTEWATER IS A COMPLEX PROBLEM JUST BEGINNING TO BE UNDERSTOOD BY THE TECHNICAL COMMUNITY. REPORTED ARE THE PREDICTED AND ACTUAL 1/1 REDUCTION FOR SEVERAL WASTEWATER COLLECTIONS. RESULTS OF DIFFERENT MONITORING REPORTS ARE

AVAILABLE IN: WATER ENGINEERING & MANAGEMENT; V130 N1

IRIS NUMBER: EW008661

DATE: JAN 83

SETTING UP A SIMPLIFIED P-M PROGRAM.

AUTHOR: THOMPSON, WILLIAM B.

*EQUIPMENT; *MAINTENANCE; *PREVENTIVE *PROGRAM REVIEWS; *RECORDS; *WASTEWATER

NOTE: 33-35P.

THOUGHTFUL, CAREFUL PREPARATION CAN BE THE SECRET OF ANY PREVENTIVE MAINTENANCE PROGRAM. DESCRIBED IS A PREVENTIVE MAINTENANCE PROGRAM.

AVAILABLE IN: WATER ENGINEERING & MANAGEMENT; V130 N1

IRIS NUMBER: EW008662

DATE: JAN 83

USE OF SLUDGE AND SILVICULTURE.

AUTHOR: NICHOLS, CHARLES

*LAND APPLICATION; LUMBER; *RESEARCH; *SEATTLE; *SILVICULTURE; *WASHINGTON; *WASTE DISPOSAL; *TREATMENT; WOOD

NOTE: 36-37P.

INSPIRED BY PROMISING RESULTS FROM SLUDGE TESTING ON TIMBER PLANTATIONS, A LARGE WATER CONTROL AUTHORITY ACQUIRED A VEHICLE WITH SPECIAL

SPRAYING CAPABILITIES TO EXPAND THE PROJECT.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N1

IRIS ACCESSION NUMBER: EW008663

PUBLICATION DATE: FEB 83

TITLE: DEVELOPMENT OF A REGIONAL SLUDGE DEWATERING FACILITY USING PRESSURE FILTERS.

PERSONAL AUTHOR: SHIMP, GARY F.; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *COLORADO; *DEWATERING; ECONOMIC FACTORS; *FILTERS; *MANAGEMENT; *PLANNING; REGIONAL SYSTEMS; RESEARCH REPORTS; *SLUDGE; *SLUDGE MANAGEMENT; *WASTE DISPOSAL; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 130-135P.

ABSTRACT: SLUDGE HANDLING AND DISPOSAL OFTEN MAY BE MORE EFFICIENT AND LESS COSTLY ON A REGIONAL RATHER THAN INDIVIDUAL TREATMENT PLANT BASIS. A REGIONAL PLAN FOR SLUDGE MANAGEMENT WAS DEVELOPED IN A MOUNTAIN AREA OF CENTRAL COLORADO. AEROBICALLY DIGESTED BIOLOGICAL AND CHEMICAL SLUDGE ARE TRUCKED FROM FIVE SMALL MUNICIPAL TREATMENT PLANTS TO A CENTRAL DEWATERING FACILITY. SLUDGE CAKE IS TO BE USED FOR DISTURBED LAND RECLAMATION, FERTILIZATION OF WILD GAME RANGELANDS, OR OTHER BENEFICIAL USES. AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE USER ENTITIES PERMITTED THE COUNTY GOVERNMENT TO ISSUE REVENUE BONDS FOR THE LOCAL SHARE OF THE DEWATERING FACILITY CONSTRUCTION. A USER FEE SYSTEM HAS BEEN DEVELOPED THAT CONSISTS OF A BASE FEE, A GALLONAGE CHARGE, AND A SOLIDS LOADING CHARGE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V52 N2

IRIS ACCESSION NUMBER: EW008664

PUBLICATION DATE: FEB 83

TITLE: MAGNESIUM RECYCLING BY CARBONATION AND CENTRIFUGATION OF HIGH-LIME WASTEWATER SLUDGE.

PERSONAL AUTHOR: IDELOVITCH, EMANUEL; WACHS, ALBERTO M.

DESCRIPTOR: *CARBONATION; *CASE STUDIES; *CENTRIFUGATION; DEWATERING; *LIME; *MAGNESIUM; *PERFORMANCE EVALUATION; *RECYCLING; *RESEARCH REPORTS; *SLUDGE; SLUDGE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 136-144P.

ABSTRACT: BY BUBBLING CO2 INTO WASTEWATER LIME SLUDGE, IT IS POSSIBLE TO DISSOLVE THE MAGNESIUM SELECTIVELY (WITHOUT DISSOLVING THE CALCIUM). BY LOWERING THE SLUDGE PH TO ABOUT 9, ABOUT 35 TO 40% OF THE MAGNESIUM FOUND IN THE SLUDGE AS $Mg(OH)_2$ IS DISSOLVED TO AN ADMIXTURE OF $MgCO_3$ AND $Mg(HCO_3)_2$; BY LOWERING THE PH TO ABOUT 8, THE Mg DISSOLUTION EFFICIENCY

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D TO 50 TO 60% AND ALL THE DISSOLVED MG IS FOUND
2. DISSOLUTION OF UNDESIRABLE MATERIALS, SUCH AS
OSPHORUS, OR HEAVY METALS, DOES NOT OCCUR TO ANY
EXTENT. BORON, WHICH IS ADSORBED ON THE $Mg(OH)_2$
IS NOT RELEASED WHEN PH IS LOWERED TO 9;
WHEN PH IS LOWERED FROM 9 TO 8, A CONSIDERABLE
AMOUNT OF BORON OCCURS. AFTER DISSOLUTION OF MAGNESIUM,
SLUDGE CAN BE DEWATERED BY SOLID-BOWL DECATERS, WITH
LIME ADDITION. THE CENTRATE CONTAINING THE
BORON CAN BE RECYCLED TO THE LIME TREATMENT UNIT,
ELIMINATING ANY SIGNIFICANT DANGER OF ACCUMULATION OF
BORON SUBSTANCES. DISSOLUTION OF $Mg(OH)_2$ FROM THE
SLUDGE OVER ITS DEWATERING BY INCREASING THE MAXIMUM
SPEED OF THE CENTRIFUGE, REDUCING THE POLYELECTROLITE
AND ENSURING A CAKE OF HIGHER SOLIDS
CONTENT. MAGNESIUM DISSOLUTION TO PH 9 IS PREFERABLE
TO PH 8.

AUTHOR: JOURNAL WATER POLLUTION CONTROL FEDERATION,

ACCESSION NUMBER: EW008665

DATE: FEB 83

DEWATERING OF WASTE
SLUDGE.

AUTHOR: ALBERTSON, ORRIS E.; KOPPER, MICHAEL

*ACTIVATED SLUDGE; *CASE STUDIES;
*COMBUSTION; *COAL; *DEWATERING;
*PERFORMANCE EVALUATION; *RESEARCH REPORTS;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 145-156P.

THE DEWATERING CHARACTERISTICS OF EXCESS
SLUDGES HAVE PROVEN TO BE THE MAJOR RESTRAINT TO
SLUDGE COMBUSTION AS AN ULTIMATE DISPOSAL ALTERNATIVE.
A FULL-SCALE FIELD STUDY, A NEW TYPE SLOW-SPEED, CO-
ROLL CENTRIFUGE WAS FED 100% WASTE ACTIVATED
SLUDGE WITH VARYING QUANTITIES OF FINE COAL WITH THE
AIM OF PRODUCING A SELF-SUSTAINING CAKE. THE PAPER
PRESENTS THE RESULTS OF ABOUT 80 CENTRIFUGE RUNS THAT
VARIABLE MACHINE AND PROCESS VARIABLES, AND DEFINES THE
OPTIMUM USE OF FINE COAL AS A DEWATERING AID.

AUTHOR: JOURNAL WATER POLLUTION CONTROL FEDERATION,

ACCESSION NUMBER: EW008666

DATE: FEB 83

REMOVAL MECHANISMS FOR TOXIC PRIORITY POLLUTANTS.

AUTHOR: KINCANNON, DON F.; AND OTHERS

*BATCH PROCESSES; *BIOLOGICAL TREATMENT;

*CONTINUOUS FLOW; *OZONATION; *POLLUTANTS; *PRIORITY
POLLUTANTS; *REACTORS; *RESEARCH REPORTS; *TOXIC SUBSTANCES;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 157-163P.

ABSTRACT: THIS PAPER DESCRIBES STUDIES CONDUCTED IN
COMPLETE-MIX, CONTINUOUS-FLOW REACTORS, BATCH REACTORS, AND
OZONATION OF WASTEWATER PRIOR TO BIOLOGICAL TREATMENT.
FIFTEEN DIFFERENT TOXIC PRIORITY POLLUTANTS WERE STUDIED IN
CONTINUOUS-FLOW REACTORS. IN ADDITION TO THE CONTINUOUS-FLOW
STUDIES, ACRYLONITRILE, 1,2-DICHLOROPROPANE, 2,4-
DINITROPHENOL, AND PHENOL ALSO WERE STUDIED IN BATCH
REACTORS AND OZONATED BEFORE BIOLOGICAL TREATMENT. IT WAS
FOUND THAT PRIORITY POLLUTANTS CAN BE REMOVED BY SEVERAL
MECHANISMS, THE MOST IMPORTANT MECHANISMS BEING STRIPPING,
BIODEGRADATION, AND A COMBINATION OF STRIPPING AND
BIODEGRADATION. THE REMOVAL MECHANISM WAS FOUND TO BE
CONSISTENT WITH THE CLASSIFICATION OF THE CHEMICAL. IN
GENERAL, NITROGEN COMPOUNDS, PHENOLS, AND OXYGENATED
COMPOUNDS WERE REMOVED BY BIODEGRADATION. AROMATICS WERE
REMOVED BY A COMBINATION OF STRIPPING AND BIODEGRADATION.
HALOGENATED HYDROCARBONS GENERALLY WERE REMOVED BY
STRIPPING. THERE WERE SOME EXCEPTIONS. IT WAS ALSO FOUND
THAT THE REMOVAL OF SPECIFIC ORGANIC COMPOUNDS DURING
BIOLOGICAL TREATMENT CAN BE SIGNIFICANTLY IMPACTED BY
TREATMENT WITH OZONE PRIOR TO BIOLOGICAL TREATMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION,
V52 N2

IRIS ACCESSION NUMBER: EW008667

PUBLICATION DATE: FEB 83

TITLE: ENUMERATION OF CHLORINE-DAMAGED FECAL COLIFORMS IN
WASTEWATER EFFLUENTS.

PERSONAL AUTHOR: GRAHAM, PARRIE J.; BRENNIMAN, GARY R.

DESCRIPTOR: *CHLORINATION; CHLORINE; COLIFORMS; EFFLUENTS;
*FECAL COLIFORMS; *FILTRATION; *PERFORMANCE EVALUATION;
*RESEARCH REPORTS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 164-169P.

ABSTRACT: EFFLUENT SAMPLES COLLECTED ON 16 DIFFERENT
OCCASIONS AT FOUR SITES WITHIN A WASTEWATER TREATMENT PLANT
WERE USED TO DETERMINE WHETHER THE SINGLE VARIABLE OF MEDIA
ENRICHMENT SPECIFICALLY IMPROVES THE MEMBRANE FILTRATION
(MF) RECOVERY RATES OF CHLORINE-DAMAGED FECAL COLIFORMS
(FC). THE ENRICHMENT MEDIA USED IN THIS STUDY ($P=0.03$)
SIGNIFICANTLY IMPROVED THE MF RECOVERY RATES FOR FECAL
COLIFORMS. HOWEVER, THE STUDY COULD NOT DEMONSTRATE THAT
ENRICHMENT SPECIFICALLY IMPROVED THE MF RECOVERY RATES OF
CHLORINE-DAMAGED CELLS. THIS STUDY ALSO FOUND A SIGNIFICANT
($P=0.03$) POSTCHLORINATION INCREASE IN FC AFTER A CHLORINE
CONTACT PERIOD OF APPROXIMATELY 1 HOUR, FOLLOWED BY A
DECREASE IN FC AFTER AN ADDITIONAL 1.5 HOURS OF CHLORINE
CONTACT TIME. THIS VARIABILITY IN THE POSTCHLORINATION FC
CONCENTRATION IS OF CONCERN BECAUSE IT COULD BE A FACTOR IN
DETERMINING WHETHER A WASTEWATER TREATMENT PLANT IS IN

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WITH STATE OR LOCAL BACTERIAL EFFLUENT STANDARDS.

JOURNAL WATER POLLUTION CONTROL FEDERATION,

ON NUMBER: EW008668

DATE: FEB 83

UATION OF A DISSOLVED OXYGEN FIELD TEST

THOR: KULIN, GERSHON; AND OTHERS

ACTIVATED SLUDGE; *CASE STUDIES; DISSOLVED
TRUMENTATION; *MAINTENANCE; *MONITORING; *OXYGEN
FORMANCE EVALUATION

NOTE: 178-186P.

TEST PROTOCOL THAT WAS DEVELOPED FOR ON-LINE
OXYGEN METERS WAS EVALUATED IN A 60-DAY FIELD TEST
IN AN ACTIVATED SLUDGE AERATION BASIN WITH 13
7 COOPERATING MANUFACTURERS. THE PAPER DISCUSSES
NT FEATURES OF THE TEST PROTOCOL AND DESCRIBES
RES AND RESULTS OF THE FIELD TEST. THESE RESULTS
ORMATION ON METHODS FOR TESTING, CALIBRATING AND
MONITORING, INFORMATION USEFUL FOR DEVELOPING
NS, AND INFORMATION ON ROUTINE MAINTENANCE FOR
SSOLVED OXYGEN METERS IN A SPECIFIC PLANT

JOURNAL WATER POLLUTION CONTROL FEDERATION,

ON NUMBER: EW008669

DATE: FEB 83

SSMENT OF HEAVY METALS AND PCBs AT SLUDGE
SITES.

THOR: WEBBER, MELVIN D.; AND OTHERS

*CANADA; *CASE STUDIES; *HEAVY METALS; *LAND
*POLYCHLORINATED BIPHENYLS; *RESEARCH REPORTS;
*SLUDGE; SOIL; *WASTE DISPOSAL; WASTEWATER

NOTE: 187-195P.

SOILS AND PLANT MATERIALS WERE SAMPLED AT 10
LOCATION SITES IN ONTARIO AND WERE ANALYZED FOR
LS AND POLYCHLORINATED BIPHENYLS (PCBS). IN
SLUDGE APPLICATION INCREASED THE TOTAL METAL AND
S OF RECEIVING SOILS, AND THE LARGEST INCREASES
NCIDED WITH THE LARGEST ESTIMATED LOADINGS.
TRACTED BY DIETHYLENTRIAMINE-PENTAACETIC ACID
THE RECEIVING SOILS WERE ALSO INCREASED AND WERE
LATED WITH THE TOTAL METALS. RESULTS OF THESE

STUDIES INDICATED THAT SLUDGE APPLICATION ACCORDING TO
ONTARIO GUIDELINES WILL NOT CAUSE DELETERIOUS UPTAKE OF
HEAVY METALS BY FIELD CROPS. IT SEEMED THAT THE GUIDELINES
ALLOW AN APPRECIABLE SAFETY MARGIN, WHICH IS DESIRABLE
BECAUSE SLUDGE COMPOSITION MAY VARY WIDELY WITH TIME.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION,
V52 N2

IRIS ACCESSION NUMBER: EW008670

PUBLICATION DATE: FEB 83

TITLE: USING WATER DISTRIBUTION SYSTEM MODELS.

PERSONAL AUTHOR: WALSKI, THOMAS N.

DESCRIPTOR: *COMPUTER PROGRAMS; DATA COLLECTION; *GUIDES;
HYDRAULICS; *MATHEMATICAL MODELS; *MODELING; *PROGRAM
DESCRIPTIONS; *RECOMMENDATIONS; *WATER SUPPLY; *WATER
DISTRIBUTION; WATER MANAGEMENT; WATER RESOURCES

DESCRIPTIVE NOTE: 58-63P.

ABSTRACT: THIS ARTICLE IS A "USER GUIDE" FOR MODELING WATER
DISTRIBUTION SYSTEMS. PRACTICAL SUGGESTIONS ARE GIVEN FOR
SELECTING THE PROGRAM, COMPILING DATA FOR INPUT, CODING DATA
FOR THE MODEL, COLLECTING CALIBRATION DATA, CALIBRATING THE
MODEL, AND RUNNING THE MODEL. READERS ARE ALSO PROVIDED WITH
A REFERENCE LIST OF PUBLISHED LITERATURE ON MODELING WATER
DISTRIBUTION SYSTEMS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75
N2

IRIS ACCESSION NUMBER: EW008671

PUBLICATION DATE: FEB 83

TITLE: DEVELOPING AND MONITORING MUNICIPAL GROUNDWATER
SUPPLIES IN FLORIDA.

PERSONAL AUTHOR: HEATH, GENE

DESCRIPTOR: AQUIFERS; *CASE STUDIES; CLIMATE; *FLORIDA;
*GROUNDWATER; MANAGEMENT; *MONITORING; MUNICIPALITIES;
*PLANNING; *WATER RESOURCES; *WATER SUPPLY; *WELLS

DESCRIPTIVE NOTE: 64-67P.

ABSTRACT: WATER DEMANDS ON THE WEST COAST OF FLORIDA HAVE
RISEN STEADILY BECAUSE OF THE RAPID INCREASE IN PERMANENT
RESIDENTS AND A SUBSTANTIAL SEASONAL TEMPORARY POPULATION.
VARYING SEASONAL DEMAND PATTERNS STRONGLY INFLUENCE
GROUNDWATER WITHDRAWAL RATES AND RELATED EFFECTS ON THE
GROUNDWATER SOURCES OF MUNICIPAL SUPPLIES. THE PROCESS OF
PLANNING, DEVELOPING, AND MONITORING A NEW WELLFIELD IS
DISCUSSED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75
N2

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ON NUMBER: EW008672

DATE: FEB 83

EN COSTS OF ACCIDENTS CAN FINANCE SAFETY

THOR: VAN DYKE, ROBERT P.

*ACCIDENT PREVENTION; ACCIDENTS; *COST
S; *COSTS; *ECONOMIC FACTORS; *FLORIDA;
*SAFETY; *SAFETY PROGRAMS; *WATER INDUSTRY;
MENT

NOTE: 73-77P.

MANAGEMENT'S COMMITMENT TO ACCIDENT PREVENTION
S ESSENTIAL FOR WORKER HEALTH AND MORALE. THE
THE COST OF ACCIDENTS THAT OCCUR IN THE WATER
EXCEEDED THE FIGURES FOR INDUSTRY AS A WHOLE, AND
CONTINUE TO RISE. APART FROM THE DIRECT EXPENSES
CONNECTED WITH WORKER INJURIES ARE THE HIDDEN
ING NEW WORKERS, SUPERVISORS' TIME SPENT IN
H THE ACCIDENTS, CLAIMS RESULTING FROM ACCIDENTS,
AND OTHERS. SUCH COSTS ARE FAR GREATER THAN THE
ETY TRAINING PROGRAMS THAT HAVE PROVED EFFECTIVE
THE NUMBER AND SEVERITY OF ON-THE-JOB INJURIES.

Y: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

ION NUMBER: EW008673

DATE: FEB 83

NCIPLES OF INTERNAL CORROSION AND CORROSION

THOR: KIRMEYER, GREGORY J.; LOGSDON, GARY S.

*CORROSION; EQUIPMENT; INTERNAL CORROSION;
E; *MONITORING; *PIPES; *PREVENTIVE MAINTENANCE;
SCRIPTIONS; *RESEARCH REPORTS; *WATER SUPPLY;
RIBUTION; *WATER TREATMENT

NOTE: 78-83P.

INTERACTION OF CORROSIVE WATER WITH DISTRIBUTION
AND HOME PLUMBING SYSTEMS CAN CAUSE HEALTH-
ESTHETIC, OR ECONOMIC PROBLEMS. THE AUTHORS OF
VIEW DEFINE CORROSION AND DESCRIBE COMMON FORMS OF
CORROSION, THE BASIC CORROSION REACTION, AND
OF IRON PIPE, GALVANIZED PIPE, COPPER PIPE, LEAD
STRUCTURES WITHIN THE WATER TREATMENT PLANT. THEY
DER METHODS OF MONITORING CORROSION. A STRATEGY
LLING CORROSION DEPENDS ON THE SPECIFIC WATER
D DISTRIBUTION SYSTEM, AND ONCE A CORROSION
OGRAM IS IMPLEMENTED, ITS EFFECTIVENESS SHOULD BE

MONITORED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75
R2

IRIS ACCESSION NUMBER: EW008674

PUBLICATION DATE: FEB 83

TITLE: THE INTERIOR SURFACE OF GALVANIZED STEEL PIPE: A
POTENTIAL FACTOR IN CORROSION RESISTANCE.

PERSONAL AUTHOR: FOX, KATHERINE P.; AND OTHERS

DESCRIPTOR: *CORROSION; EQUIPMENT; *GALVANIZED PIPES;
*PERFORMANCE EVALUATION; *PIPES (WATER); *PIPES; *RESEARCH
REPORTS; *WATER SUPPLY; *WATER DISTRIBUTION; ZINC COATINGS

DESCRIPTIVE NOTE: 84-86P.

ABSTRACT: AS PART OF AN INVESTIGATION OF PITTING CORROSION
INDUCED BY SURFACE HETEROGENEITIES, THE SURFACE
CHARACTERISTICS OF PIPE FROM AUSTRALIA, KOREA, AND THE
UNITED STATES WERE EXAMINED. THE THICKNESSES OF THE ZINC
COATING ON PIPE SAMPLES WERE COMPARED WITH STANDARDS FOR
ZINC COATING OF GALVANIZED STEEL PIPE. FOR THE SAMPLES
EXAMINED IN THIS STUDY, PIPE FROM BOTH AUSTRALIA AND THE
UNITED STATES MET THE COATING STANDARDS, BUT THE PIPE FROM
KOREA DID NOT. A PILOT STUDY, WHICH IS BEING CONDUCTED TO
DETERMINE WHETHER THESE DIFFERENCES IN PIPE SURFACE LEAD TO
DIFFERENCES IN CORROSION, IS DESCRIBED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75
N2

IRIS ACCESSION NUMBER: EW008675

PUBLICATION DATE: FEB 83

TITLE: CONTROL OF LEAD, COPPER, AND IRON PIPE CORROSION IN
BOSTON.

PERSONAL AUTHOR: KARALEKAS, PETER C., JR.; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *CORROSION; *DRINKING WATER;
EQUIPMENT; *HEALTH EFFECTS; *LEAD; *METALS; *MASSACHUSETTS;
*MONITORING; *PIPES; *PIPES (WATER); *PREVENTIVE
MAINTENANCE; *RESEARCH REPORTS; *WATER DISTRIBUTION; *WATER
QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 92-95P.

ABSTRACT: SINCE 1976 A SAMPLING PROGRAM HAS BEEN CONDUCTED
IN THE BOSTON, MASS., METROPOLITAN AREA TO MONITOR TRACE
METALS AT CONSUMERS' TAPS THAT WERE KNOWN TO BE SUPPLIED
THROUGH LEAD SERVICE LINES. THE AUTHORS DISCUSS THE PROBLEMS
WITH LEAD IN BOSTON'S DRINKING WATER AND DESCRIBE HISTORIC
ASPECTS, THE WATER SUPPLY SYSTEM, A CORROSION MONITORING
PROGRAM, AND HEALTH EFFECTS. MONITORING HAS BEEN ESSENTIAL
IN EVALUATING THE CORROSION CONTROL SCHEME.

Y: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

IRIS ACCESSION NUMBER: EW008678

ION NUMBER: EW008676

PUBLICATION DATE: FEB 83

DATE: FEB 83

TITLE: SMALL UTILITY SCORES BIG SUCCESS, RECLAIMS HALF ITS CONTAMINATED WATER SUPPLY.

EVALUATION OF THE CALCIUM CARBONATE SATURATION

DESCRIPTOR: *CASE STUDIES; *CONTAMINATION; EQUIPMENT; HAZARDOUS MATERIALS; *PERFORMANCE EVALUATION; *PENNSYLVANIA; REGULATIONS; *TRICHLOROETHYLENE; *WATER CONSERVATION; *WATER QUALITY; *WATER RECLAMATION; WATER RESOURCES; *WATER SUPPLY

THOR: ROSSUM, JOHN R.; HERRILL, DOUGLAS T.

DESCRIPTIVE NOTE: 18, 20 NEWSP.

*ALKALINITY; *CALCIUM CARBONATE; *CORROSION; MATHEMATICAL MODELS; PERFORMANCE EVALUATION; *PH; REPORTS; *WATER QUALITY

ABSTRACT: THIS ARTICLE EXAMINES HOW THE WARRINGTON TOWNSHIP (PENNSYLVANIA) MUNICIPAL AUTHORITY DEALT WITH A WATER SUPPLY CONTAMINATED WITH TRICHLOROETHYLENE (TCE). TO COPE WITH THE PROBLEM OF A WATER SHORTFALL CAUSED BY CLOSED WELLS, THE WATER UTILITY TOOK THREE COURSES OF ACTION: (1) IT INSTITUTED A STRONG WATER CONSERVATION PROGRAM, (2) IT CONSTRUCTED A TIE-IN TO THE WATER SYSTEM OF A NEIGHBORING COMMUNITY, AND (3) IT DRILLED A TEST WELL THAT SHOWED GOOD YIELD, PROMPTING THE UTILITY TO APPLY TO REGULATORY AGENCIES FOR PERMISSION TO DEVELOP THE SOURCE. THE UTILITY WATER ADDED A WATER RECLAMATION SYSTEM TO MEET INCREASED NEEDS.

NOTE: 95-100P.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N2

INDEXES BASED ON WATER CHARACTERISTICS SUCH AS ALKALINITY, AND CALCIUM CONCENTRATION HAVE BEEN APPLIED FOR CONTROL FOR CERTAIN TYPES OF WATER. HOWEVER, THESE ARE NOT DIRECT MEASURES OF WATER CORROSIVITY. INDICATORS OF THE TENDENCY OF WATER TO FORM FILMS OF CALCIUM CARBONATE WHICH MAY BE PROTECTIVE. THE AUTHORS OF THIS REPORT ON THE EFFECTIVENESS OF SOME COMMON METHODS DESCRIBING CONTROLLED DEPOSITION OF $CaCO_3$. OF THESE THEY CONSIDER, CALCIUM CARBONATE PRECIPITATION IS BEST SUITED TO DESCRIBE $CaCO_3$ PRECIPITATION AND

Y: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

IRIS ACCESSION NUMBER: EW008679

ION NUMBER: EW008679

PUBLICATION DATE: FEB 83

DATE: FEB 83

TITLE: NEWS OF THE FIELD.

CORROSION STUDY AT CARBONDALE, ILLINOIS.

DESCRIPTOR: AQUIFERS; ECONOMIC FACTORS; *MANAGEMENT; MARKETING; MICROBIOLOGY; PLUME MANAGEMENT; *TECHNOLOGICAL ADVANCEMENTS; *WATER RESOURCES; *WATER SUPPLY; *WATER TREATMENT

THOR: SWAYZE, JAMES

DESCRIPTIVE NOTE: 32-37 NEWSP.

*CASE STUDIES; CAUSTIC SODA; *CORROSION *COSTS; EQUIPMENT; *ILLINOIS; *INHIBITORS; *EQUIPMENT; *PERFORMANCE EVALUATION; PH; *PHOSPHATES; MAINTENANCE; *RESEARCH REPORTS; *WATER SUPPLY

ABSTRACT: THIS ARTICLE PRESENTS A BRIEF REVIEW OF THE LATEST NEWS IN THE AREA OF WATER RESOURCES. TOPICS INCLUDE: MARKETING IN WATER SERVICE COMPANIES, PLUME MANAGEMENT, WATER SYSTEM CAPITAL SPENDING, UTILITIES EXECUTIVE SALARIES, MICROBIOLOGICAL WATER PURIFIER REQUIREMENTS, AND BUSINESS NEWS.

NOTE: 101-102P.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75 N2

THE CITY OF CARBONDALE HAD BEEN USING CAUSTIC SODA FOR PH CONTROL BUT SWITCHED TO A CORROSION AND SCALE INHIBITOR FOR CORROSION CONTROL. RESULTS FROM COUPON TESTS, CORROSION PROBE, AND WATER ANALYSES CONFIRMED THE EFFECTIVENESS OF THE INHIBITOR, WHICH WAS ALSO CREDITED WITH REDUCED CHEMICAL COSTS, IMPROVED SAFETY CONDITIONS, AND MAINTENANCE OF EQUIPMENT.

Y: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

IRIS ACCESSION NUMBER: EW008680

PUBLICATION DATE: FEB 83

TITLE: TOTAL WATER MANAGEMENT--THE DENVER STORY.

PERSONAL AUTHOR: MILLER, KENNETH J.

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*COLORADO; *CONSERVATION; *DRINKING WATER;
*MANAGEMENT; *RECYCLING; *WATER REUSE; *WATER
*WATER SUPPLY; *WATER MANAGEMENT; *WASTEWATER

NOTE: 38-39P.

WATER RECLAMATION PROJECTS ACCOMPANY DEVELOPMENT
PLIES IN DENVER'S WATER MANAGEMENT PHILOSOPHY. A
E PROJECTS ARE DESCRIBED.

PUBLIC WORKS; V114 N2

ON NUMBER: EW008681

DATE: FEB 83

ENVIRONMENTAL AND SEISMIC CONSIDERATIONS FOR SAN
OCEAN OUTFALL.

AUTHOR: MURPHY, GEORGE; LASK, ELLEN

*CALIFORNIA; *DESIGN; EFFLUENTS; *EARTHQUAKES;
*LANDFILLS; *SEISMIC CONSIDERATIONS; *WASTE DISPOSAL;
*WASTEWATER TREATMENT

NOTE: 40-42P.

NEW WASTEWATER OUTFALL STRETCHING 4.5 MILES
PACIFIC OCEAN WAS DESIGNED WITH SEISMIC
CONSIDERATIONS IN MIND. DESCRIBED IS THE DESIGN AND

PUBLIC WORKS; V114 N2

ON NUMBER: EW008682

DATE: FEB 83

WHITE DETENTION - DESIGN EXAMPLE.

AUTHOR: MASON, JOHN M.; RHOMBERG, EDWARD J.

*DESIGN; *DETENTION BASINS; *ON-SITE DETENTION;
*SURFACE RUNOFF; *URBAN AREAS

NOTE: 48-52P.

STEP-BY-STEP DESIGN PROCEDURE FOR REGULATION OF
A DETENTION FACILITY CONSIDERS THE RUNOFF
DETERMINATION OF BASIN SIZE, OUTLET CONTROL
AND OTHER FACTORS.

PUBLIC WORKS; V114 N2

IRIS ACCESSION NUMBER: EW008683

PUBLICATION DATE: FEB 83

TITLE: BEATING RED TAPE--DESIGN TO INSTALLATION IN SIX
MONTHS.

PERSONAL AUTHOR: MORIARTY, WILLIAM B.; CADIGAN, WILLIAM J.

DESCRIPTOR: *DESIGN; *CONSTRUCTION; *INDIANA; *PLANNING;
*SEWERS; *WASTEWATER COLLECTION; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 52-55P.

ABSTRACT: A NEW OUTLET SEWER FROM A PUMPING STATION WAS
COMPLETED IN A VERY TIGHT TIME FRAME DESPITE NUMEROUS
OBSTACLES ALONG THE ROUTE. DESIGN AND CONSTRUCTION OF THE
SEWER IS DISCUSSED.

AVAILABILITY: PUBLIC WORKS; V114 N2

IRIS ACCESSION NUMBER: EW008684

PUBLICATION DATE: FEB 83

TITLE: SALT WATER FOR FIRE PROTECTION AND SANITATION - A
WATER CONSERVATION ALTERNATIVE.

PERSONAL AUTHOR: JINKENS, DAVID M.

DESCRIPTOR: *WATER CONSERVATION; *CONSERVATION; *DUAL-
SYSTEMS; *SALT WATER; *WATER MANAGEMENT; *WATER
DISTRIBUTION; *WATER RESOURCES; *WATER SUPPLY; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 66-67P.

ABSTRACT: A SALT WATER DISTRIBUTION SYSTEM CUTS FRESH WATER
DEMAND BY 40 PERCENT IN AVALON, A COMMUNITY ON SANTA
CATALINA ISLAND, IN CALIFORNIA.

AVAILABILITY: PUBLIC WORKS; V114 N2

IRIS ACCESSION NUMBER: EW008685

PUBLICATION DATE: FEB 83

TITLE: WASTE COMPOSTING EASES SEWAGE SLUDGE DISPOSAL
PROBLEMS.

PERSONAL AUTHOR: VEILLETTE, RAYMOND J.

DESCRIPTOR: *COMPOSTING; *COMPOST; *ECONOMICS; *LANDFILLS;
*LEAF DISPOSAL; *SLUDGE; *SLUDGE DISPOSAL; *WASTEWATER
TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 35-36P.

ABSTRACT: A SUCCESSFUL TWO-YEAR-OLD PROGRAM OF COMPOSTING
DIGESTED SEWAGE SLUDGE WITH LEAVES AND BRUSH MAY BE EXPANDED.

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ATCH BASIN CRITS.

: AMERICAN CITY 8 COUNTY; V98 N2

ON NUMBER: EW008690

DATE: 80

SHOPS ON ENFORCEMENT OF STATE PUBLIC WATER
AMS.

*ENFORCEMENT; *GRANTS; *PROGRAM DEVELOPMENT;
FORCEMENT; PUBLIC HEALTH; SANITARY ENGINEERS;
STATE AGENCIES; *WATER QUALITY; *WATER SUPPLY

NOTE: 274P.

THIS PUBLICATION CONTAINS MATERIAL ON ENFORCEMENT
UBLIC WATER SUPPLY PROGRAMS. INFORMATION IS
N A GRANT TO THE CONFERENCE OF STATE SANITARY
TO DEVELOP AND CONDUCT THREE SEMINARS ON
PROGRAMS. THE FIRST PART OF THE REPORT OUTLINES
AND OBJECTIVES OF THE GRANT, THE GRANT'S
CONDUCT, ACCOMPLISHMENTS, PARTICIPANT
ATA, AND RECOMMENDATIONS. THE SECOND PART OF THE
RS A SUMMARY OF THE INFORMATION EXCHANGED AND
SCUSSED BY STATE PROGRAM PARTICIPANTS AT THE

: MEREDITH H. THOMPSON, DIRECTOR, TRAINING,
ND PUBLICATION, 1 DEERFIELD DRIVE, TROY, NY

ON NUMBER: EW008692

DATE: JAN 82

ANISMS OF STATE AGENCIES PROVIDING WATER SYSTEMS

*DRINKING WATER; ECONOMIC FACTORS; *MANAGEMENT;
NEW YORK; *OPERATIONS (WATER); *PERFORMANCE
*PROGRAM DESCRIPTIONS; *SERVICE DELIVERY; *STATE
WASHINGTON; *WATER QUALITY; *WATER RESOURCES;
MS

NOTE: 53P.

THIS STUDY EXAMINES EXISTING SERVICE DELIVERY
AND THEIR EFFECTIVENESS IN ADDRESSING PROBLEMS OF
R SYSTEMS. ATTENTION IS FOCUSED ON THE RESULTS OF
ON OF THREE EXISTING MECHANISMS IN THE STATES OF
NEW YORK, AND WASHINGTON. INCLUDED IS INFORMATION
ZATIONAL STRUCTURE, LEGISLATIVE MANDATES,
MANAGEMENT, AND FUNDING.

: MEREDITH H. THOMPSON, DIRECTOR, TRAINING,
ND PUBLICATION, 1 DEERFIELD DRIVE, TROY, NY

IRIS ACCESSION NUMBER: EW008693

PUBLICATION DATE: FEB 79

TITLE: TRAINEE'S MANUAL FOR THE TRAINING COURSE - SANITARY
ENGINEERS.

DESCRIPTOR: *DRINKING WATER; ENGINEERING; *INSTRUCTIONAL
MATERIALS; *OPERATIONS (WATER); *POST SECONDARY EDUCATION;
*STUDY GUIDES; TRAINING PROGRAMS; *WATER DISTRIBUTION; WATER
QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 200P.

ABSTRACT: THIS TRAINEE'S MANUAL COVERS MATERIAL PRESENTED
IN THE COURSE ENTITLED "CONDUCT OF A SMALL WATER SUPPLY
SANITARY SURVEY". THE OVERALL OBJECTIVE OF THIS COURSE IS TO
PROVIDE THE TRAINING WHICH, WHEN COMPLEMENTED BY THE MINIMUM
AMOUNT OF ON-THE-JOB TRAINING, WILL ENABLE THE TRAINEE TO
PERFORM SATISFACTORY SURVEYS OF SMALL WATER SUPPLY SYSTEMS.

AVAILABILITY: MEREDITH H. THOMPSON, DIRECTOR, TRAINING,
EDUCATION AND PUBLICATION, 1 DEERFIELD DRIVE, TROY, NY
12180

IRIS ACCESSION NUMBER: EW008694

PUBLICATION DATE: FEB 79

TITLE: INSTRUCTOR'S MANUAL FOR THE TRAINING COURSE -
SANITARY ENGINEERS.

DESCRIPTOR: *DRINKING WATER; ENGINEERING; *INSTRUCTIONAL
MATERIALS; MANUALS; *OPERATIONS (WATER); *POST SECONDARY
EDUCATION; *TEACHING GUIDES; *TRAINING PROGRAMS; *WATER
DISTRIBUTION; WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 250P.

ABSTRACT: THE PURPOSE OF THIS INSTRUCTOR'S MANUAL IS TO
SERVE AS A COMPLETE GUIDE TO: (1) THE COURSE ENTITLED
"CONDUCT OF A SMALL WATER SUPPLY SANITARY SURVEY", (2) THE
RECOMMENDED UNITS AND LESSONS WITHIN THE COURSE, (3) THE
CONTENT AND ORGANIZATION OF THE LESSONS; (4) HOW TO PREPARE
FOR THE LESSONS, (5) RECOMMENDATIONS ON PRESENTING THE
UNITS, AND (6) THE PARTICIPANT'S HANDBOOK AND ITS USE.

AVAILABILITY: MEREDITH H. THOMPSON, DIRECTOR, TRAINING,
EDUCATION AND PUBLICATION 1 DEERFIELD DRIVE, TROY, NY 12180

IRIS ACCESSION NUMBER: EW008696

PUBLICATION DATE: 79

TITLE: PROCEEDINGS FROM THE 54TH MEETING CONFERENCE OF
STATE SANITARY ENGINEERS, DENVER, CO. MAY 8-10, 1979.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *ENGINEERING; PUBLIC
HEALTH; RADIOACTIVE WASTES; *RESEARCH REPORTS; *SANITARY
ENGINEERS; TECHNOLOGICAL ADVANCES; *WATER TREATMENT; WASTE

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WASTEWATER TREATMENT; *WATER QUALITY; WATER

THIS PUBLICATION CONTAINS THE PROCEEDINGS OF THE CONFERENCE OF STATE SANITARY ENGINEERS HELD MAY 8-10, 1981, DENVER, COLORADO. TOPICS ADDRESSED INCLUDE: PROTECTION AND QUALITY, NON-POINT SOURCE POLLUTION, RADIOACTIVE WASTE MANAGEMENT, TECHNOLOGICAL ADVANCES, PERSONNEL AND TRAINING, WATER TREATMENT AND PUBLIC HEALTH, AND WASTEWATER TREATMENT.

MEREDITH H. THOMPSON, DIRECTOR, TRAINING, AND PUBLICATION, 1 DEERFIELD DRIVE, TROY, NY

IRIS ACCESSION NUMBER: EW008697

PUBLICATION DATE: 81

PROCEEDINGS FROM THE 56TH ANNUAL MEETING OF THE CONFERENCE OF STATE SANITARY ENGINEERS AT ANN ARBOR, MI.

TOPICS ADDRESSED INCLUDE: AIR QUALITY; *CONFERENCE PROCEEDINGS; *DRINKING WATER; *ENVIRONMENTAL QUALITY; *PUBLIC HEALTH; *SANITARY ENGINEERS; SOLID WASTES; *STANDARDS; WASTEWATER TREATMENT; *WASTEWATER TREATMENT; *WATER RESOURCES

THIS PUBLICATION CONTAINS THE PROCEEDINGS OF THE CONFERENCE OF STATE SANITARY ENGINEERS HELD MAY 1981 IN ANN ARBOR MICHIGAN. TOPICS ADDRESSED INCLUDE: REGULATIONS AND STANDARDS, WASTEWATER, AIR POLLUTION, DRINKING WATER, SOLID WASTES, ASBESTOS, AND PUBLIC HEALTH.

MEREDITH H. THOMPSON, DIRECTOR, TRAINING, AND PUBLICATION, 1 DEERFIELD DRIVE, TROY, NY

IRIS ACCESSION NUMBER: EW008698

PUBLICATION DATE: 82

WORKSHOPS ON PROBLEMS RELATING TO THE CONSTRAINTS OF STATE SOLID & HAZARDOUS WASTES PROGRAMS.

TOPICS ADDRESSED INCLUDE: ADMINISTRATION; ENVIRONMENTAL PROTECTION; HAZARDOUS WASTES; MANAGEMENT; PROBLEM SOLVING; IMPLEMENTATION; *SOLID WASTES; *STATE PROGRAMS; EVALUATION; *WASTE MANAGEMENT; *WORKSHOPS

DESCRIPTIVE NOTE: 70P.

THIS PUBLICATION CONTAINS MATERIAL FROM SEVERAL WORKSHOPS ON PROBLEMS RELATING TO THE CONSTRAINTS OF STATE SOLID AND HAZARDOUS WASTES PROGRAMS. THE WORKSHOPS WAS TO PROVIDE A COMMON MEETING PLACE AND EPA PERSONNEL RESPONSIBLE FOR THE SOLID AND HAZARDOUS WASTES PROGRAMS AND AS THE EXPERTS WITH

EVERYDAY PRACTICAL OPERATING EXPERIENCE TO DISCUSS COMPREHENSIVE PROGRAMS AND MUTUAL ADMINISTRATIVE AND OPERATIONAL PROBLEMS.

AVAILABILITY: MEREDITH H. THOMPSON, DIRECTOR, TRAINING, EDUCATION AND PUBLICATION, 1 DEERFIELD DRIVE, TROY, NY 12180

IRIS ACCESSION NUMBER: EW008700

PUBLICATION DATE: JUL 82

TITLE: LABORATORY PROTOCOLS FOR EVALUATING THE FATE OF ORGANIC CHEMICALS IN AIR AND WATER.

PERSONAL AUTHOR: MILL, T.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AIR QUALITY; *AQUATIC ENVIRONMENTS; BIOTRANSFORMATION; *CHEMICALS; DATA ANALYSIS; HYDROLYSIS; *LABORATORY PROCEDURES; *ORGANIC COMPOUNDS; OXIDATION; PHOTOLYSIS; *RESEARCH REPORTS; VOLATILIZATION; *WATER QUALITY

DESCRIPTIVE NOTE: 329P.

ABSTRACT: LABORATORY TEST PROCEDURES (OR PROTOCOLS) HAVE BEEN DEVELOPED TO PROVIDE DATA USEFUL IN EVALUATING THE ENVIRONMENTAL FATE OF ORGANIC COMPOUNDS IN NATURAL AQUATIC SYSTEMS AND IN THE ATMOSPHERE. SCREENING-LEVEL PROTOCOLS ARE DESCRIBED TO ESTIMATE RATE CONSTANTS FOR HYDROLYSIS, PHOTOLYSIS, OXIDATION, BIOTRANSFORMATION, AND VOLATILIZATION PROCESSES IN NATURAL AQUATIC SYSTEMS. FOR EACH PROCESS, THE THEORY AND THE PRESENT STATE OF KNOWLEDGE REGARDING THE ENVIRONMENT ARE REVIEWED; SOME COMMON METHODS CURRENTLY IN USE ARE CRITICALLY EVALUATED.

AVAILABILITY: US ENVIRONMENTAL PROTECTION AGENCY, CENTER FOR ENVIRONMENTAL RESEARCH INFORMATION, CINCINNATI, OH 45268

IRIS ACCESSION NUMBER: EW008701

PUBLICATION DATE: FEB 83

TITLE: TRAINING ROLE GETS BOOST IN CONTRACT OPERATIONS APPROACH.

PERSONAL AUTHOR: MCELROY, CHARLES W., JR.

DESCRIPTOR: *CONTRACT SERVICES; *CONTRACT OPERATIONS; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WASTEWATER); *OPERATOR TRAINING; PERFORMANCE EVALUATION; *TRAINING; *TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 22-24P.

ABSTRACT: TRAINED OPERATORS ARE ESSENTIAL FOR EFFECTIVE OPERATIONS OF A WASTEWATER TREATMENT PLANT. THIS ARTICLE DISCUSSES THE USE OF CONTRACT OPERATIONS SERVICES AND THE BENEFITS TO THE MUNICIPALITY. THE TRAINING PROGRAM FOR ONE

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ING FIRM IS DESCRIBED.

TY: WATER ENGINEERINGS & MANAGEMENT; V130 N2

SSION NUMBER: EW008702

ON DATE: FEB 83

RRICANE DAMAGE PROMPTS O & M PLAN.

AUTHOR: MATTHEWS, DOUGLAS G.

A: *DESIGN; *LIFT STATIONS; *MAINTENANCE;
NT: *OPERATIONS (WASTEWATER); *PUMPS; *WASTEWATER

VE NOTE: 26-28P.

DESCRIBED IS THE DEVELOPMENT OF A COMPREHENSIVE
S AND MAINTENANCE PROGRAM FOR THE LIFT STATIONS IN
S CHRISTL (TEXAS) WASTEWATER COLLECTION SYSTEM.

TY: WATER ENGINEERING & MANAGEMENT; V130 N2

SSION NUMBER: EW008703

ON DATE: FEB 83

AVE THOSE ROTARY SHAFTS.

AUTHOR: SWEET, FREDERICK M.

R: *COSTS; *EQUIPMENT; *MAINTENANCE; *PERFORMANCE
N; *SPRAY WELDING; *WELDING

VE NOTE: 30P.

DESCRIBED IS A PROCEDURE CALLED "SPRAY WELDING"
ILDING WORN PARTS, SUCH AS ROTARY SHAFTS. THE
REDUCES REPLACEMENT OF PARTS, REDUCES COSTS, AND
THE OPERATIONS OF SOME EQUIPMENT SURFACES.

TY: WATER ENGINEERING & MANAGEMENT; V130 N2

SSION NUMBER: EW008704

ON DATE: FEB 83

UBLIC/PRIVATE PARTNERSHIP MEET LOCAL NEEDS.

AUTHOR: GOLDMAN, HARVEY; MOKUVOS, SANDRA

R: *BUSINESS ROLE; *COSTS; *CONTRACT OPERATIONS;
NT ROLE; *FACILITIES; *FINANCING; *MANAGEMENT;
S (WASTEWATER); *PRIVATE SECTOR OWNERSHIP;
ATION; *WASTEWATER TREATMENT

VE NOTE: 32-35P.

ABSTRACT: DESCRIBED ARE PRIVATIZATION APPROACHES FOR
PROVIDING COST-EFFECTIVE WASTEWATER TREATMENT WITHOUT TYING
UP GOVERNMENTAL RESOURCES. ADVANTAGES TO THE BUSINESS FIRM
AND TO THE MUNICIPALITY ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N2

IRIS ACCESSION NUMBER: EW008706

PUBLICATION DATE: FEB 83

TITLE: ANALYST'S NOTEBOOK: FOURIER TRANSFORM SPECTROSCOPY.

PERSONAL AUTHOR: CLARK, DOUGLAS W.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CONTAMINANTS; *FOURIER
TRANSFORM SPECTROSCOPY; *LABORATORY TECHNIQUES;
*SPECTROSCOPY; *TECHNOLOGY; *WASTEWATER ANALYSIS; *WATER
QUALITY

DESCRIPTIVE NOTE: 5-6P.

ABSTRACT: THIS ARTICLE DESCRIBES THE FOURIER TRANSFORM
SPECTROSCOPY, AN ALTERNATIVE APPROACH TO OBTAINING
FINGERPRINT INFRARED SPECTRA FOR IDENTIFYING SUBSTANCES,
PARTICULARLY TRACE CONTAMINANTS. INCLUDED ARE DESCRIPTIONS
OF THE EQUIPMENT, METHODOLOGY, AND APPLICATIONS OF THE NEW
TECHNIQUE.

AVAILABILITY: BENCH SHEET; V5 N1

IRIS ACCESSION NUMBER: EW008707

PUBLICATION DATE: 83

TITLE: INDIVIDUAL ONSITE WASTEWATER SYSTEMS - VOLUME 8.

PERSONAL AUTHOR: WALDORF, LAWRENCE; EVANS, JOE L.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *COSTS; *ENVIRONMENT;
*HEALTH; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *ONSITE
TREATMENT; *OPERATIONS (WASTEWATER); *PUBLIC HEALTH;
*TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE: \$35.00

ABSTRACT: THIS PUBLICATION IS THE PROCEEDINGS OF THE EIGHTH
NATIONAL CONFERENCE, 1981. THE CONFERENCE FOCUSED ON THE
PROBLEMS AND OPPORTUNITIES CREATED BY THE SUBSTANTIAL
CHANGES IN THE POLITICAL AND ECONOMIC CLIMATE OF THE EARLY
1980'S. COMPREHENSIVE PROGRAMS FOR THE MANAGEMENT OF FAILING
ONSITE SYSTEMS ARE DESCRIBED INCLUDING REHABILITATION AND
APPLICATION OF WATER CONSERVATION TECHNIQUES. THE HEALTH AND
ENVIRONMENTAL CONCERNS OF WASTEWATER REUSE AND THE
SUCCESSFUL APPLICATION OF WASTEWATER REUSE TECHNOLOGY IS
DESCRIBED. THE USE OF INNOVATIVE/ALTERNATIVE TECHNOLOGY IS
CRITICALLY EXAMINED.

AVAILABILITY: NATIONAL SANITATION FOUNDATION, P. O. BOX
1468, ANN ARBOR, MI 48106

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IRIS ACCESSION NUMBER: EW008708

PUBLICATION DATE: FEB 83

TITLE: ENVIRONMENTAL POLLUTION AND CONTROL - 2ND EDITION.

PERSONAL AUTHOR: VESILLIND, P. A.; PEIRCE, J. J.

DESCRIPTOR: *AIR; ECONOMICS; *ENVIRONMENTAL PROBLEMS; ENVIRONMENTAL IMPACT STATEMENTS; HIGHER EDUCATION; ENVIRONMENTAL MATERIALS; LEGISLATION; *NOISE; *POLLUTION; POST SECONDARY EDUCATION; *SOLID WASTES; *WATER

DESCRIPTIVE NOTE: 375P. PRICE: \$14.95

ABSTRACT: THIS BOOK IS DESIGNED TO PRESENT TECHNICAL INFORMATION FOR NON-ENGINEERING AUDIENCES. FOUR MAIN TOPICS ARE WATER, AIR, SOLID WASTE (INCLUDING HAZARDOUS AND TOXIC WASTE) AND NOISE. EACH SUBJECT IS INTRODUCED AS AN ENVIRONMENTAL PROBLEM, FOLLOWED BY A DISCUSSION OF THE TECHNICAL SOLUTIONS USED FOR ACCURATELY ASSESSING ITS IMPACT. THE SOLUTIONS ARE PRESENTED ALONG WITH A DISCUSSION OF THEIR LEGAL AND ECONOMIC CONSTRAINTS. THE BOOK IS DIVIDED INTO SEVEN CHAPTERS COVER THE ORIGIN, PURPOSE, AND FORM OF ENVIRONMENTAL IMPACT STATEMENTS, AND THE DEVELOPMENT OF THE ETHICS OF ENVIRONMENTAL PROTECTION.

AVAILABILITY: ANN ARBOR SCIENCE, ORDER DEPARTMENT, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW008709

PUBLICATION DATE: MAR 83

TITLE: WATER CHLORINATION: ENVIRONMENTAL IMPACT AND HEALTH ASPECTS. VOLUME 4, BOOKS 1 & 2.

PERSONAL AUTHOR: JOLLEY, ROBERT L.; AND OTHERS

DESCRIPTOR: *CHLORINATION; CHLORINE; *CONFERENCE PROCEEDINGS; *ENVIRONMENTAL IMPACTS; *HEALTH EFFECTS; ENVIRONMENTAL MATERIALS; *POST SECONDARY EDUCATION; RISKS; WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: BOOK 1-788, BOOK 2-790. PRICE: \$27.50 BOOK 1, \$45.00 BOOK 2, \$45.00 2-BOOK SET

ABSTRACT: THESE PUBLICATIONS PRESENT THE CURRENT STATE OF KNOWLEDGE CONCERNING AQUEOUS CHLORINATION WITH PARTICULAR EMPHASIS ON CHLORINATED ORGANIC COMPOUNDS AND ASSOCIATED HEALTH AND ENVIRONMENTAL EFFECTS. PRESENT PROBLEM AREAS AND RESEARCH NEEDS, REGULATIONS, STANDARDS, AND ALTERNATIVES TO CHLORINE ARE CONSIDERED. BASED ON THE PROCEEDINGS OF A 1981 CONFERENCE THE VOLUME IS DIVIDED INTO TWO BOOKS. BOOK 1 CONSIDERS CHEMISTRY AND WATER TREATMENT. BOOK 2 CONSIDERS ENVIRONMENT, HEALTH, AND RISK.

AVAILABILITY: ANN ARBOR SCIENCE, ORDER DEPARTMENT, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW008710

PUBLICATION DATE: DEC 82

TITLE: PHYSICAL BEHAVIOR OF PCBS IN THE GREAT LAKES.

PERSONAL AUTHOR: MACKAY, DONALD; AND OTHERS

DESCRIPTOR: *AQUATIC ENVIRONMENTS; CASE STUDIES; CHEMISTRY; *CHEMICAL REACTIONS; *GREAT LAKES; *PCBS; STATISTICS

DESCRIPTIVE NOTE: 442P. PRICE: \$39.95

ABSTRACT: PROVIDED IS A COMPREHENSIVE REVIEW OF THE PHYSICAL BEHAVIOR OF PCBS IN THE GREAT LAKES. THE BOOK ALSO SERVES AS A MODEL FOR TREATMENT OF OTHER CONTAMINANTS IN OTHER AQUATIC ENVIRONMENTS.

AVAILABILITY: ANN ARBOR SCIENCE, ORDER DEPARTMENT, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW008711

PUBLICATION DATE: MAR 83

TITLE: CHEMISTRY OF WATER TREATMENT.

PERSONAL AUTHOR: FAUST, SAMUEL D.; ALY, OSMAN M.

DESCRIPTOR: COAGULATION; *CHEMISTRY; *CHEMICAL REACTIONS; *DRINKING WATER; FILTRATION; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WATER); *WATER TREATMENT; WATER SUPPLY

DESCRIPTIVE NOTE: 450P. PRICE: \$40.00

ABSTRACT: THIS TEXT FOCUSES ON CHEMICAL ASPECTS OF WATER QUALITY AND WATER TREATMENT AND SHOWS HOW CHEMISTRY INFLUENCES THE DESIGN OF VARIOUS TREATMENT PROCESSES. MANY ASPECTS OF WATER TREATMENT CHEMISTRY ARE CONSIDERED, INCLUDING REMOVAL OF ORGANIC AND INORGANIC COMPOUNDS, CORROSION CONTROL, AND REMOVAL OF TOXIC HEAVY METALS. ALSO EXPLAINED ARE GOVERNMENT WATER QUALITY STANDARDS AND THE RATIONALE FOR THEIR ESTABLISHMENT.

AVAILABILITY: ANN ARBOR SCIENCE, ORDER DEPARTMENT, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW008712

PUBLICATION DATE: JAN 83

TITLE: POLLUTION CONTROL AT ELECTRIC POWER STATIONS.

PERSONAL AUTHOR: BROWN, RICHARD D.; AND OTHERS

DESCRIPTOR: AIR POLLUTION CONTROL; *ELECTRIC POWER GENERATORS; *ELECTRIC POWER STATIONS; *FRANCE; *GERMANY; *COSTS; FACILITIES; NOISE; *POLLUTION CONTROL; *REGULATIONS; SOLID WASTES; *UNITED KINGDOM; *UNITED STATES; WATER POLLUTION CONTROL

NOTE: 113P. PRICE: \$29.95

THIS BOOK REVIEWS RELEVANT COSTS, REGULATIONS, RELATED TO POLLUTION CONTROL AT ELECTRIC POWER IN THE FEDERAL REPUBLIC OF GERMANY, FRANCE, UNITED AND THE UNITED STATES. POLLUTION CONTROL TOPICS R, WATER, NOISE, SOLID WASTES, PLANT SITING, AND POLLUTION CONTROL EXPENDITURE DATA IS BROKEN CAPITAL INVESTMENT COSTS AND OPERATION AND COSTS. ALSO PRESENTS INFORMATION ON POLLUTION RESEARCH AND DEVELOPMENT COSTS.

Y: ANN ARBOR SCIENCE, ORDER DEPARTMENT, 10 TOWER C, WOBURN, MA 01801

ION NUMBER: EW008713

DATE: 80

SH/OSHA POCKET GUIDE TO CHEMICAL HAZARDS.

*ANALYTICAL TECHNIQUES; *CHEMICAL HAZARDS; PROPERTIES; *EXPOSURE LIMITS; *FIRST AID; *HEALTH MEASUREMENT; *PHYSICAL PROPERTIES; *SAFETY

NOTE: PRICE: \$9.50 - K2011

A TABULATION OF CRITICAL DATA FOR OVER 370 GIVES THE FOLLOWING DATA FOR EACH COMPOUND: CHEMICAL AND PHYSICAL PROPERTIES; PERMISSIBLE LIMITS AND THE "IMMEDIATELY DANGEROUS TO LIFE AND LEVELS; CHEMICAL INCOMPATIBILITIES AND SUGGESTED MEASUREMENT. ALSO LISTED FOR EACH COMPOUND ARE TIONS FOR PERSONAL PROTECTION, A RESPIRATOR GUIDE AND A TABULATION OF HEALTH HAZARDS (ROUTE OF PTOMS, FIRST AID MEASURES, TARGET ORGANS).

Y: LAB SAFETY SUPPLY CO., P. O. BOX 1368, WI 53547-1368

ION NUMBER: EW008714

DATE: 79

INDUSTRIAL WASTE WATER MANAGEMENT.

THOR: JORGENSEN, S. E.

*BIOLOGICAL TREATMENT PROCESSES; *ADSORPTION; ON; *FILTRATION; *FLOTATION; *EFFLUENTS; ; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); ION; *WASTE DISPOSAL; *WASTEWATER TREATMENT

NOTE: 388P. PRICE: \$53.25

THIS PUBLICATION CONSIDERS A VARIETY OF SOURCES OF WASTEWATER AND TREATMENT PROCESSES FOR THE WASTES. INDUSTRIES INCLUDED ARE MINING, METALS, PETROLEUM, TEXTILES, PLASTICS, FOODS, PULP AND LAUNDRIES. VARIOUS TREATMENTS ARE DESCRIBED.

AVAILABILITY: ELSEVIER NORTH-HOLLAND, INC., 52 VANDERBILT AVENUE, NEW YORK, NY 10017

IRIS ACCESSION NUMBER: EW008715

PUBLICATION DATE: 81

TITLE: QUALITY OF GROUNDWATER.

PERSONAL AUTHOR: VAN DUJVENBOODER, W.; AND OTHERS

DESCRIPTOR: *CONTAMINATION; *GROUNDWATER; *HAZARDOUS MATERIALS; *MODELS; *POLLUTION; *POLLUTION CONTROL; *RESEARCH; *RESEARCH REPORTS; *WASTE DISPOSAL; *WATER QUALITY

DESCRIPTIVE NOTE: 1,138P. PRICE: \$149.00

ABSTRACT: THE 154 PAPERS IN THIS BOOK GIVE A COMPREHENSIVE OVERVIEW OF THE SUBJECT OF GROUNDWATER QUALITY AND GROUNDWATER CONTAMINATION. THEY FORM A REPRESENTATIVE SELECTION OF RECENT RESEARCH IN THIS FIELD BY WELL-KNOWN EXPERTS FROM ALL OVER THE WORLD. SPECIAL ATTENTION IS GIVEN TO THE EFFECTS OF BOTH LOCAL AND DIFFUSE POLLUTING SOURCES ON GROUNDWATER QUALITY AND THE PRESENCE AND BEHAVIOUR OF HAZARDOUS POLLUTANTS, INCLUDING ORGANIC MICROPOLLUTANTS IN SUBSOIL. THE DEVELOPMENT OF MODELS, AND THE COLLECTION AND INTERPRETATION OF DATA ARE ALSO DISCUSSED, AS ARE CRITERIA AND METHODS FOR THE PROTECTION OF GROUNDWATER QUALITY.

AVAILABILITY: ELSEVIER NORTH-HOLLAND, INC., 52 VANDERBILT AVENUE, NEW YORK, NY 10017

IRIS ACCESSION NUMBER: EW008716

PUBLICATION DATE: JAN 82

TITLE: A GUIDE TO HYDROLOGIC ANALYSIS USING SCS METHODS.

PERSONAL AUTHOR: MCCUEN, RICHARD H.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHANNEL ROUTING; *COMPUTER APPLICATIONS; DETENTION BASINS; *ENGINEERING; *HYDROLOGY; *HYDROLOGIC ANALYSIS; *MANUALS; *MATHEMATICAL APPLICATIONS; *MANAGEMENT; *PLANNING; RAINFALL; *SOIL CONSERVATION SERVICE; SURFACE RUNOFF; STORMWATER

DESCRIPTIVE NOTE: 145P.

ABSTRACT: THIS GUIDE PROVIDES PRACTICAL DETAILS FOR APPLYING SOIL CONSERVATION SERVICE (SCS) HYDROLOGIC METHODS TO PEAK DISCHARGE ESTIMATION, RUNOFF HYDROGRAPH FORMATION, CHANNEL ROUTING, STRUCTURE ROUTING, AND DETENTION BASIN VOLUME DETERMINATION. IN ADDITION THE GUIDE PROVIDES A COMPUTER PROGRAM (THE TR-20 METHOD) THE TR-55 METHOD, AND MATERIALS TO HELP APPLY THE METHODS.

AVAILABILITY: PRENTICE-HALL, INC., P. O. BOX 21X, ENGLEWOOD CLIFFS, NJ 07632

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IRIS ACCESSION NUMBER: EW008718

PUBLICATION DATE: FEB 82

TITLE: GEOCHEMISTRY OF NATURAL WATERS.

PERSONAL AUTHOR: BREWER, JAMES I.

DESCRIPTOR: *CHEMISTRY; *CHEMICAL REACTIONS; *GEOCHEMISTRY; *LAKES; *OCEANS; *STREAMS; *STATISTICS; *WATER; *RESOURCES; WATER QUALITY

DESCRIPTIVE NOTE: 388P.

ABSTRACT: THIS GUIDE PROVIDES INFORMATION FOR ANALYZING THE CONTROLLING THE COMPOSITION OF NATURAL WATERS-LAKES, OCEANS, AND BEAR-SURFACE GROUNDWATERS. THE GUIDE INCLUDES CASE STUDIES, STATISTICAL DATA, EXPLANATIONS OF STATISTICAL DATA, AND VARIOUS CHARTS. CHAPTER HEADINGS INCLUDE: THE HYDROLOGIC CYCLE; CHEMICAL BACKGROUND; THE SYSTEM AND PH CONTROL; CLAY MINERALS AND ION STABILITY RELATIONSHIPS AND GENERAL EQUILIBRIA; WEATHERING AND WATER CHEMISTRY; EVAPORATION AND CONDENSATION; THE OCEANS; THE STANDARD HYDROGEN ELECTRODE; CONDITIONS IN NATURAL WATERS; TRACE ELEMENTS; ANALYTICAL AND NUMERICAL MODELS; AND ISOTOPES.

AVAILABILITY: PRENTICE HALL, INC., P. O. BOX 21X, ENGLEWOOD CLIFFS, CO 80632

IRIS ACCESSION NUMBER: EW008719

TITLE: SYSTEM OF HYDRAULIC MODULES.

DESCRIPTOR: *AUDIOVISUAL AIDS; FLOW MEASUREMENT; *INSTRUCTIONAL MATERIALS; *LABORATORY EQUIPMENT; *LABORATORY INSTRUCTION; *POST SECONDARY EDUCATION; PIPES; PUMPS; *TEACHING GUIDES; *WATER TREATMENT; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: CONTAINS 11 MODULES.

ABSTRACT: THIS SYSTEM IS DESIGNED AS A SET OF MODULES WHICH CAN BE USED FOR MULTIPLE PURPOSES. A COMPLETE SET OF 11 MODULES CAN BE PURCHASED. THE MODULES WERE DEVELOPED TO BE USED IN A TWO YEAR ASSOCIATE DEGREE PROGRAM IN WATER AND WASTEWATER TECHNOLOGY. MODULES ARE SUPPLIED WITH AN INSTRUCTOR LAB MANUAL. EACH MANUAL INCLUDES A DISCUSSION OF THE CONCEPT TO BE DEMONSTRATED, A LIST OF EQUIPMENT, A PROCEDURE, CALCULATIONS, AND USE OF THE EQUIPMENT. AN INSTRUCTORS MANUAL IS ALSO PROVIDED. MODULES INCLUDE: (1) PRESSURE; (2) BUOYANCY; (3) MANOMETRY; (4) VELOCITY; (5) BERNOULLI'S THEOREM; (6) PIPE FRICTION; (7) HEAD LOSSES; (8) PIPE LOSSES; (9) OPEN CHANNEL FLOW; (10) MEASUREMENT; AND (11) PUMP CHARACTERISTICS.

AVAILABILITY: TECH LINE, 540 PRAIRIE ROAD, FOND DU LAC, WI 54601

IRIS ACCESSION NUMBER: EW008720

PUBLICATION DATE: 82

TITLE: WATER RESOURCES MANAGEMENT IN INDUSTRIAL AREAS.

PERSONAL AUTHOR: BEARD, LEO R.; MAXWELL, W. H. C.

DESCRIPTOR: *AGRICULTURE; *CONFERENCE PROCEEDINGS; *INDUSTRIES; *MANAGEMENT; *MUNICIPALITIES; *PAPERS; *RECYCLING; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 452P. PRICE: \$65.00 PAPER ORDER #D106-TYP128; \$95.00 CLOTH ORDER #D106-TYP129

ABSTRACT: THIS WORK CONTAINS A SELECTION OF PAPERS DEALING WITH WATER QUANTITY AND QUALITY MANAGEMENT. THE PAPERS MAINTAIN THAT WATER RESOURCE MANAGEMENT SHOULD EMPHASIZE USE AND REUSE IN SEQUENCES OF MUNICIPAL, INDUSTRIAL, AND AGRICULTURAL OPERATIONS SUCH THAT EACH OPERATION CAN BEST TOLERATE THE EFFECTS OF PRECEDING OPERATIONS.

AVAILABILITY: UNIPBU, BOX 423, MURRAY HILL STATION, NEW YORK, NY 10157

IRIS ACCESSION NUMBER: EW008721

PUBLICATION DATE: 82

TITLE: ENVIRONMENTAL COMPLIANCE AUDITS MANUAL.

DESCRIPTOR: *AUDITS; *COMPLIANCE; *ENVIRONMENTAL COMPLIANCE; *ENVIRONMENTAL AUDITS; *MANUALS; *RECORDS; *SURVEYS

DESCRIPTIVE NOTE: 99P. PRICE: 38.00; CODE #1272

ABSTRACT: PRESENTED IS A STEP-BY-STEP GUIDE FOR CONDUCTING AN ENVIRONMENTAL AUDIT. INFORMATION IS INCLUDED FOR GOALS, CHECKLISTS, QUESTIONNAIRES, AND REPORTING SYSTEMS.

AVAILABILITY: GOVERNMENT INSTITUTES, INC., 966 HUNGERFORD DRIVE, #24, ROCKVILLE, MD 20850

IRIS ACCESSION NUMBER: EW008722

PUBLICATION DATE: 82

TITLE: EPA GUIDEBOOK.

DESCRIPTOR: *EPA; *GUIDES; *ORGANIZATION; *PERSONNEL; *RESPONSIBILITIES

DESCRIPTIVE NOTE: 132P. PRICE: \$28.00; CODE #517

ABSTRACT: THIS GUIDEBOOK PROVIDES A COMPREHENSIVE DESCRIPTION OF THE ROLES AND RESPONSIBILITIES OF MAJOR EPA OFFICES AS OF THE TIME OF PUBLICATION. CHANGES HAVE MODIFIED SOME OF THE PERSONNEL LIST.

TY: GOVERNMENT INSTITUTES, INC., 966 HUNGERFORD
ROCKVILLE, MD 20859

SION NUMBER: EW008723

N DATE: 82

A'S RCRA INSPECTION MANUAL.

: *COMPLIANCE; *INSPECTION; *MANUALS; *POLLUTION;
CONTROL; *REGULATIONS; *HAZARDOUS WASTES;
MATERIALS; *WASTE DISPOSAL

E NOTE: PRICE: 635.00; CODE *533

THIS MANUAL IS DESIGNED TO HELP PEOPLE COMPLY
LD INSPECTIONS RELATED TO HAZARDOUS WASTE
T. INFORMATION IS PROVIDED TO EXPLAIN WHAT
IS EXPECTED AND WHAT PEOPLE CAN DO TO EFFECTIVELY
ENTLY COMPLY WITH THE LAW.

TY: GOVERNMENT INSTITUTES, INC., 966 HUNGERFORD
ROCKVILLE, MD 20859

SION NUMBER: EW008724

N DATE: 82

ANT MAINTENANCE PROGRAM. MOP OM-3

: FACILITIES; *INSTRUCTIONAL MATERIALS;
CE; *MAINTENANCE (PREVENTIVE); *MANUALS;
S; PERFORMANCE EVALUATION; PLANNING; PROGRAM
NS; *PROGRAM DEVELOPMENT; *SAFETY; TRAINING NEEDS;
R TREATMENT

E NOTE: 112P. PRICE: \$7.50 MEMBER; \$10.00

BASICALLY A "HOW-TO-SETUP-AN-O&M-PROGRAM" MANUAL,
NTENANCE FOCUSES ON A SYSTEMS APPROACH TO CREATING
SFUL MAINTENANCE PROGRAM. EMPHASIS IS ON
ON, INFORMATION SYSTEMS, PREVENTIVE MAINTENANCE,
NG NEEDS. THE MANUAL WILL PROVIDE PLANT MANAGEMENT
NECESSARY FUNCTIONS TO ESTABLISH AND COORDINATE A
E SYSTEM. EACH CHAPTER ADDRESSES A SPECIFIC ASPECT
M PROGRAM: PLANNING AND SCHEDULING, IN-HOUSE AND
MAINTENANCE, SPARE PARTS, PREVENTIVE MAINTENANCE,
O&M PERFORMANCE, AND SAFETY. THE MANUAL IS
LD WITH NUMEROUS EXAMPLES OF FORMS AND CHARTS
TO MONITOR O&M PERFORMANCE.

TY: WATER POLLUTION CONTROL FEDERATION, 2626
IA AVE., N.W. WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW008725

PUBLICATION DATE: 82

TITLE: INDUSTRIAL WASTEWATER CONTROL PROGRAM FOR MUNICIPAL
AGENCIES. MOP-OM-4.

DESCRIPTOR: GUIDELINES; *INDUSTRIAL WASTES; *INSTRUCTIONAL
MATERIALS; *MANUALS; *MUNICIPALITIES; *PLANNING; *POLLUTION
CONTROL; *PROGRAM DEVELOPMENT; *WASTE DISPOSAL; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 166P. PRICE: \$13.50 MEMBER; \$18.00
NONMEMBER

ABSTRACT: THE PURPOSE OF THIS MANUAL IS TO PROVIDE
GUIDANCE TO MUNICIPAL AGENCIES THAT NEED TO INITIATE OR
UPGRADE AN INDUSTRIAL WASTEWATER CONTROL PROGRAM. THE MANUAL
PROVIDES INFORMATION FOR USE AND REFERENCE IN PLANNING,
EXECUTING, AND MAINTAINING A PROGRAM OF INDUSTRIAL WASTE
CONTROL. THIS BOOK IS MAINLY CONCERNED WITH THE CONTROL OF
LIQUID-BORNE WASTES FROM INDUSTRIAL MANUFACTURING OR PROCESS
OPERATIONS WHICH ARE DISCHARGED INTO A MUNICIPAL SYSTEM. IT
IS INTENDED TO PROVIDE INFORMATION FOR A BROAD AUDIENCE
INCLUDING ENGINEERS, CHEMISTS, TECHNICIANS AND PLANT
OPERATORS, AS WELL AS MANAGERS AND ADMINISTRATORS.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626
PENNSYLVANIA AVE., N.W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW008726

PUBLICATION DATE: 82

TITLE: UNITS OF EXPRESSION FOR WASTEWATER MANAGEMENT. MOP
6

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *MANAGEMENT;
*MANUALS; *MEASUREMENT; *METRIC SYSTEM; *POST SECONDARY
EDUCATION; *STANDARDS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 47P. PRICE: \$6.00 MEMBER; \$8.00
NONMEMBER

ABSTRACT: THE LATEST REVISION OF THIS FEDERATION STANDARD
HAS EXPANDED THE SCOPE OF THE 1976 EDITION BEYOND TREATMENT
TO INCLUDE MANY OTHER FACETS OF WASTEWATER MANAGEMENT. SI
CONTINUES TO BE THE RECOMMENDED LANGUAGE FOR WASTEWATER
TREATMENT. THIS MANUAL INCLUDE NUMEROUS TABLES FOR
CONVERSION FROM AND TO METRIC UNITS, AS WELL AS A LIST OF
ACCEPTABLE NON-SI METRIC UNITS. CHAPTERS FOCUS ON METRIC
STANDARDS FOR WASTEWATER MANAGEMENT, COMMON UNITS FOR
WASTEWATER MANAGEMENT, AND AN EDITORIAL GUIDE.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626
PENNSYLVANIA AVE., N.W., WASHINGTON, DC 20037

ON NUMBER: EW008727

DATE: 82

FINANCING AND CHARGES FOR WASTEWATER SYSTEMS.

*ADMINISTRATION; *COSTS; *COLLECTION; *ECONOMIC FINANCING; *GUIDELINES; *RATES; *RATE STRUCTURES; *TREATMENT

NOTE: 68P. PRICE: \$6.00 MEMBER; \$8.00

PREPARED IN CONJUNCTION WITH THE ASCE AND APWA, THIS PUBLICATION SHOULD BE OF PARTICULAR INTEREST TO PUBLIC OFFICIALS PLANNING TO ADOPT NEW RATE STRUCTURES. IT DEALS WITH SUCH TOPICS AS: ELEMENTS AND FUNCTIONS OF WASTEWATER TREATMENT; ADMINISTRATIVE ARRANGEMENTS FOR SERVICE; FINANCING AND ECONOMIC ASSESSMENT OF COSTS, PRESENT PRACTICES IN RAISING RATES; METHODS OF COLLECTING CHARGES, AND PROCEDURES FOR ESTABLISHING FAIR RATES AND CHARGES. IT ALSO PRESENTS SAMPLE RATES AND ILLUSTRATIVE SCHEDULES.

AVAILABLE FROM: WATER POLLUTION CONTROL FEDERATION, 2626 PENNSYLVANIA AVE., N.W., WASHINGTON, DC 20037

ON NUMBER: EW008728

DATE: 82

FINANCING AND CHARGES FOR WASTEWATER COLLECTION AND

*CASE STUDIES; *CAPITAL FUNDS; *ECONOMIC FINANCING; *INDUSTRY; *MUNICIPALITIES; *RATES; *RATE STRUCTURES; *RESIDENCES; *SEWERAGE CHARGES; *SURVEYS; *TREATMENT; *WASTEWATER COLLECTION

NOTE: 32P. PRICE: \$4.50 MEMBER; \$6.00

THIS TEXT PRESENTS A SURVEY OF SEWER-CHARGE RATES IN 66 CITIES ACROSS THE COUNTRY. THE SURVEY IS CLASSIFIED BY POPULATION SIZE AND INCLUDES SEWER SERVICE DESCRIPTIONS, EQUIVALENT MONTHLY CHARGES FOR SINGLE-FAMILY RESIDENCES, INDUSTRIAL WASTE CHARGES, CONNECTION CHARGES, AND METHODS OF FINANCING CAPITAL COSTS. ADDITIONAL TO THE SURVEY, CASE HISTORIES FOR FOUR CITIES ARE INCLUDED. THESE CASE HISTORIES TRACE THE DEVELOPMENT LEADING TO THE ESTABLISHMENT OF SUCH CHARGES IN CITIES OF DIFFERENT SIZES.

AVAILABLE FROM: WATER POLLUTION CONTROL FEDERATION, 2626 PENNSYLVANIA AVE., N.W., WASHINGTON, DC 20037

ON NUMBER: EW008729

WASTEWATER COLLECTION SYSTEMS BASIC COURSE.

*AUDIOVISUAL AIDS; FLOW RATES; INSPECTION;

73

*INSTRUCTIONAL MATERIALS; *MAINTENANCE; *OPERATIONS (WASTEWATER); OPERATOR TRAINING; SAFETY; *TRAINING PROGRAMS; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: COURSE INCLUDES AN INSTRUCTOR'S SET WITH SLIDES AND TAPES, AND STUDENT WORKBOOK. PRICE: \$450.00 INSTRUCTOR'S SET; \$15.00 STUDENT WORKBOOK.

ABSTRACT: THIS AUDIO-VISUAL TRAINING PROGRAM IS DESIGNED TO PROVIDE THE NEW AND CURRENT EMPLOYEE WITH THE NECESSARY SKILLS TO UNDERSTAND, OPERATE, AND MAINTAIN A COLLECTION SYSTEM. SUBJECTS COVERED IN THE COURSE INCLUDE ESTIMATING AND UNDERSTANDING WASTEWATER FLOW, BLOCKAGES, COMPONENTS OF WASTEWATER, INSPECTING COLLECTION SYSTEMS, SAFETY PROCEDURES, CLEANING, (MECHANICAL AND HYDRAULIC), TESTING, AND EXCAVATION METHODS, SAFE SHORING, AND HOOKUPS. THE COURSE INCLUDES AN INSTRUCTOR'S SET WITH SLIDES AND TAPES, AND A STUDENT WORKBOOK. THERE ARE NO TRAINING PREREQUISITES. THE PROGRAM IS DIRECTED TO AN APPROXIMATE GRADE 8-10 READING/COMPREHENSION LEVEL.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626 PENNSYLVANIA AVE., N.W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW008730

TITLE: PROCESS CONTROL LABORATORY COURSE.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *LABORATORY SKILLS; *OPERATOR TRAINING; *PROCESS CONTROLS; *POST SECONDARY EDUCATION; *SAMPLING; *TESTING; *TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: COURSE INCLUDES INSTRUCTOR'S SET WITH TAPES AND SLIDES, AND STUDENT WORKBOOK. PRICE: \$400.00 INSTRUCTOR'S SET; \$16.00 STUDENT WORKBOOK.

ABSTRACT: THIS IS AN AUDIO-VISUAL TRAINING PROGRAM DESIGNED TO PROVIDE THE OPERATOR WITH THE NECESSARY TRAINING AND INFORMATION TO PERFORM LABORATORY SAMPLING AND TESTING. PROCEDURES COVERED IN THE COURSE INCLUDE MEASUREMENT OF PH (COLORIMETRIC AND ELECTROMETRIC METHODS), 30-MINUTE SETTLING TEST, TS AND TSS MEASUREMENT, DETERMINING BOD, VOLATILE ACIDS MEASUREMENTS, DETERMINING ALKALINITY, TOTAL RESIDUAL CHLORINE MEASUREMENT (DPD METHOD), AND TVSS AND TDS MEASUREMENTS.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION, 2626 PENNSYLVANIA AVE., N.W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW008731

PUBLICATION DATE: 82

TITLE: ENERGY CONSERVATION IN THE DESIGN AND OPERATION OF WASTEWATER TREATMENT FACILITIES. MOP FD-2.

DESCRIPTOR: *CONSERVATION; *DESIGN; ECONOMIC FACTORS; *ENERGY CONSERVATION; *FACILITIES; *INSTRUCTIONAL MATERIALS;

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(WASTEWATER); *POST SECONDARY EDUCATION; SLUDGE
WASTEWATER REUSE; *WASTEWATER TREATMENT

NOTE: 123P. PRICE: \$11.50 MEMBER; \$15.00

THE PURPOSE OF THIS BOOK IS TWO-FOLD: TO PROVIDE
ENGINEER OR TREATMENT PLANT OPERATOR WITH BASIC
ABOUT ENERGY CONSERVATION AND DESIGN, AND TO
PLACES WHERE FURTHER STUDY MAY BE NECESSARY. ENERGY
CONSERVATION FOR DESIGN OPERATIONS INCLUDE: CONSERVATION
INFORMATION ON SLUDGE TREATMENT PROCESSES, REUSE
WATER, AND WASTE HEAT RECOVERY. NUMEROUS CHARTS AND
TABLES PROVIDE BACKUP FOR THE TEXT. THE MANUAL DISCUSSES THE
STEPS OF EACH INDIVIDUAL STEP IN THE TREATMENT
PROCESS AND ENERGY USAGE AND COST OF EACH STAGE OF THE
PROCESS AVAILABLE. IN THE FINAL CHAPTER THE RELATION AND
OF ECONOMIC AND ENVIRONMENTAL CONSIDERATIONS ARE

BY: WATER POLLUTION CONTROL FEDERATION, 2626
M ST. AVE., N.W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW008732

PUBLICATION DATE: 82

TITLE: GRAVITY SANITARY SEWER DESIGN. MOP FD-5.

*CONSTRUCTION; *DESIGN; ENGINEERING; *GRAVITY
SANITARY SEWERS; GUIDELINES; *INSTRUCTIONAL MATERIALS;
*POST SECONDARY EDUCATION; *SEWERS; *WASTEWATER

DESCRIPTIVE NOTE: 288P. PRICE: \$15.00 MEMBER; \$20.00

PREPARED IN CONJUNCTION WITH THE AMERICAN SOCIETY
OF CIVIL ENGINEERS (ASCE), THE MANUAL PROVIDES BOTH
THEORY AND PRACTICAL GUIDANCE IN THE DESIGN AND
CONSTRUCTION OF GRAVITY SANITARY SEWERS. THE INITIAL CHAPTER
DISCUSSES ORGANIZATION AND ADMINISTRATION OF SANITARY SEWER
SYSTEMS. SUBSEQUENT CHAPTERS PROVIDE GUIDELINES NECESSARY
TO COMPLETE THE DESIGN CRITERIA, COMPLETE THE DESIGN, AND
CONSTRUCTION CONTRACT. THE MANUAL ALSO INCLUDES AN
APPENDIX OF CONSTRUCTION CONTRACT DOCUMENTS, AND
CONSTRUCTION METHODS.

BY: WATER POLLUTION CONTROL FEDERATION, 2626
M ST. AVE., N.W., WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW008733

PUBLICATION DATE: 82

TITLE: ENVIRONMENTALLY SOUND WATER AND SOIL MANAGEMENT.

*CASE STUDIES; *CONFERENCE PROCEEDINGS;
*ENVIRONMENTAL IMPACTS; *GROUNDWATER;
*MANAGEMENT; *RESEARCH REPORTS; SOILS; STREAMS;

WASTEWATER USE; *WATER QUALITY; *WATER RESOURCES;
WATERSHEDS; WETLANDS

DESCRIPTIVE NOTE: 544P. PRICE: \$42.50 NONMEMBERS; \$31.75
ASCE MEMBERS (1 COPY)

ABSTRACT: THE 67 PAPERS INCLUDED IN THE PROCEEDINGS
DESCRIBE CURRENT IRRIGATION AND DRAINAGE PRACTICE WITH
EMPHASIS ON ENVIRONMENTAL INTERACTIONS AND APPLICATIONS IN
THE SOUTHEASTERN UNITED STATES. TOPICS COVERED INCLUDE:
STREAM AND WETLANDS MANAGEMENT; FORESTRY AND WATERSHED
MANAGEMENT; IMPACT OF PRACTICES ON RECEIVING WATERS;
DRAINAGE IN THE SOUTHEAST; EFFECTS ON WATER QUALITY AND
NUTRIENT LEACHING; GROUNDWATER PROBLEMS; URBAN DRAINAGE;
PROJECT FORMULATION; RESEARCH NEEDS; METRICATIO IN WATER
RESOURCES; WATER REQUIREMENTS; AND USE OF WASTEWATER

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

IRIS ACCESSION NUMBER: EW008737

TITLE: RECENT TRENDS IN HYDROGEOLOGY.

PERSONAL AUTHOR: NARASIMHAN, T. N.

DESCRIPTOR: AQUIFERS; *ENGINEERING; GEOLOGY; GROUNDWATER;
*HYDROGEOLOGY; HYDROLOGY; MATHEMATICAL APPLICATIONS;
MEASUREMENT; *RESEARCH REPORTS; *STATE-OF-THE-ART REVIEWS;
*WATER RESOURCES; WELLS

DESCRIPTIVE NOTE: 448P. PRICE: \$32.00

ABSTRACT: THIS PUBLICATION IS A STATE OF THE ART SURVEY OF
THE DIRECTION IN WHICH HYDROGEOLOGY IS PROCEEDING. THE 23
PAPERS ARE DIVIDED INTO FIVE SECTIONS: CONCEPTUAL ASPECTS,
MEASUREMENT, MATHEMATICAL ASPECTS, REGIONAL ASPECTS AND
ENGINEERING. SUBJECTS COVERED RANGE FROM AQUIFER THERMAL
ENERGY STORAGE TO HYDROGEOLOGY OF INDUCED SEISMICITY AND
TECTONISM TO WELL-LOSS FUNCTION.

AVAILABILITY: GEOLOGICAL SOCIETY OF AMERICA, P. O. BOX
9140, BOULDER, CO 80301

IRIS ACCESSION NUMBER: EW008738

PUBLICATION DATE: 82

TITLE: HAZARDOUS WASTE LEACHATE MANUAL.

PERSONAL AUTHOR: SHUCKROW, ALAN J.

DESCRIPTOR: *HAZARDOUS MATERIALS; *HAZARDOUS WASTES;
LEACHATES; MANAGEMENT; *MANUALS; *SAFETY; TOXIC SUBSTANCES;
*WASTE DISPOSAL; *WASTE LEACHATES; *WASTE MANAGEMENT; *WASTE
TREATMENT

DESCRIPTIVE NOTE: 379P. PRICE: \$36.00

ABSTRACT: THIS BOOK DESCRIBES VARIOUS MANAGEMENT OPTIONS

ING, TREATING, AND DISPOSING OF WASTE LEACHATES.
TIONS ON SAFETY AND EMERGENCY OPERATIONS ARE

: NOYES DATA CORPORATION, MILL ROAD AT GRAND
RIDGEC, NJ 07656

ION NUMBER: EW008739

DATE: 82

Y OF CONTEMPORARY TOXICOLOGY: VOLUME 2.

THOR: TU, ANTHONY T.

CHEMISTRY; *INSTRUCTIONAL MATERIALS; *MARINE
*PESTICIDES; *POST SECONDARY EDUCATION; *STATE-
REVIEWS; *TOXICOLOGY; *TOXIC SUBSTANCES

NOTE: 248P. PRICE: \$50.00

THIS COMPANION TO THE FIRST VOLUME OF THE SAME
EMATICALLY SUMMARIZES MANY CURRENTLY IMPORTANT
TOXICOLOGY, INCLUDING MARINE TOXICOLOGY. ALSO OF
Y BE A SECTION ON PESTICIDE TOXICOLOGY.

: JOHN WILEY & SONS, INC., 605 THIRD AVENUE,
Y 10158

ION NUMBER: EW008741

DATE: 82

AN WATER CONSERVATION: INCREASING EFFICIENCY-IN-
TIAL WATER DEMAND.

THOR: FLACK, J. ERNEST

*CONSERVATION; *PERFORMANCE EVALUATION;
REPORTS; *RESIDENTIAL USE; *URBAN AREAS; *WATER
N; *WATER RESOURCES; *WATER SUPPLY; *WATER USE

NOTE: 99P. PRICE: \$13.25

THIS PAPERBACK REPORT IS AN ASSESSMENT OF VARIOUS
ERVATION MEASURES AIMED AT REDUCING RESIDENTIAL

Y: AMERICAN SOCIETY OF CIVIL ENGINEERS, 345 EAST
, NEW YORK, NY 10017

ION NUMBER: EW008743

DATE: 81

SPECTIVES IN RUNNING WATER ECOLOGY.

THOR: LOCK, MAURICE A.; WILLIAMS, D. DUDLEY

DESCRIPTOR: *ECOLOGY; ENTOMOLOGY; GROUNDWATER;
*INSTRUCTIONAL MATERIALS; MICROBIOLOGY; PALEOECOLOGY; *POST
SECONDARY EDUCATION; *RESEARCH REPORTS; *STREAM ECOLOGY;
*STREAMS; *WATER RESOURCES; ZOOLOGY

DESCRIPTIVE NOTE: 430P. PRICE: \$49.50

ABSTRACT: THIS COLLECTION OF WORKS BY ASSOCIATES AND
STUDENTS OF H. B. NOEL HYNES IS FURTHER EVIDENCE OF THE
INCREASING MATURITY OF THE FIELD OF STREAM ECOLOGY. TOPICS
RANGING FROM GROUNDWATER STUDIES TO PALEOECOLOGY WILL BE OF
INTEREST TO ZOOLOGISTS, ECOLOGISTS, MICROBIOLOGISTS, AND
ENTOMOLOGISTS BECAUSE MANY OF THESE INTERRELATED TOPICS ARE
REVIEWED HER FOR THE FIRST TIME.

AVAILABILITY: PLENUM PUBLISHING CORP., 223 SPRING STREET,
NEW YORK, NY 10013

IRIS ACCESSION NUMBER: EW008744

PUBLICATION DATE: 82

TITLE: HANDBOOK OF CHEMICAL PROPERTY ESTIMATION METHODS.

PERSONAL AUTHOR: LYMAN, WARREN J.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL PROPERTIES;
*CHEMICALS; *CHEMISTRY; *ESTIMATION; *ENVIRONMENT;
*HANDBOOKS; *INSTRUCTIONAL MATERIALS; *LABORATORY
PROCEDURES; *ORGANIC COMPOUNDS

DESCRIPTIVE NOTE: 960P. PRICE: \$42.50

ABSTRACT: THIS HANDBOOK PROVIDES COST-EFFECTIVE SOLUTIONS
TO PROBLEMS FREQUENTLY ENCOUNTERED BY CHEMISTS, ENGINEERS,
AND TECHNICAL MANAGERS. IT FOCUSES ON SIMPLE ESTIMATION
METHODS FOR 26 IMPORTANT PROPERTIES OF ORGANIC CHEMICALS
THAT ARE OF ENVIRONMENTAL CONCERN. THE METHODS IT PRESENTS
ALLOW THE USER TO OBTAIN ESTIMATIONS IN JUST A FEW MINUTES
WITH NO MORE THAN A SIMPLE CALCULATOR.

AVAILABILITY: MCGRAW-HILL BOOK COMPANY, 1221 AVENUE OF THE
AMERICAS, NEW YORK, NY 10020

IRIS ACCESSION NUMBER: EW008745

PUBLICATION DATE: 81

TITLE: MUNICIPAL SLUDGE APPLICATION TO PACIFIC NORTHWEST
FOREST LANDS.

PERSONAL AUTHOR: BLEDSOE, CAROLINE S.

DESCRIPTOR: *CASE STUDIES; *FERTILIZER; *FORESTRY; *LAND
APPLICATION; *MUNICIPAL WASTES; *PACIFIC NORTHWEST; *PUBLIC
HEALTH; *RESEARCH REPORTS; *SLUDGE; *SOILS; *WASTE DISPOSAL;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 155P.

NINE YEARS OF RESEARCH BY UNIVERSITY OF SCIENTISTS INTO SLUDGE UTILIZATION IN FOREST ON ARE DRAWN TOGETHER IN THIS COMPILATION OF SENTED FROM JULY 8-10, 1980, AT THE UNIVERSITY. TOGETHER, UNIVERSITY RESEARCHERS AND SEATTLE AUTHORITIES HAVE HAD SOME SUCCESS IN SOLVING THEM OF MEETING THE NEED FOR INCREASED TIMBER AND FINDING DISPOSAL SITES FOR GROWING AMOUNTS OF LE PROTECTING PUBLIC HEALTH. THIS REPORT ANALYZES C NORTHWEST'S PARTICULAR PROBLEMS, THE BIOLOGICAL SLUDGE APPLICATION ON SOIL, AND THE BROADER SLUDGE USE AS A FOREST FERTILIZER.

Y: COLLEGE OF FOREST RESOURCES, AR-10, OF WASHINGTON, SEATTLE, WA 98195

ION NUMBER: EW008746

DATE: 82

ARBONACEOUS ADSORBENTS FOR THE TREATMENT OF GROUND C WATERS.

THOR: NEELY, JAMES W.; ISACOFF, ERIC G.

*CARBON ADSORPTION; *CARBONACEOUS ADSORBENTS; *DRINKING WATER; GROUNDWATER; *INSTRUCTIONAL *POST SECONDARY EDUCATION; *TECHNOLOGICAL *TEXTBOOKS; WATER QUALITY; *WATER TREATMENT

NOTE: 240P. PRICE: \$39.75

THIS TEXT OUTLINES THE BASICS OF THE NEW POLYMER ADSORPTION TECHNOLOGY THAT REPRESENTS AN ALTERNATIVE TO CARBON TREATMENT. CARBONACEOUS ADSORBENTS MAY TREAT DRINKING WATER FOR TRACE CONTAMINANTS AND SIDE EFFECTS OF ACTIVATED CARBON PROCESSES.

Y: MARCEL DEKKER, INC., 270 MADISON AVENUE, NEW YORK, NY 10016

ION NUMBER: EW008747

DATE: 82

MANAGEMENT OF INDUSTRIAL WASTEWATER IN DEVELOPING

THOR: STUCKEY, DAVID; HANZA, AHMED

*ANAEROBIC TREATMENT; *CASE STUDIES; *DEVELOPING *INDUSTRIAL WASTES; *MANAGEMENT; MONITORING; *WASTEWATER); POLLUTION CONTROL; *RESEARCH WASTEWATER TREATMENT; *WORLD PROBLEMS

NOTE: 500P. PRICE: \$70.00

THIS COLLECTION OF PAPERS INCLUDES DIVERSE AMONG THEM THE EFFECT OF POLLUTION ON RELATIONS TIONS, THE SAO PAULO (BRAZIL) WASTEWATER POLLUTION

CONTROL PROJECT, SURVEILLANCE AND MONITORING, ANAEROBIC TREATMENT, AND WASTES FROM SPECIFIC TYPES OF INDUSTRIAL PLANTS IN THE DEVELOPING WORLD.

AVAILABILITY: PERCAMON PRESS, INC., MAXWELL HOUSE, FAIRVIEW PARK, ELMSFOR, NY 10523

IRIS ACCESSION NUMBER: EW008748

PUBLICATION DATE: 82

TITLE: ENVIRONMENTAL SCIENCE METHODS.

PERSONAL AUTHOR: HAYNES, ROBIN

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ENVIRONMENTAL SCIENCES; *INSTRUCTIONAL MATERIALS; *LABORATORY TECHNIQUES; *MATHEMATICS; *MEASUREMENT; MICROSCOPY; *POST SECONDARY EDUCATION; REMOTE SENSING; *STATISTICS; SURVEYING

DESCRIPTIVE NOTE: 404P. PRICE: \$19.95 PAPER; \$39.95 HARDCOVER

ABSTRACT: THIS BOOK DISCUSSES VARIOUS QUANTITATIVE METHODS IN THE ENVIRONMENTAL SCIENCES. AMONG TOPICS COVERED ARE MATHEMATICS AND STATISTICS, MEASUREMENT, COMPUTING, SURVEYING, MICROSCOPY, REMOTE SENSING, SOCIAL SURVEYS, AND LABORATORY TECHNIQUES.

AVAILABILITY: METHUEN, INC., 733 THIRD AVENUE, NEW YORK, NY 10017

IRIS ACCESSION NUMBER: EW008750

PUBLICATION DATE: 82

TITLE: THE WORLD ENVIRONMENT HANDBOOK: A DIRECTORY OF GOVERNMENT NATURAL RESOURCE MANAGEMENT AGENCIES IN 144 COUNTRIES.

DESCRIPTOR: AGRICULTURE; *DIRECTORIES; ENERGY; *ENVIRONMENTAL PROTECTION; *ENVIRONMENTAL QUALITY; *GOVERNMENT AGENCIES; HEALTH; *INDEXES; INDUSTRY; *INFORMATION SOURCES; *MANAGEMENT; *NATURAL RESOURCES; PARKS; *PERSONNEL; PUBLIC HEALTH; WATER RESOURCES; WATER QUALITY

DESCRIPTIVE NOTE: PRICE: \$25.00 PLUS POSTAGE.

ABSTRACT: THIS BOOK LISTS NEARLY 400 GOVERNMENT ENVIRONMENT AGENCIES FROM AFGHANISTAN TO ZIMBABWE, AND SERVES AS AN INTERNATIONAL "WHO'S WHO" IN THE ENVIRONMENT FIELD. AGENCIES LISTED DEAL WITH AGRICULTURE, WATER, INDUSTRY, NATIONAL PARKS, HEALTH, ENERGY, AND OTHER AREAS.

AVAILABILITY: WORLD ENVIRONMENT CENTER, 605 THIRD AVENUE, 17TH FLOOR, NEW YORK, NY 10158

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IRIS ACCESSION NUMBER: EW008751

TITLE: PROTEIN RECOVERY FROM FOOD PROCESSING WASTEWATERS.

PERSONAL AUTHOR: BESZEDITS, STEPHEN; NETZER, AHARON

DESCRIPTOR: *COAGULATION; *FOOD PROCESSING; *OPERATIONS
*PRECIPITATION; *PROTEIN; *PROTEIN RECOVERY;
*REVERSE OSMOSIS; *STATE-OF-THE-ART REVIEWS; *TECHNOLOGICAL
*WASTEWATER RECLAMATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 160P. PRICE: \$75.00 (\$90.00 CANADIAN)

ABSTRACT: THIS REVIEW SETS FORTH THE LATEST TECHNIQUES FOR
RECOVERING PROTEINS FROM FOOD PROCESSING WASTEWATERS.
METHODS DESCRIBED INCLUDE COAGULATION, PRECIPITATION, REVERSE OSMOSIS,
AND OTHER METHODS.

AVAILABILITY: JOHN WILEY & SONS, INC., ONE WILEY DRIVE,
HOBOKEN, NJ 07030

IRIS ACCESSION NUMBER: EW008753

PUBLICATION DATE: 82

TITLE: GROUND WATER.

PERSONAL AUTHOR: RAGHUNATH, H. M.

DESCRIPTOR: *DESIGN; *GROUNDWATER; *INSTRUCTIONAL MATERIALS;
*MANAGEMENT; *POST SECONDARY EDUCATION; RURAL
WATER RESOURCES; WATER SUPPLY; WATER USE

DESCRIPTIVE NOTE: 454P. PRICE: \$29.95

ABSTRACT: THIS BOOK COVERS MANY ASPECTS OF GROUNDWATER,
ASSESSMENT, UTILIZATION, AND MANAGEMENT.
DESIGNS AND DESIGNS FOR GROUNDWATER SYSTEMS ARE
DESCRIBED. AND RURAL WATER SUPPLY AND IRRIGATION USE ARE
DESCRIBED. THE BOOK IS AIMED AT GRADUATE STUDENTS AND
PROFESSIONALS.

AVAILABILITY: JOHN WILEY & SONS, INC., ONE WILEY DRIVE,
HOBOKEN, NJ 07030

IRIS ACCESSION NUMBER: EW008754

PUBLICATION DATE: 81

TITLE: EFFECTIVE MANAGEMENT FOR ENGINEERS AND SCIENTISTS.

PERSONAL AUTHOR: WORTMAN, LEON A.

DESCRIPTOR: *COMMUNICATIONS; *EMPLOYEE RELATIONS;
*INSTRUCTIONAL MATERIALS; *MANAGEMENT; *POST
SECONDARY EDUCATION; SCIENTISTS; *SUPERVISION; *TECHNIQUES;

DESCRIPTIVE NOTE: 275P. PRICE: \$24.95

ABSTRACT: THIS BOOK PRESENTS TECHNIQUES FOR COMMUNICATIONS,
PRODUCTIVE MEETINGS, LEADERSHIP, COPING WITH DIFFICULT
SUBORDINATES IN A POSITIVE WAY, CONFLICT MANAGEMENT AND
MANAGING THE NON-CONFORMIST AND CREATIVE PROFESSIONAL. IN
ADDITION, INFORMATION IS PROVIDED ON HOW TO USE TIME
EFFECTIVELY AND HOW TO HANDLE RED TAPE.

AVAILABILITY: JOHN WILEY & SONS, INC., ONE WILEY DRIVE,
HOBOKEN, NJ 07030

IRIS ACCESSION NUMBER: EW008755

PUBLICATION DATE: 82

TITLE: HANDBOOK OF CHEMICAL MICROSCOPY, VOLUME 1, 4TH
EDITION.

PERSONAL AUTHOR: MASON, CLYDE WALTER

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS;
*CHEMICAL MICROSCOPY; *CHEMISTRY; *HANDBOOKS; *INSTRUCTIONAL
MATERIALS; *LABORATORY PROCEDURES; *MICROSCOPY; POST
SECONDARY EDUCATION; *REFERENCE MATERIALS

DESCRIPTIVE NOTE: 448P. PRICE: \$69.95

ABSTRACT: THIS BOOK COVERS ALL ASPECTS OF PHYSICAL METHODS
AND CHEMICAL ANALYSIS. IT INCLUDES THOUSANDS OF SELECTED
REFERENCES FOR FURTHER STUDY, AND EXPERIMENTS FOR
DEMONSTRATING THEORY AND PRACTICAL APPLICATIONS IN PHYSICAL
CHEMISTRY, OPTICS, POLYMERS, COLLOIDS, AND CHEMICAL
CRYSTALLOGRAPHY.

AVAILABILITY: JOHN WILEY & SONS, INC., ONE WILEY DRIVE,
HOBOKEN, NJ 07030

IRIS ACCESSION NUMBER: EW008763

PUBLICATION DATE: FEB 82

TITLE: WATER TREATMENT FOR SMALL PUBLIC SUPPLIES.

PERSONAL AUTHOR: WILSON, DONALD B.; DRAN, RAYMOND M.

DESCRIPTOR: *DRINKING WATER; *ELECTRODIALYSIS; *NEW MEXICO;
*REVERSE OSMOSIS; *RURAL AREAS; *WATER TREATMENT; *WATER
QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 104P. PB83-108175

ABSTRACT: REVERSE OSMOSIS (RO) AND ELECTRODIALYSIS (ED)
WERE SHOWN TO BE SUCCESSFUL METHODS FOR UPGRADING CURRENT
DRINKING WATER SUPPLIES FOR SMALL NEW MEXICO COMMUNITIES TO
MEET DRINKING WATER STANDARDS. A MOBILE DEMONSTRATION UNIT
WAS OPERATED 500-2000 HOURS IN EACH OF NINE COMMUNITIES
VISITED, USING FEED FROM THE CURRENT DRINKING WATER SUPPLY.
IN ALL CASES, PRODUCT WATER FROM THE DEMONSTRATION UNIT (AS
CERTIFIED BY THE APPROPRIATE AGENCY) MET DRINKING WATER
STANDARDS. ENGINEERING DESIGN DATA ARE PRESENTED FOR THE
EVALUATION OF ED, RO, AND ION-EXCHANGE UNIT OPERATIONS FOR

82

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IN THE DRINKING WATER SYSTEMS.

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

IRIS ACCESSION NUMBER: EW008764

PUBLICATION DATE: OCT 82

TITLE: OPERATION OF SEWAGE LAGOONS, RESERVOIRS, AND STREAMS.
1981-SEPTEMBER, 1982 (CITATIONS FROM THE NTIS DATA

DESCRIPTOR: *AERATION; *ANNOTATED BIBLIOGRAPHIES;
*AGRICULTURAL WASTES; BIBLIOGRAPHIES; *LAGOONS; *MUNICIPAL
WASTES; *STREAMS; *RESERVOIRS; *WASTEWATER TREATMENT; *WATER
QUALITY

DESCRIPTIVE NOTE: 46P. PB83-60052

ABSTRACT: THESE FEDERALLY-FUNDED REPORTS HAVE BEEN DIVIDED
INTO TWO SECTIONS. THE FIRST COVERS AERATION LAGOONS USED IN
BIOLOGICAL WASTE TREATMENT, INCLUDING MUNICIPAL SEWAGE
TREATMENT AS WELL AS TREATMENT OF AGRICULTURAL WASTES. THE
SECOND SECTION CITES STUDIES ON THE AERATION OF STREAMS AND
RESERVOIRS TO IMPROVE THEIR WATER QUALITY. (THIS UPDATED
BIBLIOGRAPHY CONTAINS 37 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: EW008767

PUBLICATION DATE: OCT 82

TITLE: ECOLOGY OF THE MARINE ENVIRONMENT. AUGUST, 1981-
SEPTEMBER, 1982 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;
*BIOLOGY; *ECOLOGY; *ENVIRONMENT; *MARINE ENVIRONMENT;
*OCEANOLOGY; *POLLUTION; *RESEARCH REPORTS; *ZOOLOGY

DESCRIPTIVE NOTE: 244P. PB83-809755

ABSTRACT: THE SELECTED ABSTRACTS OF RESEARCH REPORTS COVER
SALT WATER ECOLOGY OF SHELLFISH, FISHES, AQUATIC PLANTS,
AQUATIC ANIMALS, AND AQUATIC MICROORGANISMS. ESTUARY STUDIES
ARE INCLUDED AS ARE POLLUTION EFFECTS, EXCEPT FOR REPORTS
DEALING WITH PESTICIDES AND OIL POLLUTION. (THIS
BIBLIOGRAPHY CONTAINS 236 CITATIONS, ALL OF WHICH ARE NEW
ENTRIES.)

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

IRIS ACCESSION NUMBER: EW008768



IRIS ACCESSION NUMBER: EW008768

PUBLICATION DATE: OCT 82

TITLE: AERIAL PHOTOGRAPHY: ITS USE IN THE STUDY OF COASTAL AND POLLUTION, 1974-OCTOBER, 1982 (CITATIONS FROM ABSTRACTS).

PERSONAL AUTHOR: *AERIAL PHOTOGRAPHY; *ANNOTATED BIBLIOGRAPHIES; *PHOTOGRA-
PHIES; *COASTAL EROSION; *EROSION; *PHOTOGRAPHY;
*SURVEYING

DESCRIPTIVE NOTE: 98P. PB83-052079

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING PHOTOGRAPHY AND ITS USE AS A MEANS TO STUDY COASTAL PROBLEMS SUCH AS EROSION AND POLLUTION, AND TO RURAL AND LAND AREAS. (THIS UPDATED BIBLIOGRAPHY HAS 98 CITATIONS, 16 OF WHICH ARE NEW ENTRIES TO THE EDITION.)

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

IRIS ACCESSION NUMBER: EW008769

PUBLICATION DATE: MAR 82

TITLE: APPROPRIATE SELECTION OF WATER/WASTEWATER TREATMENT FOR SMALL CITIES AND RURAL AREAS.

PERSONAL AUTHOR: REID, GEORGE W., AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *CALCULATORS; *CITIES; *PLANNING; *RURAL AREAS; *WATER TREATMENT; *WATER TREATMENT; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 87P. PB82-254889

ABSTRACT: SMALL COMMUNITIES OFTEN HAVE TO RESORT TO USAGE OF INAPPROPRIATE AND SOPHISTICATED SYSTEMS THAT ARE TO OPERATE AND MAINTAIN WITH REGARD TO THEIR WATER AND SANITATION NEEDS. A COMPUTER APPLICATION MODEL IS THAT WILL AID ENGINEERS/PLANNERS IN DETERMINING A COMMUNITY'S NEEDS AND RESOURCES. TWO VERSIONS OF THIS MODEL DEVELOPED: ONE, FOR USE ON A LOW-COST MICROCOMPUTER; THE OTHER, FOR USE WITH A HAND-HELD CALCULATOR. BOTH OF THESE VERSIONS CONSIDER THE SOCIO-TECHNOLOGICAL LEVEL OF THE COMMUNITY, AS WELL AS INDIGENOUS INFORMATION COVERING WATER AND DEMOGRAPHIC DATA. THE MODEL IDENTIFIES WATER AND WASTEWATER TREATMENT ALTERNATIVES WHICH ARE COMPATIBLE WITH LOCAL COMMUNITY RESOURCES AND MANPOWER CAPABILITIES; APPLICATION OF APPROPRIATE TECHNOLOGY SUBSTANTIALLY ENHANCES THE ABILITY OF A COMMUNITY TO SATISFY ITS WATER AND WASTEWATER TREATMENT OBJECTIVES. COMMUNITY INFORMATION WAS OBTAINED THROUGH THE USE OF TWO SURVEY QUESTIONNAIRES TO ASSIST IN THE SELECTION OF APPROPRIATE TECHNOLOGY FOR WASTEWATER TREATMENT.

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

IRIS ACCESSION NUMBER: EW008770

PUBLICATION DATE: MAR 81

TITLE: HEALTH EFFECTS DUE TO THE CESSATION OF CHLORINATION OF WASTEWATER TREATMENT PLANT EFFLUENTS.

PERSONAL AUTHOR: HOLDEN, JANET A.

DESCRIPTOR: *CHLORINATION; *EFFLUENTS; *HEALTH EFFECTS; *ILLINOIS; *PARTICULATES; *RESEARCH; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 112P. PB82-253717

ABSTRACT: VERY SMALL, OR 'INHALABLE,' PARTICULATES ARE SUSPECTED OF BEING A MAJOR CAUSE OF ADVERSE HUMAN HEALTH EFFECTS. THIS REPORT EXAMINES THE CURRENTLY AVAILABLE INFORMATION ON INHALABLE PARTICULATES OCCURRING IN ILLINOIS AND DISCUSSES POTENTIAL HEALTH IMPACTS. THE RESEARCH WILL BE USEFUL IN ASSESSING THE IMPACTS OF INHALABLE PARTICULATE REGULATIONS IF ADOPTED BY THE FEDERAL GOVERNMENT.

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

IRIS ACCESSION NUMBER: EW008771

PUBLICATION DATE: MAR 82

TITLE: HAZARDOUS POLLUTANT ANALYSIS ON WATER USING INFRARED SPECTROSCOPY.

PERSONAL AUTHOR: ANDERSON, CAROL F.; BENTZ, ALAN F.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INFRARED; *LABORATORY PROCEDURES; *ORGANIC COMPOUNDS; *POLLUTANTS; *SPECTROSCOPY

DESCRIPTIVE NOTE: 25P. PB83-108373

ABSTRACT: A SIMPLE PROCEDURE INVOLVING AN EXTRACTION-CONCENTRATION METHOD FOLLOWED BY COMPUTER INFRARED (IR) SPECTRAL ENHANCEMENT WAS DEVELOPED WHICH PROVIDES DETECTION AND IDENTIFICATION OF ORGANIC POLLUTANT COMPOUNDS OF MODERATE-TO-LOW VOLATILITY IN ESTUARINE AND COASTAL WATERS, DOWN TO 1-10 PPM (DEPENDING ON THE IR ABSORPTIVITY OF THE COMPOUNDS). SINCE IR CAN BE USED FOR NONVOLATILE COMPOUNDS, IT IS A NATURAL COMPLEMENT TO GAS CHROMATOGRAPHIC TECHNIQUES.

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

IRIS ACCESSION NUMBER: EW008772

PUBLICATION DATE: APR 82

TITLE: A CURRICULUM FOR WATER SUPPLY AND WASTEWATER OPERATION, MAINTENANCE AND MANAGEMENT.

PERSONAL AUTHOR: WATT, M. E.

CURRICULUM; HYDROLOGY; *MAINTENANCE;
*OPERATIONS (WATER); *OPERATIONS (WASTEWATER);
*PRIMARY EDUCATION; *TECHNOLOGY; *WATER SUPPLY;
*TREATMENT; WATER QUALITY

NOTE: 89P. PB83-108514

A CURRICULUM WAS DEVELOPED FOR WATER SUPPLY AND OPERATION/MAINTENANCE/MANAGEMENT, AND IS IN TWO PARTS: (1) KEY WATER QUALITY COURSES; (2) INFORMATION TO SUPPORT THE WATER RESOURCES COURSES. PORTION OF THE WATER QUALITY COURSES INCLUDES REVISIONS; THE COURSES SEPARATELY ADDRESS ANALYSIS OF WATER, PROPERTIES OF FRESH WATER, WATER MANAGEMENT, WASTEWATER TECHNOLOGY, AND HYDROLOGY. SUPPORT INFORMATION PROVIDED COVERS AN INVENTORY OF EQUIPMENT, LISTS OF REFERENCE TEXTS AND AUDIO-VISUAL MATERIAL USEFUL TO WATER RESOURCES TRAINING, AND A SUMMARY OF OPPORTUNITIES FOR WATER TREATMENT PLANTS IN THE METROPOLITAN WASHINGTON, DC AREA. THIS EFFORT SERVE TO REVITALIZE A TWO-YEAR WATER DEMONSTRATION CURRICULUM.

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

IRIS ACCESSION NUMBER: EW008773

DATE: JUN 83

IDENTIFICATION, EVALUATION, AND CONTROL OF TOXIC SUBSTANCES IN INDUSTRIAL EFFLUENTS: PRELIMINARY PROCEEDINGS

AUTHOR: PRATT, GLENN D.; AND OTHERS

*CASE HISTORIES; *CONFERENCE PROCEEDINGS;
*EVALUATION; *INDUSTRIAL EFFLUENTS;
*IDENTIFICATION; *PAPERS; *TOXIC SUBSTANCES; *WASTEWATER WORKSHOPS

NOTE: 303P. PB83-115 360

PREPARED PAPERS OF THE SPEAKERS AT THE WORKSHOP ON IDENTIFICATION, EVALUATION, AND CONTROL OF TOXIC SUBSTANCES IN INDUSTRIAL EFFLUENTS, HELD AT THE CONRAD HOTEL, CHICAGO, ILLINOIS, ON JUNE 15-16, 1982. THE WORKSHOP WAS DESIGNED FOR ACADEMIA, INDUSTRY, AND GOVERNMENT OFFICIALS ON THE SURFACING, EVALUATION, AND CONTROL OF TOXIC SUBSTANCES IN WASTEWATER DISCHARGES. THE TECHNICAL SESSIONS FEATURED ACTUAL CASE HISTORIES ON THE USE OF MANUFACTURING PROCESS EVALUATION TO SURFACE PROBLEMS, THE USE OF MANUFACTURING PROCESS MODIFICATION TO PREVENT OR REDUCE THE FORMATION OF TOXICANTS, AND THE RELATIONSHIP OF CHEMICAL STRUCTURE/ACTIVITY RELATIONSHIPS TO THE POTENTIAL FOR TOXICITY, PERSISTENCE, MUTAGENICITY, ETC.

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

IRIS ACCESSION NUMBER: EW008774

PUBLICATION DATE: OCT 82

TITLE: WASTE HEAT UTILIZATION. 1979-AUGUST. 1982 (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;
DESALINATION; *ENERGY CONSERVATION; *HEATING; INDUSTRY;
IRRIGATION; ODOR CONTROL; *RESEARCH REPORTS; *WASTE HEAT;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 320P. PB83-800219

ABSTRACT: WORLDWIDE RESEARCH OF WASTE HEAT UTILIZATION FROM INDUSTRIAL PROCESS PLANTS, ELECTRIC POWER PLANTS, BUILDINGS, AND INCINERATION OF WASTES IS COVERED. EMPHASIS IS ON ENERGY CONSERVATION IN INDUSTRIAL PLANTS. STUDIES OF WASTE HEAT BOILERS AND THE USE OF WASTE HEAT FOR IRRIGATION; SEWAGE TREATMENT, ODOR CONTROL, DESALINATION, AND HEATING ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 313 CITATIONS, 70 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW008775

PUBLICATION DATE: OCT 82

TITLE: WATER RESOURCE INVESTIGATIONS FOR TROPICAL REGIONS. 1977-OCTOBER. 1982 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;
*DEVELOPMENT; GROUNDWATER; *NATURAL RESOURCES; *RESEARCH REPORTS; RUNOFF; *TROPICS; *WATER RESOURCES; *WATER QUALITY;
*WATER SUPPLY

DESCRIPTIVE NOTE: 194P. PB83-851899

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING TROPICAL REGION WATER RESOURCES. THE CITATIONS COVER PRECIPITATION, RUNOFF, SURFACE WATER, GROUND WATER, AND THE ASSOCIATED EFFECTS ON WATER SUPPLY, PLANT LIFE, WATER QUALITY, AND AQUATIC FAUNA. SUBJECT MATTER IS BOTH GENERAL, SUCH AS RAINFALL AND RUNOFF MODELS, AND SPECIFIC, SUCH AS STUDIES OF SPECIFIC LAKES OR WATERSHEDS. SOME CITATIONS COVER WATER-RELATED RESOURCE DEVELOPMENT STUDIES. (CONTAINS 125 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

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

IRIS ACCESSION NUMBER: EW008776

PUBLICATION DATE: AUG 81

TITLE: TECHNICAL MANUAL MD-10176, ISSUE 1, ENVIRONMENTAL ASSESSMENT AND PLANNING SECTION: QUALITY CONTROL MANUAL.

AUTHOR: HILL, H. N.; AND OTHERS

*ANALYTICAL TECHNIQUES; *ENVIRONMENTAL
*LABORATORY PRACTICES; *ORGANIZATION; *QUALITY
*PLANNING; *RADIATION; *TECHNICAL MANUALS

NOTE: 66P. DE82915896

THIS MANUAL COVERS ALL DOCUMENTATION AND
PRACTICES AT THE MOUND FACILITY. APPENDICES COVER
ANALYTICAL CHART OF ENVIRONMENTAL ASSESSMENT AND
SECTION; ROUTINE ANALYTICAL PROCEDURES; LOG BOOKS;
TESTING AND ANALYSIS SCHEDULE FOR RADIOACTIVITY. (ERA
7:958182)

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

IRIS ACCESSION NUMBER: EW008777

PUBLICATION DATE: AUG 81

BIODEGRADABILITY TESTING OF INDUSTRIAL WASTES AND
OTHER SUBSTANCES.

AUTHOR: DREWS, R. J. L. C.

*ACTIVATED SLUDGE; *BIODEGRADABILITY;
*GUIDES; *INDUSTRIAL WASTES; *ORGANIC PRODUCTS;
*TREATMENT; *WASTEWATER TREATMENT

NOTE: 34P. PB83-106732

THE PHENOMENAL INCREASE IN THE RANGE OF SYNTHETIC
WASTES PRESENTLY AVAILABLE NECESSITATES RELIABLE METHODS
TO DETERMINE THE BIODEGRADABILITY OF ORGANIC PRODUCTS AND
OTHER WASTES THAT ARE DISPOSED OF TO THE ENVIRONMENT.
THIS MANUAL DEALS WITH VARIOUS METHODS DESCRIBED IN THE
LITERATURE AND SUPPLIES PARTICULARS OF THREE SELECTED
METHODS BASED ON ACTIVATED SLUDGE OR BIOFILTER PRINCIPLES.
BIODEGRADABILITY IS DEFINED AND THE MEANING AND
SIGNIFICANCE OF BIOLOGICAL BREAKDOWN REACTIONS AND METHODS
FOR MEASURING THEM ARE BRIEFLY EXPLAINED. THE DIFFERENT PARAMETERS
WHICH CAN BE USED TO MEASURE THE EXTENT OF BREAKDOWN ARE
ALSO DISCUSSED.

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

IRIS ACCESSION NUMBER: EW008778

PUBLICATION DATE: JUL 82

MANAGEMENT OF ON-SITE AND SMALL COMMUNITY WASTEWATER

AUTHOR: CROTTI, PETER A.; WISWALL, KENNETH C.

*ALTERNATIVE TECHNOLOGY; *GUIDES; *MANAGEMENT;
*TREATMENT; *RURAL AREAS; *SMALL FLOWS; *WASTEWATER

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TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 241P. PB82-260829

ABSTRACT: THE DOCUMENT REPRESENTS A RELATIVELY SIMPLE, YET
COMPREHENSIVE GUIDE TO SMALL COMMUNITIES AND THEIR ENGINEERS
TO DEVELOP AN EFFECTIVE AND, HOPEFULLY, OPTIMAL MANAGEMENT
PROGRAM FOR ALTERNATIVE TECHNOLOGIES WHICH ARE APPROPRIATE
TO SOLVING THEIR WASTEWATER POLLUTION PROBLEMS. ALTHOUGH IT
IS PREPARED TO RESPOND TO THE REQUIREMENTS OF THE U.S. EPA
CONSTRUCTION GRANTS PROGRAM, THE TEXT IS APPLICABLE TO ALL
EXISTING SMALL COMMUNITIES WISHING TO OPTIMIZE THE
PERFORMANCE OF EXISTING OR PLANNED ON-SITE OR SMALL
COMMUNITY WASTEWATER TREATMENT AND DISPOSAL SYSTEMS. BY
PRESENTING OPTIMUM MANAGEMENT PROGRAM SELECTION IN A SIMPLE
STEP-BY-STEP FASHION, THIS GUIDE PERMITS THE USER TO DESIGN
THE APPROPRIATE PROGRAM BASED ON TECHNICAL PROCESSES AND
PHYSICAL, ECONOMIC AND ADMINISTRATIVE CONSTRAINTS EXTANT IN
THE SERVICE AREA.

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

IRIS ACCESSION NUMBER: EW008779

PUBLICATION DATE: SEP 82

TITLE: SEPTIC TANK AND HOUSEHOLD SEWAGE SYSTEMS DESIGN AND
USE, 1970-AUGUST 1982 (CITATIONS FROM THE ENGINEERING INDEX
DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES;
*DESIGN; *HOMES; *HOUSEHOLD SEWAGE; *ON-SITE TREATMENT;
*SEPTIC TANKS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 220P. PB82-811373

ABSTRACT: THE BIBLIOGRAPHY PROVIDES WORLDWIDE RESEARCH
REPORTS ON SEPTIC TANKS AND OTHER SEWAGE TREATMENT UNITS
USED FOR HOUSEHOLD SEWAGE SYSTEMS. CONSTRUCTION MATERIALS,
DESIGN, SERVICE LIFE, AND A COMPARISON OF SYSTEMS ARE
DESCRIBED. THE SUITABILITY OF SOILS FOR DRAINAGE AND
ABSORPTION TO PREVENT POLLUTION OF GROUND WATER FROM
BACTERIA AND VIRUSES ARE DISCUSSED. PURIFICATION PROCESSES
AND THE ENVIRONMENTAL CONSTRAINTS OF DISPOSAL SYSTEMS ARE
INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 210 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: EW008780

PUBLICATION DATE: JUN 82

TITLE: MANUAL OF PRACTICE - CHEMICAL TREATING AGENTS IN OIL
SPILL CONTROL.

PERSONAL AUTHOR: CASTLE, R. W.; AND OTHERS

90

*CHEMICALS; *INSTRUCTIONAL MATERIALS; *MANUALS;
*OIL SPILL CONTROL; *OIL SPILL TREATMENT;
CONTROL

NOTE: 152P. PB82-255837

THE PURPOSE OF THIS MANUAL IS TO PROVIDE THE OPERATOR WITH A SYSTEMATIC METHODOLOGY WITH NATIONAL POLICY THAT CAN BE USED TO ASSESS THE CASE ACCEPTABILITY OF OIL SPILL TREATMENT USING AND TO DETERMINE APPROPRIATE APPLICATION IT CONTAINS GUIDELINES FOR EVALUATING SPILL CHARACTERISTICS, OF TREATED AND NON-TREATED SPILL MOVEMENT, AND A COMPARISON OF PROBABLE IMPACTS WITH AND WITHOUT DISPERSION OF OIL AT SEA, DISPERSION ON THE AND THE USE OF SURFACE COLLECTING AGENTS ARE THE MANUAL ADDITIONALLY DESCRIBES GENERAL APPLICATION PROCEDURES AND DOSAGE REGULATION.

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

IRIS ACCESSION NUMBER: EW008781

PUBLICATION DATE: SEP 82

DESCRIPTIVE NOTE: 17P. PB82-261439

ABSTRACT: A METHOD IS DEVELOPED FOR PLANNING COST-EFFECTIVE CONTROL PROGRAMS FOR TOXIC POLLUTANTS IN MUNICIPAL TREATMENT SYSTEMS. IT CHOOSES THE LEVELS OF INDUSTRIAL PRETREATMENT AND TYPE OF MUNICIPAL SEWAGE TREATMENT A CITY CAN USE SO THAT ALL APPLICABLE STANDARDS AND CRITERIA ON SEWER DISCHARGES, RECEIVING WATER QUALITY, AND MUNICIPAL SLUDGE QUALITY ARE MET AT MINIMUM COST. THE PROBLEM IS FORMULATED AS A NONLINEAR 0-1 INTEGER PROGRAMMING MODEL. AN IMPLICIT ENUMERATION PROCEDURE IS DEVELOPED FOR ITS SOLUTION. THE METHOD IS APPLIED TO CONTROL OF FIVE HEAVY METALS IN KOKOMO, IND. THE ECONOMIC IMPACT OF EPA'S NATIONAL PRETREATMENT POLICIES AND ALTERNATIVE WATER QUALITY GOALS IS STUDIED.

NOTE: 94P. PB82-875671

THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE WASTES AND THE EFFECT ON WATER RESOURCES. THE ARE BOTH GENERAL, INVESTIGATING THE HYDRAULICS OF AND RUNOFF, AND SPECIFIC, REPORTING ON RESULTS OF AT SOME STRIP MINES. SOME CITATIONS REFERENCE LAND ON TECHNIQUES AND EFFORTS. (CONTAINS 58 CITATIONS INDEXED AND INCLUDING A TITLE LIST.)

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

IRIS ACCESSION NUMBER: EW008782

PUBLICATION DATE: 82

DESCRIPTIVE NOTE: 36P. PB82-262908

AUTHOR: O'HNESORGE, W. F.; AND OTHERS

DESCRIPTOR: *COMPUTER PROGRAMS; *COMPUTER APPLICATIONS;
*ENVIRONMENT; *ENVIRONMENTAL PROTECTION

*DOCUMENTATION; *PLANNING; *PROGRAMMING; *TESTING

DESCRIPTIVE NOTE: 4P. DE82013441

ABSTRACT: ORGANIZATIONS WHICH HANDLE MASSIVE AMOUNTS OF ENVIRONMENTAL DATA MUST USE COMPUTER DATA BASES TO KEEP RECORD COSTS AS LOW AS PRACTICABLE AND TO MAKE POSSIBLE THE EFFICIENT AND TIMELY ASSESSMENT OF THE ENVIRONMENT. THIS PAPER REVIEWS THE BASIC STEPS NECESSARY FOR PLANNING, PROGRAMMING, TESTING AND DOCUMENTATION OF A COMPUTER PROGRAM. (ERA CITATION 07:04471?)

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

IRIS ACCESSION NUMBER: EW008783

PUBLICATION DATE: AUG 82

TITLE: COST-EFFECTIVE PRETREATMENT PROGRAMS

PERSONAL AUTHOR: ROSSMAN, LEWIS A.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *COSTS; *METALS;
*MUNICIPALITIES; *OPERATIONS (WASTEWATER); *PLANNING;
*PRETREATMENT; *STANDARDS; *TOXIC SUBSTANCES; *WASTEWATER
TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 17P. PB82-261439

ABSTRACT: A METHOD IS DEVELOPED FOR PLANNING COST-EFFECTIVE CONTROL PROGRAMS FOR TOXIC POLLUTANTS IN MUNICIPAL TREATMENT SYSTEMS. IT CHOOSES THE LEVELS OF INDUSTRIAL PRETREATMENT AND TYPE OF MUNICIPAL SEWAGE TREATMENT A CITY CAN USE SO THAT ALL APPLICABLE STANDARDS AND CRITERIA ON SEWER DISCHARGES, RECEIVING WATER QUALITY, AND MUNICIPAL SLUDGE QUALITY ARE MET AT MINIMUM COST. THE PROBLEM IS FORMULATED AS A NONLINEAR 0-1 INTEGER PROGRAMMING MODEL. AN IMPLICIT ENUMERATION PROCEDURE IS DEVELOPED FOR ITS SOLUTION. THE METHOD IS APPLIED TO CONTROL OF FIVE HEAVY METALS IN KOKOMO, IND. THE ECONOMIC IMPACT OF EPA'S NATIONAL PRETREATMENT POLICIES AND ALTERNATIVE WATER QUALITY GOALS IS STUDIED.

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

IRIS ACCESSION NUMBER: EW008784

PUBLICATION DATE: 82

TITLE: AN ALGAL ASSAY TECHNIQUE FOR AQUATIC TOXICANTS.

PERSONAL AUTHOR: WANG, WUNCHENG

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ALGAE; *LABORATORY
PROCEDURES; *RESEARCH REPORTS; *TOXIC SUBSTANCES; *ZINC
ACETATE

DESCRIPTIVE NOTE: 36P. PB82-262908

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A TECHNIQUE WAS DEVELOPED FOR ALGAL TOXICITY. ALGAL COMMUNITIES OBTAINED FROM SEVERAL SEWAGE PLANTS AND SURFACE WATERS WERE THE TEST SPECIMENS. ZINC ACETATE WAS USED AS THE TOXICANT. THE TECHNIQUES THAT WERE USED ARE RELATIVELY SIMPLE, RAPID, AND PRECISE. ALGAL TOXICITY TO TOXICANTS WERE MEASURED BY CHANGES IN OXYGEN CONSUMPTION, AND TWO TYPES OF RESPONSES WERE OBSERVED. THE RESPONSES IN RESPONSE ARE CAUSED PRIMARILY BY THE DEGREE OF EXPOSURE OF THE ALGAE TO THE TOXICANT.

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

IRIS ACCESSION NUMBER: EW008785

PUBLICATION DATE: SEP 82

TITLE: BIODEGRADATION OF TOXIC PULPING EFFLUENTS, 1972-1982 (CITATIONS FROM THE INSTITUTE OF PAPER TECHNOLOGY DATA BASE).

PERSONAL AUTHOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; BIODEGRADATION; BIOTREATMENT; *EFFLUENTS; LABORATORY TESTS; POLLUTANTS; *PULP MILLS; *RESEARCH REPORTS; *REFERENCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 129P. PB82-853483

THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING REGULATIONS, RESOLUTIONS, AND EVALUATIONS OF BIOTREATMENT OF TOXIC EFFLUENTS FROM PULP MILLS. MUTAGENIC POTENTIALS OF WASTE FROM CHLORINATION OF MOST PULPS ARE RELATIVE TO THE RISKS INVOLVED TO WATER PLANT AND ANIMAL LIFE. LABORATORY MEASUREMENTS DETERMINING TOXICITY OF EFFLUENTS AND VARIOUS INDUSTRIAL BIODEGRADATION PROCESSES ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 86 ENTRIES, 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: EW008786

PUBLICATION DATE: JUL 82

TITLE: THE IMPACT OF AQUATIC PLANTS AND THEIR MANAGEMENT ON THE AQUATIC RESOURCES OF THE UNITED STATES.

PERSONAL AUTHOR: *MAN, JEROME V.; AND OTHERS

DESCRIPTOR: *AQUATIC PLANTS; *AQUATIC RESOURCES; *ENVIRONMENTAL IMPACT; *MANAGEMENT; *RESEARCH REPORTS

DESCRIPTIVE NOTE: 157P. PB82-262890

THIS PAPER PROVIDES AN ASSESSMENT OF NUISANCE AQUATIC PLANTS AND THE PROBLEMS ASSOCIATED WITH THEM IN THE UNITED STATES. MAJOR EMPHASIS IS GIVEN TO THE

SUN BELT STATES WHERE AQUATIC PLANT CONTROL IS CRITICAL DUE TO INTRODUCTION OF EXOTIC PLANTS AND EXTENDED GROWING SEASONS. THE IMPACT AQUATIC PLANTS (ALGAE, NON-NATIVE, AND NATIVE PLANTS) AND THEIR MANAGEMENT TECHNIQUES ARE DISCUSSED AS THEY PERTAIN TO WATER QUALITY AND AQUATIC LIFE. HERBICIDE RESIDUE DATA, BOTH IN THE SOIL AND WATER, AND HERBICIDE TOXICITY TO AQUATIC ORGANISMS ARE PRESENTED AND DISCUSSED.

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

IRIS ACCESSION NUMBER: EW008787

PUBLICATION DATE: AUG 82

TITLE: THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT MANAGEMENT SYSTEM: PILOT SYSTEM DESCRIPTION.

PERSONAL AUTHOR: MESSENGER, M.; AND OTHERS

DESCRIPTOR: *U.S. ARMY; *EFFLUENTS; *MANAGEMENT SYSTEMS; *NPDES PERMITS; *PILOT PROJECTS; *POINT SOURCE DISCHARGES; *WASTEWATER TREATMENT; *WASTEWATER DISCHARGE

DESCRIPTIVE NOTE: 22P. AD-A119 787/0

ABSTRACT: THE CLEAN WATER ACT OF 1977 AND ARMY REGULATION 200-1 REQUIRE ARMY INSTALLATIONS TO CONTROL THE QUALITY OF THEIR POINT-SOURCE WASTEWATER EFFLUENTS. POINT-SOURCE DISCHARGES ARE CONTROLLED BY NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS; EACH WASTEWATER POINT DISCHARGING INTO A NAVIGABLE WATERWAY IS REGULATED EITHER BY A FEDERAL OR STATE NPDES PERMIT. THE DEPARTMENT OF THE ARMY HAS BEEN ISSUED HUNDREDS OF NPDES PERMITS. THE REPORT DESCRIBES A PILOT NPDES PERMIT MANAGEMENT SYSTEM DEVELOPED BY THE U.S. ARMY CONSTRUCTION ENGINEERING RESEARCH LABORATORY (CERL). THIS PROGRAM ALLOWS THE ARMY TO RETRIEVE FROM A CENTRAL DATA BASE A PERMANENT, CONTINUALLY UPDATED INVENTORY OF THE ARMY'S WASTEWATER EFFLUENT DISCHARGE SELF-MONITORING INFORMATION AND ASSOCIATED NPDES PERMIT DATA. THIS SYSTEM ALSO LETS THE ARMY AGGREGATE, MANIPULATE, AND ANALYZE THE DATA BASE INFORMATION. THIS REPORT GIVES A BRIEF BACKGROUND OF THE PILOT SYSTEM'S DEVELOPMENT, SUGGESTS HOW THE SYSTEM CAN BE USED TO HELP MANAGE THE ARMY'S POLLUTION ABATEMENT PROGRAM, AND GIVES DETAILED USER INSTRUCTIONS.

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

IRIS ACCESSION NUMBER: EW008788

PUBLICATION DATE: JUL 82

TITLE: MANGROVES: A GUIDE FOR PLANNING AND MAINTENANCE.

PERSONAL AUTHOR: STEVENS, JOHN; RABINOWITZ, LARRY

DESCRIPTOR: *BIOLOGY; *FLORIDA; *GUIDES; *MANGROVES; *MAINTENANCE; *PLANTING

NOTE: 10P. PB83-115319

THIS REPORT IS A GUIDE FOR PLANTING AND
OF MANGROVES. THE REPORT DESCRIBES THE BIOLOGY
MANGROVES; IDENTIFICATION OF FLORIDA MANGROVES;
TRANSPLANTING; NURSING; AND PLANT PROGRATION OF

Y: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
ROAD, SPRINGFIELD, VA 22161

ION NUMBER: EW008789

DATE: JUL 82

UNDERWATER MANAGEMENT STRATEGY FOR MICHIGAN: DRAFT
D INCIDENT TRACKING PROCEDURES.

*CONTAMINATION; *GROUNDWATER; *MANAGEMENT;
*POLLUTION CONTROL; *RESPONSE PROCEDURES;
PROCEDURES; *WATER RESOURCES; *WATER QUALITY

NOTE: 19P. PB83-116087

SEVERAL MANAGEMENT TOOLS APPLIED TO GUIDE
RESPONSE TO INCIDENTS OF GROUNDWATER POLLUTION
THE LARGE NUMBER OF INCIDENTS AT WHICH STATE
ACTIONS MAY NEED TO BE INITIATED. TWO PRIMARY
TOOLS ARE DESCRIBED IN THIS DOCUMENT. THESE
TOOLS ARE: GENERAL RESPONSE PROCEDURES - GUIDANCE
AND WHEN STATE ACTIONS ARE INITIATED IN RESPONSE TO
OF GROUNDWATER POLLUTION CONCERN; AND INCIDENT
PROCEDURES - AN INFORMATION MANAGEMENT SYSTEM TO
THE RECORDING, TRACKING AND DISTRIBUTION OF
ON THE STATUS OF EACH CONTAMINATION INCIDENT.

Y: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
ROAD, SPRINGFIELD, VA 22161

ION NUMBER: EW008790

DATE: FEB 82

USE OF PLASTICS AND RUBBER IN WATER AND
(JOINT CONFERENCE 15 FEBRUARY TO 17 FEBRUARY 1982
ROYAL LANCASTER HOTEL, LONDON).

*CONFERENCE PROCEEDINGS; *DEVELOPMENT;
*EQUIPMENT; *MATERIALS; *PIPES; *PLASTICS;
TECHNOLOGY; *WATER; *WASTEWATER

NOTE: 324P. PB83-116160

TOPICS DISCUSSED INCLUDE: PROBLEMS AND ANSWERS
LINE SYSTEMS; MATERIALS AND EQUIPMENT, AND OTHER
NEW DEVELOPMENTS.

Y: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008791

PUBLICATION DATE: MAY 82

TITLE: URBAN RUNOFF QUALITY: INFORMATION NEEDS.

PERSONAL AUTHOR: FIELD, RICHARD

DESCRIPTOR: *INFORMATION NEEDS; *MODELS; *RUNOFF; *SURFACE
RUNOFF; *URBAN AREAS; *WATER QUALITY

DESCRIPTIVE NOTE: 181P. PB83-117002

ABSTRACT: THE DISCUSSION PAPER COMMENTS ON AN ARTICLE
DEALING WITH PERCEPTIONS OF URBAN RUNOFF WATER QUALITY
MODELS.

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

IRIS ACCESSION NUMBER: EW008792

PUBLICATION DATE: 82

TITLE: EFFECTS OF TOXICANT ON PLANKTON.

PERSONAL AUTHOR: WALSH, GERALD E.

DESCRIPTOR: *ENVIRONMENTAL IMPACTS; *INDUSTRIAL WASTES;
*METALS; *MUNICIPAL WASTES; *PESTICIDES; *PLANKTON; *TOXIC
SUBSTANCES

DESCRIPTIVE NOTE: 70P. PB83-117044

ABSTRACT: EFFECTS OF HEAVY METALS, PESTICIDES, AND
INDUSTRIAL AND MUNICIPAL WASTES ON PLANKTON IN THE FIELD AND
LABORATORY ARE REVIEWED. BOTH HOLOPLANKTON AND MEROPLANKTON
ARE DISCUSSED. IN MANY CASES, MEROPLANKTONIC STAGES OF
BENTHIC SPECIES ARE MORE SENSITIVE THAN ADULTS ALTHOUGH
DEATH OR DEPRESSION OF PHYSIOLOGICAL ACTIVITIES ARE OFTEN
USED AS CRITERIA FOR EFFECTS OF POLLUTANTS WITH ALGAE AND
ANIMALS. ALGAE MAY BE USED TO DETECT EFFECTS OF GROWTH
STIMULANTS.

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

IRIS ACCESSION NUMBER: EW008793

PUBLICATION DATE: MAY 82

TITLE: DESIGN AND INSTALLATION OF LOW-PRESSURE PIPE WASTE
TREATMENT SYSTEMS.

PERSONAL AUTHOR: COGGER, CRAIG; AND OTHERS

DESCRIPTOR: *DESIGN; *INSTALLATION; *LOW-PRESSURE PIPES;
*MAINTENANCE; *NORTH CAROLINA; *OPERATIONS (WASTEWATER);
*SITING; *WASTEWATER TREATMENT

NOTE: 38P. PB83-118091

MANY SITES UNDER CONSIDERATION FOR DEVELOPMENT IN
LINE ARE NOT SUITABLE FOR ON-SITE SEWAGE DISPOSAL
ONAL SEPTIC SYSTEMS. AMONG THESE SITES ARE SOME
HAVE ENOUGH DEPTH AND AREA OF USABLE SOIL TO
BE DISPOSAL VIA LOW-PRESSURE PIPE (LPP) SYSTEMS.
SPECIFIES THE PROCEDURES AND MATERIALS TO BE
SUCCESSFUL SITING, DESIGN, INSTALLATION AND
OF RESIDENTIAL LPP SYSTEMS. USE OF PROPER
AND TECHNIQUES IS CRITICAL TO THE SUCCESS OF THE
AS TO ALL OTHER GROUND ABSORPTION SYSTEMS.

Y: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
ROAD, SPRINGFIELD, VA 22161

ION NUMBER: EW008794

DATE: NOV 82

WASTEWATER TREATMENT. JUNE, 1970-NOVEMBER, 1982.
(FROM THE ENGINEERING INDEX DATA BASE.)

*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;
*INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER);
*TECHNOLOGY; *WASTEWATER TREATMENT

NOTE: 141P. PB83-852681

THIS BIBLIOGRAPHY COVERS METHODS AND TECHNOLOGY
TREATMENT AND PURIFICATION OF INDUSTRIAL EFFLUENTS
CYCLING OF VARIOUS EFFLUENT COMPONENTS. EFFLUENTS
G AND RELATED ACTIVITIES ARE EXCLUDED. (THIS
LIOGRAPHY CONTAINS 143 CITATIONS, 17 OF WHICH ARE
TO THE PREVIOUS EDITION.)

Y: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
ROAD, SPRINGFIELD, VA 22161

ION NUMBER: EW008795

DATE: NOV 82

POLLUTION FROM ALASKAN OIL AND GAS OPERATIONS.
ER, 1982 (CITATIONS FROM OCEANIC ABSTRACTS).

*ALASKA; *ANNOTATED BIBLIOGRAPHIES;
IES; *ENVIRONMENTAL IMPACTS; *GAS; *LEGAL
IL; *POLLUTION

NOTE: 67P. PB83-852822

THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING
AL POLLUTION MECHANISMS AND EFFECTS ASSOCIATED
AN OIL AND GAS OPERATIONS. EFFECTS AT SPECIFIC
AND UPON SPECIFIC SPECIES ARE CONSIDERED. SOME
IS GIVEN TO LEGAL ASPECTS OF OIL SPILLS AND OTHER
ION SOURCES. (THIS UPDATED BIBLIOGRAPHY CONTAINS
NS, 12 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS

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

IRIS ACCESSION NUMBER: EW008796

PUBLICATION DATE: JUN 81

TITLE: THE QUALITY OF SCIENTIFIC CONSIDERATIONS IN
DECISIONS AFFECTING THE ENVIRONMENT.

PERSONAL AUTHOR: SEWELL, GRANVILLE H.

DESCRIPTOR: *DECISION MAKING; *ENVIRONMENTAL EFFECTS;
*ENVIRONMENTAL IMPACT STATEMENTS; *EVALUATION; *RESEARCH
REPORTS; *SURVEYS

DESCRIPTIVE NOTE: 96P. PB83-114371

ABSTRACT: THE SUBSTANTIVE QUALITY OF ENVIRONMENTAL IMPACT
STATEMENTS (EIS) WAS EXAMINED TO DETERMINE THEIR USEFULNESS
IN SUPPORTING AND INFLUENCING DECISION MAKING. THE FOLLOWING
TASKS ACCOMPLISHED TO CARRY OUT THIS STUDY ARE DESCRIBED:
(1) A RETROSPECTIVE SURVEY OF ACTIONS THAT FOLLOWED THE
FILING OF 100 FINAL EISS IN LATE 1973; (2) FIELD STUDIES OF
ENVIRONMENTAL IMPACTS FROM ACTIONS RELATED TO TEN OF THESE
FINAL EISS; (3) GRADING OF SCIENTIFIC QUALITY FOR 10 EISS BY
A PANEL OF THREE SCIENTISTS; (4) A SURVEY OF 100 FINAL EISS
FILED IN LATE 1980 UNDER NEW REGULATIONS PROMULGATED BY THE
COUNCIL ON ENVIRONMENTAL QUALITY IN LATE 1979; AND (5)
GRADING OF SCIENTIFIC QUALITY OF 29 OF THESE EISS BY THE
SCIENCE PANEL.

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

IRIS ACCESSION NUMBER: EW008797

PUBLICATION DATE: 8:

TITLE: AREAWIDE ENVIRONMENTAL ASSESSMENT: GUIDEBOOK.

DESCRIPTOR: *AREAWIDE ASSESSMENT; *ASSESSMENT TECHNIQUES;
*ENVIRONMENTAL ASSESSMENT; *GUIDEBOOKS; *PLANNING

DESCRIPTIVE NOTE: 246P. PB83-123703

ABSTRACT: THIS TECHNICAL GUIDANCE DOCUMENT PROVIDES
INFORMATION FOR ENVIRONMENTAL ANALYSTS, PLANNERS, AND
ENGINEERS CHARGED WITH THE PREPARATION OF AREAWIDE
ENVIRONMENTAL ASSESSMENT. THE DISCUSSION COVERS THE OVERALL
AREAWIDE ASSESSMENT METHODOLOGY, PROBLEMS WHICH WILL
GENERALLY BE ENCOUNTERED IN APPLYING THE METHODOLOGY,
ENVIRONMENTAL ISSUES TYPICALLY POSED AT THE AREAWIDE SCALE,
DATA SOURCES AND ANALYSIS TECHNIQUES FOR DEALING WITH THOSE
ISSUES, AND DOCUMENTATION TECHNIQUES FOR SYNTHESIZING AND
PRESENTING THE RESULTS OF AN ASSESSMENT STUDY. AREAWIDE
ENVIRONMENTAL ASSESSMENT IS COMPARED TO PROJECT-LEVEL
ASSESSMENT AND THE ADVANTAGES OF THE FORMER ARE IDENTIFIED.
THE ASSESSMENT METHODOLOGY IS DETAILED IN SEVEN STEPS,
RANGING FROM DETERMINING THE NEED AND FEASIBILITY OF

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AN AREAWIDE ASSESSMENT, THROUGH ESTABLISHING AREA AND SPACIALLY ALLOCATING AREAWIDE ALTERNATIVES, ANALYSIS, IMPACT SYNTHESIS, EVALUATION, AND ACTIONS. ASSESSMENT TECHNIQUES COMPRISE A 21 - ITEM INCLUDING LAND DEVELOPMENT SUITABILITY, VOLCANIC AND ACTIVITY, WATER SUPPLY AND QUALITY, FIRE HAZARDS, POLLUTION, NOISE, ENERGY, SOCIAL CONDITION, AND HISTORIC GEOLOGICAL RESOURCES. USE OF CENSUS DATA, MAPS, AND SAMPLING TECHNIQUES FOR DATA ACQUISITION AND ANALYSIS INCLUDING AN AREAWIDE DATA BASE ARE DISCUSSED. MAPS, AND GRAPHIC DATA ARE PROVIDED. APPENDICES INCLUDE A ADMINISTRATIVE FRAMEWORK FOR AREAWIDE ASSESSMENT AND IDENTIFICATION AND DESCRIPTION OF ALTERNATIVES.

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

IRIS ACCESSION NUMBER: EW008798

PUBLICATION DATE: JUN 82

HANDBOOK ON THE BISCAYNE AQUIFER: WATER MANAGEMENT, CONSERVATION, HEALTH AND COST OF DRINKING WATER.

AUTHOR: BLACKWELDER, BRION; AND OTHERS

KEYWORDS: *COSTS; *CONSERVATION; *DRINKING WATER; *HANDBOOKS; *MANAGEMENT; *NATURAL RESOURCES; *HEALTH; *WATER CONSERVATION; *WATER RESOURCES

DESCRIPTIVE NOTE: 192P. PB83-118539

ABSTRACT: INFORMATION IS PRESENTED FROM SCIENTISTS, AND CITIZENS CONCERNING WATER RESOURCES IN FLORIDA. LOCAL GROUNDWATER AND THE EVERGLADES-DRINKING WATER SYSTEM ARE DESCRIBED AND POLLUTION OF LOCAL GROUNDWATER, WATER CONSUMPTION BY URBAN AND AGRICULTURAL DISTRICTS, METHODS OF WATER CONSERVATION INSIDE AND OUTSIDE THE DISTRICTS, THE SHARING OF WATER RESOURCES WITH NATURAL RESOURCES ARE DISCUSSED. THE PROBLEMS OF GROWTH AND WATER RESOURCES ARE ASSESSED, AS ARE WATER STANDARDS, ESPECIALLY CONCERNING TO CARCINOGENS SUCH AS TRIHALOMETHANES.

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

IRIS ACCESSION NUMBER: EW008799

PUBLICATION DATE: SEP 82

HANDBOOK FOR SAMPLING AND SAMPLE PRESERVATION OF WASTEWATER.

AUTHOR: BERG, EDWARD L.

KEYWORDS: *ANALYTICAL TECHNIQUES; *HANDBOOKS; *LABORATORY METHODS; *SAMPLING; *SAMPLE PRESERVATION; *STATISTICS; *WASTEWATER

DESCRIPTIVE NOTE: 416P. PB83-124503

ABSTRACT: THE FOUR BASIC FACTORS WHICH AFFECT THE QUALITY OF ENVIRONMENTAL DATA ARE SAMPLE COLLECTION, PRESERVATION, ANALYSES, AND DATA RECORDING. IMPROPER ACTION IN ANY ONE OF THESE AREAS WILL RESULT IN POOR DATA FROM WHICH POOR JUDGEMENTS ARE CERTAIN. THEREFORE, THIS RESEARCH PROGRAM WAS INITIATED TO PROVIDE GUIDANCE IN THE FIRST TWO AREAS, SAMPLE COLLECTION AND PRESERVATION. INFORMATION OBTAINED FROM THE REVIEW OF THE LITERATURE AND THE RESULTS OF A SURVEY OF FIELD PRACTICES PROVIDES THE BASIS FOR GUIDANCE IN GENERAL SAMPLING TECHNIQUES, AUTOMATIC SAMPLERS, FLOW MEASURING DEVICES, A STATISTICAL APPROACH TO SAMPLING, PRESERVATION OF PHYSICAL, CHEMICAL, AND RADIOLOGICAL PARAMETERS, AND SAMPLING PROCEDURES FOR SURFACE WATERS, GROUND AND DRINKING WATER, MUNICIPAL, INDUSTRIAL, AND AGRICULTURE WATERS. FINALLY, THIS HANDBOOK IS NOT INTENDED TO SUPERSEDE SAMPLING, PRESERVATION, OR CHAIN OF CUSTODY PROCEDURES SPECIFIED BY ENFORCEMENT, COMPLIANCE MONITORING, OR PROGRAM OFFICES, BUT RATHER TO COMPLIMENT THEIR REQUIREMENTS.

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

IRIS ACCESSION NUMBER: EW008800

PUBLICATION DATE: JUN 82

TITLE: SITE EVALUATION, DESIGN, OPERATION, AND INSTALLATION OF HOME SEWAGE SYSTEMS IN IOWA.

PERSONAL AUTHOR: BEER, C. E.

DESCRIPTOR: *DESIGN; *EVALUATION; *HOMES; *IOWA; *GROUNDWATER; *MAINTENANCE; *OPERATIONS (WASTEWATER); *ON-SITE TREATMENT SYSTEMS; POLLUTION; *SOILS; *WASTEWATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 67P. PB83-125245

ABSTRACT: INVESTIGATIONS WERE CARRIED OUT TO DEVELOP INFORMATION FOR SOLVING PROBLEMS ASSOCIATED WITH THE DESIGN, LOCATION, AND MAINTENANCE OF ON-SITE WASTE TREATMENT SYSTEMS FOR DWELLINGS. THREE SPECIFIC ACTIVITIES WERE UNDERTAKEN. ONE FOCUSED ON THE DEVELOPMENT OF INFORMATION CONCERNING THE ORIGIN, DESCRIPTION, AND CLASSIFICATION OF SOILS, AND ON HOW THE SOIL PROPERTIES/CHARACTERISTICS RELATED TO PROPER SITE EVALUATION FOR OPTIMUM WASTE TREATMENT. A SECOND ACTIVITY EXAMINED IOWA GROUNDWATER DISTRICTS AND ASSESSED THE GEOLOGY AND LOCATION OF THE WATER RESOURCES RELATIVE TO POTENTIAL POLLUTION HAZARDS ASSOCIATED WITH WASTE TREATMENT SYSTEMS. A THIRD STUDY AREA DEVELOPED GUIDANCE FOR SELECTING DESIGN CRITERIA AND CONSTRUCTION METHODS FOR ON-SITE WASTE TREATMENT SYSTEMS.

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

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FROM THE NTIS DATA BASE).

*ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES;
*CONSERVATION; *ENERGY RECOVERY; *HEAT; *HEATING;
*IRON; *RESEARCH; *WASTE HEAT; *WASTEWATER TREATMENT

NOTE: 305P. PB83-801873

FEDERALLY-FUNDED RESEARCH ON TECHNIQUES OF
WASTE HEAT FROM POWER PLANTS, BUILDINGS,
PROCESSES, AND WASTE DISPOSAL IS COVERED. STUDIES
ON HEAT BOILERS AND THE USE OF WASTE HEAT FOR
SEWAGE TREATMENT, ODOR CONTROL, DESALINATION,
AND AQUACULTURE ARE INCLUDED. (THIS UPDATED
EDITION CONTAINS 273 CITATIONS, 128 OF WHICH ARE NEW
TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW008806

DATE: DEC 82

INDUSTRIAL PROCESSING WASTES: WATER POLLUTION. 1977-
1982. (CITATIONS FROM THE NTIS DATA BASE).

*ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES;
*WASTES; *METALS; *RESEARCH; *WASTEWATER
*WATER POLLUTION CONTROL

NOTE: 155P. PB83-801407

WATER POLLUTION CONTROL, PROCESSES, ABATEMENT,
ECONOMICS, QUANTITY, AND HEALTH EFFECTS FROM METAL
SMELTING, WORKING, AND FINISHING. (THIS UPDATED
EDITION CONTAINS 147 CITATIONS, 35 OF WHICH ARE NEW
TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW008807

DATE: NOV 82

SOIL SALINITY: IRRIGATION PRACTICES AND EFFECTS ON
GROUNDWATER. 1977-NOVEMBER, 1982 (CITATIONS FROM
THE NTIS DATA BASE).

*ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES;
*GROUNDWATER; *IRRIGATION; *RESEARCH; *SALINITY;
*WATER QUALITY

NOTE: 146P. PB83-854620

THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING
EFFECTS ON CROPS AND GROUNDWATER FROM IRRIGATION WATERS
OF HIGH SALINITY. THE SALT TOLERANCE OF CROPS, INCLUDING

BEANS, WHEAT AND CITRUS FRUITS, ARE EXAMINED. SOIL SALINITY,
GROUNDWATER SALINITY, AND RIVER AND STREAM SALINITY ARE
DISCUSSED. THE SOURCES OF THE BRACKISH WATER ARE ALSO
CONSIDERED. (CONTAINS 404 CITATIONS FULLY INDEXED AND
INCLUDING A TITLE LIST.)

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

IRIS ACCESSION NUMBER: EW008809

PUBLICATION DATE: AUG 82

TITLE: USE OF MODELS FOR WATER RESOURCES MANAGEMENT,
PLANNING, AND POLICY.

DESCRIPTOR: FEDERAL AGENCIES; *GUIDES; *MANAGEMENT;
*MATHEMATICAL MODELS; *MODELING; *MODELS; *PLANNING; *POLICY
*FORMATION; *STATE-OF-THE-ART REVIEWS; *SURVEYS; *WATER
RESOURCES

DESCRIPTIVE NOTE: 27P.

ABSTRACT: THIS ASSESSMENT IS INTENDED AS A GUIDE FOR
CONGRESS ON THE POTENTIAL TO DEVELOP AND USE MATHEMATICAL
MODELS TO MORE EFFECTIVELY AND EFFICIENTLY ANALYZE THE
NATION'S WATER RESOURCE PROBLEMS. POLICY OPTIONS ARE
PRESENTED FOR IMPROVING THE USE OF THESE TOOLS WITHIN BOTH
FEDERAL AND STATE WATER RESOURCE AGENCIES. THE ASSESSMENT
REVIEWS THE CURRENT TECHNICAL CAPABILITIES OF MODELS; THE
CURRENT AND POTENTIAL USE OF MODELS BY FEDERAL AND STATE
AGENCIES; AND GENERAL IMPEDIMENTS TO EFFECTIVE MODEL
DEVELOPMENT, USE, AND DISSEMINATION. IT DRAWS ON THE RESULTS
OF SURVEYS OF WATER RESOURCE PROFESSIONALS IN 27 FEDERAL
AGENCIES AND OFFICES, FROM ALL 50 STATES, AND FROM
UNIVERSITIES AND THE PRIVATE SECTOR.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT
PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW008810

TITLE: USE OF THE SPECTRONIC 20 SPECTROPHOTOMETER (XT-51).

DESCRIPTOR: *AUDIOVISUAL AIDS; CHEMISTRY; *CHEMICAL
ANALYSES; EQUIPMENT; *INSTRUCTIONAL MATERIALS; *LABORATORY
PROCEDURES; POST SECONDARY EDUCATION; SLIDES; *SCIENCE
EQUIPMENT; *SPECTROPHOTOMETRY; *SPECTROPHOTOMETERS

DESCRIPTIVE NOTE: 13P. PRICE: \$1.00 PER DOCUMENT PLUS
\$0.03 PER PAGE.

ABSTRACT: THIS MODULE IS DESIGNED FOR BEGINNING LABORATORY
PERSONNEL AND WASTEWATER TREATMENT PLANT OPERATORS. THE
MODULE EXPLAINS THE USE OF THE SPECTRONIC 20
SPECTROPHOTOMETER. TOPICS INCLUDED IN THE MODULE ARE (1) THE
STEPWISE USE OF THE SPECTROPHOTOMETER INCLUDING WARM-UP
PROCEDURES, ADJUSTMENTS PRIOR TO USE, MAKING MEASUREMENTS,
AND CHANGING THE PHOTOTUBE. THIS IS THE SCRIPT FOR THE
MODULE.

EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO
CITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH

IRIS NUMBER: EW008812

DATE: 82

BIBLIOGRAPHY SERIES NINE - WASTEWATER REUSE: A
BIBLIOGRAPHY.

AUTHOR: NIU, SARAH

*BIBLIOGRAPHIES; ECONOMIC IMPACTS; *INFORMATION
OPERATIONS (WASTEWATER); *RESEARCH REPORTS;
*WASTEWATER REUSE; WASTEWATER TREATMENT; *WATER
RESOURCES; *WATER SUPPLY

NOTE: 11P.

THIS BIBLIOGRAPHY INCLUDES A LISTING OF MATERIALS
CONCEPT OF USING RENOVATED WASTEWATER. THE
IS ARRANGED IN TWO SECTIONS: (1) FEDERAL
AND (2) CALIFORNIA STATE, CITY, AND COUNTY.
TOPICS INCLUDE TECHNOLOGY, ECONOMICS, PUBLIC
WATER QUALITY.

CA POLYTECHNIC STATE UNIVERSITY, ROBERT E.
BERRY, SAN LUIS OBISPO, CA 93407

IRIS NUMBER: EW008814

DATE: 78

FISH KILLS CAUSED BY POLLUTION - FIFTEEN-YEAR
SUMMARY, 1960-1975.

*DATA ANALYSIS; *ENVIRONMENTAL IMPACTS; *FISH;
*LITERATURE REVIEWS; *POLLUTANTS; *RESEARCH
ON FISH KILLS; *WATER POLLUTION; *WATER QUALITY

NOTE: 78P.

THIS REPORT IS A FIFTEEN-YEAR SUMMARY OF
FISH KILLS CONTAINED IN FEDERAL FISH KILL PUBLICATIONS,
VOLUNTARY REPORTING BY STATE AND LOCAL AGENCIES.
INCLUDES: AN ANALYSIS OF DATA WHICH DESCRIBES THE
INCIDENTS, THE TOTAL NUMBER OF FISH KILLED, THE
SIZE OF A KILL, AND THE LARGEST FISH KILL OR KILLS
REPORTED. THE REPORT ALSO INCLUDES THE NUMBER OF REPORTED
FISH KILLS BY EACH POLLUTION SOURCE OPERATION AND BY THE
SOURCES OF POLLUTION UNDER THESE MAJOR

ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF
WATER QUALITY AND STANDARDS (WH-551) WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW008817

PUBLICATION DATE: FEB 83

TITLE: AIR VOIDS AT DOWNSHAFT-TUNNEL BENDS.

PERSONAL AUTHOR: GOLDRING, BARRY T.

DESCRIPTOR: *AIR VOIDS; *PIPE BENDS; *PIPES; *PREDICTION;
*RESEARCH; *WATER FLOW; *WATER FLOW RATES

DESCRIPTIVE NOTE: 189-198P.

ABSTRACT: IN CLOSED CONDUIT WATER FLOWS CONTAINING A SMALL
AMOUNT OF FREE AIR, AN AIR VOID CAN FORM AT A BEND WHICH
CONNECTS A VERTICAL SHAFT TO A HORIZONTAL TUNNEL. A SUDDEN
REDUCTION IN THE WATER FLOW RATE CAN CAUSE THIS VOID TO VENT
BACK UP THE SHAFT. A COMBINED THEORETICAL AND ANALYTICAL
APPROACH YIELDED EQUATIONS WHICH CAN BE USED TO PREDICT VOID
FORMATION AND VENTING A DOWNSHAFT-TUNNEL BEND.

AVAILABILITY: JOURNAL OF THE HYDRAULIC ENGINEERING; V109 N2

IRIS ACCESSION NUMBER: EW008818

PUBLICATION DATE: FEB 83

TITLE: PLUME DILUTION FOR DIFFUSERS WITH MULTIPORT RISERS.

PERSONAL AUTHOR: ISAACSON, MORTON S.; AND OTHERS

DESCRIPTOR: *COSTS; *DESIGN; *DILUTION; *MODELS; *MULTIPORT
DIFFUSERS; *OCEAN OUTFALLS; *RESEARCH; *STORM WATER RUNOFF;
SURFACE RUNOFF; WASTE DISPOSAL; *WASTEWATER DISPOSAL

DESCRIPTIVE NOTE: 199-220P.

ABSTRACT: RESEARCH DATA INDICATED THAT THE MOST COST
EFFECTIVE DESIGN FOR RISER EQUIPPED OCEAN WASTEWATER
DIFFUSERS MAY INVOLVE THE SMALLEST PORT DIAMETERS PERMITTED
BY OTHER DESIGN CONSIDERATIONS, AND CLUSTERING MANY PORTS
PER RISER TO DECREASE THE NUMBER OF RISERS NEEDED.

AVAILABILITY: JOURNAL OF THE HYDRAULIC ENGINEERING; V109 N2

IRIS ACCESSION NUMBER: EW008819

PUBLICATION DATE: FEB 83

TITLE: OPTIMAL DIAMETER SELECTION FOR PIPE NETWORKS.

PERSONAL AUTHOR: FEATHERSTONE, RONALD E.; EL-JUMAILY, KARIM
K.

DESCRIPTOR: *COSTS; *DESIGN; *DIAMETER SELECTION; *PIPES;
*PIPE NETWORKS; *WATER DISTRIBUTION; *WATER PIPES

DESCRIPTIVE NOTE: 221-234P.

ABSTRACT: A NEW APPROACH TO THE LEAST COST DESIGN OF WATER

NETWORKS HAS BEEN DEVELOPED. THE METHOD IS
ADDITIONAL TECHNIQUES OF PIPE NETWORK ANALYSIS BY
PROVIDED A COMPUTER PROGRAM FOR ANALYZING PIPE
S AVAILABLE. THE OPTIMIZATION TECHNIQUE DEVELOPED
A SIMPLE ADDITION TO THE BASIC PROGRAM.

JOURNAL OF THE HYDRAULIC ENGINEERING, V109 N2

ION NUMBER: EW008821

DATE: FEB 83

CE-DIMENSIONAL SINGLE AND MULTIPLE FREE JETS.

THOR: PANI, BIDYASAGAR; DASH, RAGHUNATH

*EXPERIMENTS; *HYDRAULIC FLOW; *JETS; *MODELS;

NOTE: 254-269P.

A THEORETICAL DISTRIBUTION FOR THE STREAMWISE
ITY OF A SINGLE THREE-DIMENSIONAL TURBULENT FREE
E DERIVED BY FOLLOWING REICHARDT'S INDUCTIVE
PERIMENTS WERE CONDUCTED ON JETS ISSUING FROM
MULTIPLE HOLES PLACED IN LINE.

JOURNAL OF THE HYDRAULIC ENGINEERING; V109 N2

ION NUMBER: EW008822

DATE: FEB 83

AR RAIN FORECASTING FOR WASTEWATER CONTROL.

THOR: DAMANT, CHRISTINE, AND OTHERS

*CANADA; *FORECASTING; *MODELS; *MANAGEMENT;
*RAIN; *RESEARCH REPORTS; *SURFACE RUNOFF;
COLLECTION

NOTE: 293-297P.

A STATISTICAL ANALYSIS OF THE ERRORS IN
RAIN AMOUNTS FOR THE ISLAND OF MONTREAL USING
AR DATA WAS UNDERTAKEN. THE PURPOSE OF THE
AS TO DETERMINE ACCURACY OF FORECASTS TO IMPROVE
FOR SURFACE RUNOFF MODELING. IT WAS FOUND THAT
ERRORS WERE DUE TO THE FORECASTING TECHNIQUE.

JOURNAL OF THE HYDRAULIC ENGINEERING; V109 N2

ION NUMBER: EW008823

DATE: FEB 83

ORMAL DEPENDENT PHYSICAL PROPERTIES OF WATER.

PERSONAL AUTHOR: HECCEN, RICHARD J.

DESCRIPTOR: *ENGINEERING APPLICATIONS; *EQUATIONS;
*ESTIMATION; *PHYSICAL PROPERTIES; *TEMPERATURE; *WATER

DESCRIPTIVE NOTE: 298-302P.

ABSTRACT: THE PHYSICAL PROPERTIES OF WATER ARE IN NEARLY
ALL CASES DEPENDENT ON TEMPERATURE. THIS PAPER PROPOSES A
SET OF EMPIRICAL EQUATIONS FOR SIX FUNDAMENTAL PROPERTIES OF
WATER. THESE EQUATIONS REPRESENT AN ANALYTIC MIDDLE GROUND,
LESS LENGTHY THAN THEIR COUNTERPARTS IN THE PHYSICAL
LITERATURE, BUT DESCRIBING THERMAL DEPENDENCE WITH PRECISION
EQUALING OR EXCEEDING THE ACCURACY ASSOCIATED WITH MOST
ENGINEERING CALCULATIONS.

AVAILABILITY: JOURNAL OF THE HYDRAULIC ENGINEERING; V109 N2

IRIS ACCESSION NUMBER: EW008824

PUBLICATION DATE: FEB 83

TITLE: EFFECTIVE IMPERVIOUS AREA IN URBAN RUNOFF MODELING.

PERSONAL AUTHOR: ALLEY, WILLIAM M.; VEENHUIS, JACK E.

DESCRIPTOR: *DRAINAGE; *IMPERVIOUS AREAS; *MODELS;
*PREDICTION; *SURFACE RUNOFF; *URBAN AREAS; *WASTEWATER
COLLECTION

DESCRIPTIVE NOTE: 313-319P.

ABSTRACT: IMPERVIOUS AREAS ARE DIVIDED INTO TWO TYPES;
THOSE THAT ARE LINKED TO THE FORMAL DRAINAGE SYSTEM
(EFFECTIVE IMPERVIOUS AREAS) AND THOSE THAT ARE NOT. DATA
COLLECTED FROM 19 URBAN WATERSHEDS IN THE DENVER
METROPOLITAN AREA SUGGEST A POTENTIAL EXISTS FOR DEVELOPING
RELATIONSHIPS BETWEEN THE EFFECTIVE IMPERVIOUS AREA (EIA)
AND THE TOTAL IMPERVIOUS AREA (TIA) FOR URBAN AREAS, EITHER
THROUGH A REGRESSION EQUATION BETWEEN THE TWO VARIABLES OR
THROUGH ESTIMATES OF THE RATIO EIA/TIA AS A FUNCTION OF LAND
USE.

AVAILABILITY: JOURNAL OF THE HYDRAULIC ENGINEERING; V109 N2

IRIS ACCESSION NUMBER: EW008825

PUBLICATION DATE: MAR 83

TITLE: TAKE A HARD LOOK AT SEWER REHAB.

PERSONAL AUTHOR: SCHROCK, B. JAY; DOYLE, ALBERT A.

DESCRIPTOR: *COSTS; *MAINTENANCE; *MANAGEMENT; *PLANNING;
*PREVENTIVE MAINTENANCE; *SEWERS; *SEWER REPAIRS;
*WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 25-29P.

ABSTRACT: THE COST OF PLANNING FOR SEWER REPAIRS IN AN

107

108

63

Y CAN BE LESS EXPENSIVE THAN REPLACEMENT AFTER
THIS ARTICLE DESCRIBES A NUMBER OF METHODS FOR
ABILITATION AND SOME CRITERIA FOR DECIDING WHAT
USE.

Y: AMERICAN CITY & COUNTY; V98 N3

ION NUMBER: EW008826

N DATE: MAR 83

CK STANDARDS - THE FOUNDATION FOR PERFORMANCE

AUDITS; *EVALUATION; *MANAGEMENT; *PLANNING;
LE AUDITS; *RECORDS; *REPORTING; *STAFFING; *WORK

E NOTE: 32P.

ESTABLISHING WORK STANDARDS IS THE FOUNDATION FOR
E AUDITS. THIS ARTICLE DESCRIBES THE STEPS
IN ESTABLISHING WORK STANDARDS AND ILLUSTRATES
FOR A WATER DIVISION.

Y: AMERICAN CITY & COUNTY; V98 N3

ION NUMBER: EW008827

N DATE: JUL 82

RRESENT EVALUATION - INTERIM REPORT.

UTHOR: WHITTAKER, H.

*ENVIRONMENTAL IMPACTS; *EVALUATION; LABORATORY
POLLUTION CONTROL; PROGRESS REPORT; *SORBENTS;
ANALYSIS; *SORBENT EVALUATION; *SPILLS; *SPILL

E NOTE: 86-87P.

THIS ARTICLE PRESENTS A BRIEF OVERVIEW OF A
EVALUATION UNDERTAKEN BY THE ENVIRONMENTAL
SERVICE OF CANADA. THIS INTERIM REPORT PRESENTS
O DATE, DISCUSSES SORBENT EVALUATIONS CURRENTLY
AND LISTS 20 SORBENTS CURRENTLY UNDER EVALUATION.

TY: SPILL TECHNOLOGY NEWSLETTER; V7 N4

ION NUMBER: EW008828

N DATE: JUL 82

SESEA CONTAINMENT - A POSSIBLE ALTERNATIVE TO THE
APPROACH.

UTHOR: MEIKLE, K. M.

DESCRIPTOR: *BLOWOUTS; *EQUIPMENT; *OIL SPILLS; *OIL WELLS;
*POLLUTION CONTROL; *SUBSEA CONTAINMENT; *TECHNOLOGY

DESCRIPTIVE NOTE: 86-87P.

ABSTRACT: THIS ARTICLE PROVIDES A BRIEF DESCRIPTION OF A
CONCEPT TO CONTAIN SUBSEA OIL-WELL BLOWOUTS USING HIGH
PRESSURE TECHNOLOGY. THE TECHNIQUE CONSISTS OF INSERTING A
LENGTH OF STEEL TUBING INTO THE WELL-BORE THROUGH THE MAIN
POINT OF ESCAPE OR OTHER SUITABLE ENTRY USING HYDRAULIC
MOLES AND EXPLOITING THEIR ABILITY TO SEEK AND ENTER AN
ORIFICE EMITTING A FLOW.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER; V7 N4

IRIS ACCESSION NUMBER: EW008829

PUBLICATION DATE: JUL 82

TITLE: COUNTERMEASURES TECHNIQUES AND EQUIPMENT.

DESCRIPTOR: *COUNTERMEASURES; *EQUIPMENT; *OIL SPILLS;
POLLUTION ABATEMENT; *POLLUTION CONTROL; *SPILL CLEANUP;
*STATE-OF-THE-ART REVIEWS; *TECHNOLOGY; WATER POLLUTION

DESCRIPTIVE NOTE: 93-105P.

ABSTRACT: THIS ARTICLE PRESENTS A REVIEW AND DESCRIPTIONS
OF COUNTERMEASURE TECHNIQUES AND EQUIPMENT. TOPICS ADDRESSED
INCLUDE: OIL SPILL BOOMS, SKIMMERS, SUBSEA CONTAINMENT,
SHORELINE PROTECTION AND CLEANUP, OIL AND DEBRIS DISPOSAL ON
LAND, BURNERS AND INCINERATORS, THE SAACKE BURNER, AIR
PORTABLE PIT INCERATOR, AIR-CURTAIN PIT INCINERATOR,
RECIPROCATING KHLN, IN-SITU COMBUSION, CHEMICAL DISPERSION,
VISUAL MONITORING AND SURVEILLANCE METHODS, TRACKING BUOYS,
REMOTE SENSING FROM AIRCRAFT, TRACKING OIL, BLOWOUTS VS.
TANKER SPILLS, ICE COVER, SEA STATE, RESPONSE TIME, CHEMICAL
DISPERSION, AND OIL SPILL COUNTERMEASURES FOR THE WEST COAST
OF CANADA.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER; V7 N4

IRIS ACCESSION NUMBER: EW008830

PUBLICATION DATE: MAR 83

TITLE: NEW DIMENSIONS FOR SUPERVISORY TRAINING AND
DEVELOPMENT.

PERSONAL AUTHOR: BITTEL, LESTER R.; RAMSEY, JACKSON E.

DESCRIPTOR: *DECISION MAKING; *FUNCTIONS; *MANAGEMENT;
*SELECTION; *SUPERVISORS; *SUPERVISOR TRAINING; *TRAINING;
*SURVEYS

DESCRIPTIVE NOTE: 12-20P.

ABSTRACT: MANAGEMENT CAN MAKE MEANINGFUL DECISIONS ABOUT
SUPERVISORY SELECTION, TRAINING, AND DEVELOPMENT ONLY AFTER
CLASSIFYING SUPERVISORS AND COMPARING THEIR ACTIVITIES. THIS

SENTS AN ANALYSIS OF CATEGORIES AND FUNCTIONS OF

TRAINING & DEVELOPMENT JOURNAL; V36 N3

ON NUMBER: EW008831

DATE: MAR 83

RVISORY TRAINING: A BLUEPRINT FOR RESEARCH AND
PROGRAM DEVELOPMENT.

OR: NETHERO, SUSAN

*EVALUATION; *INSTRUCTION; *MANAGEMENT;
DEVELOPMENT; *PROGRAM VALIDATION; *SKILL
*POST SECONDARY EDUCATION; *SURVEYS;
*SUPERVISOR TRAINING; *TRAINING; *TRAINING

NOTE: 21-25P..

RESEARCH AND TESTING PROCESS AT XEROX LEARNING
TIFIES STEPS FOR DEVELOPING AN EFFECTIVE SKILLS-
ISORY TRAINING PROGRAM. A SIMILAR PROCESS CAN BE
A SMALLER SCALE TO ANY TRAINING PROGRAM. SKILLS
BE NEEDED ARE IDENTIFIED AND THEN THOSE THAT ARE
R PERFORMANCE ARE DETERMINED. TRAINING PROGRAMS
D TO DEVELOP THE SKILLS AND THE PROGRAMS ARE
EFFECTIVENESS.

: TRAINING & DEVELOPMENT JOURNAL; V36 N3

ON NUMBER: EW008832

DATE: MAR 83

RVISORY DEVELOPMENT: THE NEED FOR AN INTEGRATED

OR: WOLFE, EDWARD H.

*MANAGEMENT; *PRODUCTIVITY; *PERSONNEL; *STAFF
*STAFF SELECTION; *SUPERVISION; *SUPERVISORS;

NOTE: 28-31P.

ANY STRATEGY FOR SUPERVISORY DEVELOPMENT MUST BE
AND CONSISTENT WITH THE CONCEPTS, TECHNIQUES,
D STYLES USED BY HIGHER LEVELS OF MANAGEMENT.
DEVELOPMENT IS A MANAGEMENT PROBLEM. A NUMBER OF
D TO DEVELOP EFFECTIVE SUPERVISORS ARE PRESENTEQ.

: TRAINING & DEVELOPMENT JOURNAL; V36 N3

IRIS ACCESSION NUMBER: EW008833

PUBLICATION DATE: MAR 83

TITLE: INNOVATIVE MIDDLE MANAGERS: THE KEY TO
PRODUCTIVITY.

PERSONAL AUTHOR: BLESSING, BUCK

DESCRIPTOR: *GOAL SETTING; *INCENTIVES; *MANAGERS;
*MANAGEMENT; *STAFF DEVELOPMENT; *PRODUCTIVITY;
*SATISFACTION; *SUPERVISION; *SUPERVISORS

DESCRIPTIVE NOTE: 38-42P.

ABSTRACT: MIDDLE MANAGERS HAVE THE TIME, THE EDUCATION, AND
(IF PROVIDED WITH SUPPORT) THE WILL TO SUGGEST AND INITIATE
DRAMATIC PRODUCTIVITY IMPROVEMENTS FOR THEMSELVES AND
OTHERS.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL; V36 N3

IRIS ACCESSION NUMBER: EW008834

PUBLICATION DATE: MAR 83

TITLE: SMARTPROCESS: A PRACTICAL TRAINING PROGRAM AND A
TOOL FOR ORGANIZATIONAL CHANGE.

PERSONAL AUTHOR: ZIERDEN, WILLIAM E.; ROBINSON, KATHLEEN M.

DESCRIPTOR: EVALUATION; GUIDED DISCOVERY; *INSTRUCTION;
*ORGANIZATIONAL CHANGE; POST SECONDARY EDUCATION;
*SMARTPROCESS; *STAFF DEVELOPMENT; *SUPERVISORS; *TRAINING;
*TRAINING PROGRAMS

DESCRIPTIVE NOTE: 62-67P.

ABSTRACT: SELF-LEARNING, MOTIVATION, AWARENESS,
RESPONSIBILITY, AND TECHNICAL COMPETENCE CONVEY THE CONCEPTS
UNDERLYING THIS TRAINING AND DEVELOPMENT PROGRAM.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL; V36 N3

IRIS ACCESSION NUMBER: EW008835

PUBLICATION DATE: MAR 83

TITLE: POLICY, PROCEDURE AND PRACTICE IN TECHNICAL
TRAINING.

PERSONAL AUTHOR: MURPHY, BRIAN P.

DESCRIPTOR: GOALS; MISSION STATEMENTS; OBJECTIVES;
*POLICIES; PRACTICES; *PROCEDURES; PERFORMANCE STANDARDS;
*TECHNICAL TRAINING; *TRAINING

DESCRIPTIVE NOTE: 81-84P.

ABSTRACT: DOCUMENTATION OF THESE THREE CONCEPTS IS A

65

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FOR EFFICIENCY AND EFFECTIVENESS IN TRAINING AND TO THE SUCCESS OF THE TRAINER.

TRAINING & DEVELOPMENT JOURNAL; V36 N3

IRIS ACCESSION NUMBER: EW008836

DATE: MAR 83

CONVENTIONAL WATER TREATMENT PROCESS OPERATES IN UNUSUAL MANNER.

AUTHOR: BACHMAN, JOSEPH S.; MORGAN, JOHN R.

DESCRIPTOR: *COSTS; *DRINKING WATER; *ION-EXCHANGE; *OHIO; *WATER; *PROCESS EVALUATION; *WATER TREATMENT

NOTE: 50-53P.

DESCRIBED IS A WATER TREATMENT PROCESS IN NEW BEDFORD, OHIO. BRINE WASTES ARE DISCHARGED TO A RIVER THROUGH THE USE OF AN ION-EXCHANGE SOFTENING SYSTEM.

AVAILABILITY: PUBLIC WORKS; V114 N3

IRIS ACCESSION NUMBER: EW008837

DATE: MAR 83

OVERCOMING A DIFFICULT SEWER REHABILITATION PROBLEM.

AUTHOR: BUTZ, JOHN H.

DESCRIPTOR: *MAINTENANCE; *SEWERS; *SEWER REPAIRS; *WASTEWATER COLLECTION

NOTE: 59-60P.

DESCRIBED IS THE USE OF AN IN-PLACE LINING METHOD FOR REHABILITATION OF A DETERIORATED SEWER. THE METHOD SAVED A NUMBER OF VALUABLE TREES.

AVAILABILITY: PUBLIC WORKS; V114 N3

IRIS ACCESSION NUMBER: EW008838

DATE: MAR 83

REPAIRING AND LINING OLD WATER MAINS SAVES MILLIONS OF DOLLARS IN MASSACHUSETTS COMMUNITY.

AUTHOR: CUTONE, ROBERT

DESCRIPTOR: *COSTS; *MAINTENANCE; *MASSACHUSETTS; *PIPES; *REPAIRS; *PIPE REPAIRS; *WATER DISTRIBUTION; *WATER SUPPLIES

NOTE: 70-71.96P.

ABSTRACT: REHABILITATION OF WATER MAINS IN NEW BEDFORD, MASSACHUSETTS, PROVED TO BE A COST-EFFECTIVE DISTRIBUTION SYSTEM IMPROVEMENT.

AVAILABILITY: PUBLIC WORKS; V114 N3

IRIS ACCESSION NUMBER: EW008839

PUBLICATION DATE: MAR 83

TITLE: TREATMENT PLANT HAS PARK-LIKE SETTING.

PERSONAL AUTHOR: SHEPARD, PAUL M.

DESCRIPTOR: *DESIGN; *ENVIRONMENTAL CONCERNS; *FACILITIES; *OHIO; *PLANNING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 75-77P.

ABSTRACT: SPECIAL ARCHITECTURAL AND LANDSCAPING TECHNIQUES WERE USED TO OVERCOME OPPOSITION TO A WASTEWATER PLANT. DESCRIBED IS A PLANT IN DELAWARE COUNTY, OHIO.

AVAILABILITY: PUBLIC WORKS; V114 N3

IRIS ACCESSION NUMBER: EW008840

PUBLICATION DATE: MAR 83

TITLE: INNOVATIVE TECHNIQUE SEALS MANHOLE LEAKS.

PERSONAL AUTHOR: ST. PIERRE, EDWARD A.

DESCRIPTOR: *LEAKS; *MAINTENANCE; *MANHOLES; *POLYURETHANE; *REPAIRS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 76-77P.

ABSTRACT: POLYURETHANE FOAM WAS USED TO SEAL LEAKS THAT DEFIED CONVENTIONAL REPAIR METHODS. POLYURETHANE EXPANDS TO FILL SPACES THAT FREQUENTLY ARE NOT FILLED BY OTHER PROCEDURES.

AVAILABILITY: PUBLIC WORKS; V114 N3

IRIS ACCESSION NUMBER: EW008841

PUBLICATION DATE: MAR 83

TITLE: DESALTING WATER IN FLORIDA.

PERSONAL AUTHOR: DYKES, GLENN M.

DESCRIPTOR: *DRINKING WATER; *DESALINATION; *FLORIDA; *GROUNDWATER; *POTABLE WATER; *OPERATIONS (WATER); *REVERSE OSMOSIS; *WATER RESOURCES; *WATER QUALITY; *WATER SUPPLY; *WATER TREATMENT

NOTE: 104-107P.

DURING THE PAST 10 YEARS, WATER SUPPLIERS IN
E INSTALLED SOME 85 DESALTING TREATMENT PLANTS,
ICH USE REVERSE OSMOSIS. BRACKISH GROUNDWATER IS
ATED. THESE TECHNIQUES ARE ALSO BEING CONSIDERED
EATMENT AND REMOVAL OF ORGANICS.

: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

ON NUMBER: EW008842

DATE: MAR 83

ALTING--A WATER SUPPLY ALTERNATIVE FOR VIRGINIA

THOR: ROBINSON, MILLARD P., JR.; AND OTHERS

*DRINKING WATER; *DESALINATION; *OPERATIONS
ECLAIMED WATER; *REVERSE OSMOSIS; *VIRGINIA;
OURCES; *WATER SUPPLY; *WATER TREATMENT; *WATER

NOTE: 109-117P.

VIRGINIA BEACH, VIRGINIA HAS BEEN REVIEWING ITS
OS FOR THE YEAR 2000. DESALTING BRACKISH
TO MEET INTERIM NEEDS HAS BEEN DETERMINED TO BE
E APPROACH AT THIS TIME.

: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

ON NUMBER: EW008843

DATE: MAR 83

SING COOLING WATER IN AN ELECTRIC POWER PLANT.

THOR: CROBMYER, WILLIAM P.; AND OTHERS

*COOLING WATER; *ELECTRIC POWER PLANTS;
EFFLUENTS; *RESEARCH REPORTS; *RECYCLING; *WATER
ER TREATMENT; *WASTEWATER TREATMENT

NOTE: 118-123P.

ON-SITE STUDIES WERE CONDUCTED TO DETERMINE AN
TREATMENT PROCESS FOR COOLING WATER IN A FLORIDA
T. FRONT-END TREATMENT WAS DETERMINED TO BE THE
TIVE METHOD. COOLING WATER TREATED WITH THE NEW
N BE RECYCLED 50 TIMES; WATER PREVIOUSLY COULD BE
VE TIMES.

: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

IRIS ACCESSION NUMBER: EW008844

PUBLICATION DATE: MAR 83

TITLE: DESIGNING AND CONSTRUCTING THE TRAP FALLS WATER
TREATMENT PLANT.

PERSONAL AUTHOR: JOHNSON, MARK L.; DOE, PETER W.

DESCRIPTOR: *COSTS; *DESIGN; *CONSTRUCTION; *COMPLIANCE;
*FACILITIES; *OPERATIONS (WATER); *TRAINING; *WATER SUPPLY;
*WATER TREATMENT

DESCRIPTIVE NOTE: 124-131P.

ABSTRACT: THE DESIGN OBJECTIVE WAS TO CREATE A FUNCTIONAL
AND ECONOMICAL SURFACE WATER TREATMENT PLANT WITHIN THE TIME
ALLOTTED TO MEET NEW WATER QUALITY STANDARDS. THE FACILITY
WAS FINISHED ON TIME AT A FINAL COST WELL BELOW ESTIMATES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75
N3

IRIS ACCESSION NUMBER: EW008845

PUBLICATION DATE: MAR 83

TITLE: FORMATION OF ORGANIC CHLORINE IN PUBLIC WATER
SUPPLIES.

PERSONAL AUTHOR: FLEISCHACKER, STEPHEN J.; RANDTKE, STEPHEN
J.

DESCRIPTOR: *CHLORINE; *ORGANIC CHLORINE; *PH;
*TEMPERATURE; *RESEARCH REPORTS; *WATER SUPPLY; *WATER
TREATMENT

DESCRIPTIVE NOTE: 132-135P.

ABSTRACT: EXAMINED ARE THE INFLUENCES OF PRECURSOR SOURCE
AND CONCENTRATION, CHLORINE FORM AND DOSAGE, PH, MIXING AND
TEMPERATURE ON THE FORMATION OF ORGANIC CHLORINE. THEY FOUND
THAT THE AMOUNT OF ORGANIC CHLORINE FORMED INCREASED WITH
INCREASING CHLORINE DOSAGE, INCREASING TOC CONCENTRATION,
INCREASING TEMPERATURE, AND DECREASING PH.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75
N3

IRIS ACCESSION NUMBER: EW008846

PUBLICATION DATE: MAR 83

TITLE: THE ECOLOGY OF ACID-FAST ORGANISMS IN WATER SUPPLY,
TREATMENT, AND DISTRIBUTION SYSTEMS.

PERSONAL AUTHOR: SASS, CHARLES N.; AND OTHERS

DESCRIPTOR: *ACID-FAST BACTERIA; *BACTERIA; *CHLORINATION;
*FILTRATION; *INDICATOR ORGANISMS; *MICROBIOLOGY;

115

116

67

*SAMPLING; *WATER TREATMENT

N3

NOTE: 139-144P.

ACID-FAST ORGANISMS HAVE BEEN SUGGESTED AS ALTERNATIVES TO COLIFORMS AS INDICATOR ORGANISMS IN WATER MONITORING OF WATER TREATMENT AND DISTRIBUTION. DATA ARE PROVIDED ON THE PRESENCE AND REMOVAL OF ACID-FAST ORGANISMS IN TWO WATER SYSTEMS. DATA INDICATED THAT ACID-FAST ORGANISMS CAN BE REMOVED BY SAND FILTRATION, ALTERNATIVE TO CONVENTIONAL TERMINAL CHLORINATION.

IRIS ACCESSION NUMBER: EW008850

PUBLICATION DATE: MAR 83

TITLE: JAPANESE STRATEGY WORKS FOR JACKSONVILLE.

PERSONAL AUTHOR: HERSCH, PAUL

DESCRIPTOR: *COSTS; *EFFICIENCY; *FLORIDA; *MANAGEMENT; *MANAGEMENT STYLE; *OPERATIONS (WATER); *PERSONNEL RELATIONS; *WATER TREATMENT

DESCRIPTIVE NOTE: 12,45P.

ABSTRACT: DESCRIBED IS THE MANAGEMENT STRATEGY USED AT THE JACKSONVILLE, FLORIDA, WATER SERVICES DIVISION. THE MANAGEMENT STYLE IS FOCUSED ON EMPLOYER/EMPLOYEE RELATIONS AND HAS RAISED EFFICIENCY, LOWERED OVERHEAD, AND GENERATED IMPROVED OPERATIONS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N3

JOURNAL: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

IRIS NUMBER: EW008847

DATE: MAR 83

ABSORPTION OF COMPOUNDS DURING OPERATION OF GAC SYSTEM.

AUTHOR: THACKER, WILLIAM E; AND OTHERS

*ADSORPTION; *GAC; *GRANULAR ACTIVATED CARBON; *ORGANIC CONTAMINANTS; *RESEARCH REPORTS; *TREATMENT

NOTE: 144-149P.

ORGANIC CONTAMINANTS CAN BE DESORBED FROM GAC. EXPERIMENTATIONS INDICATED A REDUCTION IN INFLUENT CONCENTRATION OR COMPETITION BETWEEN SUBSTANCES CAN PRODUCE AN INFLUENT CONCENTRATION GREATER THAN THE INFLUENT CONCENTRATION.

IRIS ACCESSION NUMBER: EW008851

PUBLICATION DATE: MAR 83

TITLE: MICROCOMPUTER AIDS SEWER SYSTEM MASTER PLANNING.

PERSONAL AUTHOR: ALDRICH, JOHN

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE; *FLORIDA; *MICROCOMPUTERS; *PLANNING; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 19P.

ABSTRACT: DESCRIBED ARE SOME USES OF MICROCOMPUTERS AND COMPUTER SOFTWARE FOR SEWER SYSTEM EVALUATION IN ST. PETERSBURG, FLORIDA.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N3

JOURNAL: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

IRIS NUMBER: EW008849

DATE: MAR 83

DETERMINING RESIDUAL CHLORINE: EFFECT OF TEMPERATURE ON THE TITRIMETRIC STARCH-IODINE END POINT.

AUTHOR: HATCH, GARY L.; YANG, VUE

*ANALYTICAL TECHNIQUES; *CHLORINE; *LABORATORY *RESEARCH REPORTS; *RESIDUAL CHLORINE; *STARCH-TITRATION; *TEMPERATURE

NOTE: 154-156P.

DATA ARE PROVIDED IN THIS ARTICLE TO DEMONSTRATE THE EFFECT OF TEMPERATURE ON THE ACCURACY OF THE STARCH-IODINE END POINT. RESULTS SHOWED THAT TEMPERATURES ABOVE 20 DEGREES CAN PRODUCE SIGNIFICANT ERROR.

IRIS ACCESSION NUMBER: EW008852

PUBLICATION DATE: MAR 83

TITLE: BURIED TREASURES OF THE HIGH PLAINS.

PERSONAL AUTHOR: WILLIAMS, JEAN O.

DESCRIPTOR: *AGRICULTURE; *WATER CONSERVATION; *IRRIGATION; *NATURAL RESOURCES; *OGALLALA AQUIFER; *WATER; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 26-27P.

JOURNAL: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

THE OGALLALA AQUIFER'S VAST SUPPLY OF WATER WILL
TO DIMINISH, BUT MODIFIED AGRICULTURE PRACTICES
MODATE THE CHANGES. DISCUSSED ARE POTENTIAL WATER
AND PRACTICES THAT DO EFFECT AND MAY EFFECT FUTURE

TY: WATER ENGINEERING & MANAGEMENT; V130 N3

SSION NUMBER: EW008853

N DATE: MAR 83

VENUES DOUBLE AFTER OLD WATER METERS REPLACED.

UTHOR: READER, JAMES D.

: *METERS; *REVENUES; *TEXAS; *WATER METERS;
PLY; *WATER DISTRIBUTION

E NOTE: 28-29P.

A METER CHANGE-OUT PROGRAM BASED UPON A COMPUTER-
ANCIAL ANALYSIS HAS QUICKLY DEMONSTRATED DRAMATIC
PROVEMENTS IN SMITHVILLE, TEXAS.

TY: WATER ENGINEERING & MANAGEMENT; V130 N3

SSION NUMBER: EW008854

N DATE: MAR 83

ATER MANAGEMENT INITIATIVES IN THE COMMONWEALTH.

UTHOR: LOVEJOY, C. MONTGOMERY, III

A: *WATER CONSERVATION; *INCENTIVES; *MANAGEMENT;
ETTS; *NATURAL RESOURCES; *WATER USE; *WATER
WATER RESOURCES

E NOTE: 30-32P.

THEORETICALLY, MASSACHUSETTS SHOULD NOT HAVE ANY
ORTAGES, BUT IT DOES IN SOME AREAS. DESCRIBED ARE
STATE IS HANDLING THE PROBLEM, AND HOW SOME LARGE
WATER CONSUMERS ARE RESPONDING TO PRICING

TY: WATER ENGINEERING & MANAGEMENT; V130 N3

SSION NUMBER: EW008855

N DATE: MAR 83

OXICOLOGICAL FUNDAMENTALS.

UTHOR: BOARDMAN, GREGORY D.; SHERRARD, JOSEPH H.

R: *DRINKING WATER; *EFFLUENTS; *TOXICOLOGY;

*TOXIC SUBSTANCES; *WATER TREATMENT; *WASTEWATER TREATMENT;
*WATER SUPPLY

DESCRIPTIVE NOTE: 34-36P.

ABSTRACT: WHETHER THEY INHABIT DRINKING WATER SUPPLIES OR
TREATED WASTEWATER EFFLUENTS, TOXIC MATERIALS DEMAND
CONSTANT VIGILANCE. THE ARTICLE INCLUDES SOME BASIC FACTS ON
THIS TOPIC.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N3

IRIS ACCESSION NUMBER: EW008856

PUBLICATION DATE: MAR 83

TITLE: HOW TO "MAKE NEWS" SUCCESSFULLY.

PERSONAL AUTHOR: BERGER, THOMAS J.; FORCE, JAMES M.

DESCRIPTOR: *MASS MEDIA; *PRESS CONFERENCES; *PRESS
PROGRAMS; *PUBLIC RELATIONS; *RECOMMENDATIONS

DESCRIPTIVE NOTE: 30-40P.

ABSTRACT: PRESENTED IN THIS ARTICLE ARE THE BASICS OF THE
PRESS RELATIONS BUSINESS. THE MATERIAL IS PRESENTED WITH THE
WASTEWATER PLANT SPOKESMEN IN MIND.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT; V130 N3

IRIS ACCESSION NUMBER: EW008857

PUBLICATION DATE: AUG 80

TITLE: LAB PROCEDURES. SLUDGE TREATMENT AND DISPOSAL
COURSE 166. INSTRUCTOR'S GUIDIE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: CARNECIE, JOHN W.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *LABORATORY
PROCEDURES; *POST SECONDARY EDUCATION; *SLUDGE; *TRAINING
METHODS; TEACHING GUIDES; *WASTEWATER TREATMENT; *ANALYTICAL
TECHNIQUES

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE-17 PAGES; STUDENT
WORKBOOK-18 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL
RESOURCES CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH
43212. PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: LABORATORY TESTS USED TO DETERMINE STATUS AND TO
EVALUATE AND/OR MAINTAIN PROCESS CONTROL OF THE VARIOUS
SLUDGE TREATMENT PROCESSES ARE INTRODUCED IN THIS LESSON.
NEITHER DETAILED TEST PROCEDURES NOR EXPLANATIONS OF HOW THE
TESTS SHOULD BE APPLIED TO EVERY UNIT ARE EXPLAINED; THIS
INFORMATION IS PROVIDED IN OTHER MODULES. THE INSTRUCTOR'S
MANUAL CONTAINS A BRIEF DESCRIPTION OF THE LESSON, ESTIMATED
PRESENTATION TIME, INSTRUCTIONAL MATERIALS LIST, SUGGESTED
SEQUENCE OF PRESENTATION, REQUIRED READING LIST, REFERENCE
READING LIST, LECTURE OUTLINE, NARRATIVE OF THE SLIDE/TAPE

120

USED WITH THE LESSON, AND STUDENT WORKSHEET (WITH THE STUDENT WORKBOOK CONTAINS OBJECTIVES, DESCRIPTIONS OF THE LABORATORY TESTS FOR SLUDGE AND DISPOSAL, WORKSHEET, AND LIST OF TREATMENT CORRELATED WITH APPLICABLE LABORATORY TESTS AND THE TESTS.

ITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE, 1 STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008858

PUBLICATION DATE: AUG 80

TITLE: BELT FILTRATION. SLUDGE TREATMENT AND DISPOSAL COURSE #166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: SHARMAN, RONALD M.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *SLUDGE; *SAFETY; *TRAINING METHODS; *TEACHING GUIDES; *WASTEWATER TREATMENT; *OPERATIONS (WASTEWATER); *WASTE DISPOSAL

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE-17 PAGES; STUDENT WORKBOOK-24 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212, PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON DESCRIBES THREE DIFFERENT TYPES OF LAGOONS: (1) DRYING LAGOONS; (2) FACULTATIVE LAGOONS; (3) ANAEROBIC LAGOONS. NORMAL OPERATING SEQUENCE AND SEQUENCE WITH THE COMPLETE SLUDGE TREATMENT AND DISPOSAL COURSE #166 OR AS AN INDEPENDENT LESSON. THE INSTRUCTOR'S MANUAL CONTAINS A DESCRIPTION OF THE LESSON, ESTIMATED PRESENTATION TIME, INSTRUCTIONAL MATERIALS LIST, SUGGESTED SEQUENCE OF PRESENTATION, READING LISTS, OBJECTIVES, LECTURE OUTLINE, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED WITH THE LESSON, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS PLANT FLOW DIAGRAMS, OBJECTIVES, GLOSSARY, TEXT MATERIAL, REFERENCES, AND WORKSHEET. TEXT MATERIAL IS PRESENTED IN FIVE SECTIONS TITLED: FILTER PRESS BASICS, EQUIPMENT, OPERATIONAL CONTROLS, AND SAMPLING AND TESTING.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE, 1 STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008859

PUBLICATION DATE: AUG 80

TITLE: BELT FILTRATION. SLUDGE TREATMENT AND DISPOSAL COURSE #166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: ALLOWAY, RAWLE A.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *POST SECONDARY EDUCATION; *SLUDGE; *WASTEWATER TREATMENT; *WASTE DISPOSAL; *OPERATIONS (WASTEWATER); *FILTER PRESSES; *TEACHING GUIDES

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE-20 PAGES; STUDENT WORKBOOK-24 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212, PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON IS AN INTRODUCTION TO THE OPERATION OF FILTER PRESSES. TWO BASIC TYPES OF PRESSES, THEIR COMPONENTS, THE SEQUENCE OF OPERATION, OPERATIONAL CONTROLS, SAMPLING, AND TESTING ARE DISCUSSED. THE INSTRUCTOR'S MANUAL CONTAINS A DESCRIPTION OF THE LESSON, ESTIMATED PRESENTATION TIME, INSTRUCTIONAL MATERIALS LIST, SUGGESTED SEQUENCE OF PRESENTATION, READING LISTS, OBJECTIVES, LECTURE OUTLINE, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED WITH THE LESSON, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS PLANT FLOW DIAGRAMS, OBJECTIVES, GLOSSARY, TEXT MATERIAL, REFERENCES, AND WORKSHEET. TEXT MATERIAL IS PRESENTED IN FIVE SECTIONS TITLED: FILTER PRESS BASICS, EQUIPMENT, OPERATIONAL CONTROLS, AND SAMPLING AND TESTING.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE, 1 STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008860

PUBLICATION DATE: AUG 80

TITLE: BELT FILTRATION. SLUDGE TREATMENT AND DISPOSAL COURSE #166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: BROSTE, DALE

DESCRIPTOR: *OPERATIONS (WASTEWATER); *BELT FILTRATION; *WASTEWATER TREATMENT; INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *POST SECONDARY EDUCATION; *SLUDGE; *TEACHING GUIDES

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE-23 PAGES; STUDENT WORKBOOK-21 PAGES; ALSO AVAILABLE FROM EPA/INFORMATION REFERENCE CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212, PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON, AN INTRODUCTION TO BELT MANAGEMENT, WAS DEVELOPED FOR A COURSE IN SLUDGE TREATMENT AND DISPOSAL. FUNDAMENTAL PRINCIPLES OF BELT FILTER OPERATION ARE DESCRIBED. CHEMICAL CONDITIONING AND THE EFFECT ON SLUDGE CHARACTERISTICS ARE DISCUSSED AND A DETAILED DESCRIPTION OF THE DIFFERENT ZONES OF DEWATERING IS PRESENTED. INFORMATION ON TYPICAL COMPONENTS AND THEIR FUNCTION IS FOLLOWED BY A DISCUSSION OF PROCESS CONTROL PARAMETERS AND SAFETY CONSIDERATIONS. THE INSTRUCTOR'S MANUAL CONTAINS A BRIEF DESCRIPTION OF THE LESSON, LIST OF LESSONS STUDENTS SHOULD REVIEW BEFORE STARTING BELT FILTRATION, ESTIMATED TIME, INSTRUCTIONAL MATERIALS LIST, SUGGESTED SEQUENCE OF

ON, REQUIRED READING LIST, REFERENCE READING LIST, OUTLINE, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED LESSON, AND STUDENT WORKSHEET (WITH ANSWERS). THE WORKBOOK CONTAINS OBJECTIVES, PLANT FLOW DIAGRAMS, SUBJECT MATTER, REFERENCES, AND WORKSHEET. THE MATTER IS PRESENTED UNDER THE FOLLOWING HEADINGS: COMPONENTS, PROCESS STREAM CHARACTERISTICS, SAFETY, OPERATIONAL PARAMETERS.

BY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET; SLIDE-TAPE, 1 COPY OF STUDENT WORKBOOK AND 1 COPY OF INSTRUCTOR'S GUIDE IS \$75.

IRIS ACCESSION NUMBER: EW008861

PUBLICATION DATE: AUG 80

TITLE: TRAINING COURSE ON ACTIVATED SLUDGE PROCESS CONTROL - INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

AUTHOR: FILER, HERB; BROSTE, DALE

DESCRIPTOR: *OPERATIONS (WASTEWATER); HEAT TREATMENT *WASTEWATER TREATMENT; *TEACHING GUIDES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *POST SECONDARY EDUCATION; *SLUDGE

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE-19 PAGES; STUDENT WORKBOOK-19 PAGES; ALSO AVAILABLE FROM EPA/INFORMATION CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212. PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON WAS DEVELOPED FOR A COURSE IN SLUDGE TREATMENT AND DISPOSAL. THE LESSON DESCRIBES THE PORTUGUESE TREATMENT METHOD OF SLUDGE CONDITIONING AND COMPARES THEM TO THE ZIMPRO WET AIR OXIDATION PROCESS. THE SYSTEM OF HEAT TREATMENT, SYSTEM OF COMPONENTS AND CONCEPTS OF OPERATION ARE ADDRESSED IN THE INSTRUCTOR'S MANUAL. THE MANUAL CONTAINS A BRIEF DESCRIPTION OF THE LESSON, ESTIMATED TIME, INSTRUCTIONAL MATERIALS LIST, SUGGESTED SEQUENCE OF PRESENTATION, REQUIRED READING LIST, REFERENCE READING LIST, OBJECTIVES, LECTURE OUTLINE, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED WITH THE LESSON, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PLANT FLOW DIAGRAMS, GLOSSARY, SUBJECT MATTER, LIST OF REFERENCES, AND WORKSHEET. SUBJECT MATTER IS GROUPED UNDER THE FOLLOWING HEADINGS: BACKGROUND, BASIC THEORY, WINDROW, FORCED AIR SYSTEM, AND OPERATIONS.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET (SLIDE-TAPE, 1 COPY OF STUDENT WORKBOOK AND 1 COPY OF INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008862

PUBLICATION DATE: AUG 80

TITLE: TRAINING COURSE ON ACTIVATED SLUDGE PROCESS CONTROL - INSTRUCTOR'S MANUAL.

DESCRIPTOR: *ACTIVATED SLUDGE; *ACTIVATED SLUDGE PROCESS CONTROL; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *PROCESS CONTROLS; *SLUDGE; *WASTEWATER TREATMENT

#166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: ARASMITH, E. E.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *POST SECONDARY EDUCATION; *SLUDGE; *TEACHING GUIDES; *OPERATIONS (WASTEWATER); *COMPOSTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE-19 PAGES; STUDENT WORKBOOK-19 PAGES; ALSO AVAILABLE FROM EPA/INFORMATION CENTER, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212. PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: COMPOSTING IS A LESSON DEVELOPED FOR A SLUDGE TREATMENT AND DISPOSAL COURSE. THE LESSON DISCUSSES THE BASIC THEORY OF COMPOSTING AND THE BASIC OPERATION, IN A STEP-BY-STEP SEQUENCE, OF THE TWO TYPICAL COMPOSTING PROCEDURES: WINDROW AND FORCED AIR STATIC PILE. THE LESSON THEN COVERS BASIC MONITORING AND OPERATIONAL PROCEDURES. THE INSTRUCTOR'S MANUAL CONTAINS A BRIEF DESCRIPTION OF THE LESSON, ESTIMATED TIME, INSTRUCTIONAL MATERIALS LIST, SUGGESTED SEQUENCE OF PRESENTATION, REQUIRED READING LIST, REFERENCE READING LIST, OBJECTIVES, LECTURE OUTLINE, NARRATIVE OF THE SLIDE/TAPE PROGRAM USED WITH THE LESSON, AND STUDENT WORKSHEET (WITH ANSWERS). THE STUDENT WORKBOOK CONTAINS OBJECTIVES, PLANT FLOW DIAGRAMS, GLOSSARY, SUBJECT MATTER, LIST OF REFERENCES, AND WORKSHEET. SUBJECT MATTER IS GROUPED UNDER THE FOLLOWING HEADINGS: BACKGROUND, BASIC THEORY, WINDROW, FORCED AIR SYSTEM, AND OPERATIONS.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET (SLIDE-TAPE, 1 COPY OF STUDENT WORKBOOK AND 1 COPY OF INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008863

PUBLICATION DATE: 79

TITLE: TRAINING COURSE ON ACTIVATED SLUDGE PROCESS CONTROL - INSTRUCTOR'S MANUAL.

DESCRIPTOR: *ACTIVATED SLUDGE; *ACTIVATED SLUDGE PROCESS CONTROL; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *PROCESS CONTROLS; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 196P. PRICE: \$1.00 PER DOCUMENT PLUS \$0.03 PER PAGE.

ABSTRACT: THIS IS THE INSTRUCTORS MANUAL FOR A TRAINING COURSE IN ACTIVATED SLUDGE PROCESS CONTROL. THE COURSE CONSISTS OF 28 MODULAR LESSONS AND CAN BE TAILORED BY THE INSTRUCTOR TO MEET THE NEEDS OF A SPECIFIC GROUP. THE COURSE IS DESIGNED FOR 40 HOURS OF INSTRUCTION. THE INSTRUCTOR'S MANUAL INCLUDES OBJECTIVES, LESSON PLANS, A LIST OF RESOURCES, AND SOLUTIONS TO PROBLEMS. A RELATED DOCUMENT IS THE TRAINEE'S MANUAL (EW 008 864). IN ADDITION A VISUAL AIDS PACKAGE OF 195 35MM SLIDES IS AVAILABLE FOR PURCHASE OR RENT (EW 008 865).

COMPOSTING. 123 SLUDGE TREATMENT AND DISPOSAL COURSE

EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO
UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS,

IRIS ACCESSION NUMBER: EW008864

PUBLICATION DATE: 79

TITLE: TRAINING COURSE ON ACTIVATED SLUDGE PROCESS CONTROL
MANUAL.

DESCRIPTOR: *ACTIVATED SLUDGE; *ACTIVATED SLUDGE PROCESS
INSTRUCTION; INSTRUCTIONAL MATERIALS; *OPERATIONS
; *POST SECONDARY EDUCATION; *PROCESS CONTROLS;
TEACHING GUIDES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 462P. PRICE: \$1.00 PER DOCUMENT PLUS
POSTAGE.

ABSTRACT: THIS IS THE TRAINEE MANUAL FOR A TRAINING COURSE
ON ACTIVATED SLUDGE PROCESS CONTROL. MOST TRAINING FOR
THIS COURSE HAS FOCUSED ON MAINTENANCE. MAINTENANCE BY ITSELF
IS NOT ENOUGH TO ASSURE GOOD PERFORMANCE. THIS COURSE IS
DESIGNED TO HELP TRAIN OPERATORS IN PROCESS CONTROL
TECHNIQUES. THE COURSE CONSISTS OF MODULAR LESSONS
WHICH CAN BE TAUGHT BY THE INSTRUCTOR TO MEET THE NEEDS OF A
GROUP. MATERIALS ARE DIVIDED INTO 28 SECTIONS PLUS
EXERCISES. THE COURSE IS DESIGNED FOR 40 HOURS OF
INSTRUCTION. A RELATED DOCUMENT IS THE INSTRUCTOR'S MANUAL
(EW 008 865). IN ADDITION A VISUAL AIDS PACKAGE OF 195 35MM.
SLIDES IS AVAILABLE FOR PURCHASE OR RENT (EW 008 865).

EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO
UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS,

IRIS ACCESSION NUMBER: EW008865

PUBLICATION DATE: 79

TITLE: TRAINING COURSE ON ACTIVATED SLUDGE PROCESS CONTROL
MANUAL - VISUAL AIDS PACKAGE.

DESCRIPTOR: *ACTIVATED SLUDGE; *ACTIVATED SLUDGE PROCESS
INSTRUCTION; AUDIOVISUAL AIDS; *AUDIO TAPES; *INSTRUCTIONAL
MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY
EDUCATION; *PROCESS CONTROLS; *SLIDES; *SLUDGE; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 195 SLIDES/SETP. RENTAL PRICE: MODULES
1-4 \$15.00, MODULES 5-15 \$15.00, MODULES 16-24 \$15.00,
MODULES 25-28 \$35.00; PURCHASE PRICE: CONTACT EPA FOR
RELATED DOCUMENTS ARE THE INSTRUCTOR'S MANUAL (EW
008 864) AND THE TRAINEE'S MANUAL (EW 008 864).

ABSTRACT: THIS PACKAGE CONTAINS SLIDES AND AUDIOTAPES FOR
A TRAINING COURSE ON ACTIVATED SLUDGE PROCESS CONTROL. THE
PACKAGE INCLUDES 195 35MM. SLIDES. THE SLIDES CAN BE
USED AS SUBSETS AS INDICATED IN THE NOTE FIELD OR
AS RELATED ITEMS ARE THE INSTRUCTOR'S MANUAL (EW 008
864).

864) AND THE TRAINEE'S MANUAL (EW 008 864).

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

IRIS ACCESSION NUMBER: EW008866

PUBLICATION DATE: MAR 83

TITLE: ENERGY MANAGEMENT TECHNOLOGY - SLUDGE CONDITIONERS
SAVE ENERGY IN BOILER WATER SYSTEMS.

DESCRIPTOR: *CHEMICALS; *BOILERS; *COSTS; *ENERGY
EFFICIENCY; *EFFICIENCY; *SLUDGE; *SLUDGE CONDITIONERS;
*STEAM GENERATING PLANTS

DESCRIPTIVE NOTE: 14,16,18P.

ABSTRACT: SEVERAL ENERGY SAVING METHODS CREATE CONDITIONS
WHICH MAKE IT DIFFICULT TO MAINTAIN HEAT EXCHANGE SURFACES
IN THE CLEANEST POSSIBLE CONDITIONS FOR DESIRED OPERATIONAL
EFFICIENCIES. TYPES OF SLUDGE CONDITIONING CHEMICALS AND
THEIR EFFECTIVENESS ARE DESCRIBED.

AVAILABILITY: PLANT ENERGY MANAGEMENT; V7 N2

IRIS ACCESSION NUMBER: EW008867

PUBLICATION DATE: FEB 83

TITLE: TESTING NEW SEWERS - HOW TO MAKE SURE YOU GET WHAT
YOU PAY FOR.

PERSONAL AUTHOR: KERKES, ROBERT A.

DESCRIPTOR: *CONSTRUCTION; *PERFORMANCE EVALUATION;
*SEWERS; *TESTING; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 7-10P.

ABSTRACT: THIS ARTICLE CONTAINS A VARIETY OF IDEAS FOR
TESTING NEW SEWERS.

AVAILABILITY: WATER POLLUTION CONTROL FEDERATION
HIGHLIGHTS; V20 N2

IRIS ACCESSION NUMBER: EW008868

PUBLICATION DATE: FEB 83

TITLE: TESTING TIPS FROM A CONTRACTOR.

PERSONAL AUTHOR: JOHNSON, BRYAN

DESCRIPTOR: *CONSTRUCTION; *COSTS; *PERFORMANCE EVALUATION;
*PRODUCT EVALUATION; *PIPES; *SEWERS; *TESTING; *WASTEWATER
COLLECTION

VE NOTE: 10-11P.

THIS ARTICLE PROVIDES SEVERAL TIPS FOR TESTING
ES AFTER CONSTRUCTION.

ITY: WATER POLLUTION CONTROL FEDERATION
S; V20 N2

SSION NUMBER: EW008869

ON DATE: FEB 83

SMALL COMPUTER HANDLES BIG TASKS AT TREATMENT PLANT.

AUTHOR: LUND, GARY

R: ADMINISTRATION; *COMPUTER APPLICATIONS; *DATA
T; FACILITIES; *MAINTENANCE; *MANAGEMENT; *PROCESS
*OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

VE NOTE: 12-13P.

DESCRIBED IS THE USE OF A MICROCOMPUTER AT A
R TREATMENT PLANT IN NEBRASKA. THE MICROCOMPUTER IS
A VARIETY OF JOBS INCLUDING DATA MANAGEMENT,
CONTROL, TIME MANAGEMENT, PREVENTIVE MAINTENANCE,
ETED MAINTENANCE.

ITY: WATER POLLUTION CONTROL FEDERATION
S; V20 N2

SSION NUMBER: EW008870

ON DATE: FEB 83

CERTIFICATION QUIZ.

R: *CERTIFICATION; *OPERATIONS (WASTEWATER);
TRAINING; *TESTING; *TEST ITEMS; *WASTEWATER

VE NOTE: 14P.

TWELVE MULTIPLE CHOICE QUESTIONS RELATED TO
CERTIFICATION ARE PRESENTED.

ITY: WATER POLLUTION CONTROL FEDERATION
S; V20 N2

SSION NUMBER: EW008871

ON DATE: APR 83

MANAGING COUNTYWIDE WATER SERVICES WITH SATELLITE

AUTHOR: WUBBENA, ROBERT L.; MAXWELL, JOHN M.

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DESCRIPTOR: *COSTS; *MANAGEMENT; *OPERATING PROCEDURES;
*POLICIES; *REGULATORY AREAS; *SATELLITE SYSTEMS; *SMALL
WATER SYSTEMS; *WATER DISTRIBUTION; *WATER SERVICES; *WATER
SUPPLY; *WASHINGTON; *WATER UTILITIES

DESCRIPTIVE NOTE: 158-163P.

ABSTRACT: ENABLING STATE LEGISLATION IN WASHINGTON HAS
PROVIDED THE OPPORTUNITY TO DEVELOP COUNTYWIDE SATELLITE
SYSTEM PROGRAMS FOR SMALL WATER UTILITIES. INDIVIDUAL WATER
PURVEYORS CAN APPLY FOR THE LEVEL OF ASSISTANCE DESIRED FROM
THE LEAD WATER UTILITY. THE PROGRAM AS IMPLEMENTED IN
STEVENS COUNTY IS DESCRIBED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75
N4

IRIS ACCESSION NUMBER: EW008872

PUBLICATION DATE: APR 83

TITLE: ORGANIZING AND MANAGING SOUTH DAKOTA'S RURAL WATER
SYSTEMS.

PERSONAL AUTHOR: DAVIS, DENNIS R.

DESCRIPTOR: *MANAGEMENT; *PLANNING; *RURAL AREAS; *SOUTH
DAKOTA; *TRAINING; *WATER SYSTEMS; *WATER SUPPLY; *WATER
UTILITIES

DESCRIPTIVE NOTE: 164-167P.

ABSTRACT: WITHIN THE PAST DECADE PUBLIC WATER SERVICE HAS
BEEN BROUGHT TO SOME 80,000 RURAL RESIDENTS OF SOUTH DAKOTA.
AND WATER SERVICE IS EXPECTED TO BE EXTENDED TO MANY MORE
RURAL FAMILIES IN THE COMING YEARS. WATER DISTRICTS ARE
TYPICALLY ORGANIZED BY A SMALL GROUP OF CITIZENS AND ARE
MANAGED BY A BOARD OF DIRECTORS UNTIL OPERATOR-MANAGERS CAN
BE HIRED AND TRAINED. THE REGIONAL WATER ASSOCIATION ASSISTS
WITH REGIONAL MANAGEMENT WORKSHOPS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75
N4

IRIS ACCESSION NUMBER: EW008873

PUBLICATION DATE: APR 83

TITLE: THE LATIN AMERICAN APPROACH TO IMPROVING WATER
SUPPLIES.

PERSONAL AUTHOR: WAGNER, E. GLENN

DESCRIPTOR: ADMINISTRATION; BRAZIL; COSTS; DESIGN;
FINANCING; *LATIN AMERICA; FACILITIES; *PERFORMANCE
EVALUATION; PLANNING; *REGIONAL SYSTEMS; *SMALL WATER
SYSTEMS; STANDARDS; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 168-173P.

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CONSTRUCTION COSTS FOR SMALL WATER SYSTEMS IN AMERICA ARE A FRACTION OF THOSE IN THE UNITED STATES. ECONOMIES ARE ACHIEVED BY REGIONAL OR NATIONAL METHODS OF FINANCING AND CONTROL OR BY STANDARDIZED DESIGN OF FACILITIES, INCLUDING MODULAR AND PREFABRICATED SYSTEMS. MANY OF THESE CONCEPTS COULD BE ADAPTED FOR USE IN THE UNITED STATES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

IRIS ACCESSION NUMBER: EW008874

PUBLICATION DATE: APR 83

TITLE: MANAGEMENT TRAINING PROGRAMS FOR SMALL WATER

PERSONAL AUTHOR: BURKE, CLYDE A.

DESCRIPTOR: *COSTS; *INSTRUCTION; *MANAGEMENT; *PLANNING; *OPERATIONS; *TRAINING; *WATER UTILITIES; WATER TREATMENT

DESCRIPTIVE NOTE: 174-176P.

ABSTRACT: WATER UTILITY SUPERVISORS OFTEN DO NOT HAVE NECESSARY TECHNICAL SKILLS, BUT THESE SKILLS CAN BE DEVELOPED WITH TRAINING. GOALS FOR PARTICIPANTS MUST BE DEFINED SO THAT THE OBJECTIVES OF THE TRAINING PROGRAMS CAN BE ACHIEVED IN THE MOST EFFICIENT MANNER AND AT THE LEAST COST TO THE UTILITY.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

IRIS ACCESSION NUMBER: EW008875

PUBLICATION DATE: APR 83

TITLE: EVALUATING THE ECONOMICS OF ALTERNATIVE TECHNOLOGY FOR SMALL WATER SYSTEMS.

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

DESCRIPTOR: *ALTERNATIVE TECHNOLOGIES; DESIGN; *COSTS; *EVALUATION; *PLANNING; *SMALL SYSTEMS; *STANDARDS; WATER TREATMENT; *WATER UTILITIES; WATER QUALITY; WATER SUPPLY

DESCRIPTIVE NOTE: 177-183P.

ABSTRACT: THE PROBLEMS OF UPGRADING SMALL WATER SYSTEMS TO MEET THE REQUIREMENTS OF DRINKING WATER REGULATIONS COULD IMPOSE SEVERE ECONOMIC PENALTIES UNLESS THE MOST ECONOMICAL ALTERNATIVES ARE COMPUTED AND SELECTED. A MODEL, DEVELOPED SPECIFICALLY FOR LARGER SYSTEMS, HAS BEEN ADAPTED FOR SMALL SYSTEMS. THE MODEL WAS TESTED WITH TWO HYPOTHETICAL CASES AND TWO ACTUAL CASE STUDIES OF SMALL WATER SYSTEMS IN INDIA.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75

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N4

IRIS ACCESSION NUMBER: EW008876

PUBLICATION DATE: APR 83

TITLE: TETRACHLOROETHYLENE LEACHED FROM LINED ASBESTOS-CEMENT PIPE INTO DRINKING WATER.

PERSONAL AUTHOR: LARSON, CHARLES D; AND OTHERS

DESCRIPTOR: *ASBESTOS-CEMENT PIPE; *CONTAMINATION; *DRINKING WATER; *NEW ENGLAND; *PCE; PIPES; *TETRACHLOROETHYLENE; *VINYL LININGS; *WATER PIPES; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 184-190P.

ABSTRACT: DESCRIBED ARE SOME OF THE HISTORY BEHIND THE DEVELOPMENT AND USE OF LINED A/C PIPE. THE REASONS WHY ITS PRODUCTION WAS DISCONTINUED, AND ACTIONS TAKEN TO CORRECT THE PROBLEM.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75
N4

IRIS ACCESSION NUMBER: EW008877

PUBLICATION DATE: APR 83

TITLE: A STUDY IN SYSTEM REHABILITATION.

DESCRIPTOR: *COSTS; *DESIGN; *MAINE; *PLANNING; *PERFORMANCE EVALUATION; *RURAL AREAS; *SMALL SYSTEMS; *SYSTEM IMPROVEMENTS; *WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: 98, 100NEWSP.

ABSTRACT: DESCRIBED IS A STUDY OF A WATER SYSTEM IN MAINE. THE STUDY WAS DESIGNED TO DETERMINE THE DISTRICT'S WATER DISTRIBUTION REQUIREMENTS AND CAPABILITIES PRIOR TO DEVELOPING A MASTER PLAN FOR NEEDED IMPROVEMENTS. A TWO PHASE CONSTRUCTION PROGRAM WAS DEVELOPED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V75
N4

IRIS ACCESSION NUMBER: EW008878

PUBLICATION DATE: APR 83

TITLE: AERATED LAGOON SYSTEMS WITH IMPROVED PERFORMANCE.

PERSONAL AUTHOR: RICH, LINVIL

DESCRIPTOR: *AERATED LAGOONS; *AERATION; *DESIGN; *LAGOONS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTE DISPOSAL; *WASTEWATER TREATMENT

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NOTE: 35-36P.

DISCUSSED ARE WAYS TO ACHIEVE HIGH LEVELS OF
E IN THE AERATION OF WASTEWATER TREATMENT LAGOONS
E OF A SIMPLE SYSTEM.

TY: PUBLIC WORKS; V114 N4

SION NUMBER: EW008879

N DATE: APR 83

SENSIBLE APPROACH TO WATER ACCOUNTABILITY STUDIES
E SURVEYS.

UTHOR: SUNDIN, H. S.

: *ACCOUNTABILITY; *LEAKAGE; *MANAGEMENT;
*SURVEYS; *WATER LOSSES; *WATER DISTRIBUTION;
*WATER SUPPLY

E NOTE: 38,86P.

LEAKAGE SURVEYS ARE EXPENSIVE. LESS COSTLY LINES
GATION THAT SHOULD BE TAKEN FIRST ARE OUTLINED.

TY: PUBLIC WORKS; V114 N4

SION NUMBER: EW008880

N DATE: APR 83

ONATION FOR EFFECTIVE THM CONTROL.

UTHOR: WAGNER, ROLFE; ELEFRITZ, ROBERT A.

: *CHLORINATION; *ORGANIC COMPOUNDS; *OZONATION;
(WATER); *THM; *WATER SUPPLY; *WATER TREATMENT

E NOTE: 46-49P.

A NEW PROCESS USING OZONATION WAS RECENTLY
AND DEMONSTRATED FOR A MUNICIPALITY TREATING
ORGANIC SURFACE WATER.

TY: PUBLIC WORKS; V114 N4

SION NUMBER: EW008881

N DATE: APR 83

ASSY SWALES PROVE COST-EFFECTIVE FOR WATER
CONTROL.

UTHOR: KERCHER, WILLIAM C.; AND OTHERS

: *GRASSY SWALES; *SURFACE RUNOFF; *WATER
CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 53-54P.

ABSTRACT: STUDIES CONFIRM THAT GRASSY SWALES REDUCE
POLLUTANT-CARRYING RUNOFF FROM RESIDENTIAL AREAS.

AVAILABILITY: PUBLIC WORKS; V114 N4

IRIS ACCESSION NUMBER: EW008882

PUBLICATION DATE: MAR 83

TITLE: NITRIFICATION FACILITIES START-UP AND INITIAL
OPERATION.

PERSONAL AUTHOR: BAILEY, WALTER F.; AND OTHERS

DESCRIPTOR: *DISTRICT OF COLUMBIA; *OPERATIONS
(WASTEWATER); *NITRIFICATION; *PROCESS CONTROL; *RECORDS;
*STANDARDS; *TRAINING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 221-228P.

ABSTRACT: THE USE OF SEVERAL SMALL TASK GROUPS UNDER THE
CONTROL OF A START-UP COORDINATING COMMITTEE WAS THE KEY TO
BRINGING THE PLANT ON STREAM EFFICIENTLY. TESTING EQUIPMENT,
TRAINING STAFF, DEVELOPING STANDARDS, MAINTAINING RECORDS,
AND USING PROCESS TUNING WERE IMPORTANT ACTIVITIES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N3

IRIS ACCESSION NUMBER: EW008883

PUBLICATION DATE: MAR 83

TITLE: DETERMINATION OF NUISANCE ODOR IN A COMMUNITY.

PERSONAL AUTHOR: BRUVOLD, W. H.; AND OTHERS

DESCRIPTOR: *AIR POLLUTION CONTROL; *CALIFORNIA; *HYDROGEN
SULFIDE; *MONITORING; *ODORS; *ODOR CONTROL; *PUBLIC
OPINION; *SURVEYS

DESCRIPTIVE NOTE: 229-233P.

ABSTRACT: JUDICIOUS USE OF AIR SAMPLING TECHNIQUES AND
SURVEYS OF RESIDENTS CAN PROVIDE AMPLE DOCUMENTATION OF
WHETHER A SIGNIFICANT ODOR PROBLEM EXISTS. A STUDY WAS
CONDUCTED IN NOVATO AND PACIFICA, CALIFORNIA AND DATA ARE
REPORTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N3

IRIS ACCESSION NUMBER: EW008884

PUBLICATION DATE: MAR 83

TITLE: FACTORS AFFECTING THE CLARIFICATION PERFORMANCE OF
SLUDGE FINAL SETTLERS.

PERSONAL AUTHOR: TUNTOOLAVEST, MUNSIN; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; *CLARIFICATION; *DESIGN;
*MIXED LIQUOR (WASTEWATER); *PROCESS CONTROL; *RESEARCH
*SETTLING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 234-248P.

ABSTRACT: EXPERIMENTS WERE CONDUCTED TO DETERMINE VARIABLES
AFFECTING CLARIFICATION PERFORMANCE OF ACTIVATED SLUDGE
FINAL SETTLERS. CONCENTRATION OF MIXED LIQUOR SUSPENDED
SOLIDS HAD A GREATER EFFECT ON EFFLUENT SUSPENDED SOLIDS
REMOVAL THAN OTHER VARIABLES STUDIED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N3

IRIS ACCESSION NUMBER: EW008885

PUBLICATION DATE: MAR 83

TITLE: HEAT RECOVERY, FLOW EQUALIZATION, AND ALTERNATE
TECHNIQUES FOR WASTEWATER TREATMENT PLANT EXPANSION.

PERSONAL AUTHOR: SHIMP, GARY F.; AND OTHERS

DESCRIPTOR: *COLORADO; *HEAT RECOVERY; *EFFLUENT DISCHARGE;
*FLOW EQUALIZATION; *FACILITIES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 249-254P.

ABSTRACT: A NUMBER OF UNIQUE SOLUTIONS WERE DEVELOPED TO
ADDRESS SITE-SPECIFIC PROBLEMS WHILE MAXIMIZING THE USE OF
EXISTING FACILITIES AT A COLORADO WASTEWATER TREATMENT
PLANT. PROBLEMS CONSIDERED WERE HEAT RECOVERY, EFFLUENT
DISCHARGE, FLOW EQUALIZATION, AND FACILITY ARRANGEMENTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N3

IRIS ACCESSION NUMBER: EW008886

PUBLICATION DATE: MAR 83

TITLE: PHYSICAL DESIGN OF OVERLAND FLOW SYSTEMS.

PERSONAL AUTHOR: SMITH, ROBERT G.; SCHROEDER, EDWARD D.

DESCRIPTOR: *DESIGN; *LAND APPLICATION; *OVERLAND FLOW;
*PERFORMANCE EVALUATION; *WASTE DISPOSAL; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 255-260P.

ABSTRACT: WHEN PROPERLY DESIGNED, OVERLAND FLOW SYSTEMS CAN
PROVIDE INEXPENSIVE SOLUTIONS TO MUNICIPAL WASTEWATER
TREATMENT PROBLEMS. PROBLEMS ASSOCIATED WITH A NUMBER OF
INSTALLATIONS IN THE U.S. ARE DISCUSSED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N3

IRIS ACCESSION NUMBER: EW008887

PUBLICATION DATE: MAR 83

TITLE: VELOCITY AND SUSPENDED SOLIDS DISTRIBUTION IN
SETTLING TANKS.

PERSONAL AUTHOR: TRY, ANDREW JOO-HWA; HEINKE, GARY W.

DESCRIPTOR: *OPERATIONS (WASTEWATER); *RESEARCH REPORTS;
*SETTLING TANKS; *SUSPENDED SOLIDS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 261-269P.

ABSTRACT: MODIFICATION OF AN EXISTING AIR POLLUTION MODEL
ALLOWS THE PREDICTION OF SUSPENDED SOLIDS SETTLING RATES IN
SETTLING TANKS. CONCLUSIONS ARE DRAWN ON THE RELATIONSHIP OF
VELOCITIES IN THE TANK AND SUSPENDED SOLIDS REMOVAL
EFFICIENCY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N3

IRIS ACCESSION NUMBER: EW008888

PUBLICATION DATE: MAR 83

TITLE: TEMPERATURE EFFECTS ON OXYGEN TRANSFER TO ROTATING
BIOLOGICAL CONTACTORS.

PERSONAL AUTHOR: RITTMANN, BRUCE E.; AND OTHERS

DESCRIPTOR: *AERATION; *BIOLOGICAL CONTACTORS; *DISSOLVED
OXYGEN; *KINETICS; *OPERATIONS (WASTEWATER); *OXYGEN
TRANSFER; *RESEARCH REPORTS; *ROTATING BIOLOGICAL
CONTACTORS; *TEMPERATURE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 270-277P.

ABSTRACT: LAB-SCALE DATA INDICATE OXYGEN TRANSFER IS A KEY
FACTOR TO CONSIDER IN DESIGNING FULL-SIZE ROTATING
BIOLOGICAL CONTACTORS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N3

IRIS ACCESSION NUMBER: EW008890

PUBLICATION DATE: MAR 83

TITLE: SLUDGE RECYCLE AND REUSE IN ACID MINE DRAINAGE

PERSONAL AUTHOR: KEEFER, GARY B.; SACK, WILLIAM A.

DESCRIPTOR: *ACID MINE DRAINAGE; *IRON; *TIME; *MINE
*NEUTRALIZATION; *RECYCLING; *SLUDGE

DESCRIPTIVE NOTE: 278-284P.

ABSTRACT: BY RECYCLING THE SLUDGE PRODUCED IN MINE DRAINAGE
TREATMENT, LIME REQUIREMENTS FOR THE PROCESS CAN BE
REDUCED BY 30%.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N3

IRIS ACCESSION NUMBER: EW008890

PUBLICATION DATE: MAR 83

TITLE: BACTERIAL DIE-OFF KINETICS IN WASTE STABILIZATION

PERSONAL AUTHOR: POLPRASERT, C.; AND OTHERS

DESCRIPTOR: *BACTERIA; *KINETICS; *OPERATIONS (WASTEWATER);
*REPORTS; *STABILIZATION PONDS; *WASTEWATER

DESCRIPTIVE NOTE: 285-296P.

ABSTRACT: KINETIC MODELS OF BACTERIA DIE-OFF CAN BE
IMPROVED TO INCLUDE THE EFFECTS OF ALGAE CONCENTRATION AND
LOADING.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;

IRIS ACCESSION NUMBER: EW008891

PUBLICATION DATE: APR 83

TITLE: ACTIVATED SLUDGE PROCESSES AND EFFLUENT STANDARDS.

PERSONAL AUTHOR: NOVAK, JOHN T.; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; *DESIGN; *ENGINEERING;
*PROCESSES; *OPERATIONS (WASTEWATER); *PERFORMANCE
EVALUATION; *STANDARDS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 332-335P.

ABSTRACT: SEVERAL RECENT RESEARCH STUDIES HAVE SHOWN THAT
THE ACTIVATED SLUDGE PROCESS MAY GENERATE A CONSIDERABLE
AMOUNT OF ORGANIC MATERIAL AS A BY-PRODUCT OF MICROBIAL

METABOLISM. A CRITICAL ANALYSIS OF THIS OBSERVATION SUGGESTS
THAT PROCESS DESIGN MODELS CURRENTLY IN USE ARE NOT VALID.
DESIGN MODELS, TREATMENT GOALS, AND OPERATIONAL
CONSIDERATIONS ARE DISCUSSED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N3

IRIS ACCESSION NUMBER: EW008892

PUBLICATION DATE: APR 83

TITLE: PERFORMANCE COMPARISON OF THE AIR AND HIGH-PURITY-
OXYGEN ACTIVATED SLUDGE SYSTEM.

PERSONAL AUTHOR: NELSON, JOHN K.; PUNTENNEY, JOHN L.

DESCRIPTOR: *AERATION; *ACTIVATED SLUDGE; *CLARIFIER
LOADINGS; *COLORADO; *ENERGY CONSUMPTION; *OXYGEN SYSTEMS;
*PERFORMANCE EVALUATION; *SLUDGE; *STAFFING; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 336-340P.

ABSTRACT: THE DENVER, COLORADO SEWAGE DISPOSAL DISTRICT
NO. 1 CONDUCTED A 15 MONTH PERFORMANCE EVALUATION. THE OXYGEN
SYSTEM WAS USEFUL WITH REDUCED AERATION TANK VOLUMES AND
WHERE LARGE DIURNAL BOD VARIATIONS ARE EXPERIENCED. NEITHER
SYSTEM WAS SUPERIOR.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N4

IRIS ACCESSION NUMBER: EW008893

PUBLICATION DATE: APR 83

TITLE: ACTIVATED SLUDGE CLARIFIER DESIGN IMPROVEMENTS.

PERSONAL AUTHOR: STUKENBERG, JOHN R.; AND OTHERS

DESCRIPTOR: *CLARIFIERS; *DESIGN; *FACILITIES; *OPERATIONS
(WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 341-348P.

ABSTRACT: DESPITE THE 70-YEAR HISTORY OF THE ACTIVATED
SLUDGE PROCESS, SEVERAL MISCONCEPTIONS ABOUT CLARIFIER
DESIGN NEED TO BE OVERCOME. PROBLEMS AND POSSIBLE SOLUTIONS
ARE DISCUSSED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N4

ION NUMBER: EW008894

DATE: APR 83

ASSESSMENT OF SECONDARY CLARIFICATION DESIGN

AUTHOR: PARKER, DENNY S.

*AERATION TANKS; *CLARIFIERS; *DESIGN;
*OPERATIONS (WASTEWATER); *PERFORMANCE
*WASTEWATER TREATMENT

NOTE: 349-359P.

WHEN A LOW SUSPENDED SOLIDS LEVEL IS REQUIRED,
ALTERNATIVES LESS EXPENSIVE THAN AVAILABLE
FILTRATION. BY CAREFUL ATTENTION TO CLARIFIER
RATION SYSTEM SELECTION, AND ORGANIC LOADING,
SLUDGE PROCESS EFFLUENT SS LEVELS CAN BE
CLARIFICATION AND AERATION TANK DESIGN
IONS ARE DISCUSSED.

Y: JOURNAL WATER POLLUTION CONTROL FEDERATION;

ION NUMBER: EW008895

DATE: APR 83

ETHOD FOR ESTIMATING THE CAPACITY OF AN ACTIVATED

AUTHOR: RIDDELL, M. DONALD R.; AND OTHERS

*ACTIVATED SLUDGE PROCESS; *DESIGN;
*MODELS; *OPERATIONS (WASTEWATER); *OPERATING
*WASTEWATER TREATMENT

NOTE: 360-368P.

TWO MODELS FOR ESTIMATING THE CAPACITY OF AN
SLUDGE PLANT HAVE BEEN DEVELOPED THAT VARY IN
BUT BOTH ARE BASED ON PROCESS KINETICS AND
X CONSIDERATIONS. THE MODELS ARE DISCUSSED IN

Y: JOURNAL WATER POLLUTION CONTROL FEDERATION;

ION NUMBER: EW008896

DATE: APR 83

REMOVAL OF PRIORITY POLLUTANTS IN INTEGRATED
SLUDGE-ACTIVATED CARBON TREATMENT SYSTEMS.

AUTHOR: WEBER, WALTER J.; AND OTHERS

*ACTIVATED CARBON; *ACTIVATED SLUDGE; *DESIGN;

*FACILITIES; *LINDANE; *OPERATIONS (WASTEWATER);
*PERFORMANCE EVALUATION; *RESEARCH REPORTS; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 369-376P.

ABSTRACT: REACTOR CONFIGURATIONS AND DEGREE OF MIXING
APPEAR TO BE IMPORTANT DETERMINANTS OF ATTAINING EQUILIBRIUM
CAPACITY FOR REMOVAL OF PRIORITY POLLUTANTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N4

IRIS ACCESSION NUMBER: EW008897

PUBLICATION DATE: APR 83

TITLE: PERFORMANCE OF SBR ACTIVATED SLUDGE PROCESSES WITH
NITRIFICATION/DENITRIFICATION.

PERSONAL AUTHOR: SILVERSTEIN, JOANN; SCHROEDER, E.D.

DESCRIPTOR: *ACTIVATED SLUDGE; *DENITRIFICATION;
*NITRIFICATION; *OPERATIONS (WASTEWATER); *PERFORMANCE
EVALUATION; *RESEARCH REPORTS; *SEQUENCING BATCH REACTORS;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 377-384P.

ABSTRACT: THE TIME-VARIANT CONDITIONS INHERENT IN BATCH
PROCESSING OFFER SEVERAL OPERATIONAL ADVANTAGES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N4

IRIS ACCESSION NUMBER: EW008898

PUBLICATION DATE: APR 83

TITLE: KINETICS OF BACTERIA AND BACTERIOPHAGES IN ANAEROBIC
FILTERS.

PERSONAL AUTHOR: POLPRASERT, CHONGRAK; HOANG, LE H.

DESCRIPTOR: *ANAEROBIC FILTERS; *BACTERIA; *BACTERIOPHAGES;
*COLIFORMS; *EFFLUENTS; *KINETICS; *OPERATIONS (WASTEWATER);
*PERFORMANCE EVALUATION; *RESEARCH REPORTS; *SEPTIC TANKS;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 385-391P.

ABSTRACT: ANAEROBIC FILTRATION OF SEPTIC TANK EFFLUENTS WAS
STUDIED. THE RATE OF REMOVAL OF COLIFORMS AND BACTERIOPHAGE
BY BIOFILM ADSORPTION FOLLOWED A FIRST-ORDER REACTION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;
V55 N4

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IRIS ACCESSION NUMBER: EW008899

PUBLICATION DATE: APR 83

TITLE: MONITORING FOR WATER QUALITY: FIXED STATIONS VERSUS SURVEYS.

PERSONAL AUTHOR: BELLE, GERALD VAN; HUGHES, JAMES P.

DESCRIPTOR: *MONITORING; *MONITORING NETWORKS; *STATIONS; *SURVEYS; *TRENDS; *WATER QUALITY; *WATER CONTROL

DESCRIPTIVE NOTE: 400-404P.

ABSTRACT: A NETWORK DESIGNED TO DETECT LONG-TERM TRENDS BE ADEQUATE FOR EXPLAINING SHORT-TERM VARIATIONS. SURVEYS ARE NEEDED TO EXPLAIN SHORT-TERM TRENDS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;

IRIS ACCESSION NUMBER: EW008900

PUBLICATION DATE: APR 83

TITLE: ACTIVE VERSUS PASSIVE WATER QUALITY MONITORING FOR WASTEWATER DISCHARGES.

PERSONAL AUTHOR: LEE, C. FRED; JONES, ANNE

DESCRIPTOR: *DATA ANALYSIS; *EFFLUENTS; *HAZARD ASSESSMENT; *RECOMMENDATIONS; *WASTEWATER TREATMENT; *WATER

DESCRIPTIVE NOTE: 405-407P.

ABSTRACT: A HAZARD ASSESSMENT APPROACH SHOULD GUIDE BOTH DEVELOPMENT OF A MONITORING PROGRAM AND THE INTERPRETATION OF THE RESULTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;

IRIS ACCESSION NUMBER: EW008901

PUBLICATION DATE: APR 83

TITLE: INCORPORATING THE STOCHASTIC NATURE OF WATER QUALITY MONITORING.

PERSONAL AUTHOR: WARD, ROBERT C.; LOFTIS, JIM C.

DESCRIPTOR: *DATA ANALYSIS; *DATA COLLECTION; *STOCHASTIC CONCEPTS; *MANAGEMENT; *MONITORING; *STANDARDS; *STOCHASTIC CONCEPTS; *WATER QUALITY

DESCRIPTIVE NOTE: 408-414P.

133

ABSTRACT: WATER QUALITY INVOLVES A MIX OF DETERMINISTIC AND STOCHASTIC CONCEPTS, AND IT CAN BE EFFECTIVELY MANAGED ONLY WHEN BOTH COMPONENTS ARE PROPERLY BALANCED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V35 N4

IRIS ACCESSION NUMBER: EW008911

PUBLICATION DATE: APR 83

TITLE: QUALITY CONTROL IN WATER ANALYSES.

PERSONAL AUTHOR: KIRCHMER, CLIFF J.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DEFINITIONS; *LABORATORY TECHNIQUES; *PERFORMANCE EVALUATION; *PRINCIPLES; *WATER ANALYSES; *WATER QUALITY

DESCRIPTIVE NOTE: 174A-181AP.

ABSTRACT: THE DEFINITIONS AND PRINCIPLES UNDERLYING THE PRACTICE OF QUALITY CONTROL IN WATER ANALYSES NEED TO BE CRITICALLY EVALUATED.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY; V17 N4

IRIS ACCESSION NUMBER: EW008913

PUBLICATION DATE: 83

TITLE: THE PDK GUIDE: AN INTRODUCTION TO MICROCOMPUTER LITERACY FOR EDUCATORS.

PERSONAL AUTHOR: METZCUS, RICHARD H.

DESCRIPTOR: *COMPUTERS; *COMPUTER SOFTWARE; *EQUIPMENT REVIEWS; *EVALUATION; *EVALUATION GUIDES; *INSTRUCTIONAL MATERIALS; *MICROCOMPUTERS; *PERFORMANCE EVALUATION; *PLANNING; *SOFTWARE REVIEWS

DESCRIPTIVE NOTE: 340P.

ABSTRACT: THIS GUIDE IS A BRIEF ORIENTATION TO MICROCOMPUTERS AND THEIR USE IN EDUCATION. SECTIONS ARE INCLUDED IN SOFTWARE (CONCEPTS, CONCERNS, AND SOURCES), HARDWARE, ACQUISITION PLANS, BUYING GUIDE FOR MICROCOMPUTERS, GLOSSARY, AND EVALUATION OF SOFTWARE.

AVAILABILITY: PHI DELTA KAPPA, P. O. BOX 789, BLOOMINGTON, IN 47402

IRIS ACCESSION NUMBER: EW008914

PUBLICATION DATE: 82

TITLE: SURVEY OF EMPLOYMENT OPPORTUNITIES IN WATER RESOURCES - 1982 EDITION.

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CONSULTANTS; CONSULTING; *EMPLOYMENT
S; GOVERNMENT AGENCIES; *INFORMATION SOURCES;
UFACTURING; *SURVEYS; UNIVERSITIES; *WATER
WATER SUPPLY; *WATER TREATMENT

NOTE: 41P. PRICE: \$10.00

THIS NATIONWIDE EMPLOYER SURVEY WAS DESIGNED TO
RMATION ON POTENTIAL EMPLOYMENT OPPORTUNITIES AT
FIRMS AND MANUFACTURERS IN WATER RESOURCES
AS. IN ADDITION, A LISTING OF STATE GOVERNMENT
D UNIVERSITY GROUPS IN WATER RESOURCES RELATED
OVIDED.

: AMERICAN WATER RESOURCES ASSOCIATION,
NATURAL RESOURCES FOUNDATION CENTER, 5410
NE, SUITE 220, BETHESDA, MD 20814

ON NUMBER: EW008915

DATE: 82

C MANAGEMENT PRINCIPLES FOR SMALL WATER SYSTEMS.

*ADMINISTRATION; *ACCOUNTING; *BUDGETING;
*MAINTENANCE; *OPERATIONS (WATER); *PLANNING;
NG; *SMALL SYSTEMS; *UTILITIES; *WATER
WATER UTILITIES

NOTE: 125P. PRICE: \$18.20 (202220K)

THIS HANDBOOK IS AN ADAPTATION OF MATERIALS
Y THE AWWA IN 1981 TO IMPROVE SYSTEM MANAGEMENT
ND SANITATION FACILITIES ON INDIAN LANDS. THE
COVERED IN THIS BOOK CONSIDER OPERATIONS AND
PERSONNEL ADMINISTRATION, RECORDKEEPING,
AND ACCOUNTING AND BUDGETING. THESE MATERIALS
FUL TO PEOPLE INVOLVED IN MANAGEMENT OF SMALL-TO
WATER UTILITIES.

: AMERICAN WATER WORKS ASSOCIATION, DATA
EPT.; 6666 WEST QUINCY AVENUE, DENVER, CO 80235

ON NUMBER: EW008917

EWATER COLLECTION SYSTEM OPERATOR CERTIFICATION
D ANSWER BOOKLET.

*CERTIFICATION; COLLECTION SYSTEMS; DESIGN;
*INSTRUCTIONAL MATERIALS; MAINTENANCE;
*OPERATIONS (WASTEWATER); *OPERATOR TRAINING;
DARY EDUCATION; SAFETY; *WASTEWATER COLLECTION;

NOTE: 124P. PRICE: \$10.00

HE PURPOSE OF THIS WORKBOOK IS TO ASSIST
COLLECTION SYSTEM PERSONNEL IN EXPANDING THEIR
D TO ASSIST THEM IN PREPARING FOR CERTIFICATION.
ND ANSWERS ARE INCLUDED IN THIS WORKBOOK UNDER

THE FOLLOWING TOPICS: BACKGROUND KNOWLEDGE, SUPPORT SYSTEMS
OPERATION AND MAINTENANCE, SUPERVISION AND MANAGEMENT,
SAFETY PROCEDURES, DESIGN AND NEW CONSTRUCTION. ELECTRICAL,
PUMPS AND MOTORS, AND MATHEMATICS.

AVAILABILITY: ENVIRONMENTAL EDUCATIONAL SERVICES, P. O. BOX
672, CONCORD, MA 01742

IRIS ACCESSION NUMBER: EW008918

PUBLICATION DATE: AUG 80

TITLE: PLANNING CONSIDERATIONS. SLUDGE TREATMENT AND
DISPOSAL COURSE 166. INSTRUCTOR'S GUIDE AND STUDENT
WORKBOOK.

PERSONAL AUTHOR: CARNEGIE, JOHN W.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *MANAGEMENT;
*OPERATIONS (WASTEWATER); *PLANNING; *POST SECONDARY
EDUCATION; *SLUDGE; *TEACHING GUIDES; *WASTE DISPOSAL;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE 21 PAGES, STUDENT
WORKBOOK 21 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL
RESOURCES CENTER, 1200 CHAMBERS ROAD., 3RD FLOOR, COLUMBUS,
OH 43212, PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON IS A DESCRIPTION OF THE GENERAL
CHARACTERISTICS OF SLUDGE. IT IS INTENDED AS INTRODUCTORY
MATERIAL. INCLUDED ARE AN INSTRUCTOR'S GUIDE AND A STUDENT
WORKBOOK. INCLUDED IN THE GUIDE ARE DESCRIPTION OF THE
LESSON, ESTIMATED TIME, MATERIALS LIST, SUGGESTED
SEQUENCING, READINGS, OBJECTIVES, LECTURE OUTLINE, ANSWERS
TO WORKSHEETS, STUDENT MATERIALS, AND NARRATIVES TO 35MM
SLIDES THAT ARE DESIGNED TO BE USED WITH THIS LESSON. THE
STUDENT MATERIALS INCLUDE OBJECTIVES, A GLOSSARY, DISCUSSION
OF SLUDGE CHARACTERISTICS, REFERENCES AND A WORKSHEET.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW
PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2.
INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1
STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008919

PUBLICATION DATE: AUG 80

TITLE: SLUDGE CHARACTERISTICS. SLUDGE TREATMENT AND
DISPOSAL COURSE 166. INSTRUCTOR'S GUIDE AND STUDENT
WORKBOOK.

PERSONAL AUTHOR: KLOPPING, PAUL H.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *POST SECONDARY
EDUCATION; *SLUDGE; *SLUDGE CHARACTERISTICS; *TEACHING
GUIDES; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE 20 PAGES, STUDENT
WORKBOOK 23 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL

80

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CENTER, 1200 CHAMBERS ROAD., 3RD FLOOR, COLUMBUS,
PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

THIS LESSON DEALS WITH THE SPECIAL CONSIDERATIONS
TO BE MADE WHEN CHOOSING A SLUDGE SOLIDS MANAGEMENT
SYSTEM. INCLUDED ARE AN INSTRUCTOR'S GUIDE AND A STUDENT
WORKBOOK FOR PLANNING CONSIDERATIONS. INCLUDED IN THE GUIDE
ARE A DESCRIPTION OF THE LESSON, ESTIMATED TIME, MATERIALS
LIST, SUGGESTED SEQUENCING, READINGS, OBJECTIVES, LECTURE
OUTLINE, ANSWERS TO WORKSHEETS, STUDENT MATERIALS, AND
NARRATIVES TO 35MM SLIDES THAT ARE DESIGNED TO BE USED WITH
THIS LESSON. THE STUDENT MATERIALS INCLUDE OBJECTIVES,
CONSIDERATION TEXT, REFERENCES, AND WORKSHEET.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW
PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2.
INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1
STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008920

PUBLICATION DATE: AUG 80

TITLE: GRAVITY THICKENING. SLUDGE TREATMENT AND DISPOSAL
COURSE 166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: CARNEGIE, JOHN W.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *OPERATIONS
(WASTEWATER); *POST SECONDARY EDUCATION; *SLUDGE; *SLUDGE
TREATMENT; *TEACHING GUIDES; *WASTE DISPOSAL; *WASTEWATER

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE 20 PAGES, STUDENT
WORKBOOK 19 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL
RESOURCES CENTER, 1200 CHAMBERS ROAD., 3RD FLOOR, COLUMBUS,
OH 43212, PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

THIS LESSON IS AN INTRODUCTION TO CONDITIONING.
IT COVERS A BRIEF EXPLANATION OF COLLOIDAL SYSTEMS,
EFFECTS OF CHEMICAL AND HEAT CONDITIONING, AND EQUIPMENT AND
OPERATIONS. INCLUDED ARE AN INSTRUCTOR'S GUIDE AND A STUDENT
WORKBOOK. INCLUDED IN THE GUIDE ARE DESCRIPTION OF THE
LESSON, ESTIMATED TIME, MATERIALS LIST, SUGGESTED
SEQUENCING, READINGS, OBJECTIVES, LECTURE OUTLINE, ANSWERS
TO WORKSHEETS, STUDENT MATERIALS, AND NARRATIVES TO 35MM
SLIDES THAT ARE DESIGNED TO BE USED WITH THIS LESSON. THE
STUDENT MATERIALS INCLUDE OBJECTIVES, A GLOSSARY, THEORY OF
CONDITIONING, CONDITIONING EQUIPMENT, CONDITIONING
AIDS TO CONDITIONING, REFERENCES, AND A

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW
PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2.
INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1
STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008921

PUBLICATION DATE: AUG 80

TITLE: GRAVITY THICKENING. SLUDGE TREATMENT AND DISPOSAL
COURSE 166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: KLOPPING, PAUL H.

DESCRIPTOR: *GRAVITY THICKENERS; *INSTRUCTIONAL MATERIALS;
*OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION;
*SLUDGE; *TEACHING GUIDES; *WASTE DISPOSAL; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE 20 PAGES, STUDENT
WORKBOOK 21 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL
RESOURCES CENTER, 1200 CHAMBERS ROAD., 3RD FLOOR, COLUMBUS,
OH 43212, PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON CONSIDERS THE BASIC OPERATION OF THE
GRAVITY THICKENER. IT COVERS THE THEORY OF OPERATION AND
DESCRIBES COMPONENTS FOUND IN A TYPICAL THICKENER. ATTENTION
IS GIVEN TO MATH CONCEPTS THAT ARE USED IN CONTROLLING
HYDRAULIC LOADING, DETENTION TIME, AND MATERIAL BALANCE.
INCLUDED ARE AN INSTRUCTOR'S GUIDE AND A STUDENT WORKBOOK.
THE GUIDE INCLUDES A DESCRIPTION OF THE LESSON, ESTIMATED
TIME, MATERIALS LIST, SUGGESTED SEQUENCING, READINGS,
OBJECTIVES, LECTURE OUTLINE, ANSWERS TO WORKSHEETS, STUDENT
MATERIALS, AND NARRATIVES TO 35MM SLIDES THAT ARE DESIGNED
TO BE USED WITH THIS LESSON. THE STUDENT MATERIAL INCLUDES
PLANT FLOW DIAGRAMS, OBJECTIVES, A GLOSSARY, DISCUSSION OF
GRAVITY THICKENING, REFERENCES, AND A WORKSHEET.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW
PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2.
INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1
STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008922

PUBLICATION DATE: AUG 80

TITLE: FLOTATION THICKENING. SLUDGE TREATMENT AND DISPOSAL
COURSE 166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: KLOPPING, PAUL H.

DESCRIPTOR: *AIR FLOTATION THICKENING; *FLOTATION
THICKENING; *INSTRUCTIONAL MATERIALS; *OPERATIONS
(WASTEWATER); *POST SECONDARY EDUCATION; *SLUDGE; *TEACHING
GUIDES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE 21 PAGES, STUDENT
WORKBOOK 20 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL
RESOURCES CENTER, 1200 CHAMBERS ROAD., 3RD FLOOR, COLUMBUS,
OH 43212, PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON DESCRIBES THE PROCESS OF DISSOLVED
AIR FLOTATION THICKENING. THE MATERIAL IS INTENDED TO
ACQUAINT THE STUDENT WITH THE FUNDAMENTAL PRINCIPLES OF
OPERATION, A COMPARISON WITH OTHER THICKENING PROCESSES, AND
THE CALCULATIONS AND LAB TESTS REQUIRED IN ESTABLISHING A

OPERATING ROUTINE, AN INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK ARE INCLUDED. THE GUIDE INCLUDES A DESCRIPTION OF THE PROCESS, ESTIMATED TIME, MATERIALS LIST, SUGGESTED READINGS, OBJECTIVES, LECTURE OUTLINE, ANSWERS TO QUESTIONS, STUDENT MATERIALS, AND NARRATIVES TO 35MM SLIDES THAT ARE DESIGNED TO BE USED WITH THIS LESSON. THE MATERIALS INCLUDE PLANT FLOW DIAGRAMS, OBJECTIVES, LECTURE OUTLINE, DISCUSSION OF FLOTATION THICKENING, REFERENCES, AND ANSWERS TO QUESTIONS.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1 STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008923

PUBLICATION DATE: AUG 80

TITLE: AEROBIC DIGESTION. SLUDGE TREATMENT AND DISPOSAL COURSE 166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: KLOPPING, PAUL H.

DESCRIPTOR: *AEROBIC DIGESTION; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *TEACHING GUIDES; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE 17 PAGES, STUDENT WORKBOOK 19 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD., 3RD FLOOR, COLUMBUS, OH 43212. PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON IS A BASIC DESCRIPTION OF AEROBIC DIGESTION. IT INCLUDES A GENERAL PROCESS OVERVIEW AND DESCRIPTION OF A TYPICAL DIGESTER'S COMPONENTS, THE FACTORS AFFECTING PERFORMANCE, OPERATIONAL CONTROLS, AND AN OVERVIEW OF THE BIOLOGICAL CONSIDERATIONS OF SUCCESSFUL DIGESTION. INCLUDED ARE AN INSTRUCTOR'S GUIDE AND A STUDENT WORKBOOK. THE GUIDE INCLUDES A DESCRIPTION OF THE LESSON, ESTIMATED TIME, MATERIALS LIST, SUGGESTED SEQUENCING, OBJECTIVES, LECTURE OUTLINE, ANSWERS TO QUESTIONS, STUDENT MATERIALS, AND NARRATIVES TO 35MM SLIDES THAT ARE DESIGNED TO BE USED WITH THIS LESSON. INCLUDED IN THE STUDENT MATERIALS ARE PLANT FLOW DIAGRAMS, OBJECTIVES, LECTURE OUTLINE, DISCUSSION OF AEROBIC DIGESTION, REFERENCES, AND ANSWERS TO QUESTIONS.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1 STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008924

PUBLICATION DATE: AUG 80

TITLE: AEROBIC DIGESTION I. SLUDGE TREATMENT AND DISPOSAL COURSE 166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

WORKBOOK.

PERSONAL AUTHOR: ARASMITH, E. E.

DESCRIPTOR: *ANAEROBIC DIGESTION; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *TEACHING GUIDES

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE 19 PAGES, STUDENT WORKBOOK 19 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD., 3RD FLOOR, COLUMBUS, OH 43212. PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON, PART I OF A TWO-PART SERIES ON ANAEROBIC DIGESTION, DISCUSSES THE FIVE-BASIC FUNCTIONS OF AN ANAEROBIC DIGESTER, THE BASIC THEORY OF THE BIOLOGICAL PROCESS, EQUIPMENT FOR DIGESTION, AND PRODUCTS. INCLUDED ARE THE INSTRUCTOR'S GUIDE AND THE STUDENT WORKBOOK FOR ANAEROBIC DIGESTION I. INCLUDED IN THE GUIDE ARE DESCRIPTION OF THE LESSON, ESTIMATED TIME, SUGGESTED SEQUENCE, READINGS, OBJECTIVES, LECTURE OUTLINE, ANSWERS TO WORKSHEET, STUDENT MATERIALS, AND NARRATIONS TO 35MM SLIDES THAT ARE DESIGNED TO BE USED WITH THIS LESSON. THE STUDENT WORKBOOK CONTAINS MATERIAL ON PLANT FLOW DIAGRAMS, OBJECTIVES, GLOSSARY, DIGESTER FUNCTION, EQUIPMENT, THEORY, BY-PRODUCTS, REFERENCES, AND A WORKSHEET.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1 STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008925

PUBLICATION DATE: AUG 80

TITLE: ANAEROBIC DIGESTION II. SLUDGE TREATMENT AND DISPOSAL COURSE 166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: ARASMITH, E. E.

DESCRIPTOR: *ANAEROBIC DIGESTION; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *TEACHING GUIDES

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE 22 PAGES, STUDENT WORKBOOK 24 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD., 3RD FLOOR, COLUMBUS, OH 43212. PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON, PART II OF A TWO PART SERIES ON ANAEROBIC DIGESTION, DISCUSSES THE CLASSIFICATION OF DIGESTER BY FUNCTION, REACTOR DESIGN, TEMPERATURE RANGE, MIXING SYSTEMS, GAS SYSTEM COMPONENTS, OPERATIONS, AND SAFETY. INCLUDED ARE AN INSTRUCTOR'S GUIDE AND THE STUDENT WORKBOOK FOR ANAEROBIC DIGESTION II. INCLUDED IN THE GUIDE ARE DESCRIPTION OF THE LESSON, ESTIMATED TIME, SUGGESTED SEQUENCING, READINGS, OBJECTIVES, LECTURE OUTLINE, ANSWERS TO WORKSHEET, STUDENT MATERIALS, AND NARRATIVES TO 35MM SLIDES.

THAT ARE DESIGNED TO BE USED WITH THIS LESSON. THE WORKBOOK CONTAINS MATERIALS ON PLANT FLOW DIAGRAMS, TESTS, GLOSSARY, VARIOUS OPERATIONS, SAMPLING AND SAFETY, REFERENCES, AND A WORKSHEET.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1 STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008926

PUBLICATION DATE: AUG 80

TITLE: DRYING BEDS. SLUDGE TREATMENT AND DISPOSAL COURSE 166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: KLOPPING, PAUL H.

DESCRIPTOR: *DRYING BEDS; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *TRAINING

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE 19 PAGES, STUDENT WORKBOOK 17 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD., 3RD FLOOR, COLUMBUS, OH 43212, PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON IS AN INTRODUCTION TO SLUDGE DRYING. THE MODULE CONSIDERS BOTH SAND AND SURFACED DRYING. INCLUDED ARE THE INSTRUCTOR'S GUIDE AND THE STUDENT WORKBOOK FOR DRYING BEDS. INCLUDED IN THE GUIDE ARE DESCRIPTION OF THE LESSON, ESTIMATED TIME, MATERIALS LIST, SUGGESTED SEQUENCING, READINGS, OBJECTIVES, LECTURE OUTLINE, ANSWERS TO WORKSHEET, AND STUDENT MATERIALS. INCLUDED IN THE STUDENT WORKBOOK ARE MATERIALS ON PLANT FLOW DIAGRAMS, THEORY OF CENTRIFUGES, TYPES OF CENTRIFUGES, COMPARISONS AND TESTINGS, REFERENCES, AND WORKSHEETS.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1 STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008927

PUBLICATION DATE: AUG 80

TITLE: CENTRIFUGATION. SLUDGE TREATMENT AND DISPOSAL COURSE 166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: BEST, RICHARD A.

DESCRIPTOR: *CENTRIFUGES; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *TEACHING GUIDES; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *VOLUME REDUCTION

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE 15 PAGES, STUDENT WORKBOOK 24 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD., 3RD FLOOR, COLUMBUS, OH 43212, PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON IS AN INTRODUCTORY DESCRIPTION OF THE USE OF CENTRIFUGES IN THE PROCESS OF VOLUME REDUCTION. THE LESSON DISCUSSES THE THREE BASIC CENTRIFUGES. INCLUDED ARE THE INSTRUCTOR'S GUIDE AND THE STUDENT WORKBOOK FOR CENTRIFUGATION. INCLUDED IN THE GUIDE ARE DESCRIPTION OF THE LESSON, ESTIMATED TIME, MATERIALS LIST, SUGGESTED SEQUENCING, READINGS, OBJECTIVES, LECTURE OUTLINE, ANSWERS TO WORKSHEET, AND STUDENT MATERIALS. INCLUDED IN THE STUDENT WORKBOOK ARE MATERIALS ON OBJECTIVES, GLOSSARY, FLOW DIAGRAMS, THEORY OF CENTRIFUGES, TYPES OF CENTRIFUGES, COMPARISONS AND TESTINGS, REFERENCES, AND WORKSHEETS.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1 STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008928

PUBLICATION DATE: AUG 80

TITLE: VACUUM FILTRATION. SLUDGE TREATMENT AND DISPOSAL COURSE 166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

PERSONAL AUTHOR: FILER, HERB; WINDRAM, KENDALL

DESCRIPTOR: *FILTRATION; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *SLUDGE; *VACUUM FILTRATION; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: INSTRUCTOR'S GUIDE 16 PAGES, STUDENT WORKBOOK 29 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD., 3RD FLOOR, COLUMBUS, OH 43212, PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

ABSTRACT: THIS LESSON DESCRIBES THE OPERATION OF THE VACUUM FILTER AND THE HISTORY AND THREE TYPES OF VACUUM FILTERS. INCLUDED ARE THE INSTRUCTOR'S GUIDE AND THE STUDENT WORKBOOK FOR VACUUM FILTRATION. INCLUDED IN THIS GUIDE ARE DESCRIPTION OF THE LESSON, ESTIMATED TIME, MATERIALS LIST, SUGGESTED SEQUENCING, READINGS, LECTURE OUTLINE, ANSWERS TO WORKSHEET, AND STUDENT MATERIALS. INCLUDED IN THE STUDENT MATERIALS ARE PLANT FLOW DIAGRAMS, OBJECTIVES, A GLOSSARY, THE VACUUM FILTRATION TEXT, REFERENCES, AND A WORKSHEET.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2. INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1 STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

SION NUMBER: EW008929

DATE: AUG 80

SLUDGE INCINERATION-MULTIPLE HEARTH FURNACE. SLUDGE
AND DISPOSAL COURSE 166. INSTRUCTOR'S GUIDE AND
WORKBOOK.

AUTHOR: KLOPPING, PAUL H.

*INCINERATION; *INSTRUCTIONAL MATERIALS;
*HEARTH FURNACE; *OPERATIONS (WASTEWATER); *POST
SECONDARY EDUCATION; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER
*TEACHING GUIDES

NOTE: INSTRUCTOR'S GUIDE 20 PAGES, STUDENT
WORKBOOK 23 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL
CENTER, 1200 CHAMBERS ROAD, 3RD FLOOR, COLUMBUS,
OHIO. PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

THIS LESSON IS AN INTRODUCTION TO SLUDGE
INCINERATION. THE MATERIAL IS RATHER TECHNICAL AND ASSUMES
UNDERSTANDING OF BASIC PLANT OPERATION. INCLUDED ARE THE
INSTRUCTOR'S GUIDE AND THE STUDENT WORKBOOK FOR SLUDGE
INCINERATION-MULTIPLE HEARTH FURNACE. INCLUDED IN THIS GUIDE
ARE: DESCRIPTION OF THE LESSON, ESTIMATED TIME, MATERIALS
LIST, SUGGESTED SEQUENCING, READINGS, OBJECTIVES, LECTURE
OUTLINE, ANSWERS TO WORKSHEET, STUDENT MATERIALS, AND
NARRATIVES TO 35MM SLIDES THAT ARE DESIGNED TO BE USED
WITH THIS LESSON. INCLUDED IN THE STUDENT MATERIALS ARE
PLANT FLOW DIAGRAMS, OBJECTIVES, GLOSSARY, LANDFILL TEXT,
REFERENCES, AND WORKSHEETS.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW
PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2.
INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1
STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

SION NUMBER: EW008930

DATE: AUG 80

SANITARY LANDFILL. SLUDGE TREATMENT AND DISPOSAL
COURSE 166. INSTRUCTOR'S GUIDE AND STUDENT WORKBOOK.

AUTHOR: SHARMAN, RONALD M.

*INSTRUCTIONAL MATERIALS; *LANDFILLS;
*OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *SITE
CHARACTERIZATION; *SLUDGE; *SANITARY LANDFILLS; *WASTE DISPOSAL;
*SLUDGE TREATMENT

NOTE: INSTRUCTOR'S GUIDE 20 PAGES, STUDENT
WORKBOOK 26 PAGES. ALSO AVAILABLE FROM EPA/INSTRUCTIONAL
CENTER, 1200 CHAMBERS ROAD, 3RD FLOOR, COLUMBUS,
OHIO. PRICES FROM EPA ARE AVAILABLE UPON REQUEST.

THIS LESSON IS AN INTRODUCTION TO DISPOSAL OF
SLUDGE AT A SANITARY LANDFILL. A BRIEF EXPLANATION OF THE COMPLETE
PROCESS IS GIVEN INCLUDING SLUDGE SUITABILITY AND SITE
CHARACTERIZATION. INCLUDED ARE THE INSTRUCTOR'S GUIDE AND THE
STUDENT WORKBOOK FOR SANITARY LANDFILL. INCLUDED IN THIS

GUIDE ARE DESCRIPTION OF THE LESSON, ESTIMATED TIME,
MATERIALS LIST, SUGGESTED SEQUENCING, READINGS, OBJECTIVES,
LECTURE OUTLINE, ANSWERS TO WORKSHEET, STUDENT MATERIALS,
AND NARRATIVES TO 35MM SLIDES THAT ARE DESIGNED TO BE USED
WITH THIS LESSON. INCLUDED IN THE STUDENT MATERIALS ARE
PLANT FLOW DIAGRAMS, OBJECTIVES, GLOSSARY, LANDFILL TEXT,
REFERENCES, AND WORKSHEETS.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW
PACIFIC BLVD., ALBANY, OR 97321 (\$1. STUDENT WORKBOOK, \$2.
INSTRUCTOR'S GUIDE, COST PER ENTIRE SET OF SLIDE-TAPE 1
STUDENT WORKBOOK AND 1 INSTRUCTOR'S GUIDE IS \$75. PER UNIT)

IRIS ACCESSION NUMBER: EW008945

PUBLICATION DATE: SEP 82

TITLE: RETENTION AND TRANSFORMATIONS OF SELECTED PESTICIDES
AND PHOSPHORUS IN SOIL-WATER SYSTEMS: A CRITICAL REVIEW.

PERSONAL AUTHOR: RAO, P. S. C.; DAVIDSON, J. N.

DESCRIPTOR: *LITERATURE REVIEWS; *NONPOINT SOURCE
POLLUTION; *PESTICIDES; *PHOSPHORUS; *RESEARCH REPORTS;
*SOILS; *WATER POLLUTION CONTROL; *WATER QUALITY

ABSTRACT: THIS IS A CRITICAL REVIEW OF THE CURRENT STATE-
OF-THE-ART FOR MEASURING OR ESTIMATING PESTICIDE RETENTION
AND TRANSFORMATION PARAMETERS IN NON-POINT SOURCE POLLUTION
MODELS. CONCLUSIONS AND RECOMMENDATIONS BASED ON THE REVIEW
ARE PRESENTED.

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

IRIS ACCESSION NUMBER: EW008948

PUBLICATION DATE: AUG 82

TITLE: FEASIBILITY OF DEVELOPING A COMPREHENSIVE
METHODOLOGY FOR SOURCE IDENTIFICATION AND ENVIRONMENTAL
LOADING (MATERIALS BALANCE).

PERSONAL AUTHOR: WECHSLER, A. E.; AND OTHERS

DESCRIPTOR: *ENVIRONMENTAL LOADING; *FEASIBILITY STUDIES;
*MATERIALS BALANCE; *MODELS; *RECOMMENDATIONS; *SOURCE
IDENTIFICATION; *WATER POLLUTION CONTROL

ABSTRACT: A MATERIALS BALANCE IS DEFINED AS AN ARRAY OF THE
FLOWS OF MATERIALS OR CHEMICALS FROM THE CULTURAL
ENVIRONMENT TO THE FIRST POINT OF ENTRY INTO THE NATURAL
ENVIRONMENT AND INCLUDES INFORMATION REGARDING LOCATION,
TIME RATE, QUANTITY AND CHEMISTRY OF THE FLOWS. THE
OBJECTIVES OF THIS STUDY WERE TO EXAMINE THE OVERALL
FEASIBILITY OF A SYSTEMATIC APPROACH TO SOURCE
IDENTIFICATION AND ENVIRONMENTAL LOADING ESTIMATION AND TO
OUTLINE THE MOST FEASIBLE MATERIALS BALANCE METHODS AND
STEPS NEEDED FOR IMPLEMENTATION.

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PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW008949

PUBLICATION DATE: SEP 82

TITLE: PREDICTING THE FATE OF TOXIC ORGANIC MATERIALS IN
FRESHWATER ENVIRONMENTS.

PERSONAL AUTHOR: PARKER, R. A.; AND OTHERS

DESCRIPTOR: *AQUATIC ENVIRONMENTS; *COMPUTER APPLICATIONS;
*MODELS; *ORGANIC COMPOUNDS; *PEST;
*TOXIC SUBSTANCES

DESCRIPTIVE NOTE: PB82-254079

ABSTRACT: IN THIS REPORT, DOCUMENTATION IS GIVEN FOR PEST.
A MODEL FOR EVALUATING THE FATE OF TOXIC ORGANIC
MATERIALS IN FRESHWATER ENVIRONMENTS. THE MODEL HAS
BEEN DEVELOPED WITH PROCESS-LEVEL LABORATORY DATA AND WITH
FIELD SITE DATA. PEST IS AN INTERACTIVE, USER-
DRIVEN MODEL WITH 10 COMMANDS. THE MODEL IS WRITTEN IN
FORTRAN AND WILL RUN IN 22K ON A PDP 11/63 WITH
256K. IT HAS ALSO BEEN TESTED ON AN IBM 3603.

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

IRIS ACCESSION NUMBER: EW008950

PUBLICATION DATE: AUG 82

TITLE: VOLATILIZATION OF ORGANIC POLLUTANTS FROM WATER.

PERSONAL AUTHOR: MACKAY, D.; AND OTHERS

DESCRIPTOR: *CONTAMINANTS; *ENVIRONMENT; *HEALTH; *LAW;
*ORGANIC COMPOUNDS; *PREDICTION; *RESEARCH REPORTS;
*VOLATILIZATION

DESCRIPTIVE NOTE: PB82-230939

ABSTRACT: THE VOLATILIZATION OF ORGANIC ENVIRONMENTAL
MATERIALS FROM WATER BODIES TO THE ATMOSPHERE WAS
STUDIED. THE REPORT CONTAINS BOTH THEORETICAL AND
EXPERIMENTAL STUDIES AND A COMPREHENSIVE REVIEW OF THE
PHYSICAL CHEMISTRY AND THERMODYNAMICS OF SYSTEMS
INVOLVING HYDROPHOBIC ORGANIC SOLUTES AND WATER. A GENERAL
METHOD IS SUGGESTED FOR CALCULATING VOLATILIZATION RATES
FROM RIVERS AND LAKES AND FOR OBTAINING THE
FUNDAMENTAL PHYSICAL-CHEMICAL DATA.

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

IRIS ACCESSION NUMBER: EW008951

PUBLICATION DATE: AUG 82

TITLE: A REVIEW OF AQUATIC HABITAT ASSESSMENT METHODS.

PERSONAL AUTHOR: SCHUYTEMA, GERALD S.

DESCRIPTOR: *AQUATIC HABITATS; *ASSESSMENT TECHNIQUES;
*HABITAT ASSESSMENT; *HABITAT PARAMETERS; *LITERATURE
REVIEWS; *NATURAL RESOURCES; *RESEARCH METHODOLOGY;
*WATER QUALITY

DESCRIPTIVE NOTE: PB82-189648

ABSTRACT: THIS PROJECT WAS AN EXTENSIVE LITERATURE REVIEW
OF AQUATIC HABITAT ASSESSMENT TECHNIQUES. THE OBJECTIVE WAS
TO HELP WATER QUALITY INVESTIGATORS AND NATURAL RESOURCE
MANAGERS UNFAMILIAR WITH SUCH TECHNIQUES TO BECOME AWARE OF
THE METHODS AND CURRENT TRENDS IN DEVELOPMENT, AND TO AID IN
DECIDING WHAT TECHNIQUES MIGHT BEST FIT PROJECT GOALS.
APPROXIMATELY 30 METHODS WERE SUMMARIZED AND COMPARED.

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

IRIS ACCESSION NUMBER: EW008952

PUBLICATION DATE: AUG 81

TITLE: REDUCTION OF TOXICITY TO AQUATIC ORGANISMS BY
INDUSTRIAL WASTEWATER TREATMENT.

PERSONAL AUTHOR: CARY, GEORGE A.; BARROWS, MICHAEL E.

DESCRIPTOR: *INDUSTRIAL WASTES; *PERFORMANCE EVALUATION;
*PESTICIDES; *RESEARCH REPORTS; *TOXIC SUBSTANCES;
*TOXICITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB-81-222366

ABSTRACT: THE SPECIFIC GOAL OF THIS RESEARCH WAS TO CONDUCT
24-HOUR STATIC ACUTE BIOASSAYS WITH "UNTREATED" INFLUENT AND
"TREATED" EFFLUENT USING MINNOWS AND WATER FLEAS TO
BIOLOGICALLY EVALUATE THE EFFECTIVENESS OF INDUSTRIAL
WASTEWATER FACILITIES IN REDUCING EFFLUENT TOXICITY TO
AQUATIC ORGANISMS.

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

IRIS ACCESSION NUMBER: EW008953

PUBLICATION DATE: SEP 82

TITLE: RAPID-INFILTRATION SYSTEM FOR WASTEWATER RENOVATION
AND BENEFICIAL REUSE.

PERSONAL AUTHOR: BOUWER, HERMAN; AND OTHERS

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*ARIZONA; *EFFLUENT; *INFILTRATION;
*OPERATIONS (WASTEWATER); *PROJECT REPORTS;
WATER; *RECREATION; *RECYCLING; *WASTEWATER

NOTE: PB82-252941

16-HA RAPID INFILTRATION WASTEWATER TREATMENT
HOENIX, AZ, WAS USED TO TREAT 90 M/YR OF
Y TREATED EFFLUENT. THE RECLAIMED WATER WAS
UNRESTRICTED IRRIGATION AND AQUATIC RECREATION.

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

IRIS ACCESSION NUMBER: EW008955

PUBLICATION DATE: AUG 82

STENCE AND DETECTION OF COLIFORMS IN TURBID
KING WATER.

AUTHOR: SEIDLER, RAMON J.; EVANS, THOMAS M.

*COLIFORMS; *DISINFECTION; *DRINKING WATER;
DEMAND; *MODELS; *TOTAL ORGANIC CARBON;
WATER TREATMENT

NOTE: PB82-227752

MODELS WERE DEVELOPED THROUGH MULTIPLE LINEAR
COMPUTER ANALYSES IN ORDER TO DEFINE THE
RELATIONSHIP BETWEEN TURBIDITY, CHLORINE DEMAND, TOTAL
ORGANIC CARBON, AND DISINFECTION EFFICIENCY. THE MODELS WERE
VALIDATED USING DATA COLLECTED IN SIX WATERSHEDS OVER A TWO-YEAR

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

IRIS ACCESSION NUMBER: EW008956

PUBLICATION DATE: AUG 82

INNOVATIVE COPRECIPITATION TECHNIQUE FOR REMOVING
TOXIC HEAVY METALS FROM WASTEWATER.

AUTHOR: HUANG, JU-CHANG

*HEAVY METALS; *METALS; *OPERATIONS
*PERFORMANCE EVALUATION; *SLUDGE; *TECHNOLOGY;
WATER TREATMENT

NOTE: PB82-227240

THIS PROJECT ATTEMPTED TO DEVELOP INNOVATIVE
TECHNIQUES TO REMOVE TOXIC HEAVY METALS FROM RAW MUNICIPAL
WASTEWATER WITHOUT SIMULTANEOUSLY REMOVING THE LARGELY
SUSPENDED AND SETTLEABLE SOLIDS. SINCE THE
REMOVAL OF METALS AND SUSPENDED SOLIDS REMOVED WERE

APPROXIMATELY THE SAME, THE HOPED-FOR REDUCTIONS IN METAL
CONCENTRATIONS IN SLUDGE ARE UNLIKELY TO BE ACHIEVED.

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

IRIS ACCESSION NUMBER: EW008957

PUBLICATION DATE: AUG 82

TITLE: CHLORINE DIOXIDE DISINFECTION AND GRANULAR ACTIVATED
CARBON ADSORPTION.

PERSONAL AUTHOR: LYKINS, BEN W.; GRIESE, MARK

DESCRIPTOR: *CHLORINE DIOXIDE; *DISINFECTION; *GRANULAR
ACTIVATED CARBON; *OPERATIONS (WATER); *ORGANIC COMPOUNDS;
*PILOT STUDIES; *TRICHALOMETHANES; *WATER TREATMENT; *WATER
SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: PB82-227737

ABSTRACT: A PILOT PLANT STUDY WAS DESIGNED TO EVALUATE
CHLORINE DIOXIDE DISINFECTION AS AN ALTERNATIVE TO CHLORINE
FOR REDUCING OR PREVENTING THE PRODUCTION OF
TRICHALOMETHANES. ALSO INVESTIGATED WAS THE USE OF GRANULAR
ACTIVATED CARBON (GAC) IN POST-TREATMENT FOR REMOVAL OF
ORGANIC COMPOUNDS. RESULTS AND CONCLUSIONS ARE REPORTED.

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

IRIS ACCESSION NUMBER: EW008962

PUBLICATION DATE: AUG 82

TITLE: WATER RECLAMATION AND AUTOMATED WATER QUALITY
MONITORING.

PERSONAL AUTHOR: JEFFERS, E. L.; AND OTHERS

DESCRIPTOR: *AUTOMATED MONITORING; *CALIFORNIA; *COSTS;
*MONITORING; *OPERATIONS (WATER); *PERFORMANCE EVALUATION;
*RECLAMATION; *WATER RECLAMATION; *WATER TREATMENT; *WATER
QUALITY

DESCRIPTIVE NOTE: PB82-227497

ABSTRACT: THIS PROJECT INVOLVED USING AN AUTOMATED WATER
MONITORING SYSTEM TO COLLECT DATA ON A WATER RECLAMATION
PROCESS TRAIN IN NORTHERN CALIFORNIA. THE MONITORING SYSTEM
AUTOMATICALLY MEASURES 14 WATER QUALITY PARAMETERS IN
ADDITION TO 9 TRACE HALOCARBONS. SOME OF THE RESULTS,
ESPECIALLY THE WATER TREATMENT PROCESSES, MAY BE UNIQUE TO
THIS FACILITY AND SHOULD BE INTERPRETED CAUTIOUSLY.

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

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ON NUMBER: EW008963

DATE: AUG 82

TERMINANTS AND OPTIONS FOR WATER DISTRIBUTION
EMENT: A COST EVALUATION.

THOR: CLARK, ROBERT M.; AND OTHERS

*COST STUDIES; *COSTS; *ECONOMICS; *MANAGEMENT;
; *PIPE REPLACEMENT; *RESEARCH REPORTS; *WATER
; *WATER SUPPLY; *WATER QUALITY

NOTE: PB82-227745

THIS REPORT DEALS WITH THE PROBLEMS ASSOCIATED
LINING AND REPLACING WATER SUPPLY DISTRIBUTION
OME OF THESE PROBLEMS ARE ASSOCIATED WITH PUBLIC
NOMIC AND SPATIAL DEVELOPMENT OF THE COMMUNITY.
OF REPAIR AND REPLACEMENT OF SYSTEM COMPONENTS.
ATE ESTABLISHING A TIMELY MAINTENANCE AND
PROGRAM IS EXTREMELY IMPORTANT FROM AN ECONOMIC
HEALTH VIEWPOINT.

: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
ROAD, SPRINGFIELD, VA 22161

ON NUMBER: EW008964

DATE: SEP 82

LECTION AND TREATMENT OF WASTEWATER GENERATED BY
PLICATORS.

THOR: WHITTAKER, KENNETH F.; AND OTHERS

*COSTS; *DESIGN; *FACILITIES; *PESTICIDES;
E EVALUATION; *RESEARCH REPORTS; *WASTEWATER
*WASTEWATER TREATMENT

NOTE: PB82-255365

A RESEARCH PROJECT WAS CONDUCTED TO DEVELOP A
THE CONTROL OF PESTICIDE-CONTAMINATED WASTEWATERS
BY PESTICIDE APPLICATORS. A TREATMENT PLANT WAS
O REMOVE PESTICIDES FROM CONTAMINATED WASTEWATERS
ODUCE HIGH-QUALITY EFFLUENTS. THIS LOW-COST, LOW
SYSTEM SEEMS PARTICULARLY APPROPRIATE FOR SMALL-
OPERATIONS.

: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
ROAD, SPRINGFIELD, VA 22161.

ION NUMBER: EW008966

DATE: FEB 82

ANIC AND ORGANOTIN COMPOUNDS LEACHED FROM PVC AND

PERSONAL AUTHOR: BOETTNER, EDWARD A.; AND OTHERS

DESCRIPTOR: *CONTAMINATION; *DRINKING WATER; *CPVC PIPES;
*LEACHING; *TIN COMPOUNDS; *PVC PIPES; *PIPES; *RESEARCH
REPORTS; *WATER PIPES; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: PB82-198333

ABSTRACT: THE PRIMARY OBJECTIVE OF THIS RESEARCH PROGRAM
WAS TO DETERMINE WHETHER ORGANIC FORMS OF TIN EXISTED IN
POTABLE WATER SAMPLES AFTER CONTACT WITH EITHER POLYVINYL
CHLORIDE (PVC) OR CHLORINATED POLYVINYL CHLORIDE (CPVC)
PIPE. THE RESULTS SHOWED THAT ALKYL TIN SPECIES WERE
EXTRACTED FROM THE TESTED PIPES BY WATER; AMOUNTS VARIED
DEPENDING ON CONDITIONS.

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

IRIS ACCESSION NUMBER: EW008967

PUBLICATION DATE: DEC 81

TITLE: TREATABILITY STUDIES OF PESTICIDE MANUFACTURING
WASTEWATERS. FIVE VOLUMES.

PERSONAL AUTHOR: ZWEIDINGER, R.; AND OTHERS

DESCRIPTOR: *INDUSTRY; *INDUSTRIAL WASTES; *ONSITE
TREATMENT; *OPERATIONS (WASTEWATER); *PERFORMANCE
EVALUATION; *RESEARCH REPORTS; *PESTICIDES; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: CARBARYL - PB80-224306, DAZOMET - PB81-
129033, DINOSEB AND ATRAZINE - PB81-178840, GLYPHOSATE -
PB81-159097, ETHYLENEBIS(DITHIOCARBAMATE) FUNGICIDES - PB82-
107566

ABSTRACT: LABORATORY AND PILOT STUDIES WERE CONDUCTED TO
DETERMINE THE TREATABILITY OF PESTICIDE MANUFACTURING
WASTEWATERS. BOTH ONSITE AND PUBLICLY OWNED TREATMENT WORKS
WERE CONSIDERED. LESS COSTLY, MORE AVAILABLE TREATMENTS WERE
INVESTIGATED FIRST. INCLUDED IN THE STUDIES WERE CARBARYL,
DINOSEB, ATRAZINE, DAZOMET, GLYPHOSATE, AND A FUNGICIDE.

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

IRIS ACCESSION NUMBER: EW008968

PUBLICATION DATE: JUN 81

TITLE: EFFECTIVENESS OF ACTIVATED CARBON FOR REMOVAL OF
TOXIC AND/OR CARCINOGENIC COMPOUNDS FROM WATER SUPPLIES.

PERSONAL AUTHOR: WEBER, WALTER J., JR.; PIRBAZARI, MASSOUD

DESCRIPTOR: *ACTIVATED CARBON; *CARCINOGENS; *DRINKING
WATER; *HUMIC SUBSTANCES; *OPERATIONS (WATER); *PERFORMANCE
EVALUATION; *RESEARCH REPORTS; *TOXIC SUBSTANCES; *WATER

NOTE: PB81-187197

THIS RESEARCH INVESTIGATED THE DYNAMIC OF FIXED-BED GRANULAR ACTIVATED CARBON PROCESSES IN PUBLIC WATER SUPPLIES. THE ABSORPTION OF TOXIC AND/OR CARCINOGENIC TRACE COMPOUNDS OF UNKNOWN ORIGIN WAS EVALUATED. ABSORPTION OF HUMIC ACID WAS ALSO STUDIED. RESULTS OF THE RESEARCH AND CONCLUSIONS ARE REPORTED.

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

IRIS ACCESSION NUMBER: EW008969

PUBLICATION DATE: OCT 81

TITLE: SURVEY AND EVALUATION OF FINE BUBBLE DOME DIFFUSER EQUIPMENT.

PERSONAL AUTHOR: HOUCK, D. H.; BOON, A. G.

DESCRIPTOR: *ACTIVATED SLUDGE; *AERATION; *BUBBLE DOME DESIGN; *EQUIPMENT; *MAINTENANCE; *OPERATIONS AND MAINTENANCE REQUIREMENTS; *PERFORMANCE EVALUATION; *RESEARCH REPORTS; *WASTEWATER TREATMENT

NOTE: PB82-105578

THIS RESEARCH PROJECT WAS INITIATED WITH THE OBJECTIVE OF BETTER DEFINING THE OXYGEN TRANSFER RATE, OPERATION AND MAINTENANCE REQUIREMENTS, AND DESIGN APPROACHES FOR FINE BUBBLE DOME DIFFUSER SYSTEMS USED IN ACTIVATED SLUDGE WASTEWATER PLANTS WITH APPROPRIATE EQUIPMENT AND A REVIEW OF LITERATURE. ALTHOUGH THIS SURVEY CLEARLY SHOWS THE OPTIMIZED DESIGN AND OPERATING CONTROL STRATEGIES FOR THE FULL ENERGY SAVING POTENTIAL OF THIS TYPE OF FINE BUBBLE DOME DIFFUSER FINE BUBBLE AERATION SYSTEMS WERE FOUND TO BE RELATIVELY EFFICIENT, LOW MAINTENANCE SERVICE.

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

IRIS ACCESSION NUMBER: EW008970

PUBLICATION DATE: DEC 81

TITLE: FULL-SCALE DEMONSTRATION OF INDUSTRIAL WASTEWATER TREATMENT UTILIZING DU PONT'S PACT PROCESS.

PERSONAL AUTHOR: HEATH, HARRY W., JR.

DESCRIPTOR: *COSTS; *DUPONT PACT PROCESS; *FACILITIES; *INDUSTRIAL WASTEWATER; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB81-248122

ABSTRACT: OPERATING AND COST DATA ON STARTUP AND THE INITIAL 30 MONTHS OF OPERATION OF A 40-MGD INDUSTRIAL WASTEWATER TREATMENT PLANT USING DU PONT'S PACT PROCESS ARE REPORTED. THE PACT PROCESS EFFECTIVELY PROVIDES BOTH SECONDARY AND TERTIARY TREATMENT BY ADDING POWDERED ACTIVATED CARBON TO THE AERATOR IN AN ACTIVATED SLUDGE PROCESS.

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

IRIS ACCESSION NUMBER: EW008972

PUBLICATION DATE: DEC 81

TITLE: INFILTRATION LAND TREATMENT OF STABILIZATION POND EFFLUENT.

PERSONAL AUTHOR: DORNBUSH, JAMES N.

DESCRIPTOR: *EFFLUENT; *INFILTRATION; *LAND TREATMENT; *PERFORMANCE EVALUATION; *PROJECT SUMMARIES; *STABILIZATION PONDS; *SOUTH DAKOTA; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB82-109919

ABSTRACT: A RAPID INFILTRATION PILOT WASTEWATER TREATMENT SYSTEM CONSISTING OF THREE 0.07 HECTARE BASINS WAS OPERATED FOR FOUR SEASONS AT BROOKINGS, SOUTH DAKOTA. THE OBJECTIVES OF THE STUDY WERE TO DEMONSTRATE THAT RAPID INFILTRATION LAND TREATMENT COULD UPGRADE STABILIZATION POND EFFLUENT TO MEET STRINGENT EFFLUENT REQUIREMENTS AND TO IDENTIFY WINTER OPERATING CONSTRAINTS FOR THE SYSTEM. CONCLUSIONS AND RECOMMENDATIONS ARE REPORTED.

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

IRIS ACCESSION NUMBER: EW008974

PUBLICATION DATE: DEC 81

TITLE: PERFORMANCE OF TRICKLING FILTER PLANTS: RELIABILITY, STABILITY AND VARIABILITY.

PERSONAL AUTHOR: HAUGH, RICHARD; AND OTHERS

DESCRIPTOR: *DESIGN; *EFFLUENTS; *FILTRATION; *FACILITIES; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *TRICKLING FILTERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB82-108143

ABSTRACT: EXAMINED WAS THE EFFLUENT QUALITY VARIABILITY FROM TRICKLING FILTERS OF 11 TREATMENT PLANTS. MULTIPLE REGRESSION ANALYSIS WAS USED TO DETERMINE THE EFFECTS OF VARIOUS PROCESS PARAMETERS ON EFFLUENT QUALITY. IN GENERAL, PRIMARY EFFLUENT BOD5, SUSPENDED SOLIDS CONCENTRATIONS, AND

TEMPERATURE HAD THE GREATEST EFFECT. METHODS FOR
ING STATISTICAL CONCEPTS INTO TRICKLING FILTER
OPERATION ARE DISCUSSED.

TY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
ROAD, SPRINGFIELD, VA 22161

SION NUMBER: EW008976

N DATE: DEC 81

YSICAL AND CHEMICAL CHARACTERISTICS OF SYNTHETIC
DDUCED FROM LIQUEFACTION OF SEWAGE SLUDGE.

UTHOR: DONOVAN, J. M.; AND OTHERS

: *ALTERNATIVE TECHNOLOGIES; ASPHALT; COSTS;
ENERGY; PLANNING; OIL; *RECYCLING; *PROCESS
SLUDGE; *SLUDGE DISPOSAL; *THERMOCHEMICAL
ON; *WASTEWATER TREATMENT

E NOTE: PB82-119082

DIRECT THERMOCHEMICAL LIQUEFACTION OF PRIMARY
MUNICIPAL SEWAGE SLUDGE WAS CARRIED OUT TO
LOW MOLECULAR WEIGHT STEAM-VOLATILE OIL, A HIGH
WEIGHT SYNTHETIC ASPHALT, AND A RESIDUAL CHAR
OVERALL FEASIBILITY OF THE PROCESS DEPENDS ON THE
HE OIL AND SYNTHETIC ASPHALT PRODUCTS AS PETROLEUM
ITS AND ON THE COSTS ASSOCIATED WITH DISPOSAL OF
PROJECTED ECONOMICS INDICATE THE PROCESS HAS
LE PROMISE FOR MANY POTENTIAL SITES IN THE UNITED

TY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
ROAD, SPRINGFIELD, VA 22161

SION NUMBER: EW008977

N DATE: SEP 82

NONVOLATILE ORGANICS IN DISINFECTED WASTEWATER
CHEMICAL CHARACTERIZATION AND MUTAGENICITY.

UTHOR: JOLLEY, R. L.; AND OTHERS

: *CHLORINE; *DISINFECTION; *EFFLUENTS; *OZONE;
CE EVALUATION; *RESEARCH REPORTS; *ULTRAVIOLET
STE WASTEWATER TREATMENT

E NOTE: PB82-254053

THE OVERALL OBJECTIVES OF THIS RESEARCH WERE TO
THE EFFECTS OF 3 DISINFECTANTS ON THE CHEMICAL
N AND MUTAGENIC ACTIVITY OF WASTEWATER EFFLUENTS.
NFACTANTS STUDIED WERE CHLORINE, OZONE, AND
T LIGHT. NINE DIFFERENT TREATMENT PLANT EFFLUENTS
INED BEFORE AND AFTER DISINFECTION. RESULTS OF THE
REPORTED

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

IRIS ACCESSION NUMBER: EW008978

PUBLICATION DATE: OCT 82

TITLE: NINETEENTH CENTURY TECHNOLOGY--TWENTIETH CENTURY
PROBLEMS: A RETROSPECTIVE MINI-ASSESSMENT.

PERSONAL AUTHOR: COATES, VARY T.; AND OTHERS

DESCRIPTOR: *ARSENIC; *ASSESSMENT; *COAL; *DAMS;
*ENVIRONMENTAL PROBLEMS; *ENVIRONMENTAL IMPACTS;
*INDUSTRIES; *HEAVY METALS; *PLANNING; *PUBLIC HEALTH;
*SAFETY; *STEEL; *TECHNOLOGY

DESCRIPTIVE NOTE: PB82-242058

ABSTRACT: THIS RETROSPECTIVE ASSESSMENT OF 19TH CENTURY
TECHNOLOGY HAS IDENTIFIED INDUSTRIAL AND URBAN TECHNOLOGIES
WHICH MAY BE THE SOURCES OF PRESENT-DAY ENVIRONMENTAL
PROBLEMS OR THREATS TO PUBLIC HEALTH AND SAFETY. FOUR CASE
STUDIES RECEIVED PARTICULAR ATTENTION: (1) ARSENIC; (2)
COAL; (3) IRON AND STEEL; AND (4) OLD DAMS.

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

IRIS ACCESSION NUMBER: EW008979

PUBLICATION DATE: OCT 81

TITLE: DESIGN OPTIMIZATION OF THE CHLORINATION PROCESS:
VOLUME 1. COMPARISON OF OPTIMIZED PILOT SYSTEM WITH
EXISTING FULL-SCALE SYSTEMS.

PERSONAL AUTHOR: SEPP, ENDEL; BAO, PAUL

DESCRIPTOR: *CHLORINATION; *DESIGN; *DISINFECTION;
*FACILITIES; *OPERATIONS (WASTEWATER); *PERFORMANCE
EVALUATION; *RESEARCH REPORTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB82-100835

ABSTRACT: PARALLEL WASTEWATER EFFLUENT CHLORINATION STUDIES
WERE DONE ON A MOBILE OPTIMIZED CHLORINATION PILOT SYSTEM
AND THE FULL-SCALE SYSTEM AT EIGHT DIFFERENT TREATMENT
PLANTS. DISINFECTION EFFICIENCY WAS MEASURED BY TOTAL
COLIFORM COUNT AND CHLORINE RESIDUAL TESTS. AT SEVEN OF THE
PLANTS WHERE COMPARATIVE STUDIES WERE MADE THE OPTIMIZED
PILOT SYSTEM USED SIGNIFICANTLY LESS CHLORINE THAN THE
EXISTING FULL-SCALE SYSTEMS. DESIGN VARIABLES OF THE SYSTEMS
ARE DISCUSSED.

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

ON NUMBER: EW008980

DATE: AUG 82

VAL OF VIRUS FROM PUBLIC WATER SUPPLIES.

OR: O'CONNOR, J. T.; AND OTHERS

*DRINKING WATER; *CHLORINE; *CHLORAMINE;
*DIOXIDE; *LIME; *MISSOURI; *OZONE; *OPERATIONS
*PERFORMANCE EVALUATION; *VIRUSES; *WATER

NOTE: PB82-230327

DISINFECTION STUDIES WERE DONE TO REMOVE VIRUSES
MISSOURI RIVER WATER. OZONE AND CHLORINE DIOXIDE
EFFECTUAL FOR INACTIVATING VIRUSES FOUND WHEN
DOSAGE AND TIME WERE PROVIDED. CHLORINE AND
OZONE APPEARED TO BE MARGINALLY EFFECTIVE WHEN APPLIED
TO FINISHED WATER. FINISHED WATER SAMPLED AT LEXINGTON,
VA. YIELDED NO VIRUSES; PRELIMINARY TREATMENT WITH LIME
HAD NO SIGNIFICANT EFFECT.

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

ON NUMBER: EW008984

DATE: SEP 82

R BASIN VALIDATION OF THE WATER QUALITY
SCREENING METHODOLOGY FOR SCREENING NONDESIGNATED 208
WATERSHEDS I AND II.

OR: DAVIS, MICHAEL J.

*ANALYTICAL TECHNIQUES; *ASSESSMENT; *MODELS;
*AIDS; *WATER QUALITY; *WATERSHEDS

NOTE: VOLUME I. NONPOINT SOURCE LOAD
PB82-260837; VOLUME II. CHESAPEAKE-SANDUSKY
LOAD 208 SCREENING METHODOLOGY DEMONSTRATION, PB82-

TECHNIQUES FOR ESTIMATING DIFFUSE NUTRIENT LOADS
ON WATER QUALITY EFFECTS THROUGHOUT LARGE WATERSHEDS
UNDER VARIOUS FIELD SITUATIONS FOR A WIDE RANGE
OF LOADS. THE LOADING METHODS AND THE WATER QUALITY
EFFECTS STUDIED IN THIS STUDY WERE HIGHLY COMPATIBLE AND GAVE
REASONABLY ACCURATE PREDICTIONS OF INSTREAM LAKE, AND
RIVER WATER QUALITY CONSTITUENT CONCENTRATIONS.

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

IRIS ACCESSION NUMBER: EW008985

PUBLICATION DATE: SEP 82

TITLE: METHOD DEVELOPMENT FOR DETERMINATION OF
POLYCHLORINATED HYDROCARBONS IN MUNICIPAL SLUDGE.

PERSONAL AUTHOR: RODRIGUEZ, CHARLES F.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *LABORATORY PROCEDURES;
*PESTICIDES; *POLYCHLORINATED HYDROCARBONS; *SEWAGE;
*SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB82-234071

ABSTRACT: THIS REPORT DESCRIBES THE WORK PERFORMED AND THE
CONCLUSIONS OBTAINED FROM A STUDY ON THE DEVELOPMENT OF A
METHOD FOR ANALYSIS OF MUNICIPAL SEWAGE SLUDGE FOR
POLYCHLORINATED PESTICIDES AND BIPHENYLS. THE METHODOLOGY
DEVELOPED WAS DETERMINED TO BE SUCCESSFUL.

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

IRIS ACCESSION NUMBER: EW008986

PUBLICATION DATE: AUG 82

TITLE: SHORT-TERM SCREENING TEST FOR QUICK RESPONSES TO
POLLUTANTS WHERE HEALTH EFFECTS DATA ARE LACKING.

PERSONAL AUTHOR: DRUMMOND, JOHN G.; AND OTHERS

DESCRIPTOR: *AEROSOLS; *ASSESSMENT; *HEALTH EFFECTS;
*POLLUTANTS; *RESEARCH REPORTS; *SULFATES

DESCRIPTIVE NOTE: PB82-234303

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

IRIS ACCESSION NUMBER: EW008990

PUBLICATION DATE: DEC 81

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION
SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY
AND WATER RESOURCES MATERIALS. SUPPLEMENT VIII.

DESCRIPTOR: *AUDIOVISUAL AIDS; CITIZEN PARTICIPATION;
ENVIRONMENTAL EDUCATION; INDEXES; INFORMATION DISSEMINATION;
*INSTRUCTIONAL MATERIALS; PESTICIDES; POST SECONDARY
EDUCATION; TECHNOLOGY; WASTE DISPOSAL; *WASTE WATER; WATER;
WATER POLLUTION; *WATER QUALITY; *WATER RESOURCES; *WATER
TREATMENT; *WASTEWATER TREATMENT

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,

90

C PARTICIPATION. SOURCES OF ABSTRACTED/INDEXED INCLUDE ALL LEVELS OF GOVERNMENT, PRIVATE 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 MATERIALS" OR IRIS SUPPLEMENTS I-VII.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212 (SUBSCRIPTION \$12.00 EACH).

IRIS ACCESSION NUMBER: EW008991

PUBLICATION DATE: MAR 82

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION MONOGRAPH SERIES: ANAEROBIC DIGESTION.

DESCRIPTOR: *AUDIOVISUAL AIDS; CITIZEN PARTICIPATION; ENVIRONMENTAL EDUCATION; INDEXES; INFORMATION DISSEMINATION; INSTRUCTIONAL MATERIALS; PESTICIDES; POST SECONDARY EDUCATION; TECHNOLOGY; WASTE DISPOSAL; *WASTE WATER; WATER; WATER POLLUTION; *WATER QUALITY; *WATER RESOURCES; *WATER TREATMENT; *WASTEWATER TREATMENT

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 MATERIALS" OR IRIS SUPPLEMENTS I-VIII.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212 (SUBSCRIPTION \$12.00 EACH).

IRIS ACCESSION NUMBER: EW008992

PUBLICATION DATE: JUN 82

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION MONOGRAPH SERIES: ANAEROBIC DIGESTION.

SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY AND WATER RESOURCES MATERIALS. SUPPLEMENT X.

DESCRIPTOR: *AUDIOVISUAL AIDS; CITIZEN PARTICIPATION; ENVIRONMENTAL EDUCATION; INDEXES; INFORMATION DISSEMINATION; INSTRUCTIONAL MATERIALS; PESTICIDES; POST SECONDARY EDUCATION; TECHNOLOGY; WASTE DISPOSAL; *WASTE WATER; WATER; WATER POLLUTION; *WATER QUALITY; *WATER RESOURCES; *WATER TREATMENT; *WASTEWATER TREATMENT

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 1-9.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212 (SUBSCRIPTION \$12.00, \$4.00 EACH).

IRIS ACCESSION NUMBER: EW008993

PUBLICATION DATE: AUG 81

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES MONOGRAPH SERIES: ANAEROBIC DIGESTION.

PERSONAL AUTHOR: TOWNSEND, ROBERT D.

DESCRIPTOR: *JOB SKILLS; *JOB TRAINING; POST SECONDARY EDUCATION; QUALITY CONTROL; TECHNICAL EDUCATION; *WASTE DISPOSAL; WATER POLLUTION; *WASTEWATER TREATMENT; *OPERATIONS (WASTEWATER); *ANAEROBIC DIGESTION

DESCRIPTIVE NOTE: 205P. PRICE: \$5.50

ABSTRACT: FOCUSING SPECIFICALLY ON THE WASTEWATER TREATMENT PROCESS OF ANAEROBIC DIGESTION, THIS DOCUMENT IDENTIFIES INSTRUCTIONAL AND REFERENCE MATERIALS FOR USE BY PROFESSIONALS IN THE FIELD IN THE DEVELOPMENT AND IMPLEMENTATION OF NEW PROGRAMS OR IN THE UPDATING OF EXISTING PROGRAMS. IT IS DESIGNED TO HELP TRAINERS, PLANT OPERATORS, EDUCATORS, ENGINEERS, CONSULTANTS, AND STUDENTS EFFICIENTLY IDENTIFY AND LOCATE SPECIFIC INSTRUCTIONAL MATERIALS. PART I PRESENTS A BRIEF DESCRIPTION OF THE ANAEROBIC DIGESTION PROCESS IN WASTEWATER TREATMENT OPERATIONS. PART II PROVIDES ELEVEN SELECTED CHAPTERS OR SECTIONS FROM RESOURCE PUBLICATIONS AND OTHER INSTRUCTIONAL MATERIALS WHICH ARE REPRESENTATIVE OF MATERIALS CURRENTLY AVAILABLE. PART III CONTAINS ABSTRACTS OF OTHER PERTINENT

AL MATERIALS WHICH MAY SUPPLEMENT THOSE IN PART
FINAL SECTION ALPHABETICALLY LISTS BIBLIOGRAPHIC
MOSTLY FROM TECHNICAL AND SCIENTIFIC JOURNALS, OF
RESOURCES WHICH TEND TO BE HIGHLY SPECIFIC AND
ICAL IN NATURE. (ED 215 900)

TY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO
UNIVERSITY, 1200 CHAMBERS ROAD, 3RD FLOOR, COLUMBUS,

SION NUMBER: EW008994

N DATE: DEC 81

TER QUALITY INSTRUCTIONAL RESOURCES MONOGRAPH
MPROVING INSTRUCTION.

UTHOR: COON, HERBERT L.

*ADULT LEARNING; *ADULT STUDENTS; *INSTRUCTIONAL
*INSTRUCTIONAL DEVELOPMENT; *INSTRUCTIONAL
*INSTRUCTIONAL MATERIALS; *LESSON PLANS; *POST
*EDUCATION; *STUDENT CHARACTERISTICS; *TEACHER
*TEACHING METHODS; *WASTE WATER; *WATER QUALITY;
*TREATMENT; *WASTEWATER TREATMENT; *OPERATIONS
(R)

E NOTE: 297P. PRICE: 5.50

A GREAT VARIETY AND AMOUNT OF TEACHING MATERIALS
S RELATED TO WATER QUALITY AND OTHER ENVIRONMENTAL
AGENCY (EPA) CONCERNS HAVE BEEN DEVELOPED.
DEVELOPERS/TRAINERS RESPONSIBLE FOR INSTRUCTIONAL
WILL FIND IN ERIC AND THE INSTRUCTIONAL RESOURCES
N SYSTEM (IRIS) ENOUGH MATERIAL TO ORGANIZE DOZENS
COURSES AND/OR HUNDREDS OF INSTRUCTIONAL HOURS. THE
S NOT LACK OF MATERIAL BUT RATHER SELECTING AND/OR
MATERIAL THAT IS MOST USEFUL IN A SPECIFIC
ACHIEVES CERTAIN OBJECTIVES, HONORS THE NEEDS AND
OF ADULT LEARNERS, AND PERMITS INSTRUCTORS TO USE
METHODS WHICH CAPITALIZE ON THEIR TEACHING
CITED IN THIS DOCUMENT ARE IDEAS, MATERIALS, AND
HAT MAY BE USEFUL TO PERSONS INVOLVED IN DESIGNING
NAL PROGRAMS FOR WATER QUALITY OR OTHER EPA
THE FIRST SECTION PROVIDES CHARACTERISTICS OF
RNNERS WITH RELATED TEACHING IMPLICATIONS. THE
TION FOCUSES ON TEACHERS OF ADULTS. THE THIRD
THE MAJOR PART OF THE DOCUMENT) FOCUSES ON VARIOUS
F INSTRUCTIONAL PLANNING AND TEACHING, INCLUDING
SSONS FOUND IN THE ERIC AND IRIS LITERATURE.
MATERIALS (WITH ABSTRACT AND AVAILABILITY) ARE
IN THE FIFTH SECTION. EPA INSTRUCTIONAL RESOURCES
D) ACTIVITIES ARE DESCRIBED IN THE FINAL SECTION.

TY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO
UNIVERSITY, 1200 CHAMBERS ROAD, 3RD FLOOR, COLUMBUS,

IRIS ACCESSION NUMBER: EW009011

PUBLICATION DATE: MAR 83

TITLE: THE ANAEROBIC APPROACH: A BETTER ANSWER.

PERSONAL AUTHOR: HARVEY, LEANNE M.; RUBIANO, JULIO C.

DESCRIPTOR: *ANAEROBIC TREATMENT; *FACILITIES; *INDUSTRIAL
WASTES; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION;
*TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 22-25P.

ABSTRACT: DESCRIBED IS THE USE OF AN ANAEROBIC WASTEWATER
TREATMENT PROCESS FOR HIGH-STRENGTH INDUSTRIAL WASTEWATERS.
THE PROCESS HAS INCREASED PLANT CAPACITY AND RELIABILITY.

AVAILABILITY: INDUSTRIAL WASTE; V29 N2

IRIS ACCESSION NUMBER: EW009024

TITLE: EVALUATION OF CARTRIDGE FILTERS FOR THE REMOVAL OF
GIARDIA LAMBLIA CYST MODELS FROM DRINKING WATER SYSTEMS.

PERSONAL AUTHOR: LONG, WILLIAM R.

DESCRIPTOR: *CARTRIDGE FILTERS; *DISEASES; *DRINKING WATER;
*FILTRATION; *PERFORMANCE EVALUATION; *PUBLIC HEALTH; *WATER
QUALITY; *WATER TREATMENT

ABSTRACT: NUMEROUS OUTBREAKS OF GIARDIASIS HAVE OCCURRED IN
RECENT YEARS IN MANY AREAS OF THE UNITED STATES. SINCE
GIARDIA LAMBLIA CYSTS ARE RESISTANT TO CHLORINATION,
REMOVING CYSTS BY FILTRATION WOULD BE A SOLUTION TO WATER
TREATMENT. CARTRIDGE FILTERS WERE ANALYZED FOR FILTER
EFFICIENCY BY THE USE OF TURBIDITY MEASUREMENTS, PARTICLE
SIZE ANALYSIS, AND SCANNING ELECTRON MICROSCOPY ANALYSIS.
RESULTS ARE REPORTED.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH; V45 N5 P220-
225, MAR 83

S ACCESSION NUMBER: EW009025

TITLE: ROUTINE COLIFORM MONITORING AND WATERBORNE DISEASE
OUTBREAKS.

PERSONAL AUTHOR: BATIK, ODETTE; AND OTHERS

DESCRIPTOR: *COLIFORMS; *DRINKING WATER; *DISEASES;
*MONITORING; *PUBLIC HEALTH; *RESEARCH REPORTS; *WATER
TREATMENT

ABSTRACT: A COMPARISON OF COLIFORM MONITORING RESULTS IN A
SAMPLE OF BOTH COMMUNITY AND NON-COMMUNITY WATER SYSTEMS
SHOWED NO STATISTICAL DIFFERENCES IN COLIFORM RESULTS
BETWEEN SYSTEMS IN WHICH AN OUTBREAK HAD OCCURRED AND
SYSTEMS IN WHICH NO OUTBREAKS HAD BEEN REPORTED

165

166

TY: JOURNAL OF ENVIRONMENTAL HEALTH; V45 N5 P227-

ION NUMBER: EW009027

THE ADDITIVES TO SEPTIC TANK SYSTEMS MAY POISON

THOR: KAPIAR, O. B.

*ADDITIVES; *GROUNDWATER; *MAINTENANCE; *ONSITE
TMENT; *REGULATIONS; *SEPTIC TANKS; *TOXIC
*WASTEWATER TREATMENT; *WATER QUALITY

THE QUALITY OF GROUNDWATER MAY BE ENDANGERED BY
VARIOUS ORGANIC CHEMICALS WHICH ARE SOLD FOR
AND PREVENTION OF SEPTIC SYSTEM FAILURES. THREE
OF ADDITIVES ARE DISCUSSED AND POTENTIAL HAZARDS
ARE CONSIDERED. THE NEED FOR LOCAL OR STATE
IS STRESSED.

TY: JOURNAL OF ENVIRONMENTAL HEALTH; V45 N5 P259,

ION NUMBER: EW009041

HYDROGEOLOGY OF THE BURIED VALLEY AQUIFER

*AQUIFERS; *BURIED VALLEY AQUIFER SYSTEM;
*HYDROGEOLOGY; GEOLOGY; NATURAL RESOURCES;
*RESEARCH; RESEARCH NEEDS; *WATER RESOURCES;
*WATER QUALITY

NOTE: PRICE: \$15.00 PLUS \$2.00 POSTAGE AND

THE HYDROGEOLOGY OF THE BURIED VALLEY AQUIFER
IS A RELATIVELY NON-TECHNICAL GUIDE TO THE
WATER RESOURCES AND GROUND WATER RESOURCES OF THE BURIED
VALLEY AQUIFER SYSTEM, A FEDERALLY-DESIGNATED, SOLE-SOURCE
AQUIFER LOCATED IN NORTH-CENTRAL NEW JERSEY WITHIN THE
PASSAIC RIVER BASIN. THE REPORT WAS PREPARED FOR USE
BY LOCAL OFFICIALS, PLANNERS, ENVIRONMENTAL MANAGERS,
ENGINEERS, CITIZENS, AND OTHERS WHO NEED A CONCISE YET
RELIABLE ANALYSIS OF CURRENT INFORMATION ON THE
AQUIFER SYSTEM. THE REPORT CONTAINS SIX CHAPTERS AND FIVE
APPENDICES. THE CHAPTERS INCLUDE: A DISCUSSION OF THE
SIGNIFICATION AND THE ACTIVITIES OF THE PASSAIC VALLEY
AQUIFER PROTECTION COMMITTEE; THE GENERAL GEOLOGY OF
THE BURIED VALLEY AREA; AN OVERVIEW OF THE SCIENCE OF HYDROGEOLOGY,
AS APPLIED TO NON-SPECIALISTS; THE DELINEATION AND
CHARACTERISTICS OF THE AQUIFERS; ONGOING RESEARCH EFFORTS;
AND RESEARCH NEEDS.

TY: PASSAIC RIVER COALITION, 246 MADISONVILLE,
MORRISTOWN RIDGE, NJ 07920

167

IRIS ACCESSION NUMBER: EW009042

PUBLICATION DATE: 80

TITLE: THE APPLICATION OF SYSTEMS ANALYSIS TO PROBLEMS OF
IRRIGATION, DRAINAGE AND FLOOD CONTROL: A MANUAL FOR WATER
AND AGRICULTURAL ENG

DESCRIPTOR: DESIGN; *DRAINAGE; *ENGINEERING; *FLOOD
CONTROL; *IRRIGATION; *PLANNING; *SYSTEMS ANALYSIS; *WATER
RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 211P.

ABSTRACT: THIS MANUAL, DESIGNED PRIMARILY FOR USE BY
ENGINEERS, DEALS WITH THE APPLICATION OF SYSTEMS ANALYSIS
TECHNIQUES TO SOLVING PROBLEMS OF PLANNING, DESIGN AND
OPERATION CONNECTED WITH IRRIGATION, DRAINAGE AND FLOOD
CONTROL PROJECTS. THE MANUAL DESCRIBES THE GENERAL CONCEPTS
OF SYSTEMS ANALYSIS, AND GIVES EXAMPLES OF THE APPLICATION
OF SYSTEMS ANALYSIS TO SOLVING IRRIGATION PROBLEMS, SUCH AS
UTILIZATION OF WATER RESOURCES FOR IRRIGATION, CALCULATION
OF AN OPTIMUM IRRIGATION REGIME, AND EVALUATION OF WATER AND
SALT RECIPES ON IRRIGATED LAND. NUMEROUS FIGURES AND TABLES
AND AN EXTENSIVE BIBLIOGRAPHY ARE PROVIDED.

AVAILABILITY: PERGAMON PRESS, LTD., HEADINGTON HILL HALL,
OXFORD OX3 0BW, ENGLAND

IRIS ACCESSION NUMBER: EW009043

PUBLICATION DATE: 80

TITLE: AQUATIC PESTS ON IRRIGATION SYSTEMS: IDENTIFICATION
GUIDE, SECOND EDITION.

PERSONAL AUTHOR: OTTO, N. E.; AND OTHERS

DESCRIPTOR: *ANIMALS; *AQUATIC PESTS; *IDENTIFICATION
GUIDES; *IRRIGATION; *PESTS; *PEST CONTROL; *PLANTS

DESCRIPTIVE NOTE: 96P.

ABSTRACT: THIS IS A SIMPLIFIED GUIDE FOR THE IDENTIFICATION
OF ORGANISMS WHICH CAUSE PROBLEMS THROUGH EXTENSIVE
INFESTATIONS ON IRRIGATION SYSTEMS. BECAUSE THE METHODS
EMPLOYED TO CONTROL THESE PLANTS AND INVERTEBRATE AQUATIC
ANIMALS DIFFER WIDELY DUE TO THE DIFFERENCES OF THE
ORGANISMS THEMSELVES, CORRECT IDENTIFICATION IS NECESSARY IN
ORDER TO IMPLEMENT THE STEPS REQUIRED TO CONTROL THESE PESTS
OR PREVENT THEIR OCCURRENCE. THE BOOK CONSISTS OF
ILLUSTRATIONS AND NARRATIVE DESCRIPTIONS OF SOME OF THE
COMMONLY OBSERVED ORGANISMS THAT BECOME PESTS IN THE
OPERATION OF IRRIGATION SYSTEMS IN THE WESTERN UNITED
STATES. THE TEXTS ARE NOT INTENDED TO BE TAXONOMIC
DESCRIPTIONS OF THE SPECIES DISCUSSED, BUT ARE PRIMARILY FOR
USE BY FIELD PERSONNEL AND WATER USERS DIRECTLY CONCERNED
WITH THE PROBLEMS. SUFFICIENT INFORMATION IS PROVIDED TO
PERMIT A TENTATIVE IDENTIFICATION. THIS BOOKLET, WHICH WAS
FIRST PUBLISHED IN 1965, IS A REVISED AND UPDATED EDITION.

AVAILABILITY: U.S. DEPARTMENT OF THE INTERIOR, WATER AND

168

SOURCES SERVICE, DENVER FEDERAL CENTER, DENVER, CO

SION NUMBER: EW009044

N DATE: 82

TERNATIVE WASTEWATER TREATMENT.

UTHOR: EIKUM, ARILD S.; SEABLOOM, ROBERT W.

: *ALTERNATIVE TECHNOLOGY; *CONFERENCE
S: *EUROPE; *OPERATIONS (WASTEWATER); *ONSITE
*WASTEWATER TREATMENT; *UNITED STATES

E NOTE: 350P. PRICE: \$45.00

THIS VOLUME PRESENTS THE PROCEEDINGS FROM AN
WAY, SYMPOSIUM ON THE EXPERIENCES AND KNOWLEDGE
OM THE FIRST YEARS OF OPERATION AT SMALL, LOW-COST
TREATMENT SYSTEMS IN THE U.S. AND SEVERAL
EUROPEAN COUNTRIES. IT APPLIES SPECIFICALLY TO ON-
MENT.

TY: KLUMER BOSTON, INC., 190 OLD DERBY STREET,
A 02043

SION NUMBER: EW009045

N DATE: 82

PROPRIATE SANITATION ALTERNATIVES: WORLD BANK
WATER SUPPLY AND SANITATION.

UTHOR: KABERMATTEN, JOHN M.; AND OTHERS

: *APPROPRIATE TECHNOLOGY; *DEVELOPING COUNTRIES;
: *ENVIRONMENT; *PUBLIC HEALTH; *SANITATION;
POSAL; *WATER SUPPLY; *WORLD PROBLEMS

E NOTE: 115 VOL 1-160 V2P. PRICE: \$12.95 VOL 1;
2

AS PART OF THE UNITED NATIONS' INTERNATIONAL
WATER SUPPLY AND SANITATION DECADE PROJECT, THE
K HAS ASSEMBLED IN TWO VOLUMES INFORMATION ON
E TECHNOLOGIES FOR WATER SUPPLY AND WASTE DISPOSAL
N DEVELOPING COUNTRIES. VOLUME 1 EVALUATES THE
ECONOMIC, ENVIRONMENTAL, HEALTH, AND
RAL FINDINGS OF THE WORLD BANK'S RESEARCH PROGRAM
RETICAL FRAMEWORK. THE SECOND VOLUME IS AN UPDATED
OF ACTUAL ENGINEERING DESIGNS AND RECOMMENDATIONS

TY: THE JOHN HOPKINS UNIVERSITY PRESS, BALTIMORE,

IRIS ACCESSION NUMBER: EW009046

TITLE: CHEMICAL HYDROGEOLOGY.

PERSONAL AUTHOR: BACK, W.; FREEZE, R. A.

DESCRIPTOR: CHEMISTRY; *CHEMICAL REACTIONS; *CONTAMINATION;
*GROUNDWATER; *HYDROLOGY; *MANAGEMENT; *MODELS; *WATER
SUPPLY; *WATER RESOURCES; *WATER POLLUTION

DESCRIPTIVE NOTE: 432P.

ABSTRACT: EXPLAINED IS THE SCIENTIFIC SIGNIFICANCE AND
HISTORICAL PERSPECTIVE OF CHEMICAL PRINCIPLES AS APPLIED TO
GROUNDWATER REGIMES. THE VOLUME PROVIDES AN UNDERSTANDING OF
PROBLEMS SUCH AS MANAGEMENT OF RADIOACTIVE AND TOXIC WASTES,
DEVELOPMENT OF WATER SUPPLIES, FORMATION OF ORE DEPOSITS,
AND HYDROLOGIC EFFECTS OF MINING AND OIL PRODUCTION.
CONTENTS INCLUDE: EQUILIBRIUM CHEMISTRY OF IRON IN
GROUNDWATER; CARBONATE EQUILIBRIA AND RADIOCARBON
DISTRIBUTION RELATED TO GROUNDWATER FLOW IN THE FLORIDAN
LIMESTONE AQUIFER; ISOTOPES IN GROUNDWATER; TRACING SHALLOW
GROUNDWATER SYSTEMS BY SOIL TEMPERATURE; AND USING MODELS TO
SIMULATE THE MOVEMENTS OF CONTAMINANTS THROUGH GROUNDWATER
FLOW SYSTEMS.

AVAILABILITY: SCIENTIFIC AND ACADEMIC EDITIONS, 35 WEST
50TH STREET, NEW YORK, NY 10020

IRIS ACCESSION NUMBER: EW009047

PUBLICATION DATE: 82

TITLE: THE CLEAN WATER ACT: THE SECOND DECADE.

PERSONAL AUTHOR: WARD, MORRIS A.

DESCRIPTOR: *CLEAN WATER ACT; *HISTORY; *LEGISLATION;
*REGULATIONS; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 54P. PRICE: \$11.95

ABSTRACT: THIS BOOK PRESENTS A SECTION-BY-SECTION ANALYSIS
OF THE EXISTING WATER LAW AND ITS REGULATIONS IN LAYMAN'S
LANGUAGE. IT ALSO GIVES A HISTORY OF U.S. WATER RESOURCES
LEGISLATION AND A SUMMARY OF WATER RESOURCE AND QUALITY
ISSUES THAT WILL BE INCREASINGLY DISCUSSED.

AVAILABILITY: E. BRUCE HARRISON CO., INC., SUITE 900, 605-
14TH STREET, N.W., WASHINGTON, DC 20005

IRIS ACCESSION NUMBER: EW009048

PUBLICATION DATE: 82

TITLE: COMBATING OIL SPILLS: SOME ECONOMIC ASPECTS.

DESCRIPTOR: *CLEANUP; *COSTS; *ECONOMICS; *LIABILITY;
*OCEANOGRAPHY; *POLLUTION; *OIL SPILLS; *STATISTICAL DATA;
*WATER POLLUTION

NOTE: 140P. PRICE: \$9.50

THIS WORK CONTAINS THE FIRST PUBLISHED COLLECTION OF OIL SPILL COSTS. IT SHOWS THE COSTS OF DAMAGE AND CLEANUP FROM 1962 TO 1980, RELATIVE AND ABSOLUTE COSTS. A DISCUSSION OF THE "MAY" PRINCIPLE IS ALSO PRESENTED.

Y: OECD PUBLICATIONS AND INFORMATION CENTER, 1750 PENNSYLVANIA AVE., N.W., WASHINGTON, DC

ION NUMBER: EW009049

DATE: 83

ERENCE PROCEEDINGS: PUMPING STATION DESIGN FOR ING ENGINEER.

*CONFERENCE PROCEEDINGS; *DESIGN; *PUMPS; *ATIONS

NOTE: 1576P. PRICE: \$150.00

VIRTUALLY EVERY PHASE OF PUMPING STATION DESIGN IN THIS 34-CHAPTER, 4-VOLUME REVIEW THAT INVOLVED PROFESSIONAL ENGINEERS IN ITS PREPARATION.

Y: DEPARTMENT OF CIVIL ENGINEERING MECHANICS, TE UNIVERSITY, BOZEMAN, MT 59717

ION NUMBER: EW009050

DATE: 82

COST OF OIL SPILLS.

*COMPENSATION; *ECONOMICS; *OCEANOGRAPHY; *OIL LLUTION; *WATER POLLUTION

NOTE: 252P. PRICE: \$15.00

INCLUDED ARE STUDIES PRESENTED AT AN OECD HE VARIOUS FORMS OF DAMAGE, BOTH ECONOMIC LOSSES MENTS OF WELL-BEING ARE CONSIDERED. THE STUDIES LARGELY ON RESEARCH FOLLOWING THE AMOCO CADIZ THEY SHOW, IN PARTICULAR, THE DIFFICULTIES BY OIL SPILL VICTIMS IN ESTABLISHING HOW MUCH N THEY SHOULD CLAIM.

Y: OECD PUBLICATIONS AND INFORMATION CENTER, 1750 PENNSYLVANIA AVENUE, N.W., WASHINGTON, DC

IRIS ACCESSION NUMBER: EW009051

PUBLICATION DATE: 82

TITLE: DATA PROCESSING IN THE WATER INDUSTRY.

DESCRIPTOR: *AUTOMATION; *CONFERENCE PROCEEDINGS; *DATA AUTOMATION; *OPERATION (WATER); *OPERATIONS (WASTEWATER); *TECHNOLOGY; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 92P.

ABSTRACT: THESE PROCEEDINGS FROM A SYMPOSIUM HELD BY THE INSTITUTE IN 1982 AT BOURNEMOUTH PRESENT A GENERAL OVERVIEW OF ADVANCES IN DATA AUTOMATION TECHNOLOGY AS IT APPLIES TO WATER AND WASTEWATER TREATMENT SYSTEMS.

AVAILABILITY: INSTITUTE OF WATER POLLUTION CONTROL, LEDSON, HOUSE, 53 LONDON ROAD, MAIDSTONE, KENT ME16BJH, ENGLAND

IRIS ACCESSION NUMBER: EW009052

PUBLICATION DATE: 82

TITLE: DATA SHEETS ON SELECTED TOXIC ELEMENTS.

PERSONAL AUTHOR: JAWORSKI, J. F.

DESCRIPTOR: *ANIMALS; *BIOLOGICAL EFFECTS; *CHEMICALS; *DATA SHEETS; *PLANTS; *TOXIC ELEMENTS; *TOXIC SUBSTANCES; *TOXICITY

DESCRIPTIVE NOTE: 61P. PRICE: \$5.00

ABSTRACT: THIS LISTING INCLUDES CHEMICAL ELEMENTS IDENTIFIED AS TOXIC TO ANIMAL AND VEGETABLE LIFE FORMS, BUT PERHAPS NOT AS WELL STUDIED AS LEAD, MERCURY, CADMIUM, AND THE LIKE. THE AVAILABLE DATA ARE PRESENTED FOR ANTIMONY, BARIUM, BISMUTH, BORON, CESIUM, GALLIUM, GERMANIUM, INDIUM, MOLYBDENUM, SILVER, TELLURIUM, THALLIUM, TIN (ORGANIC AND INORGANIC), URANIUM, AND ZIRCONIUM.

AVAILABILITY: PUBLICATIONS, NRCC/CNRC, OTTAWA, ONTARIO, KIA 0R6, CANADA

IRIS ACCESSION NUMBER: EW009053

PUBLICATION DATE: 82

TITLE: ENVIRONMENTAL AUDIT HANDBOOK.

PERSONAL AUTHOR: TRUITT, THOMAS H.

DESCRIPTOR: *AUDITS; *COMPLIANCE; *ENVIRONMENTAL AUDITS; *HANDBOOKS

DESCRIPTIVE NOTE: 333P. PRICE: \$75.00

ABSTRACT: VOLUNTARY ENVIRONMENTAL COMPLIANCE AUDITING CAN REDUCE THE BURDEN OF EPA INSPECTIONS AND PENALTIES. THIS

56

172

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HOW AND WHY TO MAKE AUDITS, AND IN WHAT AREAS.

EXECUTIVE ENTERPRISES PUBLICATIONS CO., 33
STREET, NEW YORK, NY 10023

ON NUMBER: EW009054

DATE: 82

SURE COMMITMENT ASSESSMENTS OF ENVIRONMENTAL
VOLUME 2 - MARC REPORT NO. 28.

THOR: BENNETT, B. C.

*CHROMIUM; *EXPOSURE EFFECTS; *POLLUTANTS;
*HEAVY METALS; *POLYCHLORINATED BIPHENYLS; *SELENIUM

NOTE: 427P. PRICE: \$4.00

THIS VOLUME EXAMINES THE NATURAL CYCLE,
SOURCE, METABOLISM, EFFECTS, AND SEVERAL
ASPECTS OF POLYCHLORINATED BIPHENYLS, SELENIUM, AND

MONITORING AND ASSESSMENT RESEARCH CENTRE,
BUILDING, 459A FULHAM ROAD, LONDON SW10 0QX, UNITED

ON NUMBER: EW009055

DATE: 82

HOW TO SAFE HANDLING OF COMPRESSED GASES.

*COMPRESSED GASES; *GASES; *INSTRUCTIONAL
*MATERIALS HANDLING; *MONITORING; *POST SECONDARY
*SAFETY; *STORAGE

THIS BOOK DISCUSSES THE DESIGN AND OPERATION OF
PLANTS, CHARACTERISTICS OF GASES, MONITORING WORKROOM
ENVIRONMENT, SAFE HANDLING AND STORAGE, AND OTHER RELATED
TOPICS. THE MATERIAL WILL BE USEFUL TO CHEMICAL
ENGINEERS, CHEMICAL PLANTS, AND FACILITIES HANDLING
GASES.

THOR: MATHESON, P. O. BOX 1587P, SECAUCUS, NJ

ON NUMBER: EW009056

DATE: 82

PROPERTY EFFECTS ON SLUDGE DEWATERING
TECHNIQUES.

THOR: KNOCKE, WILLIAM R.; WAKELAND, DOUGLAS L.

*ANALYTICAL TECHNIQUES; *FLOC EFFECTS; *SLUDGE

173

DEWATERING; *SOLIDS DETERMINATION

DESCRIPTIVE NOTE: 65P. PRICE: \$6.00

ABSTRACT: TOPICS COVERED INCLUDE FLOC PARTICLE SIZE, WATER
CONTENT ANALYSIS, WASTE SOURCE DESCRIPTIONS, TESTS TO
DETERMINE IF SLUDGE CAN BE PROPERLY HANDLED, SOLIDS
DETERMINATION, AND OTHER ASPECTS.

AVAILABILITY: VIRGINIA WATER RESOURCES RESEARCH CENTER, 617
NORTH MAIN STREET, BLACKSBURG, VA 24060-3397.

IRIS ACCESSION NUMBER: EW009057

PUBLICATION DATE: 82

TITLE: GERAGHTY & MILLER'S GROUND-WATER BIBLIOGRAPHY.

PERSONAL AUTHOR: VANDER LEEDEN; FRITS

DESCRIPTOR: *BIBLIOGRAPHIES; *GROUNDWATER; *HYDROLOGY;
*RESEARCH; *WATER RESOURCES; *WATER SUPPLY; *WATER POLLUTION
CONTROL

DESCRIPTIVE NOTE: 400P.

ABSTRACT: INCLUDED ARE OVER 4,000 SELECTED PAPERS, BOOKS,
JOURNALS AND BULLETINS ON THE SUBJECT OF GROUNDWATER.
COMPILED BY A HYDROGEOLOGIST ACTIVELY WORKING FOR A MAJOR
CONSULTING FIRM, THE GUIDE CONTAINS BOTH "CLASSIC" WORKS AND
SIGNIFICANT NEW ONES IN A PRACTICAL AND CONCISE FORMAT WHICH
OFFERS THE READER A QUICK REFERENCE GUIDE TO THE LITERATURE
IN THE FIELD.

AVAILABILITY: WATER INFORMATION CENTER, INC., 6800 JERICHO
ROAD, SYOSSET, NY 11791

IRIS ACCESSION NUMBER: EW009058

PUBLICATION DATE: 82

TITLE: ADVANCES IN THE IDENTIFICATION & ANALYSIS OF ORGANIC
POLLUTANTS IN WATER; TWO VOLUMES.

PERSONAL AUTHOR: KEITH, LAWRENCE H.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *IDENTIFICATION;
*LABORATORY PROCEDURES; *ORGANIC POLLUTANTS; *SAMPLING;
*STATE-OF-THE-ART REVIEWS

DESCRIPTIVE NOTE: 1215P. PRICE: \$79.90

ABSTRACT: THE 57 CHAPTERS COVER NEARLY ALL ASPECTS OF
DETECTING, COLLECTING, ANALYZING, AND IDENTIFYING ORGANIC
CONTAMINANTS. THERE ARE GRAPHS, CHARTS, TABLES, AND
REFERENCES TO SUPPLEMENT THIS STATE-OF-THE-ART PUBLICATION.

AVAILABILITY: ANN ARBOR SCIENCE, 10 TOWER OFFICE PARK,
WOBURN, MA 01801

174

ION NUMBER: EW009059

ROVING WELL AND PUMP EFFICIENCY.

THOR: HELWEG, OTTA J.; AND OTHERS

*COMPUTER SOFTWARE; *INSTRUCTIONAL MATERIALS;
E; *MANAGEMENT; *OPERATIONS (WATER); *PERFORMANCE
*POST SECONDARY EDUCATION; *PUMPS; *WATER WELLS;
ER SUPPLY

NOTE: 168P. PRICE: \$15.60 MEMBER; \$19.50 NON-

THIS PUBLICATION HAS FACTS, IDEAS, AND SOFTWARE
D HELP IMPROVE PUMP AND WELL OPERATIONS. THE
GRAMS ARE DESIGNED TO OPERATE ON CALCULATORS AND
INFORMATION WILL HELP TEST PUMP PERFORMANCE, SET
AND KNOW WHEN PUMPS OR WELLS NEED MAINTENANCE.

Y: AMERICAN WATER WORKS ASSOCIATION, DATA
DEPT., 6666 WEST QUINCY AVENUE, DENVER, CO 80235

ION NUMBER: EW009060

DATE: 81

INTERNATIONAL RESEARCH ON SALINE IRRIGATION WATERS:
D BIBLIOGRAPHY 1950-1980.

THOR: GUPTA, I. C.; PAHWA, K. N.

*ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES;
; *RESEARCH; *SALINE WATERS; *WATER RESOURCES;
LY; *WORLD PROBLEMS

NOTE: 406P.

THE FINDINGS OF RESEARCH INVESTIGATIONS CONDUCTED
COUNTRIES THROUGHOUT THE WORLD OVER THE PAST THREE
THE USE OF SALINE AND SEAWATER FOR IRRIGATION
COLLECTED AND ARE SUMMARIZED IN THIS VOLUME. THIS
BIBLIOGRAPHY INCLUDES 884 ABSTRACTS OF ORIGINAL
PAPERS, REVIEWS, BOOKS, BULLETINS, MONOGRAPHS, AND
AND TRANSACTIONS OF SYMPOSIA, CONFERENCES, AND
AUTHOR, SUBJECT, SOURCE, AND GEOGRAPHICAL
E PROVIDED. THE BOOK SHOULD BE OF CONSIDERABLE
TO RESEARCH WORKERS, SCHOLARS, PLANNERS AND
WORKERS AND IN PARTICULAR TO THOSE WORKING IN
AND ARID ZONES WHO ARE INVOLVED WITH THE USE OF
RS FOR IRRIGATION.

Y: AGICOLE PUBLISHING ACADEMY, D-76 PANCHSHEEL
W DELHI - 110 017, INDIA

ION NUMBER: EW009061

DATE: 83

D TREATMENT OF HAZARDOUS WASTES.

PERSONAL AUTHOR: PARR, JAMES F.; AND OTHERS

DESCRIPTOR: *CHEMICALS; *HAZARDOUS WASTES; *LAND TREATMENT;
*MANAGEMENT; *RESEARCH; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 422P. PRICE: \$45.00

ABSTRACT: THIS BOOK PRESENTS A CRITICAL REVIEW AND
ASSESSMENT OF CURRENT KNOWLEDGE AND MANAGEMENT PRACTICES FOR
ULTIMATE DISPOSAL OF A NUMBER OF WASTE CHEMICALS. IT
PROVIDES USEFUL INFORMATION AND STRATEGIES FOR THE DESIGN,
DEVELOPMENT, AND EFFECTIVE MANAGEMENT OF LAND TREATMENT
SYSTEMS FOR HAZARDOUS WASTES, AND IDENTIFIES AREAS OF
RESEARCH THAT ARE NEEDED TO MAXIMIZE THE POTENTIAL VALUE OF
LAND TREATMENT SYSTEMS AND TO MINIMIZE ASSOCIATED RISKS.

AVAILABILITY: NOYES DATA CORP., MILL ROAD AT GRAND AVENUE,
PARK RIDGE, NJ 07656

IRIS ACCESSION NUMBER: EW009062

PUBLICATION DATE: 82

TITLE: LAND RECLAMATION AND BIOMASS PRODUCTION WITH
MUNICIPAL WASTEWATER AND SLUDGE.

PERSONAL AUTHOR: SOPPER, WILLIAM E.

DESCRIPTOR: *BIOMASS PRODUCTION; *LAND RECLAMATION;
*SLUDGE; *WASTEWATER; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 524P. PRICE: \$20.00

ABSTRACT: THIS IS A COLLECTION OF 33 PAPERS RELATED TO
USING MUNICIPAL WASTEWATER AND SLUDGE TO RECLAIM ALL KINDS
OF DISTURBED LANDS. STRIP-MINED LAND RECOVERY, GRAVEL-PIT,
IRON-ORE-EXCAVATION, AND FOREST-DAMAGED LANDS ARE DISCUSSED.

AVAILABILITY: PENNSYLVANIA STATE UNIVERSITY PRESS, 215
WAGNER BUILDING, UNIVERSITY PARK, PA 16802

IRIS ACCESSION NUMBER: EW009064

PUBLICATION DATE: 82

TITLE: A MANAGER'S GUIDE TO PERFORMANCE APPRAISAL.

DESCRIPTOR: *EVALUATION; *INSTRUCTIONAL MATERIALS;
*MANAGEMENT; *MBO; *PERFORMANCE EVALUATION; *POST SECONDARY
EDUCATION; *PERSONNEL EVALUATION

DESCRIPTIVE NOTE: 188P. PRICE: \$15.95

ABSTRACT: THIS PUBLICATION INDICATES HOW MBO ENABLES
MANAGERS TO PLAN AND CONTROL WORK FLOW, MAKE EQUITABLE
COMPENSATION DECISIONS, AND COMPLY WITH EQUAL EMPLOYMENT
STANDARDS IN MINORITY RECRUITMENT, TRAINING AND PROMOTION BY
BASING COMPENSATION ON CLEARLY STATED, OBJECTIVE AND
DEFENSIBLE CRITERIA. THE BOOK'S ULTIMATE PURPOSE IS TO TEACH
MANAGERS HOW TO USE PERFORMANCE APPRAISAL TO MOTIVATE PEOPLE

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ORDER AND "SMARTER."

TY: FREE PRESS, A DIVISION OF MACMILLAN
CO., 866 THIRD AVENUE, NEW YORK, NY 10022

SION NUMBER: EW009065

N DATE: 82

ANUAL OF INDIVIDUAL WATER SUPPLY SYSTEMS.

*GROUNDWATER; *INDIVIDUAL SUPPLIES; *WATER
CONTROL; *WATER DISTRIBUTION; *WATER TREATMENT;
OURCES; *WELLS; *WATER SUPPLY

E NOTE: 156P. STOCK NUMBER 055-000-00229-1.

THIS PUBLICATION FOCUSES PRIMARILY ON GROUNDWATER.
SINCE THESE COMPRISE OVER 90 PERCENT OF EXISTING
SYSTEMS. THE MANUAL DESCRIBES SELECTION OF A
RCE, EXTRACTING GROUNDWATER, SURFACE WATER FOR
WATER TREATMENT, PUMPING, DISTRIBUTION, AND
APPENDICES SUGGEST AN ORDINANCE FOR USE BY LOCAL
S FOR LEGAL CONTROLS TO ASSURE PROTECTION OF
R QUALITY AND INCLUDE A BIBLIOGRAPHY AND ADDRESSES
NUMBERS FOR EPA REGIONAL WATER SUPPLY AGENCIES AND
FFICES.

TY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT
FFICE, WASHINGTON, DC 20402

SION NUMBER: EW009066

N DATE: 83

MBRANE FILTRATION: A USER'S GUIDE AND REFERENCE

UTHOR: BROCK, THOMAS D.

*FILTRATION; INDUSTRIES; *INSTRUCTIONAL
LABORATORIES; *MEMBRANE FILTERS; *POST SECONDARY
*REFERENCE MANUALS

E NOTE: 381P. PRICE: \$29.95

FOR USE AS A REFERENCE TOOL OR AN ON-THE-JOB
ANUAL, THIS PRACTICAL GUIDE CONTAINS STATE-OF-THE-
IQUES AND INFORMATION ON LABORATORY, INDUSTRIAL,
ACEUTICAL USES OF MEMBRANE FILTERS. A PARTICULARLY
PPENDIX CONTAINS AN UP-TO-DATE LIST OF ALL
ERS NOW MAKING MEMBRANE FILTERS AND ACCESSORIES,
OF THEIR PRODUCTS.

TY: SCIENCE TECH., INC., P. O. BOX 55090,
1 53705

IRIS ACCESSION NUMBER: EW009067

PUBLICATION DATE: 82

TITLE: 1982 ANNUAL BOOK OF ASTM STANDARDS: PART 41.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *GOVERNMENT STANDARDS;
*INDUSTRY; *MANUFACTURING; *STANDARDS; *STATISTICAL METHODS;
*TEST METHOD STANDARDS; *TESTING STANDARDS; *TECHNOLOGY

DESCRIPTIVE NOTE: 1584P. PRICE: \$64.00

ABSTRACT: THE LATEST DEVELOPMENTS IN THE DYNAMIC FIELD OF
GENERAL TEST METHOD STANDARD SETTING AND OTHER AREAS ARE
INCLUDED IN THIS INDISPENSABLE REFERENCE WORK. PART 41
CONTAINS OVER 194 STANDARDS, RANGING FROM STATISTICAL
METHODS TO TECHNICAL ASPECTS OF PRODUCTS LIABILITY
LITIGATION. ALL 14 OF THE U.S. DEFENSE DEPARTMENT'S NEW
STANDARDS ARE INCLUDED.

AVAILABILITY: ASTM, 1916 RACE STREET, PHILADELPHIA, PA
19103

IRIS ACCESSION NUMBER: EW009068

PUBLICATION DATE: 82

TITLE: OZONIZATION MANUAL FOR WATER AND WASTEWATER
TREATMENT.

PERSONAL AUTHOR: MASSCHELEIN, W. J.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COSTS; *DISINFECTION;
*OZONE; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER);
*WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 324P. PRICE: \$41.95

ABSTRACT: THIS BOOK IS DIVIDED INTO PARTS DISCUSSING OZONE
GENERATION, WATER OZONIZATION PRINCIPLES, PRACTICAL ASPECTS,
AND OZONE ANALYSIS. CRITICAL QUESTIONS IN OZONE PRACTICE,
COSTS, NEW DEVELOPMENTS, AND FLOW SHEETS ARE ALSO PRESENTED.
THE EDITOR IS PRESIDENT OF THE EUROPEAN COMMITTEE OF THE
INTERNATIONAL OZONE ASSOCIATION.

AVAILABILITY: JOHN WILEY & SONS, INC., 605 THIRD AVE., NEW
YORK, NY 10016

IRIS ACCESSION NUMBER: EW009069

TITLE: PHYSICAL HYDROGEOLOGY.

PERSONAL AUTHOR: FREEZE, R. H.; BACK, W.

DESCRIPTOR: *GROUNDWATER; *HYDROLOGY; *MANAGEMENT; *NORTH
AMERICA; *RESEARCH; *WATER RESOURCES

DESCRIPTIVE NOTE: 448P. PRICE: \$48.00

ABSTRACT: THIS IS A COLLECTION OF PAPERS EMPHASIZING

-BASED GROUNDWATER RESEARCH IN NORTH AMERICA.
INCLUDE: THEORETICAL INVESTIGATION OF THE MOTION IN
ES; COMPRESSIBILITY AND ELASTICITY OF ARTESIAN
THE EQUATION OF GROUNDWATER FLOW IN FIXED AND
COORDINATES; WELL AND AQUIFER HYDRAULICS; THEORY
A TESTS; USE OF ELECTRICAL METHODS FOR ANALYZING
GROUNDWATER LEVELS; GROUNDWATER MANAGEMENT FOR THE
FUTURE; AND REGIONAL FLOW INCLUDING GEOLOGY AND
RESOURCES OF THE BALTIMORE AREA.

TY: SCIENTIFIC AND ACADEMIC EDITIONS, 135 WEST
T., NEW YORK, NY 10020

ION NUMBER: E909070

DATE: 82

UTION AND THE BIOLOGICAL RESOURCES OF THE OCEAN.

THOR: PATIN, S. A.

*BIOLOGY; *ECOLOGY; *MARINE BIOLOGY;
*POLLUTION; *WATER RESOURCES;
*WATER POLLUTION CONTROL

NOTE: 287P. PRICE: \$85.95

WRITTEN BY THE DEPUTY DIRECTOR OF THE ALL-UNION
INSTITUTE OF MARINE FISHERIES AND AQUACULTURE OF
THE UNION. THIS CONFERENCE PRESENTS THE
NATIONAL-SCALE RECOMMENDATIONS FOR MAXIMUM PERMISSIBLE
CONCENTRATIONS OF THE MOST WIDELY DISTRIBUTED POLLUTANTS IN
THE OCEAN." PART II BASES ON EXPERIMENTAL RESULTS FROM
TRIALS TO JUSTIFY HIS CONCLUSIONS.

TY: BUTTERWORTH SCIENTIFIC, 16 TOWER OFFICE PARK,
LONDON, ENGLAND EC1A 3DF

ION NUMBER: E909071

DATE: 82

PROCEEDINGS OF THE 1982 MADISON CONFERENCE OF
RESEARCH AND PRACTICE ON MUNICIPAL AND INDUSTRIAL

*CASE STUDIES; *CONFERENCE PROCEEDINGS;
*GROUNDWATER; *LAND APPLICATION; *LANDFILLS;
*POLLUTION CONTROL; *SITING PROCEDURES; *SLUDGE;
*WASTE MANAGEMENT; *WATER POLLUTION CONTROL

NOTE: 650P. PRICE: \$25.00

THESE CONFERENCE PROCEEDINGS CONTAIN TECHNICAL
ON MUNICIPAL SLUDGE MANAGEMENT, GROUNDWATER
AND LANDFILL SITING PROCEDURES; LAND APPLICATION OF
AND INDUSTRIAL SLUDGE; GROUNDWATER QUALITY
AND LANDFILL GAS AND LEACHATE CONTROL; CASE STUDIES
OF GROUNDWATER CONTAMINATION; NITROGEN, HEAVY METAL AND
HEALTH CONCERNS WHEN LAND APPLYING MUNICIPAL

SLUDGE; USE OF SLUDGE ON AGRICULTURAL AND FORESTED LANDS;
AND LAND APPLICATION OF SPECIAL WASTES.

AVAILABILITY: RUTH ANN MONTGOMERY, DEPARTMENT OF
ENGINEERING & APPLIED SCIENCE, UNIVERSITY OF WISCONSIN-
EXTENSION, 432 NORTH ZEEB STREET, MADISON, WI 53706

IRIS ACCESSION NUMBER: E909072

PUBLICATION DATE: 82

TITLE: PROCEEDINGS OF THE SIXTH NATIONAL GROUND-WATER
QUALITY SYMPOSIUM.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *CONTAMINATION;
*FEDERAL ROLE; *GROUNDWATER; *LEGISLATION; *MANAGEMENT;
*MONITORING; *POLICY DEVELOPMENT; *STATE ROLE; *WATER
POLLUTION CONTROL; *WATER RESOURCES

DESCRIPTIVE NOTE: PRICE: \$25.00

ABSTRACT: THIS PUBLICATION IS THE PROCEEDINGS OF
CONFERENCE HELD SEPT., 1982 IN ATLANTA, GEORGIA. PAPERS
CONSIDER THE NEEDS OF REGIONAL, STATE, COUNTY AND MUNICIPAL
JURISDICTIONS IN GROUNDWATER PROTECTION. TOPICS INCLUDE: AN
OVERVIEW OF LAWS DEALING WITH GROUNDWATER; DEVELOPING A
COMPREHENSIVE GROUNDWATER MANAGEMENT PROGRAM; STATE POLICY
AND TOOLS FOR MANAGING AND PROTECTING GROUNDWATER;
IDENTIFICATION AND CLASSIFICATION OF AQUIFERS; THE BISCAYNE
AQUIFER PROJECT--A LOCAL WELLFIELD PROTECTION PROGRAM; BEST
MANAGEMENT PRACTICES FOR AVOIDING GROUNDWATER CONTAMINATION
PROBLEMS INCLUDING PREVENTION AND DETECTION OF LEAKS FROM
UNDERGROUND GASOLINE STORAGE SYSTEMS; DEVELOPING A WORKABLE
GROUNDWATER MONITORING PROGRAM; AND DEALING WITH EXISTING
GROUNDWATER CONTAMINATION PROBLEMS.

AVAILABILITY: SIXTH NATIONAL GROUNDWATER QUALITY SYMPOSIUM
PROCEEDINGS, NATIONAL WATER WELL ASSOCIATION, 500 W. WILSON
BRIDGE ROAD, WORTHINGTON, OH 43085

IRIS ACCESSION NUMBER: EW009073

PUBLICATION DATE: APR 83

TITLE: RAIN AND STORMWATER HARVESTING IN RURAL AREAS.

DESCRIPTOR: *NATURAL RESOURCES; *RAIN; *RURAL AREAS;
*STORMWATER; *WATER CONSERVATION; *WATER RESOURCES; *WATER
SUPPLY; *WATER HARVESTING; *WATER COLLECTION; *WATER
STORAGE; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 236P.

ABSTRACT: THIS PUBLICATION IS A REPORT BY THE UNITED
NATIONS ENVIRONMENT PROGRAM ON RAIN AND STORMWATER
HARVESTING IN RURAL AREAS. CONTENTS INCLUDE SECTIONS ON
ROOFS AND GROUND CATCHMENT, CONTOUR TERRACING, SILT-TRAPS
AND CANALS, HAFFIRS AND BUNDS, DESIGN AND EVALUATION OF
RAINWATER HARVESTING SCHEMES, AND RECOMMENDATIONS AND
CRITERIA FOR PILOT PROJECTS.

: UNIPUB, 1180 AVENUE OF THE AMERICAS, NEW
036

ON NUMBER: EW009074

DATE: APR 83

R BASIN DEVELOPMENT.

*CONFERENCE PROCEEDINGS; *DEVELOPMENT;
AL LAW; *RIVERS; *RIVERBASIN DEVELOPMENT; *WATER
WATER SUPPLY

NOTE: 239P.

THIS PUBLICATION ON RIVER BASIN DEVELOPMENT IS
INGS OF A SYMPOSIUM HELD IN DACCA, BANGLADESH IN
DED AR. PAPERS ON RIVER BASIN DEVELOPMENT AND
L. LAW, THE KEYNOTE ADDRESS, AND LAWS GOVERNING
L. WATERS.

: UNIPUB, 1180 AVENUE OF THE AMERICAS, NEW
036

ON NUMBER: EW009075

DATE: 82

OF WATER IN URBAN ECOLOGY.

OR: HENCEVELD, H.; DE VOCHT, C.

*CASE STUDIES; *ECOLOGY; *HYDROLOGY;
*URBAN AREAS; *WATER RESOURCES; *WATER SUPPLY

NOTE: 360P. PRICE: 86.00

THIS BOOK DISCUSSES TOPICS RELATED TO URBAN WATER
CH AS URBAN HYDROLOGY, WATER MANAGEMENT, NATURE
ETTLEMENTS, AND WATER SYSTEM PLANNING. CASE
GIVEN.

: ELSEVIER SCIENCE PUBLISHING CO., INC., 52
VE., NEW YORK, NY 10017

ON NUMBER: EW009077

DATE: 83

WATER MANAGEMENT IN URBANIZING AREAS.

OR: WHIPPLE, WILLIAM; AND OTHERS

FLOODING; *MANAGEMENT; *PLANNING; *STORMWATER;
GIF; *URBAN AREAS; *WASTEWATER COLLECTION; *
WATER POLLUTION CONTROL

NOTE: 234P. PRICE: 24.95

ABSTRACT: COMPILED BY SIX RESPECTED PROFESSIONAL ENGINEERS,
THIS BOOK EXPLAINS THE NEW CONCEPT OF STORMWATER MANAGEMENT.
THE CONCEPT HAS BEEN DEVELOPED FROM THE NOW OBSOLETE
DETENTION BASINS OF THE 1970S TO A MORE DYNAMIC MANAGEMENT
SYSTEM AIMED AT REDUCING FLOODING POTENTIAL AND RUN-OFF
POLLUTION.

AVAILABILITY: PRENTICE-HALL, INC., ENGLEWOOD CLIFFS, NJ
07632

IRIS ACCESSION NUMBER: EW009078

PUBLICATION DATE: 83

TITLE: SUPERFUND ANALYSIS.

PERSONAL AUTHOR: SULLIVAN, THOMAS F. P.

DESCRIPTOR: ENVIRONMENT; *EPA; *FEDERAL PROGRAMS;
*HAZARDOUS WASTES; LEGISLATION; *LIABILITY; *PROGRAM
DESCRIPTIONS; *SUPERFUND; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 233P. PRICE: \$48.00

ABSTRACT: THIS NOTEBOOK EXPLAINS THE COMPREHENSIVE
ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF
1980 (CERCLA OR SUPERFUND). IT CONSIDERS THE LAW'S SCOPE; A
LIST OF WASTES DEEMED HAZARDOUS; LIABILITY ISSUES; TAX
REGULATIONS FOR SUPERFUND FUNDING; A NATIONAL CONTINGENCY
PLAN FOR LIABLE PARTIES; AND PERSONAL INJURY COMPENSATION.
THE STATUTE'S COMPLETE TEXT IS INCLUDED.

AVAILABILITY: GOVERNMENT INSTITUTES, INC., 966 HUNGERFORD
DR., ROCKVILLE, MD 20850

CGI



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BLEDSOE, CAROLINE S.
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BLESSING, BUCK
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BOARDMAN, GREGORY D.
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BOETTNER, EDWARD A.
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ROLAND, JOHN J.
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BOON, A. G.
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BOUYER, HERMAN
EW 008 5
BRENNAN, MARY R.
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BROOK, THOMAS E.
EW 008 966
BROSTE, DALE
EW 008 860
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BROWN, RICHARD D.
EW 008 712
BRUVOLD, W. H.
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BURKE, CLYDE A.
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CADIGAN, WILLIAM J.
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CARNEGIE, JOHN W.
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CARY, GEORGE A.
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CASTLE, R. W.
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CHRISTIAN, ROBERT R.
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CIOTOLI, PETER A.
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CLARK, DOUGLAS W.
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CLARK, ROBERT M.
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COATES, VARY T.
EW 008 978
COCCER, CRAIG
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COLE, CHARLES A.
EW 004 174
COON, HERBERT L.
EW 008 04
COOPER, JOHN W.
EW 008 611
CUTONE, ROBERT
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D'LTRI, FRANK M.
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DALOISIO, TONY
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DAMANT, CHRISTINE
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DASH, RAGHUNATH
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EW 008 945
DAMIS, DENNIS N.
EW 008 872
DAVIS, MICHAEL J.
EW 008 984
DE VOCHT, C.
EW 009 075
DEB, ARUN K.
EW 008 878

BESSY, RAYMOND E.
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DISSMEYER, GEORGE E.
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DOE, PETER W.
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DONOVAN, J. M.
EW 008 976
DORNHUSH, JAMES H.
EW 008 972
DOYLE, ALBERT A.
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DRAN, RAYMOND H.
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DREVER, JAMES I.
EW 008 718
DREWS, R. J. L. C.
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DRUMMOND, JOHN G.
EW 008 986
DYKES, GLENN M.
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EIKUM, ARILD S.
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EL-JUMAILY, KARIM R.
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ELEFRITZ, ROBERT A.
EW 008 880
EVANS, JOE L.
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EVANS, THOMAS M.
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FAUST, SAMUEL D.
EW 008 711
FEATHERSTONE, RONALD E.
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FIELD, RICHARD
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FILER, HERB
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EW 008 928
FIRESTONE, MARSHA
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B 741
KER, STEPHEN J.
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ERINE P.
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A.
9 046
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JULIA
B 583
MARVEY
B 704
BARRY T.
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ARRIE J.
B 667
ANK
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WILLIAM P.
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C.
D 060
ED
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EANNE H.
D 011
LES N.
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RY L.
B 849
HARD
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Y 748
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HELWEG, OTTA J.
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HENGEVELD, H.
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HERSCH, PAUL
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HILL, H. N.
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HOANG, LE H.
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HOLDEN, JANET A.
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HOLLENBECK, ALAN J.
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HOUCK, D. H.
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HU, ALEX
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HUANG, JU-CHANG
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HUGHES, JAMES P.
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HUSSEY, KEVIN J.
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IDELOVITCH, EMANUEL
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ISAACSON, MORTON S.
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ISACOFF, ERIC G.
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ISKANPAR, I. K.
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JAWORSKI, J. F.
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JEFFERS, E. L.
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JINKENS, DAVID M.
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JOHNSON, BRYAN
EW 008 868

JOHNSON, MARK L.
EW 008 844
JOLLEY, R. L.
EW 008 977
JOLLEY, ROBERT L.
EW 008 709
JONES, ANNE
EW 008 900
JORGENSEN, S. E.
EW 008 714
KABERATTEN, JOHN M.
EW 009 045
KAPIAN, O. B.
EW 009 027
KARALEKAS, PETER C., JR.
EW 008 675
KEEFER, GARY B.
EW 008 889
KEITH, LAWRENCE H.
EW 009 058
KERCHER, WILLIAM C.
EW 008 881
KERKES, ROBERT A.
EW 008 867
KINCANNON, DON F.
EW 008 666
KIRCHNER, CLIFF J.
EW 008 911
KIRMEYER, GREGORY J.
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KLOPPING, PAUL R.
EW 008 919
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EW 008 922
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KNOCKE, WILLIAM R.
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KOPPER, MICHAEL
EW 008 665
KULIN, GERSHON
EW 008 668
LARSON, CHARLES D
EW 008 876

LASK, ELLEN
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LAURIA, DONALD T.
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LEE, G. FRED
EW 008 900
LOCK, MAURICE A.
EW 008 743
LOFTIS, JIM C.
EW 008 901
LOGSDON, GARY S.
EW 008 673
LONG, WILLIAM R.
EW 009 024
LOVEJOY, G. MONTGOMERY, III
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LUND, GARY
EW 008 869
LYKINS, BEN W.
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LYMAN, WARREN J.
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MACKAY, D.
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MACKAY, DONALD
EW 008 710
MAGER, ROBERT F.
EW 008 633
MANCI, K. M.
EW 008 801
MANN, PATRICK C.
EW 008 599
MASON, CLYDE WALTER
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MASON, JOHN M.
EW 008 682
MASSCHELEIN, W. J.
EW 009 068
MATTHEWS, DOUGLAS G.
EW 008 702
MAXWELL, JOHN M.
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F. C.
720

HARD H.
716

CHARLES W., JR.
701

L.
728

GLAS T.
776

L.
787

HARD H.
713

760

NETH J.
680

DEBA
704

R.
636

ILLIAM B.
683

N E.
600

AKOTO
653

AN P.
635

RGE
681

AM H.
946

T. H.
727

S W.
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RETZER, ABARON
EW 008 751

NICHOLS, CHARLES
EW 008 662

NIU, SARAH
EW 008 812

NOCAJ, RICHARD J.
EW 008 700

NOVAK, JOHN T.
EW 008 891

O'CONNOR, J. T.
EW 008 988

OHNESORGE, W. F.
EW 008 700

OSTEEN, C.
EW 008 768

OTTO, N. E.
EW 009 043

PAHWA, K. W.
EW 009 060

PANI, BIDYASAGAR
EW 008 821

PARK, R. A.
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PARKER, DENNY S.
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PARR, JAMES F.
EW 009 061

PATIN, S. A.
EW 009 070

PEIRCE, J. J.
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PIPES, WESLEY O.
EW 008 802

PIRBAZARI, MASSOUD
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POLPRASERT, C.
EW 008 890

POLPRASERT, CHONGRAK
EW 008 890

PRATT, GLENE D.
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PURTENNEY, JOHN L.
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RABINOWITZ, LARRY
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RACHUNATH, H. M.
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RAMSEY, JACKSON E.
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RANDTKE, STEPHEN J.
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RAO, P. S. C.
EW 008 945

READER, JAMES D.
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REGUNATHAN, P.
EW 008 601

REID, GEORGE W.
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RICHBERG, EDWARD J.
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RICH, LINVIL
EW 008 878

RICHARDS, WILLIAM G.
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RIDDELL, M. DONALD R.
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RITTMANN, BRUCE E.
EW 008 888

ROBINSON, KATHLEEN M.
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ROBINSON, MILLARD P., JR.
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RODRIGUEZ, CHARLES F.
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ROSSIGN, LEWIS A.
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ROSSUM, JOHN R.
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RUBIANO, JULIO C.
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RUSSELL, CLIFFORD S.
EW 008 595

SACK, WILLIAM A.
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SADANA, RAN S.
EW 008 654

SAFFRAN, E. P.
EW 008 659

SATTERWHITE, M. B.
EW 008 482

SCHROCK, B. JAY
EW 008 825

SCHROEDER, E. D.
EW 008 897

SCHROEDER, EDWARD D.
EW 008 886

SCHUYTERA, GERALD S.
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SEABLOOM, ROBERT W.
EW 009 044

SEIDLER, RAMON J.
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SEPP, ENDEL
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SEWELL, GRANVILLE H.
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SHARMAN, RONALD M.
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SHEPARD, PAUL M.
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SHERRARD, JOSEPH H.
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SHIMP, GARY F.
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SHIREMAN, JEROME V.
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SHUCKROW, ALAN J.
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SILVERSTEIN, JOANN
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SMITH, ANN
EW 008 568

SMITH, ROBERT C.
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SOPPER, WILLIAM E.
EW 009 062

SOUTHWEST RESEARCH INST.
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ST. PIERRE, EMMARD A.
EW 008 846

STEVENS, JOHN
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STUCKEY, DAVID
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SUNDIN, H. S.
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SWANK, WAYNE T.
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SWAYZE, JAMES
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SWEET, FREDERICK H.
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THACKER, WILLIAM E.
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TRUITT, THOMAS H.
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TRY, ANDREW JOO-HWA
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TU, ANTHONY T.
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TUNTOOLAVEST, MUNSIN
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UTZ, JOHN H.
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VAN DULJVENBOODER, W.
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VAN DYKE, ROBERT P.
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VANDER LEEDEN, FRITS
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VEENHUIS, JACK E.
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VESILLIND, P. A.
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WACHS, ALBERTO M.
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WAGNER, E. GLENN
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WAGNER, ROLFE
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WAKELAND, DOUGLAS L.
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WALDORF, LAWRENCE
EW 008 707

WALSH, GERALD E.
EW 008 792

WALSKI, THOMAS M.
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WANG, WUNCHENG
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WARD, MORRIS A.
EW 009 047

WARD, ROBERT C.
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WATT, M. H.
EW 008 772

WEBBER, MELVIN D.
EW 008 669

WEBER, WALTER J.
EW 008 896

WEBER, WALTER J., JR.
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WECHSLER, A. E.
EW 008 948

WHIPPLE, WILLIAM
EW 009 077

WHITTAKER, H.
EW 008 827

WHITTAKER, KENNETH F.
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WILLIAMS, D. DUDLEY
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WILLIAMS, JEAN O.
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WILSON, DONALD B.
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WINDHAM, KENDALL
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WISWALL, KENNETH C.
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WYSE, EDWARD H.
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WORTHMAN, LEON A.
EW 008 754

WUBBENA, ROBERT L.
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YANG, VUE
EW 008 849

ZIERDEN, WILLIAM E.
EW 008 834

ZWEIDINGER, R.
EW 008 967