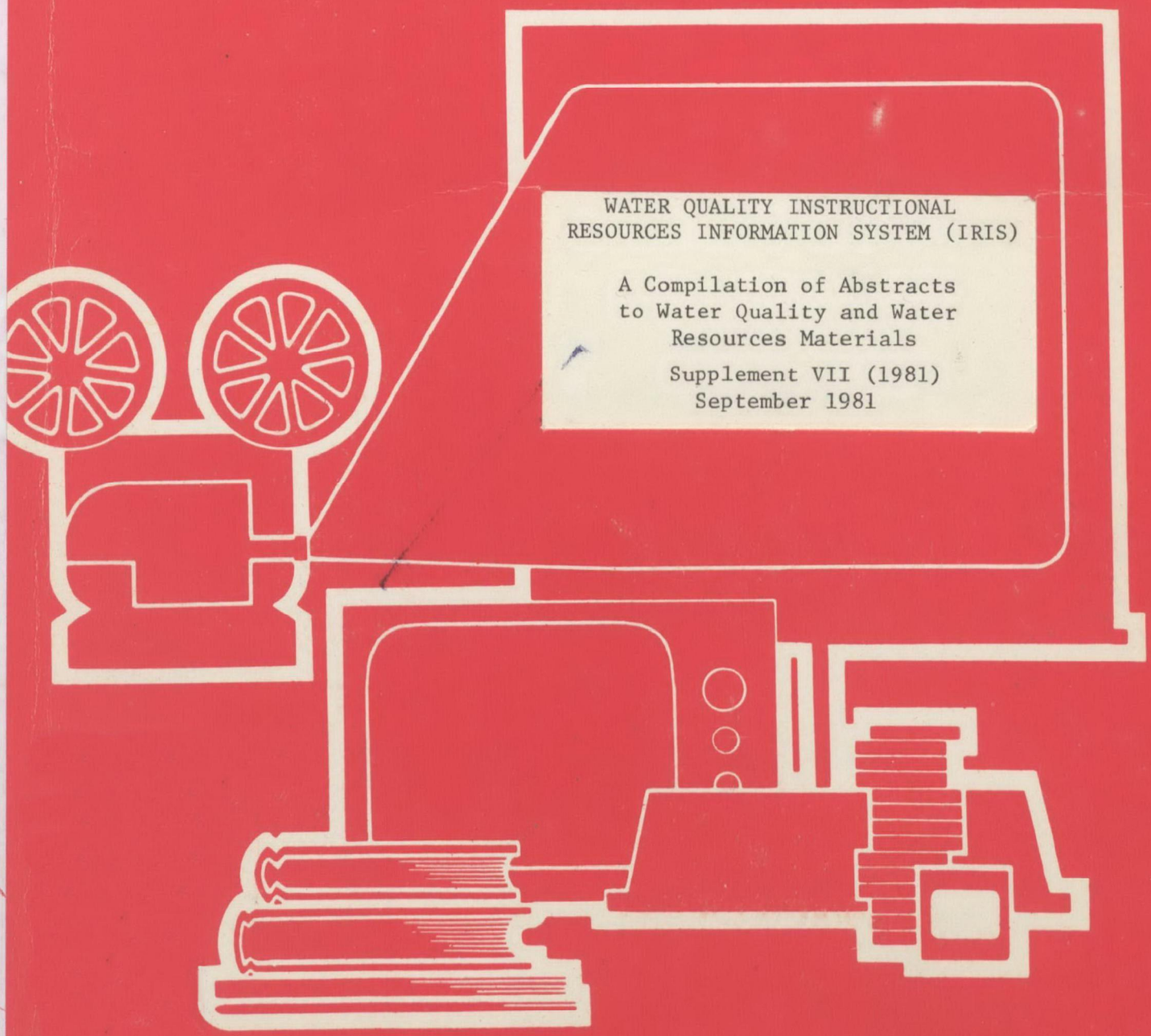
EPA Information Dissemination Project
1200 Chambers Road - Third Floor
Columbus, Ohio 43212

Water

Water Quality Instructional Resources Information System



WATER QUALITY INSTRUCTIONAL
RESOURCES INFORMATION SYSTEM (IRIS)

A Compilation of Abstracts
to Water Quality and Water
Resources Materials

Supplement VII (1981)
September 1981

Prepared by

EPA Information Dissemination Project
SMEAC Information Reference Center
1200 Chambers Road - 3rd Floor
Columbus, Ohio 43212

as part of
Grant No. T-901184-01-0

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Supplement VII (1981)
September 1981

National Training and Operational Technology Center
Office of Water Program Operations
U.S. Environmental Protection Agency
Cincinnati, Ohio 45268

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This project has been financed (in part) with Federal funds from the U.S. Environmental Protection Agency, Office of Water Program Operations, National Training and Operational Technology Center, Cincinnati, Ohio, under grant identification number T-901184-01-0. The contents do not necessarily reflect the views and policies of the U.S. Environmental Protection Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

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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 Information Dissemination Project
1200 Chambers Road
Columbus, Ohio 43212

Telephone: (614) 422-6717

I. General Information about Materials in IRIS.

A. What types of materials are included in IRIS?

The EPA Information Dissemination Project (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 Information Dissemination Project 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 Information Dissemination Project
1200 Chambers Road
Columbus, Ohio 43212

Materials are reviewed by the project staff. Availability of the material 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 Information Dissemination Project 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 Information Dissemination Project. After the free copies of the compilations are gone, copies will be available for purchase form the EPA Information Dissemination Project.

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 Information Dissemination Project. A subscription to the quarterly supplements for 1980-81 is $12.00 (within the U.S.). Price to Canada is $14.00. Prices in other countries is $20.00. 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, Corporation Park, Building 702, Scotia, NY 12302, (518) 374-5011.

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 Information Dissemination Project.

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

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

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

The current price is listed in the most recent issue of RIE. Check if a college or university library close to you has a copy. If they do not, contact the EPA Information Dissemination Project 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 Information Dissemination Project
1200 Chambers Rd., 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 Information Dissemination Project for 3¢ per page + $1.00 per document.

For information about locations of ERIC microfiche sites in your state, contact the EPA Information Dissemination Project.

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
3930 East Camelback Road
Phoenix, Arizona 85018
(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 for each article, only if identified as coming from CIJE with an EJ number, 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: EW 006 023
b. PUBLICATION DATE: FEB 81
c. TITLE: PROGRAMMED APPROACH TO WATER/MASS ANALYSES.
d. PERSONAL AUTHOR: SPENCER, GEORGE R., JR.
e. DESCRIPTOR: *DESIGN; *ENGINEERING; *EQUIPMENT; *PIPES; BALANCE; *PROJECT DESIGN; *POLLUTION ENGINEERING; *PIPES; *WATER RESOURCES

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

h. AVAILABILITY: POLLUTION ENGINEERING, V13 N2

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

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

c. TITLE

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

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

f. DESCRIPTIVE NOTE -- various items of information may be contained in this section. For print materials the number of pages is usually listed.

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 and the price of the material quoted 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 specific item.

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

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

IRIS ACCESSION NUMBER: EW006664

PUBLICATION DATE: 80

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

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

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

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

AVAILABILITY: ERIC, DOCUMENT REPRODUCTION SERVICE, PO 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 also be obtained by contacting:

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

Telephone: 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 Information Dissemination Project.

B. How to Locate Desired Materials

Users can identify materials of interest by scanning the resume listings, or using the Subject Index, Author Index, Institution Index, or Title 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 INFORMATION DISSEMINATION PROJECT
1200 Chambers Road, Rm. 310
Columbus, OH 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 Information Dissemination Project. 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 Information Dissemination Project. 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.
Corporation Park, Building 702
Scotia, New York 12302
(518) 374-5011

3. Subscribing to Dialog for computer searching of IRIS

Contact: DIALOG INFORMATION RETRIEVAL SERVICE
3460 Hillview Avenue
Palo Alto, CA 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 Information Dissemination Project 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 Information Dissemination Project plans to develop some user service products in selected areas in 1981.

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
2108 School of Education
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 & Early Childhood Education
University of Illinois
College of Education
805 W. Pennsylvania Ave.
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, organizaional 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, 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
130 Huntington Hall
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
96 Powell Library Building
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 Linquistics
Center for Applied Linquistics
3520 Prospect Street, N.W.
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 for speakers of other languages.

J. ERIC Clearinghouse on Reading and Communication Skills
National Council of Teachers 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, Third Floor
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
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
One Dupont Circle, 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
Rosedale Road
Princeton, New Jersey 08541
Telephone: (609) 734-5180

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

P. ERIC Clearinghouse on Urban Education
Box 40
Teachers College, Columbia University
525 W. 120th Street
New York, New York 10027
Telephone: (212) 678-3437/3

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 systems, 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
1200-19th Street, N.W.
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.

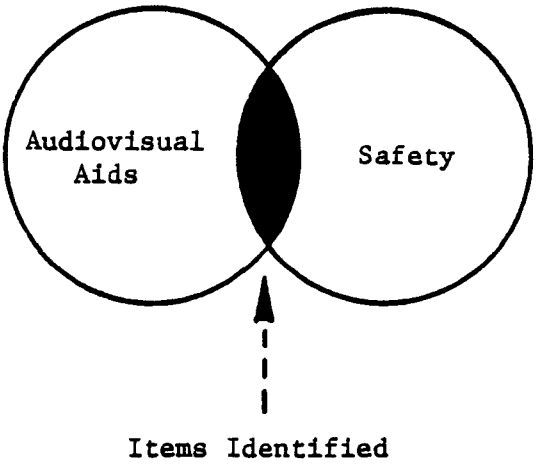
A few notes about the service are important. The following fields are searchable by computer: (1) IRIS Accession Number (EW number), (2) ERIC Accession Number (ED number), (3) Authors, (4) Institution, (5) Title, (6) subject index terms, and (7) abstract.

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) the title field, (2) the subject index field, and (3) the 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.

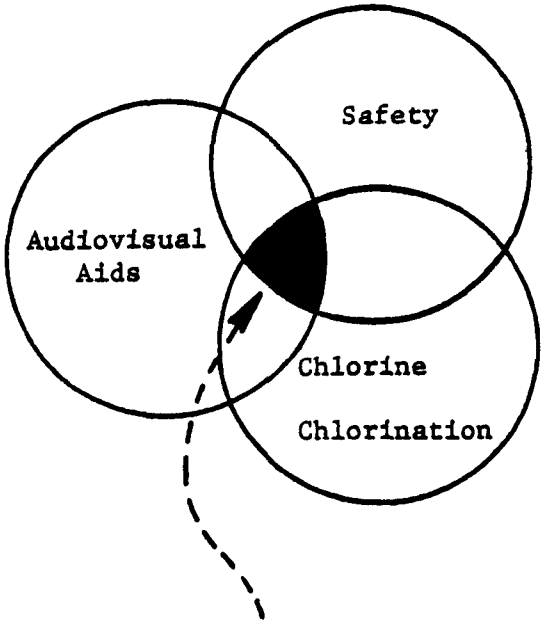
Several sample searches are listed.

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 the computer.



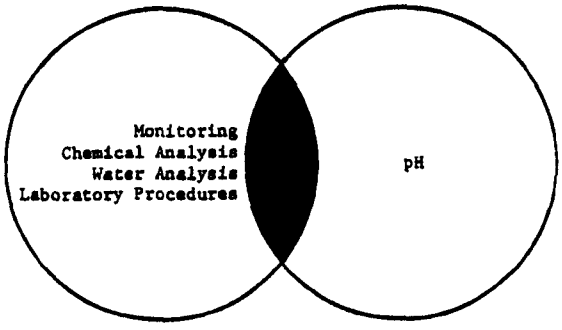
The computer program can tell you the number of items, the title of the items, or print the entire resume of each item. If you were primarily interested in audiovisual aids, safety, and chlorine you would submit a search of these three terms. You might want to include chlorides and chlorination as well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



Items Identified

B. Sample 2

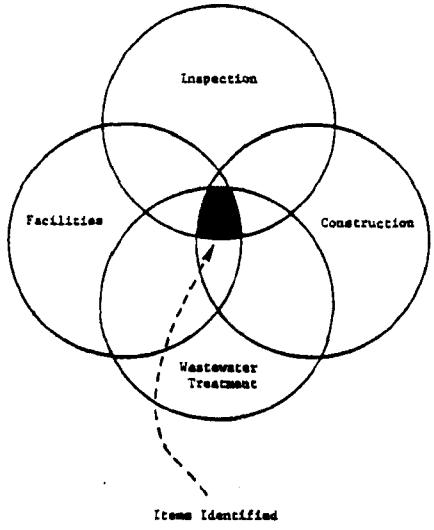
If you want to identify materials related to monitoring, you should include several related terms and the chemical, material, or situation that is being monitored. See the example below.



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

C. Sample 3

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



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

D. Use of the Subject Index

The subject index in the back of the compilation can be used to help you decide if you want to do a computer search. If there are relatively few entries, you can check the resumes in the resume section. If there is a large number of entries (perhaps 50 or more) you may want to use a computer search.

As the data base gets larger, you will find more entries for subject index terms and computer searching will offer more advantages.

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 National Training and Operational Technology Center will be available after November 1, 1981 from EPA Information Dissemination Project at The Ohio State University. For further information write or phone.

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 Information Dissemination Project 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 Information Dissemination Project. We can provide assistance in obtaining materials from some sources. If materials become unavailable, we will remove them from the IRIS data base.

RESUME SECTION

IRIS ACCESSION NUMBER: EW001255

PUBLICATION DATE: 72

TITLE: TECHNIQUES FOR THE COLLECTION AND REPORTING OF DATA ON COMMUNITY WATER SUPPLY.

DESCRIPTOR: *DATA; DATA COLLECTION; *DRINKING WATER; RECORDS; *RECORD KEEPING; STATISTICS; *WATER SUPPLY; *WATER TREATMENT

ABSTRACT: RECOMMENDS WAYS IN WHICH THE COLLECTION, COMPILATION AND REPORTING OF DATA ON COMMUNITY WATER SUPPLY CAN BE IMPROVED, AND INDICATES THE PURPOSES FOR WHICH THESE DATA ARE REQUIRED FOR DIFFERENT PHASES OF COMMUNITY WATER SUPPLY PROGRAMMES AT THE LOCAL, NATIONAL, REGIONAL, AND INTERNATIONAL LEVELS. THERE ARE TWO ANNEXES: A SPECIMEN REPORT FORM FOR RECORDING MINIMUM DATA AND A DETAILED LIST OF SUBJECTS ON WHICH DATA ARE REQUIRED FOR COMMUNITY WATER SUPPLY ACTIVITIES.

AVAILABILITY: WORLD HEALTH ORGANIZATION, DISTRIBUTION AND SALES SERVICE, 1211 GENEVA 27, SWITZERLAND

IRIS ACCESSION NUMBER: EW001277

PUBLICATION DATE: DEC 72

TITLE: THE CHALLENGE OF THE ENVIRONMENT: A PRIMER ON EPA'S STATUTORY AUTORITY.

DESCRIPTOR: *AGENCY ROLE; AIR POLLUTION CONTROL; *ENVIRONMENT; *FEDERAL LEGISLATION; *LEGAL RESPONSIBILITY; PESTICIDES; *QUALITY CONTROL; RADIATION; STATE OF THE ART REVIEWS; WASTES; WATER POLLUTION CONTROL; NOISE POLLUTION CONTROL

DESCRIPTIVE NOTE: 50P.

ABSTRACT: IN RESPONSE TO CONTINUED DISCUSSION OF POLLUTION AND ENVIRONMENTAL ISSUES, THE ENVIRONMENTAL PROTECTION AGENCY (EPA) HAS DESIGNED THIS BOOKLET TO GIVE INTERESTED CITIZENS AN IDEA OF THE SCOPE OF THE AGENCY'S DUTIES AND RESPONSIBILITIES BY PROVIDING A BRIEF SUMMARY OF ITS LEGAL AUTHORITY. AN OVERVIEW OF THE AGENCY SHOWS IT IS AN INDEPENDENT, REGULATORY AGENCY WITH A MISSION TO PROTECT AND ENHANCE THE ENVIRONMENT. IN GENERAL, IT IS RESPONSIBLE FOR CONDUCTING RESEARCH AND DEMONSTRATIONS, FOR ESTABLISHING AND ENFORCING STANDARDS, FOR MONITORING POLLUTION, AND FOR ASSISTING STATE AND LOCAL GOVERNMENTS IN THEIR OWN EFFORTS. EPA'S LEGAL AUTHORITY AND RESPONSIBILITY FOR CONDUCTING ACTIVITIES IN THE AREAS OF AIR AND WATER POLLUTION, SOLID WASTES, PESTICIDES, ENVIRONMENTAL RADIATION, AND NOISE ARE ENUMERATED. ALTHOUGH EACH TOPIC DISCUSSES LEGAL ASPECTS SPECIFIC TO ITSELF, THEY ALL TEND TO COVER THE LEGISLATIVE BACKGROUND, VARIOUS STANDARDS, IMPLEMENTATION PLANS, ENFORCEMENT, GRANTS, RESEARCH, AND OTHER LEGISLATION. WORLDWIDE POLLUTION IS ALSO CONSIDERED VIA A REVIEW OF INTERNATIONAL CONVENTIONS, PROJECTS, STANDARDS, AND ABATEMENT CONFERENCES. A BIBLIOGRAPHY OF REPORTS, ACTS, AND REGULATIONS IS INCLUDED.(ED 077 703)

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

INSTITUTION NAME: ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, DC.

IRIS ACCESSION NUMBER: EW003208

TITLE: MUNICIPAL SEWER SERVICE CHARGES.

DESCRIPTOR: COST EFFECTIVENESS; *FEES; MUNICIPALITIES; SANITATION; *UTILITIES; *WASTE DISPOSAL; WATER POLLUTION CONTROL; WATER RESOURCES; *SERVICE CHARGES; SEWERS; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 108P.

ABSTRACT: THIS DOCUMENT ANALYZES THE FUNDAMENTALS THAT REQUIRE CONSIDERATION WHEN A MUNICIPALITY ADOPTS A SYSTEM OF CHARGES FOR THE USE OF ITS SEWER SYSTEM AND TREATMENT PLANT FACILITIES. A SERIES OF SEWER-SERVICE CHARGES CURRENTLY IN USE IN SELECTED AREAS OF THE U.S. ARE PRESENTED. ALSO DISCUSSED IS A REVIEW OF METHODS USED TO PROVIDE SERVICE TO A GROUP OF CITIES WITHIN A METROPOLITAN AREA. THE FINAL SECTION DISCUSSES HOW TO DESIGN AND OPERATE TREATMENT FACILITIES AS A CENTER OF CIVIC INTEREST.

AVAILABILITY: BUTTENHEIM PUBLISHING CO., 470 PARK AVE. S, NEW YORK 16, NY

INSTITUTION NAME: THE AMERICAN CITY MAGAZINE.

IRIS ACCESSION NUMBER: EW003273

PUBLICATION DATE: 78

TITLE: A. P. T. AURORA PUMP TRAINING.

DESCRIPTOR: *AUDIOVISUAL AIDS; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *INSTALLATION; *MAINTENANCE; *PUMPS; POST SECONDARY EDUCATION; STANDARDS; *VALVES; *WATER TREATMENT; *WASTEWATER TREATMENT

ABSTRACT: THIS DOCUMENT CONTAINS THE LITERATURE SUPPORT INFORMATION WHICH ACCOMPANIES THE TRAINING MATERIALS OF THE AURORA PUMP TRAINING (APT) PROGRAM. THE MODULES ARE SELF-CONTAINED AUDIOVISUAL PRESENTATIONS WHICH COVER SUCH TOPIC AREAS AS: (1) PUMP EFFICIENCY; (2) PUMP SELECTION; (3) PUMP MAINTENANCE; (4) VALVES; (5) FIELD INSTALLATION; AND (6) STANDARDS AND SPECIFICATIONS. ALSO AVAILABLE WITH THE PROGRAM ARE A VARIETY OF SUPPORT MATERIALS INCLUDING: (1) MEMOS, NEWSLETTERS AND BULLETINS OF SPECIAL INTEREST; (2) INSTRUCTOR AIDS INCLUDING AUDIO-VISUAL EQUIPMENT AND REPRODUCTIONS OF THE PRESENTATION; AND (3) CERTIFICATES OF COMPLETION. GLOSSARIES OF IMPORTANT TERMS IN RELATED FIELDS ARE ALSO PROVIDED.

AVAILABILITY: AURORA PUMP, A UNIT OF GENERAL SIGNAL, 800 AIRPORT RD., NORTH AURORA, IL 60542

IRIS ACCESSION NUMBER: EW003366

PUBLICATION DATE: 77

TITLE: THE UNFINISHED AGENDA: THE CITIZEN'S POLICY GUIDE TO ENVIRONMENTAL ISSUES. A TASK FORCE REPORT.

PERSONAL AUTHOR: BARNEY, GERALD O., ED.

DESCRIPTOR: AIR POLLUTION CONTROL; BOOKS; *CONSERVATION (ENVIRONMENT); *ECOLOGY; ENVIRONMENT; *INSTRUCTIONAL MATERIALS; *POLICY; *POLLUTION; *POST SECONDARY EDUCATION; PUBLIC POLICY; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 184P. PRICE: $3.95

ABSTRACT: THIS BOOK IS THE RESULT OF THE ENVIRONMENTAL TASK FORCE, A GROUP OF 63 ENVIRONMENTALISTS WHO WERE ASKED TO IDENTIFY AND DESCRIBE THE MOST CRITICAL ENVIRONMENTAL PROBLEMS. IT CONTAINS CHAPTERS ON POPULATION, FOOD AND AGRICULTURE, THE ENERGY ECONOMY, NATURAL RESOURCES, WATER AND AIR POLLUTION, HAZARDS OF TOXIC SUBSTANCES, LAND USE AND ECOLOGY, RECOMBINANT DNA RESEARCH, SOCIETY AND DECISION MAKING, AND THE ASSESSMENT OF VALUES. EACH CHAPTER CONTAINS A DISCUSSION OF THE PROBLEMS TO BE SOLVED AND RECOMMENDATIONS.(ED 162 844)

AVAILABILITY: THOMAS Y. CROWELL CO., 10 EAST 53RD STREET, NEW YORK, NY 10022

INSTITUTION NAME: ROCKEFELLER BROS. FUND, NEW YORK, NY.

IRIS ACCESSION NUMBER: EW003672

PUBLICATION DATE: 78

TITLE: ENERGY AND EDUCATION: TEACHING ALTERNATIVES.

PERSONAL AUTHOR: POSTHUMA, FREDRICK E., ED.

DESCRIPTOR: ACTIVITY UNITS; *CONSERVATION EDUCATION; ENERGY; *ENERGY CONSERVATION; *ENVIRONMENTAL EDUCATION; *EXPERIENTIAL LEARNING; INTERDISCIPLINARY APPROACH; LESSON PLANS; NATURAL RESOURCES; *SCIENCE ACTIVITIES; SIMULATION; *ENERGY EDUCATION; NATIONAL EDUCATION ASSOCIATION

DESCRIPTIVE NOTE: 142P. NOT AVAILABLE IN HARD COPY DUE TO COPYRIGHT RESTRICTIONS

ABSTRACT: THIS PUBLICATION IS A COLLECTION OF ENERGY EDUCATION ARTICLES FOR THE CLASSROOM TEACHER. MOST OF THESE ARTICLES SUGGEST ENERGY EDUCATION ACTIVITIES AND PROJECTS THAT MAY BE USED AS IS OR MODIFIED TO FIT CLASSROOM CONDITIONS. TWO ENERGY MINI-UNITS ARE INCLUDED AS WELL AS A COLLECTION OF ENERGY LESSON PLANS. CONTENTS INCLUDE: (1) TEACHING ABOUT THE NUCLEAR POWER CONTROVERSY BY SIMULATION; (2) OUR SCHOOL-MADE SOLAR PROJECT; (3) SIX WAYS TO REDUCE ENERGY CONSUMPTION; (4) LEISURE AND THE ENERGY CRISIS; (5) SOME GUIDELINES FOR ENERGY PROGRAMS; (6) ENERGY TEACHING CENTERS; (7) WHICH SOURCE OF ENERGY IS BEST FOR HEATING MY COMMUNITY?; (8) ENERGY AND ITS NATURAL SOURCES; AND (9) ENERGY RESOURCE LIST. MANY OF THE ARTICLES ALSO INCLUDE STUDENT OR TEACHER RESOURCE LISTS AS WELL AS ACTIVITY SUGGESTIONS AND INFORMATIVE TEXTS. A RATIONALE FOR ENERGY EDUCATION IS PRESENTED IN THE FIRST ARTICLE. BRIEF DESCRIPTIONS OF EACH ARTICLE ARE ALSO INCLUDED.(ED 164 996)

AVAILABILITY: NATIONAL EDUCATION ASSOCIATION, 1201 SIXTEENTH ST., N.W., WASHINGTON, DC 20036

INSTITUTION NAME: NATIONAL EDUCATION ASSOCIATION, WASHINGTON, DC.

IRIS ACCESSION NUMBER: EW003820

PUBLICATION DATE: 78

TITLE: CLEAN WATER IS KID STUFF.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CONSERVATION; *ELEMENTARY SECONDARY EDUCATION; *ENVIRONMENTAL EDUCATION; ENVIRONMENTAL INFLUENCES; *INSTRUCTIONAL FILMS; *INSTRUCTIONAL MATERIALS; MANAGEMENT; NATURAL RESOURCES; POLLUTION; PUBLIC HEALTH; RECYCLING; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 16MM FILM, 15 MINUTES, SOUND AND COLOR; FREE RENTAL

ABSTRACT: THIS FILM DISCUSSES A VARIETY OF POLLUTION PROBLEMS WHICH CURRENTLY AFFECT NATURAL WATER SUPPLIES USED FOR BOTH CONSUMPTION AND RECREATION. DURING THE FILM SEVERAL ALTERNATIVES FOR IMPROVING LOCAL WATER QUALITY ARE PRESENTED INCLUDING: (1) RECYCLING ACTIVITIES; (2) CONSUMPTION MODIFICATIONS; AND (3) CLEAN-UP PROJECTS WHICH INVOLVE THE ENTIRE COMMUNITY. THE FILM ESPECIALLY DEALS WITH PROJECTS THAT KIDS CAN PARTICIPATE IN TO HELP RESTORE AND CONSERVE WATER RESOURCES.

AVAILABILITY: FILM COMM., 108 WEST GRAND AVE., CHICAGO, ILLINOIS 60610

INSTITUTION NAME: U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION V.

IRIS ACCESSION NUMBER: EW003851

PUBLICATION DATE: MAR 76

TITLE: THE PROGRESS AND PROMISE OF TITLE V IN THE SOUTH. A SYNOPSIS OF PROGRESS REPORTS ON TITLE V RURAL DEVELOPMENT PROGRAMS IN THE SOUTHERN STATES. SRDC SERIES PUBLICATION NO. 9.

DESCRIPTOR: *COMMUNITY INVOLVEMENT; COMMUNITY SERVICES; CONSERVATION (ENVIRONMENT); ECONOMIC DEVELOPMENT; EMPLOYMENT OPPORTUNITIES; ENERGY; ENVIRONMENT; FACILITIES; FEDERAL LEGISLATION; *FEDERAL PROGRAMS; HEALTH; IMPROVEMENT; LAND USE; LEADERSHIP; MANPOWER DEVELOPMENT; *PILOT PROJECTS; PROBLEM SOLVING; RECREATION; *RURAL DEVELOPMENT; SANITATION; *SOUTHERN STATES; *SYNTHESIS; TRANSPORTATION; WELFARE; PUERTO RICO; *RURAL DEVELOPMENT ACT 1972

DESCRIPTIVE NOTE: 48P. FREE
ABSTRACT: MORE THAN 60 SUCCESSFUL PROGRAMS AND PROJECTS DEVELOPED SPECIFICALLY UNDER TITLE V OF THE RURAL DEVELOPMENT ACT OF 1972 BY 13 SOUTHERN STATES AND PUERTO RICO ARE REPORTED IN THIS SYNOPSIS OF TITLE V ACHIEVEMENTS IN THE SOUTHERN REGION. A SUMMARY OF BENEFITS TO PEOPLE IN 82 PILOT COUNTIES OF THE RURAL SOUTH LISTS IMPROVED JOB OPPORTUNITIES, HOMES, ROADS, WATER AND SEWER SYSTEMS, HEALTH FACILITIES, FIRE PROTECTION, GOVERNMENT, AND EDUCATION. THE REPORT FOCUSES ON RURAL DEVELOPMENT AS FOSTERING THE ABILITY OF PEOPLE TO SOLVE THEIR OWN PROBLEMS, AND ADDRESSES EACH OF THE FOUR CURRENT AREAS OF RURAL DEVELOPMENT EMPHASIS THROUGH A BRIEF OVERVIEW OF SPECIFIC PROJECTS: (1) COMMUNITY SERVICES AND FACILITIES (UTILITIES, TRANSPORTATION, WASTE DISPOSAL, WATER SUPPLY); (2) ECONOMIC DEVELOPMENT (ADDITIONAL EMPLOYMENT OPPORTUNITIES; (3) ENVIRONMENTAL CONSERVATION, AND IMPROVEMENT (ENERGY, LAND USE, PLANNING AND ZONING, CONSERVATION, AND IMPROVED RECREATION, FOREST, AND WILDLIFE; AND (4) PEOPLE BUILDING (JOB TRAINING, EFFECTIVE LEADERSHIP, COMMUNITY HEALTH AND WELFARE, EDUCATION). A FINAL SECTION PROVIDES A STATE-BY-STATE SYNOPSIS OF TITLE V PROJECTS TO GIVE AN IDEA OF AREAS OF CONCERN, NATURE OF THE PROJECTS, COOPERATING GROUPS FOR EACH PROJECT, AND THE PEOPLE WHO BENEFIT.(ED 157 659)

AVAILABILITY: SOUTHERN RURAL DEVELOPMENT CENTER, BOX 5406, MISSISSIPPI STATE, MS 39762

INSTITUTION NAME: SOUTHERN RURAL DEVELOPMENT CENTER, STATE COLLEGE, MS.

IRIS ACCESSION NUMBER: EW003904

PUBLICATION DATE: 75

TITLE: TRAIN THE TRAINER SERIES: BOOK 1. INSTRUCTIONAL METHODS.

DESCRIPTOR: AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS; JOB SKILLS; *MANPOWER DEVELOPMENT; OBJECTIVES; POST SECONDARY EDUCATION; *PROGRAMED INSTRUCTION; *TEACHING GUIDES

DESCRIPTIVE NOTE: 35P.

ABSTRACT: THIS DOCUMENT IS ONE IN A SERIES OF PROGRAMMED LEARNING MATERIALS DESIGNED TO ASSIST THE TRAINING COORDINATOR DEVELOP AND DELIVER AN EFFECTIVE PROGRAM. PRESENTED IN THIS VOLUME ARE A VARIETY OF GROUP TRAINING *METHODS USED IN THE CLASSROOM AND INDIVIDUALIZED TRAINING* METHODS USED OUTSIDE THE CLASSROOM. THE TEXT DISCUSSES THE RATIONALE FOR USING THESE TRAINING TECHNIQUES AND SOME OF THE ADVANTAGES AND LIMITATIONS OF EACH. EACH VOLUME CONTAINS A PRE TEST AND A POST TEST WITH CORRESPONDING ANSWER SHEETS FOR SELF-STUDY.

AVAILABILITY: NATIONAL PEST CONTROL ASSOC., TYSONS INTERNATIONAL BLDG., 8150 LEESBURG PIKE, VIENNA, VA 22180

INSTITUTION NAME: INDUSTRIAL TEACHING SYSTEMS CORP.

IRIS ACCESSION NUMBER: EW003905
PUBLICATION DATE: 75

TITLE: TRAIN THE TRAINER SERIES: BOOK 2. PROGRAMMED INSTRUCTION.

DESCRIPTOR: AUDIOVISUAL AIDS; INSTRUCTION; *INSTRUCTIONAL MATERIALS; JOB SKILLS; *MANPOWER DEVELOPMENT; OBJECTIVES; POST SECONDARY EDUCATION; *PROGRAMED INSTRUCTION; *TEACHING GUIDES

DESCRIPTIVE NOTE: 28P.

ABSTRACT: THIS DOCUMENT IS ONE IN A SERIES OF PROGRAMMED LEARNING MATERIALS DESIGNED TO ASSIST THE TRAINING COORDINATOR DEVELOP AND DELIVER AN EFFECTIVE PROGRAM. THIS VOLUME SHOWS: (1) HOW PROGRAMMED INSTRUCTION IS DESIGNED; (2) HOW PROGRAMMED INSTRUCTION BOOKS ARE USED; AND (3) HOW THE TRAINING COORDINATOR CAN HELP IN THE DEVELOPMENT OF FUTURE PROGRAMS. EACH VOLUME CONTAINS A PRETEST AND A POST TEST WITH CORRESPONDING ANSWER SHEETS FOR SELF-STUDY.

AVAILABILITY: NATIONAL PEST CONTROL ASSOC., TYSONS INTERNATIONAL BLDG., 8150 LEESBURG PIKE, VIENNA, VA 22180

INSTITUTION NAME: INDUSTRIAL TEACHING SYSTEMS CORP.

IRIS ACCESSION NUMBER: EW003906

PUBLICATION DATE: 75
TITLE: THE TRAINER SERIES: BOOK 3. TRAINING MEDIA, TRAINING AIDS, AND REFERENCE AIDS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS; JOB SKILLS; *MANPOWER DEVELOPMENT; OBJECTIVES; POST SECONDARY EDUCATION; *PROGRAMED INSTRUCTION; *TEACHING GUIDES

DESCRIPTIVE NOTE: 55P.

ABSTRACT: THIS DOCUMENT IS ONE IN A SERIES OF PROGRAMMED LEARNING MATERIALS DESIGNED TO ASSIST THE TRAINING COORDINATOR DEVELOP AND DELIVER AN EFFECTIVE PROGRAM. DISCUSSED ARE: (1) TYPES OF MATERIALS AVAILABLE; (2) THE MEDIA USED FOR THESE MATERIALS; AND (3) HOW THESE MATERIALS SHOULD BE USED. EACH VOLUME CONTAINS A PRETEST AND A POST TEST WITH CORRESPONDING ANSWER SHEETS FOR SELF-STUDY.

AVAILABILITY: NATIONAL PEST CONTROL ASSOC., TYSONS INTERNATIONAL BLDG., 8150 LEESBURG PIKE, VIENNA, VA 22180

INSTITUTION NAME: INDUSTRIAL TEACHING SYSTEMS CORP.

IRIS ACCESSION NUMBER: EW003907

PUBLICATION DATE: 75

TITLE: TRAIN THE TRAINER SERIES: BOOK 4. ON THE JOB

TRAINING.
DESCRIPTOR: AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS; JOB SKILLS; *MANPOWER DEVELOPMENT; OBJECTIVES; POST SECONDARY EDUCATION; *PROGRAMED INSTRUCTION; *TEACHING GUIDES

DESCRIPTIVE NOTE: 29P.

ABSTRACT: THIS DOCUMENT IS ONE IN A SERIES OF PROGRAMMED LEARNING MATERIALS DESIGNED TO ASSIST THE TRAINING COORDINATOR DEVELOP AND DELIVER AN EFFECTIVE PROGRAM. THIS VOLUME DISCUSSES ON-THE-JOB TRAINING INCLUDING WHAT PLANNING MUST PRECEDE THE EXPERIENCE AND WHAT TRAINING TECHNIQUES CAN BE APPLIED TO THIS TYPE OF TRAINING. EACH VOLUME CONTAINS A PRETEST AND A POST TEST WITH CORRESPONDING ANSWER SHEETS FOR SELF-STUDY.

AVAILABILITY: NATIONAL PEST CONTROL ASSOC., TYSONS INTERNATIONAL BLDG., 8150 LEESBURG PIKE, VIENNA, VA 22180

INSTITUTION NAME: INDUSTRIAL TEACHING SYSTEMS CORP.

IRIS ACCESSION NUMBER: EW003908

PUBLICATION DATE: 75

TITLE: TRAIN THE TRAINER SERIES: BOOK 5. HANDLING YOUR TRAINEES' PROBLEMS.

DESCRIPTOR: AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS; JOB SKILLS; *MANPOWER DEVELOPMENT; *MOTIVATION; OBJECTIVES; POST SECONDARY EDUCATION; *PROGRAMED INSTRUCTION; *TEACHING GUIDES

DESCRIPTIVE NOTE: 30P.

ABSTRACT: THIS DOCUMENT IS ONE IN A SERIES OF PROGRAMMED LEARNING MATERIALS DESIGNED TO ASSIST THE TRAINING COORDINATOR DEVELOP AND DELIVER AN EFFECTIVE PROGRAM. THIS VOLUME CONCENTRATES ON THE METHODS AND TECHNIQUES IN CULTIVATING TRAINEE MOTIVATION. EACH VOLUME CONTAINS A PRETEST AND A POST TEST WITH CORRESPONDING ANSWER SHEETS FOR SELF-STUDY.

AVAILABILITY: NATIONAL PEST CONTROL ASSOC., TYSONS INTERNATIONAL BLDG., 8150 LEESBURG PIKE, VIENNA, VA 22180

INSTITUTION NAME: INDUSTRIAL TEACHING SYSTEMS CORP.

IRIS ACCESSION NUMBER: EW004482

PUBLICATION DATE: 79

TITLE: PUBLICATIONS OF THE HUBBARD BROOK ECOSYSTEM STUDY.

PERSONAL AUTHOR: TOYRYLA, PHYLLIS

DESCRIPTOR: *BIBLIOGRAPHIES; *ECOSYSTEMS; ECOLOGY; *HUBBARD BROOK; LITERATURE REVIEWS; *RESEARCH; *WATER RESOURCES

DESCRIPTIVE NOTE: 34P.
ABSTRACT: THIS BIBLIOGRAPHY IS A COMPILATION OF ALL PAPERS. ABSTRACTS, BOOKS AND DISSERTATIONS THAT HAVE BEEN WRITTI BETWEEN 1962 AND 1979 ABOUT THE HUBBARD BROOK ECOSYSTEM.

AVAILABILITY: PHYLLIS C. TOYRYLA, 229 LANGMUIR LABORATORY, CORNELL UNIVERSITY, ITHACA, NEW YORK 14853

IRIS ACCESSION NUMBER: EW005546

TITLE: A SEPTIC TANK SYSTEM INSTALLATION AND INSPECTION.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *EQUIPMENT; *INSPECTION; *OPERATIONS (WASTEWATER); *SITE SELECTION; *SEPTIC SYSTEMS; *SEPTIC TANKS; WASTE DISPOSAL; *WASTEWATER TREATMENT

ABSTRACT: THE PROCEDURE FOR HAVING A SEPTIC TANK SYSTEM INSTALLATION APPROVED IS PRESENTED. PROCEDURES TAKEN TO INSPECT AND INSTALL A SEPTIC SYSTEM INCLUDE: (1) APPLICATION; (2) SITE SELECTION; (3) INSTALLATION INSPECTION; AND (4) APPROVAL.

AVAILABILITY: ONTARIO MINISTRY OF THE ENVIRONMENT, 135 ST. CLAIR AVE., WEST, SUITE 100, TORONTO, ONTARIO, CANADA, M4V 1P5

IRIS ACCESSION NUMBER: EW005560

PUBLICATION DATE: OCT 79

TITLE: MATHEMATICS FOR WATER AND WASTEWATER TREATMENT PLANT OPERATORS. WATER AND WASTEWATER TRAINING PROGRAM.

DESCRIPTOR: *ENVIRONMENT; ENVIRONMENTAL INFLUENCES; *MATHEMATICS; *MATHEMATICS INSTRUCTION; MATHEMATICS MATERIALS; *PUBLIC HEALTH; *TECHNICAL EDUCATION; WASTE DISPOSAL; *WATER POLLUTION; OPERATIONS (WATER); OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT; WATER TREATMENT

DESCRIPTIVE NOTE: PRICE: $4.50; CONTAINS LIGHT AND BROKEN TYPE.

ABSTRACT: THIS BOOKLET IS INTENDED TO AID THE PROSPECTIVE WASTE TREATMENT PLANT OPERATOR OR DRINKING WATER PLANT OPERATOR IN LEARNING TO SOLVE MATHEMATICAL PROBLEMS, WHICH IS NECESSARY FOR CLASS I CERTIFICATION. IT DEALS WITH THE BASIC MATHEMATICS WHICH A CLASS I OPERATOR MAY REQUIRE IN ACCOMPLISHING DAY-TO-DAY TASKS. THE BOOK ALSO PROGRESSES INTO PROBLEMS TYPICALLY FACING CLASS II AND III OPERATORS. THE BOOK CAN BE USED FOR REVIEW AT ALL LEVELS OF CLASSIFICATION.(ED 190 342)

AVAILABILITY: SOUTH DAKOTA DEPARTMENT OF ENVIRONMENTAL PROTECTION, DEPT. OF WATER AND NATURAL RESOURCES, JOE FOSS BUILDING, PIERRE, SD 57501

INSTITUTION NAME: SOUTH DAKOTA DEPT. OF ENVIRONMENTAL PROTECTION, PIERRE. DEPT. OF WATER AND NATURAL RESOURCES.

IRIS ACCESSION NUMBER: EW005561

PUBLICATION DATE: JAN 80

TITLE: INTRODUCTION TO CHEMISTRY FOR WATER AND WASTEWATER TREATMENT PLANT OPERATORS. WATER AND WASTEWATER TRAINING PROGRAM.

DESCRIPTOR: CHEMICAL ANALYSIS; *CHEMISTRY; *LABORATORY PROCEDURES; *POLLUTION; *POSTSECONDARY EDUCATION; TECHNOLOGY; WASTE DISPOSAL; *WASTES; *WATER POLLUTION; WATER RESOURCES; OPERATIONS (WASTEWATER); OPERATIONS (WATER); WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PRICE: $1.50; CONTAINS OCCASIONAL LIGHT AND BROKEN TYPE.

ABSTRACT: PRESENTED ARE BASIC CONCEPTS OF CHEMISTRY NECESSARY FOR OPERATORS WHO MANAGE DRINKING WATER TREATMENT PLANTS AND WASTEWATER FACILITIES. IT INCLUDES DISCUSSIONS OF CHEMICAL TERMS AND CONCEPTS, LABORATORY PROCEDURES FOR BASIC ANALYSES OF INTEREST TO OPERATORS, AND DISCUSSIONS OF APPROPRIATE CHEMICAL CALCULATIONS. EXERCISES ARE INCLUDED AND ANSWER SHEETS PROVIDED.(ED 190 343)

AVAILABILITY: SOUTH DAKOTA DEPT. OF ENVIRONMENTAL PROTECTION, DEPT. OF WATER AND NATURAL RESOURCES, JOE FOSS BUILDING, SUITE 416, PIERRE, SD 57501

INSTITUTION NAME: SOUTH DAKOTA DEPT. OF WATER & NATURAL RESOURCES, PIERRE.

IRIS ACCESSION NUMBER: EW005562

PUBLICATION DATE: FEB 80

TITLE: APTI COURSE 427, COMBUSTION EVALUATION. INSTRUCTOR'S GUIDE.

PERSONAL AUTHOR: BEARD, J. TAYLOR; AND OTHERS

DESCRIPTOR: *AIR POLLUTION; *ENVIRONMENT; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL INFLUENCES; *FUEL CONSUMPTION; *FUELS; NATURAL RESOURCES; *POLLUTION; *TECHNICAL EDUCATION; TECHNICAL INSTITUTES; AIR EMISSIONS; *COMBUSTION

ABSTRACT: THIS INSTRUCTOR'S MANUAL PROVIDES LESSON PLANS FOR THE TEACHING OF A COURSE IN COMBUSTION EVALUATION IN CONTROL OF AIR POLLUTION. IT INCLUDES: (1) AN INTRODUCTION, (2) GOALS, (3) INSTRUCTIONAL OBJECTIVES, (4) COURSE BACKGROUND, (5) COURSE AGENDA, (6) PREREQUISITE SKILLS, (7) INTENDED STUDENT POPULATION, (8) COURSE PRESENTATION, (9) TEXTS AND HANDOUTS, (10) TESTS, (11) HOMEWORK, (12) SLIDES, AND (13) THIRTY-ONE INDIVIDUAL LESSON PLANS. THE COURSE IS INTENDED TO PROVIDE PROFESSIONALS WITH TECHNICAL BACKGROUND AND KNOWLEDGE OF FUNDAMENTAL AND APPLIED ASPECTS OF COMBUSTION AS IT RELATES TO AIR POLLUTION CONTROL WORK.(ED 190 413)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5825 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

INSTITUTION NAME: ASSOCIATED ENVIRONMENTAL CONSULTANTS, CHARLOTTESVILLE, VA.

IRIS ACCESSION NUMBER: EW005563

PUBLICATION DATE: FEB 80

TITLE: APTI COURSE 427, COMBUSTION EVALUATION. STUDENT MANUAL.

PERSONAL AUTHOR: BEARD, J. TAYLOR; AND OTHERS

DESCRIPTOR: *AIR POLLUTION; *ENVIRONMENT; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL INFLUENCES; *FUEL CONSUMPTION; *FUELS; NATURAL RESOURCES; *POLLUTION; *TECHNICAL EDUCATION; TECHNICAL INSTITUTES; AIR EMISSIONS; *COMBUSTION

ABSTRACT: THIS STUDENT MANUAL SUPPLEMENTS A COURSE DESIGNED TO PRESENT FUNDAMENTAL AND APPLIED ASPECTS OF COMBUSTION TECHNOLOGY WHICH INFLUENCE AIR POLLUTANT EMISSIONS. EMPHASIS IS PLACED ON PROCESS CONTROL OF COMBUSTION RATHER THAN ON GAS CLEANING. THE COURSE IS INTENDED TO PROVIDE ENGINEERS, REGULATORY AND TECHNICAL PERSONNEL, AND OTHERS WITH FAMILIARITY, WITH CALCULATIONS AND DESIGN AND OPERATIONAL CONSIDERATIONS.(ED 190 414)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5825 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

INSTITUTION NAME: ASSOCIATED ENVIRONMENTAL CONSULTANTS, CHARLOTTESVILLE, VA.

IRIS ACCESSION NUMBER: EW005564

PUBLICATION DATE: FEB 80

TITLE: APTI COURSE 427, COMBUSTION EVALUATION. STUDENT WORKBOOK.

PERSONAL AUTHOR: BEARD, J. TAYLOR; AND OTHERS

DESCRIPTOR: *AIR POLLUTION; *ENVIRONMENT; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL INFLUENCES; *FUEL CONSUMPTION; *FUELS; NATURAL RESOURCES; *POLLUTION; *TECHNICAL EDUCATION; TECHNICAL INSTITUTES; AIR EMISSIONS; *COMBUSTION

ABSTRACT: PRESENTED ARE EXERCISES INTENDED TO SUPPLEMENT COURSE WORK IN AIR POLLUTION CONTROL, SPECIFICALLY AS THEY RELATE TO COMBUSTION. CHAPTERS OFFERED IN THIS WORKBOOK INCLUDE: (1) COMBUSTION CALCULATIONS, (2) COMBUSTION SYSTEM DESIGN PROBLEMS, (3) EMISSION CALCULATIONS I, (4) EMISSION CALCULATIONS II, (5) AFTERBURNER DESIGN PROBLEMS, AND (6) COMBUSTION SYSTEM CALCULATIONS. EACH EXERCISE PRESENTS THE PROBLEM, FACTORS TO BE COMPUTED, AND THE SOLUTION TO THE PROBLEM.(ED 190 415)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5825 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

INSTITUTION NAME: ASSOCIATED ENVIRONMENTAL CONSULTANTS,

CHARLOTTESVILLE, VA.

IRIS ACCESSION NUMBER: EW005565

PUBLICATION DATE: FEB 80

TITLE: APTI COURSE 450, SOURCE SAMPLING FOR PARTICULATE POLLUTANTS. INSTRUCTOR'S GUIDE.

PERSONAL AUTHOR: ALDINA, G. J.; AND OTHERS

DESCRIPTOR: *AIR POLLUTION; *ENVIRONMENT; ENVIRONMENTAL EDUCATION; *ENVIRONMENTAL INFLUENCES; INFORMATION DISSEMINATION; PHYSICS; *POLLUTION; *PUBLIC HEALTH; SCIENCE EDUCATION; *TECHNICAL EDUCATION; TECHNICAL INSTITUTES; TECHNOLOGY

DESCRIPTIVE NOTE: CONTAINS MARGINAL LEGIBILITY IN "FEDERAL REGISTER" SECTION. TWO STUDENT HANDOUTS REMOVED DUE TO COPYRIGHT RESTRICTIONS.

ABSTRACT: THIS MANUAL COVERS A FOUR AND ONE-HALF DAY LABORATORY COURSE IN SOURCE SAMPLING FOR PARTICULATES. THE COURSE PRESENTS PRINCIPLES AND TECHNIQUES NECESSARY FOR PERFORMING ISOKINETIC SOURCE SAMPLING PROCEDURES. LECTURES COVER FORMULAS DEALING WITH BASIC FLUID MECHANICS APPROPRIATE TO THE TECHNIQUES EMPLOYED. LABORATORY EXERCISES ARE INTENDED TO FAMILIARIZE STUDENTS WITH THE PROPER USE AND CALIBRATION OF SOURCE SAMPLING EQUIPMENT. THE COURSE IS DESIGNED FOR STUDENTS OF SCIENCE AND ENGINEERING BACKGROUNDS.(ED 190 416)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5825 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

INSTITUTION NAME: NORTHROP SERVICES, INC., RESEARCH TRIANGLE PARK, N.C.

IRIS ACCESSION NUMBER: EW005566

PUBLICATION DATE: DEC 79

TITLE: APTI COURSE 450, SOURCE SAMPLING FOR PARTICULATE POLLUTANTS. STUDENT MANUAL.

PERSONAL AUTHOR: ALDINA, G. J.; JAHNKE, J. A.

DESCRIPTOR: *AIR POLLUTION; *ENVIRONMENT; ENVIRONMENTAL EDUCATION; *ENVIRONMENTAL INFLUENCES; *POLLUTION; *PUBLIC HEALTH; SCIENCE EDUCATION; *TECHNICAL EDUCATION; TECHNICAL INSTITUTES; TECHNOLOGY

ABSTRACT: THIS STUDENT MANUAL IS DESIGNED TO ACCOMPANY A FOUR AND ONE-HALF DAY COURSE IN ISOKINETIC AIR POLLUTION SOURCE SAMPLING. COVERED IN THE MANUAL UNDER CHAPTER HEADINGS ARE: (1) BASIC DEFINITIONS; (2) BASIC CONCEPTS OF CASES; (3) U.S. EPA METHODS SAMPLING TRAIN; (4) CALIBRATION PROCEDURES; (5) SOURCE TESTING; (6) SOURCE SAMPLING CALIBRATIONS; (7) REPORT WRITING; (8) ERROR ANALYSIS; AND (9) ADDITIONAL TOPICS. ASSORTED APPENDICES ARE PROVIDED.(ED 190 417)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5825 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

INSTITUTION NAME: NORTHROP SERVICES, INC., RESEARCH TRIANGLE PARK, N.C.

IRIS ACCESSION NUMBER: EW005567

PUBLICATION DATE: DEC 79

TITLE: APTI COURSE 450, SOURCE SAMPLING FOR PARTICULATE POLLUTANTS. STUDENT WORKBOOK.

DESCRIPTOR: *AIR POLLUTION; *ENVIRONMENT; ENVIRONMENTAL EDUCATION; ENVIRONMENTAL INFLUENCES; *LABORATORY PROCEDURES; *POLLUTION; *PUBLIC HEALTH; SCIENCE EDUCATION; *TECHNICAL EDUCATION; TECHNICAL INSTITUTES; TECHNOLOGY

ABSTRACT: THIS WORKBOOK IS INTENDED TO PROVIDE PRACTICE PROBLEMS AND EXERCISES FOR THE TECHNICAL STUDENT OF PARTICULATE POLLUTION SAMPLING. ARRANGED TO ACCOMPANY EACH OF 18 LECTURES, THE CHAPTERS DEAL WITH ASPECTS OF ISOKINETIC AIR POLLUTION SOURCE SAMPLING. EACH CHAPTER PRECEDES THE EXERCISES BY A LIST OF LESSON OBJECTIVES. THREE APPENDICES SUPPLEMENT THE WORKBOOK.(ED 190 418)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5825 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

INSTITUTION NAME: NORTHROP SERVICES, INC., RESEARCH TRIANGLE PARK, N.C.

IRIS ACCESSION NUMBER: EW005859

PUBLICATION DATE: JUL 80

TITLE: INSTRUCTIONAL RESOURCES MONOGRAPH SERIES: ACTIVATED SLUDGE. SELECTED INSTRUCTIONAL ACTIVITIES AND REFERENCES.

PERSONAL AUTHOR: SHEPARD, CLINTON L.; WALASEK, JAMES B.

DESCRIPTOR: *ENVIRONMENTAL EDUCATION; POLLUTION; PROGRAM DEVELOPMENT; *QUALITY CONTROL; TRAINING; UTILITIES; *WATER POLLUTION; *WATER RESOURCES; WASTE DISPOSAL; WASTES; *ACTIVATED SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: FREE

ABSTRACT: THIS MONOGRAPH CONTAINS A VARIETY OF SELECTED MATERIALS RELATED TO WASTEWATER TREATMENT AND WATER QUALITY EDUCATION AND INSTRUCTION. PART I PRESENTS A BRIEF DISCUSSION OF THE ACTIVATED SLUDGE PROCESS IN WASTEWATER TREATMENT OPERATIONS. PART II, INSTRUCTIONAL UNITS, CONTAINS SELECTED PORTIONS OF EXISTING PROGRAMS WHICH MAY BE UTILIZED IN IMPLEMENTING A TRAINING PROGRAM FOR THE ACTIVATED SLUDGE PROCESS.(ED 191 728)

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200

CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212
INSTITUTION NAME: OHIO STATE UNIV., COLUMBUS, OHIO. INFORMATION REFERENCE CENTER FOR SCIENCE, MATHEMATICS, AND ENVIRONMENTAL EDUCATION.

IRIS ACCESSION NUMBER: EW005894

PUBLICATION DATE: AUG 80

TITLE: IMPROVING THE PLANNING AND MANAGEMENT OF THE NATION'S WATER RESOURCES.

DESCRIPTOR: *FEDERAL STATE RELATIONSHIPS; FUNDING; *LEGISLATION; *MANAGEMENT; *PLANNING; *REGIONAL PLANNING; REGULATIONS; RIVERS; *RIVER BASINS; STANDARDS; *STATE PLANNING; *WATER SUPPLY; *WATER RESOURCES

DESCRIPTIVE NOTE: 142P. FREE OF CHARGE.

ABSTRACT: RECOMMENDED ARE PROCEDURES FOR COOPERATIVE PARTICIPATION BETWEEN FEDERAL AND STATE INTERESTS IN WATER RESOURCE PLANNING. STRESSED IS THE USE OF STATES' PLANS AS A BASIS FOR BUILDING REGIONAL AND NATIONAL PLANS AND POLICIES CONTENTS INCLUDE: SUMMARY OF REPORT AND RECOMMENDED IMPLEMENTING ACTIONS; THE PROBLEM; TASK FORCE DELIBERATIONS AND FINDINGS; AND PRINCIPLES, STANDARDS, AND PROCEDURES FOR COMPREHENSIVE REGIONAL OR RIVER BASIN PLANS.

AVAILABILITY: U.S. WATER RESOURCES COUNCIL, 2120 L STREET, NW, WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW005896

PUBLICATION DATE: SEP 77

TITLE: MONITORING TOXIC INDUSTRIAL SUBSTANCE.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AUDIOVISUAL AIDS; *BIOLOGICAL ANALYSIS; *CHEMICALS; *CARCINOGENS; *HEALTH; *HAZARDOUS MATERIALS; *INSTRUCTIONAL MATERIALS; *INDUSTRIES; *MANAGEMENT; PLANNING; *POST SECONDARY EDUCATION; *SAFETY; STANDARDS; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: PRICE: $11.95, TWO CASSETTE TAPES AND BOOKLET.

ABSTRACT: IN VITRO METHODS FOR IDENTIFYING CHEMICAL MUTAGENS ASSOCIATED WITH CHEMICAL CARCINOGENS ARE DISCUSSED. A MORE RATIONAL RISK-BENEFIT ANALYSIS MUST INCLUDE THE ANALYSIS OF TEST CHEMICALS BEFORE THEY ARE MARKETED AND THE EVALUATION OF BIOLOGICAL CONSEQUENCES OF NEW TECHNOLOGIES.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, 1155 SIXTEENTH ST., N.W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW005897
PUBLICATION DATE: 77

TITLE: METHODS FOR RISK ASSESSMENT.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CHEMICALS; *HEALTH; *HAZARDOUS MATERIALS; INDUSTRIES; *INSTRUCTIONAL MATERIALS; LEGISLATION; *MANAGEMENT; *POST SECONDARY EDUCATION; POLLUTANTS; *RISK ASSESSMENT; *SAFETY; *SAFETY EDUCATION; TRANSPORTATION; TOXIC SUBSTANCES

DESCRIPTIVE NOTE: PRICE: $11.95, TWO CASSETTE TAPES AND BOOKLET.

ABSTRACT: ATTEMPTED IS THE CLARIFICATION OF CONFLICTING DEFINITIONS, EQUITY QUESTIONS REGARDING THE ASSUMPTION OF RISK, AND THE WAYS WITH WHICH ENVIRONMENTAL LEGISLATION ADDRESSES THE PROBLEM OF RISK ASSESSMENT.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, 1155 SIXTEENTH STREET, N.W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW005898

PUBLICATION DATE: 77

TITLE: TOXIC SUBSTANCES CONTROL ACT: OVERVIEW.

PERSONAL AUTHOR: AMERICAN CHEMICAL SOCIETY DIVISION

DESCRIPTOR: *AUDIOVISUAL AIDS; *CHEMICALS; *HEALTH; *INSTRUCTIONAL MATERIALS; LEGISLATION; *MANAGEMENT; *POST SECONDARY EDUCATION; *PLANNING; *SAFETY; *STANDARDS; *TOXIC SUBSTANCES; *TOXIC SUBSTANCE CONTROL ACT

DESCRIPTIVE NOTE: PRICE: $11.95; TWO CASSETTE TAPES AND BOOKLET

ABSTRACT: DISCUSSED IS THE IMPLEMENTATION OF THE TOXIC SUBSTANCES CONTROL ACT. TOPICS INCLUDE PERSPECTIVES, PROBLEMS, OPPORTUNITIES, THE ROLE OF CHEMICAL INDUSTRY UNDER THE TOXIC SUBSTANCES CONTROL ACT, NIOSH REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, AND THE UNIVERSITY'S ROLE IN IMPLEMENTATION OF THE TOXIC SUBSTANCES CONTROL ACT.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, 1155 SIXTEENTH STREET, WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW005900

PUBLICATION DATE: 80

TITLE: COURSE ADMINISTRATOR'S GUIDE: MECHANICAL AND ELECTRICAL MAINTENANCE TRAINING. PROGRAM PLANNING AND COURSE INDEX.

DESCRIPTOR: *ELECTRICAL SYSTEMS; *INDEXES; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *MECHANICAL EQUIPMENT; *PLANNING; *POST SECONDARY EDUCATION; *TEACHING GUIDES; *TRAINING

PROGRAMS
DESCRIPTIVE NOTE: 140P.

ABSTRACT: THIS GUIDE WAS DEVELOPED TO ASSIST IN THE CAREFUL, SYSTEMATIC ADMINISTRATION OF ITC AND PRC MAINTENANCE TRAINING PROGRAMS. THE INFORMATION CONTAINED IN THIS GUIDE IS BASED ON FEEDBACK FROM USERS OF THE MECHANICAL AND ELECTRICAL MAINTENANCE TRAINING PROGRAMS. THE FOLLOWING TEN MAJOR SECTIONS MAKE UP MOST OF THE GUIDE: VALIDATION, READIBILITY, PREREQUISITES, INSTRUCTORS, SCHEDULING, MECHANICAL MAINTENANCE PROGRAM INDEX, ELECTRICAL MAINTENANCE PROGRAM INDEX, RECORD FORMS, VIDEOTAPE CARE, AND CERTIFICATES. EACH EXPLAINS AND EXPANDS ON INFORMATION PROVIDED TO STUDENTS OF THE MAINTENANCE PROGRAMS.

AVAILABILITY: INDUSTRIAL TRAINING CORPORATION, 14616 SOUTHLAWN LANE, ROCKVILLE, MD 20850

IRIS ACCESSION NUMBER: EW005920

PUBLICATION DATE: OCT 80

TITLE: HOW TO CHECK AND CLEAN THE ROTAMETER OF A WALLACE AND TIERNAN SERIES 25-060 OR V-800 CHLORINATOR.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CHLORINATORS; *CHLORINATION; *DISINFECTION; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *ROTAMETERS; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 49 SLIDES, CASSETTE TAPE AND BOOKLET.

ABSTRACT: THIS PACKAGE CONTAINS SLIDES, A TAPE, AND A WRITTEN NARRATIVE DEALING WITH THE MAINTENANCE AND REPAIR OF THE ROTAMETER OF A WALLACE AND TIERNAN SERIES 25-060 OR SERIES V-800 CHLORINATOR.

AVAILABILITY: WASHINGTON ENVIRONMENTAL TRAINING RESOURCE CENTER, GREEN RIVER COMMUNITY COLLEGE, AUBURN, WA 98002

IRIS ACCESSION NUMBER: EW005923

PUBLICATION DATE: OCT 80

TITLE: CHANGING 150-LB CHLORINE SUPPLIES.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CHLORINE; *DISINFECTION; *EQUIPMENT; *FACILITIES; *GAS CHLORINATION; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 112 SLIDES, CASSETTE TAPE, STUDENT WORKBOOK AND BOOKLET.

ABSTRACT: THIS PACKAGE CONTAINS 112 SLIDES, A CASSETTE TAPE, A STUDENT WORKBOOK AND AN INSTRUCTOR'S GUIDE. THE INSTRUCTIONAL PACKAGE IS PART OF A COURSE ON PROCESS CONTROL IN WATER QUALITY CONTROL PROGRAMS. THE SUBJECT OF THIS LESSON IS HOW TO CHANGE A 150-LB CHLORINE SUPPLY, AND IT IS PART OF THE UNIT ON GAS CHLORINATION.
AVAILABILITY: WASHINGTON ENVIRONMENTAL TRAINING RESOURCE CENTER, GREEN RIVER COMMUNITY COLLEGE, AUBURN, WA 98002

IRIS ACCESSION NUMBER: EW005939

PUBLICATION DATE: NOV 80

TITLE: MOUNTAIN RESIDENTIAL DEVELOPMENT MINIMUM WELL PROTECTIVE DISTANCES WELL WATER QUALITY.

PERSONAL AUTHOR: FORD, KARL L.

DESCRIPTOR: CASE STUDIES; COLIFORM BACTERIA; COLORADO; *CONTAMINATION; *DRINKING WATER; NITRATES; *ONSITE DISPOSAL; RESEARCH; *SITE SELECTION; *WATER POLLUTION CONTROL; *WATER QUALITY; *WELLS

DESCRIPTIVE NOTE: 130-134P.

ABSTRACT: THE PURPOSE OF THIS STUDY WAS TO IDENTIFY FACTORS IMPORTANT TO WELL WATER CONTAMINATION ASSOCIATED WITH ONSITE WASTEWATER DISPOSAL SYSTEMS. THE STUDY SITE IS A MOUNTAINOUS PORTION OF JEFFERSON COUNTY, WEST OF DENVER, COLORADO. CONTAMINATION OF WELL WATERS WAS INDICATED BY CONCENTRATION OF NITRATES AND COLIFORM BACTERIA IN EXCESS OF THE EPA'S DRINKING WATER STANDARDS. STATISTICAL ANALYSIS OF THE WELL WATER DATA IN THIS STUDY INDICATES THAT A WELL PROTECTIVE DISTANCE OF 100 FEET HAS A PROBABILITY OF NITRATE-NITROGEN CONTAMINATION OF 21.8%; WHEREAS, A 200 FOOT DISTANCE HAS A PROBABILITY OF NITRATE-NITROGEN CONTAMINATION OF 9.4%.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH, VOL 43 N3

IRIS ACCESSION NUMBER: EW005940

PUBLICATION DATE: NOV 80

TITLE: DOES DRINKING WATER HARDNESS AFFECT CARDIOVASCULAR DISEASE?

PERSONAL AUTHOR: JOYCE, MICHAEL

DESCRIPTOR: *CARDIOVASCULAR DISEASE; CONTAMINANTS; *DRINKING WATER; *HARDNESS; PLUMBING; PUBLIC HEALTH; *RESEARCH NEEDS; *RESEARCH REVIEWS; TRACE METALS; WATER CHARACTERISTICS; *WATER QUALITY

DESCRIPTIVE NOTE: 134-138P.

ABSTRACT: THIS ARTICLE EXAMINES CURRENT RESEARCH ON THE RELATIONSHIP BETWEEN WATER HARDNESS AND MORTALITY RATES FROM CARDIOVASCULAR DISEASE. SEVERAL STUDIES HAVE FOUND HIGHER CARDIOVASCULAR DISEASE DEATH RATES IN SOFT WATER AREAS COMPARED TO LOWER RATES IN AREAS WITH HARD WATER. THREE HYPOTHESES SEEM TO BE MOST PREVALENT IN THE RESEARCH TO DATE: THE BULK CONSTITUENTS OF HARD WATER EXHIBIT A PROTECTIVE EFFECT, POSSIBLY BY LOWERED INTESTINAL ABSORPTION OF TOXIC METALS; TRACE ELEMENTS NORMALLY ASSOCIATED WITH

HARD WATER COULD PROVIDE A PROTECTIVE EFFECT; AND TRACE CONSTITUENTS PRESENT IN SOFT WATER (I.E. CADMIUM AND LEAD) COULD HAVE A HARMFUL EFFECT ON HEALTH. LITERATURE PERTAINING TO EACH OF THESE IS REVIEWED.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH, V43 N3

IRIS ACCESSION NUMBER: EW005954

PUBLICATION DATE: FEB 81

TITLE: A MODULAR COURSE-FORMAT FOR SUPERVISORY DEVELOPMENT.

PERSONAL AUTHOR: PROKOPENKO, J.; BITTEL, LESTER R.

DESCRIPTOR: *COURSE DESCRIPTIONS; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *PROGRAM DESIGN; SUPERVISION; *SUPERVISORY TRAINING; TRAINING

DESCRIPTIVE NOTE: 14-22P.

ABSTRACT: PRESENTED IS A UNIVERSAL FOUNDATION UPON WHICH A COMPREHENSIVE SUPERVISORY TRAINING PROGRAM MAY BE BUILT. IT CONSISTS OF 35 BASIC SUBJECT AREAS IDENTIFIED BY A STUDY CONDUCTED DURING THE PAST THREE YEARS BY THE INTERNATIONAL LABOUR ORGANIZATION. THE 35 SUBJECT AREAS ARE GROUPED INTO THE FOLLOWING FOUR SECTIONS: SUPERVISION; SUPERVISORY TECHNIQUES; THE MAIN SUPERVISORY AREAS; AND SUPERVISING PEOPLE. IN ORDER TO PROVIDE TRAINERS WITH A SOLID PLATFORM FOR LAUNCHING THEIR OWN PROGRAMS, THE ILO HAS ALSO PREPARED FOR EACH SUBJECT AREA A BASIC TRAINING COURSE UNIQUELY CONCEIVED AND MODULAR IN FORMAT.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V35 N2

IRIS ACCESSION NUMBER: EW005955

PUBLICATION DATE: FEB 81

TITLE: MANAGING THE CRITICAL THREE.

PERSONAL AUTHOR: CROCKETT, WILLIAM J.

DESCRIPTOR: *COMMUNICATION SKILLS; MANAGEMENT; *MANAGEMENT EDUCATION; *MANPOWER DEVELOPMENT; SKILL DEVELOPMENT; *SUPERVISION; *TRAINING

DESCRIPTIVE NOTE: 24-32P.

ABSTRACT: THIS ARTICLE PRESENTS A MANAGEMENT APPROACH BASED ON MANAGING THREE CRITICAL FACTORS IN SUPERVISION: THE TASK, THE RELATIONSHIP OF THE MANAGER AND HIS/HER PEOPLE, AND THE MANAGER HIM/HERSELF. THE AUTHOR PRESENTS SEVEN CHARACTERISTICS OF AN EFFECTIVE MANAGER AND CONCLUDES THAT POSSESSING THESE, THE MANAGER WILL BE ABLE TO CONVERT THEIR HUMAN WORK FORCES INTO A GROUP OF HIGHLY MOTIVATED, DEDICATED, AND SELF-RESPECTING HUMAN BEINGS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V35, N2

IRIS ACCESSION NUMBER: EW005956

PUBLICATION DATE: FEB 81

TITLE: A NEW APPROACH TO DESIGNING TRAINING PROGRAMS.

PERSONAL AUTHOR: CARNARIUS, STAN

DESCRIPTOR: *EDUCATIONAL PROGRAMS; *GUIDES; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *PROGRAM DESIGN; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 40-44P.

ABSTRACT: PRESENTED IS AN INNOVATIVE, CONCEPTUAL AND METHODOLOGICAL APPROACH TO DESIGNING TRAINING PROGRAMS. THE ARTICLE CONTAINS A STEP-BY-STEP GUIDE WHICH EXAMINES: CONCEPTS, POSSIBLE ACTIVITIES, METHODS CONSIDERED, TEST AGENDA, AND TRAINING MATERIALS. IN ADDITION, A DETAILED EXAMPLE IS PROVIDED.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V35 N2

IRIS ACCESSION NUMBER: EW005957

PUBLICATION DATE: FEB 81

TITLE: TRAINING MANAGERS TO STIMULATE EMPLOYEE DEVELOPMENT.

PERSONAL AUTHOR: MILLER, DONALD B.

DESCRIPTOR: EDUCATIONAL PROGRAMS; *EMPLOYEE RELATIONS; INSTRUCTIONAL MATERIALS; MANAGEMENT; *MANAGEMENT EDUCATION; PERSONNEL MANAGEMENT; *PROGRAM DESCRIPTION; SKILL DEVELOPMENT; *TRAINING PROGRAMS; *WORK ENVIRONMENT

DESCRIPTIVE NOTE: 47-53P.

ABSTRACT: THIS ARTICLE EXAMINES A MANAGER TRAINING PROGRAM DESIGNED TO IMPROVE THE MANAGER'S CAREER COUNSELING SKILLS. THE GOAL OF THE PROGRAM IS TO STIMULATE EMPLOYEE DEVELOPMENT BY IMPROVING THE QUALITY OF THE WORK ENVIRONMENT. THE ARTICLE LOOKS AT THE CONCEPTUAL NEED FOR THE PROGRAM, THE COURSE SPECIFICATIONS, THE PROGRAM ITSELF, AND THE RESULTS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V35 N2

IRIS ACCESSION NUMBER: EW005961

PUBLICATION DATE: 80

TITLE: THE BOOK OF APPLE COMPUTER SOFTWARE, 1981.

PERSONAL AUTHOR: SADLIER, JAMES; STANTON, JEFFREY

DESCRIPTOR: *APPLE COMPUTERS; *COMPUTER PROGRAMS; *COMPUTERS; *CONSUMER EDUCATION; EDUCATION; *EVALUATION; *GUIDES; *SOFTWARE; UTILITIES

DESCRIPTIVE NOTE: 243P. PRICE: $19.95

ABSTRACT: THIS BOOK IS INTENDED FOR USE AS A GUIDE AND REFERENCE TO ASSIST IN MAKING INTELLIGENT, INFORMED DECISIONS ABOUT PURCHASING SOFTWARE FOR THE APPLE COMPUTER. NUMEROUS COMPUTER PROGRAMS ARE LISTED, DISCUSSED, AND EVALUATED IN TERMS OF: EASE OF USE, DOCUMENTATION, RELIABILITY, PRICE/USEFULNESS RATIO, VENDOR SUPPORT, VISUAL APPEAL, ERROR HANDLING, CREATIVITY, CHALLENGE, AND AVAILABILITY. PROGRAMS ARE REVIEWED FOR THE FOLLOWING GROUPS: GAMES AND ENTERTAINMENT, EDUCATION, BUSINESS, AND UTILITIES. SECTIONS ARE ALSO INCLUDED ON NEW DEVELOPMENTS AND SOFTWARE HOUSES.

AVAILABILITY: THE BOOK 1981, 14013 OLD HARBOR LANE, SUITE 312, MARINA DEL REY, CA 90291

IRIS ACCESSION NUMBER: EW005962

PUBLICATION DATE: JAN 81

TITLE: ELEVATED TANK RAISED TWELVE FEET.

PERSONAL AUTHOR: FOSTER, JAMES R.

DESCRIPTOR: *DESIGN; *ENGINEERING; *ELEVATED TANKS; HYDRAULICS; STORAGE CAPACITY; *TANKS; *WATER SUPPLY; *WATER STORAGE; *WATER TANKS

DESCRIPTIVE NOTE: 54-55P.

ABSTRACT: THIS ARTICLE DESCRIBES HOW AND WHY AN OLD DEBATED WATER STORAGE TANK WAS JACKED UP TO THE ELEVATION REQUIRED BY ENGINEERING STUDIES FOR THE NEW TANK. THIS OPERATION ENSURED THAT THE STORAGE CAPACITY OF THE NEW TANK WAS NOT DIMINISHED AND HAS BEEN ESTIMATED TO HAVE SAVED IN EXCESS OF $150,000.

AVAILABILITY: PUBLIC WORKS, V112 N1

IRIS ACCESSION NUMBER: EW006025

PUBLICATION DATE: FEB 81

TITLE: WATER REUSE: PROJECTING MARKETS AND COSTS.

PERSONAL AUTHOR: HORNE, F. WILEY; AND OTHERS

DESCRIPTOR: *CALIFORNIA; *CONSERVATION; COSTS; DISTRIBUTION SYSTEMS; *ECONOMIC FACTORS; MANAGEMENT; *MARKETING; OPERATIONS; RECYCLING; *REUSE; SURVEYS; *WATER SUPPLY; WATER TREATMENT

DESCRIPTIVE NOTE: 66-75P.

ABSTRACT: WATER REUSE, ALTHOUGH NOT A NEW CONCEPT IN SOUTHERN CALIFORNIA, WAS THE FOCUS OF RENEWED ATTENTION FOLLOWING A STATEWIDE DROUGHT. THIS ARTICLE REPORTS THAT WATER AND WASTEWATER UTILITIES JOINED TOGETHER TO STUDY THE NONPOTABLE REUSE POTENTIAL OF THE AREA. AS A RESULT, TEN PROJECTS WERE PROPOSED FOR CONSTRUCTION OVER A TEN YEAR PERIOD, WITH THE GOAL OF INCREASING NONPOTABLE REUSE FROM THE PRESENT 200,000 M**3/D TO 1150 X 10**3 M**3/D UPON COMPLETION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N2

IRIS ACCESSION NUMBER: EW006026

PUBLICATION DATE: FEB 81

TITLE: COORDINATING UTILITY LOCATION: A DEFENSE AGAINST DISTRIBUTION SYSTEM DAMAGE.

PERSONAL AUTHOR: COWGILL, JAMES E.

DESCRIPTOR: *DISTRIBUTION SYSTEMS; FACILITIES; *GUIDELINES; *LOCATION; *MANAGEMENT; *OPERATIONS (WATER); *PLANNING; *TEXAS; *UTILITIES; ZONING

DESCRIPTIVE NOTE: 86-88P.

ABSTRACT: COMPETITION FOR SPACE IN PUBLIC RIGHT-OF-WAYS IS INCREASING, BUT THE AVAILABLE SPACE IS DECREASING. TO ESTABLISH AN ORDERLY SYSTEM OF SPACE ALLOCATION, DALLAS, TEXAS HAS CREATED A UTILITY LOCATION AND COORDINATION COUNCIL. THIS WAY, ALL UTILITY LINES AND SPACE CAN BE IDENTIFIED WITH AN EASY TO USE METHOD, AND DAMAGE TO UTILITY LINES CAN BE SHARPLY CURTAILED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N2

IRIS ACCESSION NUMBER: EW006027

PUBLICATION DATE: FEB 81

TITLE: EVALUATING COSTS AND BENEFITS OF ALTERNATIVE DISINFECTANTS.

PERSONAL AUTHOR: CLARK, ROBERT M.

DESCRIPTOR: CHLORINATION; CHLORINE DIOXIDE; *COMPARATIVE ANALYSIS; *COST EFFECTIVENESS; *DISINFECTANTS; *DRINKING WATER; OZONE; TRIHALOMETHANE; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 89-93P.

ABSTRACT: CHLORINE HAS BEEN THE PRIMARY DISINFECTANT SINCE ITS INTRODUCTION AROUND THE TURN OF THE CENTURY. RECENT FINDINGS THAT TRIHALOMETHANES ARE PRODUCED DURING THE CHLORINATION PROCESS HAVE, HOWEVER, PROMPTED A SEARCH FOR ALTERNATIVE DISINFECTANTS. AN ANALYSIS OF THE COST-BENEFIT RATIOS OF CHLORINATION AND OTHER METHODS OF DISINFECTION CONCLUDES THAT THE BENEFITS ASSOCIATED WITH ANY TYPE OF DISINFECTION FAR OUTWEIGH THE COSTS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N2

IRIS ACCESSION NUMBER: EW006028
PUBLICATION DATE: FEB 81

TITLE: A PILOT STUDY OF CHLORINE DIOXIDE USE TO REDUCE TOTAL TRIHALOMETHANES.

PERSONAL AUTHOR: MONSCVITZ, J. T.; REXING, D. J.

DESCRIPTOR: CASE STUDIES; CHLORINATION; *CHLORINE DIOXIDE; COST EFFECTIVENESS; *DISINFECTION; *DRINKING WATER; NEVADA; RESEARCH; *TRIHALOMETHANE; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 94-96P.

ABSTRACT: ANTICIPATING MORE STRINGENT MAXIMUM CONTAMINANT LEVEL CONTROLS, THE SOUTHERN NEVADA WATER SYSTEM INITIATED A PILOT-SCALE STUDY OF THE USE OF CHLORINE DIOXIDE TO REDUCE TOTAL TRIHALOMETHANE CONCENTRATIONS IN ITS DISTRIBUTED WATER. A PRELIMINARY INVESTIGATION REVEALED THAT CONSTRUCTING AND OPERATING A GRANULAR ACTIVATED CARBON POSTREACTOR WOULD COST BETWEEN $60 AND $100 MILLION. COMPARING THE COST AND EFFECTIVENESS OF CHLORINE DIOXIDE WITH THAT OF GAC SHOWED THAT CLO2 WOULD BE THE BETTER ALTERNATIVE FOR THE SYSTEM.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N2

IRIS ACCESSION NUMBER: EW006029

PUBLICATION DATE: FEB 81

TITLE: USE OF CHLORINE DIOXIDE, CHLORAMINES, AND SHORT-TERM FREE CHLORINATION AS ALTERNATIVE DISINFECTANTS.

PERSONAL AUTHOR: HUBBS, STEPHEN A.; AND OTHERS

DESCRIPTOR: CASE STUDIES; *CHLORAMINES; *CHLORINATION; *CHLORINE DIOXIDE; COSTS; *DISINFECTION; *DRINKING WATER; *OPERATIONS (WATER); RESEARCH; TRIHALOMETHANE; *WATER SUPPLY; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 97-101P.

ABSTRACT: USING THE ENVELOPE THEORY WHICH DEFINES ADEQUATE DISINFECTION CRITERIA BASED ON THE TEMPERATURE, PH, AND CHLORINE DOSAGE OF AN AQUEOUS SYSTEM, THE LOUISVILLE WATER COMPANY DETERMINED THE MOST EFFECTIVE METHOD OF DISINFECTION FOR ITS SYSTEM. SHORT-TERM FREE CHLORINATION, FOLLOWED BY AMMONIATION TO PRODUCE MONOCHLORAMINE, WAS SELECTED ON THE BASIS OF COST, BACTERICIDAL EFFICIENCY, AND TRIHALOMETHANE CONTROL.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N2

IRIS ACCESSION NUMBER: EW006030
PUBLICATION DATE: FEB 81

TITLE: EXPERIENCE WITH CHLORAMINES AS PRIMARY DISINFECTANTS.

PERSONAL AUTHOR: SHULL, KENNETH E.

DESCRIPTOR: *CASE STUDIES; *CHLORAMINES; *DISINFECTION; *DRINKING WATER; PENNSYLVANIA; PUBLIC HEALTH; REGULATIONS; *WATER SUPPLY; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 101-104P.

ABSTRACT: AN AMENDMENT TO THE NATIONAL INTERIM PRIMARY DRINKING WATER REGULATIONS PROPOSED BY THE USEPA IN 1978 WOULD HAVE PROHIBITED THE USE OF CHLORAMINES AS PRIMARY DISINFECTANTS. NUMEROUS UTILITIES TESTIFIED AT PUBLIC HEARINGS CONCERNING THE SUCCESS THEY WERE HAVING USING CHLORAMINES AS PRIMARY DISINFECTANTS. INCLUDED AMONG THEM WAS THE PHILADELPHIA SUBURBAN WATER COMPANY WHERE, AS IS REPORTED IN THIS ARTICLE, IN ALMOST 50 YEARS OF EXPERIENCE, NO ABNORMAL LEVEL OF COLIFORMS OR HIGH TOTAL BACTERIA COUNT HAD BEEN SEEN IN FINISHED WATER. ON THE BASIS OF LIKE TESTIMONY, EPA QUALIFIED THE USE OF CHLORAMINES AS A PRIMARY DISINFECTANT TO BE BEST DECIDED IN A CASE-BY-CASE BASIS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N2

IRIS ACCESSION NUMBER: EW006031

PUBLICATION DATE: FEB 81

TITLE: THE ANATOMY OF AN OZONE PLANT.

PERSONAL AUTHOR: LEPAGE, WILFRED L.

DESCRIPTOR: *CASE STUDIES; COSTS; *DESIGN; DRINKING WATER; *EQUIPMENT; *FACILITIES; MAINTENANCE; MICHIGAN; *OPERATIONS (WATER); *OZONE; SAFETY; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 105-111P.

ABSTRACT: ALTHOUGH THIS PAPER FOCUSES ON THE DESIGN, EQUIPMENT, AND OPERATING RECORD OF THE SUCCESSFUL OZONE INSTALLATION AT THE WATER TREATMENT PLANT IN MONROE, MICHIGAN, THERE ARE CERTAIN ELEMENTS COMMON TO ALL OZONE INSTALLATIONS, NO MATTER WHAT THE PURPOSE OF OZONATION. PHYSICAL FACILITIES, CAPITAL AND OPERATING COSTS, MAINTENANCE DEMANDS, SAFETY CONSIDERATIONS, AND PROBLEMS WILL ALL BE COMPARABLE.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N2

IRIS ACCESSION NUMBER: EW006032

PUBLICATION DATE: FEB 81

TITLE: DETERMINATION OF ORGANIC CONTAMINANTS BY THE GROB CLOSED-LOOP-STRIPPING TECHNIQUES.

PERSONAL AUTHOR: COLEMAN, W. EMILE; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CONTAMINANTS; *DATA ANALYSIS; *DISINFECTION; DRINKING WATER; *LABORATORY PROCEDURES; MATHEMATICAL MODELS; *MONITORING; RESEARCH; *TECHNOLOGICAL ADVANCEMENTS; TOOLS; *WATER UTILITIES

DESCRIPTIVE NOTE: 119-125P.

ABSTRACT: CLOSED-LOOP STRIPPING ANALYSIS (CLSA), DESCRIBED IN THIS ARTICLE, HOLDS TREMENDOUS PROMISE AS A MONITORING TOOL FOR WATER UTILITIES BECAUSE OF ITS SENSITIVITY TO MEASURING A WIDE RANGE OF HALOGENATED AND OTHER ORGANICS. THE GROB CLSA METHOD IDENTIFIES AND QUANTIFIES ORGANIC CONTAMINANTS AT THE NG/L-LEVEL BY A COMPUTERIZED GLASS CAPILLARY GAS CHROMATOGRAPHY - MASS SPECTROMETRY SYSTEM.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N2

IRIS ACCESSION NUMBER: EW006057

PUBLICATION DATE: NOV 77

TITLE: NATIONAL HANDBOOK OF CONSERVATION PRACTICES.

DESCRIPTOR: *CONSERVATION; *CONSERVATION PRACTICES; *ENVIRONMENT; FISH; *MANAGEMENT; *NATURAL RESOURCES; POLLUTION; *REGULATIONS; RECREATION; *STANDARDS; *SOIL; WASTE DISPOSAL; *WATER RESOURCES; WATER SYSTEMS; WILDLIFE

DESCRIPTIVE NOTE: 279P. PRICE: *6.00, S/N 001-007-00903-1

ABSTRACT: PRESENTED ARE GUIDELINES PREPARED FOR USE BY THE SOIL CONSERVATION SERVICE AND OTHERS HAVING AN INTEREST IN SOIL AND WATER ACTIVITIES. THE OBJECTIVES TO BE MET ARE ASSOCIATED WITH: SOIL AND WATER CONSERVATION, WATER-MANAGEMENT, POLLUTION ABATEMENT, WASTE UTILIZATION AND DISPOSAL, IMPROVED FISH AND WILDLIFE HABITAT, AND IMPROVED QUALITY OF THE ENVIRONMENT.

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

IRIS ACCESSION NUMBER: EW006058

PUBLICATION DATE: JUN 78

TITLE: WATER MANAGEMENT AND SEDIMENT CONTROL FOR URBANIZING AREAS.

DESCRIPTOR: *DESIGN; *ENGINEERING; *EROSION CONTROL; *INSTRUCTIONAL MATERIALS; *LAND USE; *MANAGEMENT; *PLANNING; *SOIL; STANDARDS; *SEDIMENT CONTROL; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 179P. PRICE: $4.00; S/N 001-000-03808-7

ABSTRACT: DISCUSSED IS WATER MANAGEMENT AND REDUCTION OF EROSION AND SEDIMENTATION ON LAND UNDERGOING DEVELOPMENT IN URBAN AREAS. THE GUIDE IS TO ASSIST PROPERTY OWNERS, LAND DEVELOPERS, CONSULTING FIRMS, AND LOCAL GOVERNMENT AGENCIES WITH THE CONSERVATION OF SOIL, WATER, AND PLANTS. ITEMS ADDRESSED ARE: RESOURCE PLANNING IN URBANIZING AREAS; STANDARDS AND SPECIFICATIONS; METHOD FOR DETERMINING SOIL LOSS; AND INSTALLATION AND MAINTENANCE AIDS.

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

INSTITUTION NAME: UNITED STATES DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE.

IRIS ACCESSION NUMBER: EW006059

PUBLICATION DATE: FEB 79

TITLE: FIELD MANUAL FOR RESEARCH IN AGRICULTURAL HYDROLOGY.

PERSONAL AUTHOR: BRAKENSIEK, D. L.; AND OTHERS

DESCRIPTOR: *AGRICULTURE; *ANALYTICAL TECHNIQUES; CLIMATE; DATA PROCESSING; *HYDROLOGY; *INSTRUCTIONAL MATERIALS; *MANUAL; PRECIPITATION; POST SECONDARY EDUCATION; *RESEARCH; RUNOFF; SOILS; WATERSHEDS

DESCRIPTIVE NOTE: 547P. PRICE: $7.00 S/N 001-000-03798-6

ABSTRACT: THIS PUBLICATION WAS PREPARED TO PROVIDE A COMPLETE SET OF TECHNIQUES NEEDED FOR THE INITIATION AND MAINTENANCE OF HYDROLOGIC RESEARCH PROJECTS. THESE TECHNIQUES WERE OBTAINED BY SOLICITING INFORMATION FROM EXPERTS AND ADAPTING MATERIAL DESCRIBED IN CURRENT LITERATURE. WHILE THIS PUBLICATION CANNOT REPLACE INDIVIDUAL INSTRUCTION BY AN EXPERIENCED PERSON, IT SHOULD SERVE AS A REFERENCE FOR SUCH INSTRUCTION AND, IF FOLLOWED, PLACE THE DATA IN A FORM THAT WILL BE SUITABLE FOR POTENTIAL ANALYSES. CHAPTERS 1, 2, AND 3 DEAL WITH PRECIPITATION, RUNOFF, AND CLIMATE. CHAPTERS 4, 5, AND 6 DISCUSS SEDIMENTATION, GEOLOGY, AND WATERSHED CHARACTERISTICS AND SOIL MOISTURE. EACH SUBJECT IS DIVIDED INTO (1) INSTALLATIONS, (2) FIELD OBSERVATIONS, (3) DATA REDUCTION, AND (4) DATA PROCESSING.

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

IRIS ACCESSION NUMBER: EW006071

PUBLICATION DATE: JUL 79

TITLE: REVERSE OSMOSIS TECHNICAL MANUAL.

DESCRIPTOR: COSTS; *DESALINATION; DESIGN; FEEDWATER

PRETREATMENT; *MANUALS; *MEMBRANE SYSTEMS; *OPERATIONS (WATER); PRETREATMENT; *REVERSE OSMOSIS; SEMI-PERMEABLE MEMBRANES; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 310P. PB80-186950

ABSTRACT: A COMPREHENSIVE DESIGN MANUAL WAS COMPILED FOR REVERSE OSMOSIS SYSTEMS SUITABLE FOR USE BY CONSULTING ENGINEERS AND OTHERS INVOLVED IN WATER SUPPLY AND IMPROVEMENT FOR MUNICIPAL WATER SYSTEMS. THE MANUAL INCLUDES CHAPTERS ON SEMI-PERMEABLE MEMBRANES; MEMBRANE MODULE CONFIGURATIONS; FEEDWATER TREATMENT; DISSOLVED SOLIDS REJECTIONS; MEMBRANE PRODUCTIVITY; SYSTEMS DESIGN; SYSTEM INSTALLATION AND OPERATION; MEMBRANE APPLICATIONS; SELECTED CAPITAL AND ANNUAL COSTS AND SPECIFICATIONS AND WARRANTIES. APPENDICES INCLUDE MILESTONES IN DEVELOPMENT OF REVERSE OSMOSIS, DIRECTORY OF MANUFACTURERS, WATER QUALITY STANDARDS, PERFORMANCE CALCULATIONS, GLOSSARY OF TERMS, CONVERSION TABLES AND MISCELLANEOUS FIGURES AND TABLES.

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

IRIS ACCESSION NUMBER: EW006073

PUBLICATION DATE: FEB 80

TITLE: ENVIRONMENTAL ASSESSMENT DATA SYSTEMS: TERMINOLOGY REFERENCE MANUAL.

PERSONAL AUTHOR: LARKIN, R.; BALLARD B.
DESCRIPTOR: COMPUTER PROGRAMS; *DATA BASES; *ENVIRONMENTAL ASSESSMENT DATA SYSTEMS; *INDUSTRIAL WASTES; *INFORMATION SYSTEMS; *POLLUTION CONTROL; *REFERENCE MATERIALS; *TERMINOLOGY; *VOCABULARY; *WASTEWATER

DESCRIPTIVE NOTE: 227P. PB80-197916

ABSTRACT: THIS REPORT IS A GENERAL REFERENCE MANUAL ON THE TERMINOLOGY USED TO ENTER AND RETRIEVE INFORMATION FROM THE ENVIRONMENTAL DATA SYSTEMS (EADS), A GROUP OF INTERRELATED COMPUTERIZED DATA BASES THAT DESCRIBE MULTIMEDIA DISCHARGES FROM ENERGY SYSTEMS AND INDUSTRIAL PROCESSES. THIS REPORT CONTAINS THE STANDARD NOMENCLATURE OR TERMINOLOGY USED TO DESCRIBE CERTAIN DATA CATEGORIES IN THE WASTE STREAM DATA BASES. THIS TERMINOLOGY IS USED TO CATEGORIZE SOURCES, DESCRIBE CONTROL TECHNOLOGY, IDENTIFY CHEMICAL COMPOUNDS AND ELEMENTS, DESCRIBE ANALYTICAL METHODS IN SAMPLE ANALYSIS, AND LIST OTHER DATA. THE TERMINOLOGY APPLIES TO PARTICLE, GAS, LIQUID, AND SOLID DISCHARGE EFFLUENT STREAMS.

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

IRIS ACCESSION NUMBER: EW006075

PUBLICATION DATE: AUG 80

TITLE: WASTE TREATMENT BY REVERSE OSMOSIS AND MEMBRANE PROCESSES: SEWAGE. 1970-JULY, 1980 (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

PERSONAL AUTHOR: CAVAGNARO, DIANE M.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *MEMBRANES; *MEMBRANE PROCESSES; *OPERATIONS (WASTEWATER); *REVERSE OSMOSIS; *SEWAGE; TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 116P. PB80-813686

ABSTRACT: WORLDWIDE RESEARCH IS CITED ON THE TREATMENT OF SEWAGE BY OSMOSIS, ULTRAFILTRATION, ELECTRODIALYSIS, AND OTHER OSMOTIC PROCESSES. STUDIES ARE INCLUDED ON DESIGN, PERFORMANCE, AND THE VERSITILITY OF MANY OF THESE MEMBRANES WITH RESPECT TO THEIR USE. (THIS UPDATED BIBLIOGRAPHY CONTAINS 116 CITATIONS, 6 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW006078

PUBLICATION DATE: AUG 80

TITLE: WASTE TREATMENT BY REVERSE OSMOSIS AND MEMBRANE PROCESSING, (CITATIONS FROM THE NTIS DATA BASE), 1978-JULY 1980.

PERSONAL AUTHOR: CAVAGNARO, DIANE M.
DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *INDUSTRIAL WASTES; *OSMOSIS; *REVERSE OSMOSIS; *SEWAGE; WASTES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 93P. PB80-813660

ABSTRACT: CITATIONS OF FEDERALLY-FUNDED RESEARCH COVER THE TREATMENT OF SEWAGE AND INDUSTRIAL WASTES BY REVERSE OSMOSIS, ULTRAFILTRATION, ELECTRODIALYSIS AND OTHER OSMOTIC PROCESSES. DESALTING OF GROUND, SURFACE, AND SEA WATERS IS EXCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 93 CITATIONS, 33 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW006081

PUBLICATION DATE: SEP 80

TITLE: ANIMAL WASTE POLLUTION AND ITS CONTROL. 1964 - JULY, 1980. (CITATIONS FROM THE NTIS DATA BASE).

PERSONAL AUTHOR: BROWN, ROBENA J.

DESCRIPTOR: ANAEROBIC DIGESTION; *AGRICULTURAL WASTES; *ANNOTATED BIBLIOGRAPHIES; *ANIMAL WASTES; FERTILIZERS; LIVESTOCK; *POLLUTION; *SURFACE RUNOFF; *WASTE DISPOSAL;

*WATER POLLUTION CONTROL
DESCRIPTIVE NOTE: 338P. PB80-814866

ABSTRACT: THE CITATIONS COVER STUDIES ON THE POLLUTION AND POLLUTION CONTROL OF ANIMAL WASTES AND ANIMAL PROCESSING WASTES. REPORTS ARE INCLUDED ON FEEDLOT WASTE POLLUTION AND CONTROL, POLLUTION FROM MANURE USED IN FERTILIZATION, WATER RUNOFF FROM FARMS, DAIRY AND LIVESTOCK WASTES, RENDERING WASTES, POULTRY PROCESSING WASTES, ECOLOGICAL ASPECTS, AND HOGHOUSE WASTE CONTROL. ALSO INCLUDED IN THE REPORTS ARE POLLUTION CONTROL BY ANAEROBIC DIGESTION OF MANURES. (THIS UPDATED BIBLIOGRAPHY CONTAINS 308 CITATIONS, 30 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW006082

PUBLICATION DATE: JUN 80

TITLE: WATER QUALITY MODELING - HYDROLOGICAL AND LIMNOLOGICAL SYSTEMS. JULY, 1977-MAY, 1980 (A BIBLIOGRAPHY WITH ABSTRACTS).

PERSONAL AUTHOR: CARRICAN, BRIAN

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIOLOGY; CHEMISTRY; EUTROPHICATION; HYDROLOGY; *MODELS; NUTRIENT REMOVAL; *POLLUTANTS; PHYSICAL PROCESSES; RUNOFF WATERS; STREAMS; *WATER QUALITY

DESCRIPTIVE NOTE: 238P. PB80-812241

ABSTRACT: THE ABSTRACTS CONTAIN INFORMATION ON MODELS USED TO DESCRIBE WATER QUALITY, INCLUDING MODELS OF THE CHEMICAL, PHYSICAL, BIOLOGICAL, AND HYDROLOGICAL PROCESSES IMPORTANT TO WATER QUALITY. STUDIES ARE INCLUDED ON THE MODELING OF EUTROPHICATION, NUTRIENT REMOVAL, POLLUTANT DISPERSION, STREAM FLOW, HEAT DISSIPATION, LIMNOLOGICAL FACTORS, AQUIFER WATER QUALITY, AND WATER RUNOFF QUALITY. (THIS UPDATED BIBLIOGRAPHY CONTAINS 219 ABSTRACTS, 19 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW006101

PUBLICATION DATE: 80

TITLE: THERMAL CONVERSION OF SOLID WASTES AND BIOMASS.

PERSONAL AUTHOR: JONES, JERRY L.; RADDING, SHIRLEY B.

DESCRIPTOR: ANALYTICAL TECHNIQUES; *BIOMASS CONVERSION; *COSTS; DEVELOPING NATIONS; *EQUIPMENT; *ENERGY; ECONOMICS; *FUELS; FACILITIES; *INDUSTRIAL TECHNOLOGY; *RECYCLING; *SOLID WASTES; *THERMAL CONVERSION; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 747P. PRICE: $57.50
ABSTRACT: DISCUSSED ARE THERMAL CONVERSION TECHNOLOGIES AND PROCESS ECONOMICS FOR SOLID WASTES AND BIOMASS FEED STOCKS. TOPICS ADDRESSED ARE: URBAN WASTES AND BIOMASS; THE CONVERSION OF WOOD TO FUELS, CHEMICALS AND ENERGY IN THE FORM OF STREAM OR ELECTRICAL POWER; COMBUSTION PROCESSES; DENSIFICATION OF SOLID WASTES AND BIOMASS TO PRODUCE SOLID FUELS; ANALYTICAL TECHNIQUES; PROCESS DEVELOPMENT AND COMMERCIALIZATION; AND USE OF THERMAL PROCESSES FOR BIOMASS CONVERSION IN DEVELOPING COUNTRIES.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, SPECIAL ISSUES SALES, 1155 SIXTEENTH ST., N. W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW006126

PUBLICATION DATE: DEC 80

TITLE: WATER QUALITY MANAGEMENT.

PERSONAL AUTHOR: KRENKEL, PETER A.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ENFORCEMENT; EUTROPHICATION; *INSTRUCTIONAL MATERIALS; *LEGISLATION; *MANAGEMENT; OUTFALLS; *PLANNING; POLLUTION; *STANDARDS; THERMAL POLLUTION; *WATER QUALITY; *WATER CHARACTERISTICS; *WATER POLLUTION CONTROL; *WATER RESOURCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 684P. PRICE: $65.00

ABSTRACT: PRESENTED IS INFORMATION ON POLLUTION ABATEMENT PROGRAMS INCLUDING PLANNING, MANAGEMENT, AND ENFORCEMENT. CONTENTS INCLUDE SECTIONS ON: (1)LEGISLATION; (2) POLLUTION SOURCES, LOADINGS, AND WASTEWATER CHARACTERIZATION; (3) TRANSPORT PROCESSES; (4) EUTROPHICATIONS; (5) THERMAL POLLUTION; AND (6) MIXING ZONES AND OUTFALL.

AVAILABILITY: ACADEMIC PRESS, 111 FIFTH AVENUE, NEW YORK, NY 10003

IRIS ACCESSION NUMBER: EW006128

PUBLICATION DATE: 79

TITLE: MICROCOMPUTER WORKBOOK, TRS-80 EDITION.

PERSONAL AUTHOR: POIROT, JAMES L.; RETZLAFF, DONALD ALAN

DESCRIPTOR: *COMPUTER ASSISTED INSTRUCTION; *COMPUTERS; *COMPUTER PROGRAMS; *INSTRUCTIONAL MATERIALS; *MICROCOMPUTERS; *WORKBOOKS

DESCRIPTIVE NOTE: 124P. PRICE: $4.95

ABSTRACT: THIS WORKBOOK IS DESIGNED TO BE USED IN CONJUNCTION WITH A SERIES OF COMPUTER ASSISTED INSTRUCTIONAL TUTORIALS ON USING AND PROGRAMMING THE RADIO SHACK TRS-80, LEVEL II, MICROCOMPUTER SYSTEM. THE FINAL CHAPTER REFERS TO

THE APPLICATION OF THIS MATERIAL TO BUSINESS, MEDICINE AND EDUCATION.

AVAILABILITY: STERLING SWIFT PUBLISHING CO., P.O. BOX 188, MANCHACA, TX 78652

IRIS ACCESSION NUMBER: EW006131

TITLE: PRESENTATION SKILLS AND STRATEGIES.

PERSONAL AUTHOR: FOWLER, TED; AND OTHERS

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *INDUSTRIAL WASTES; *MANAGEMENT; *ORGANIZATIONS (GROUPS); *PUBLIC PARTICIPATION; *PLANNING; *PROGRAM DEVELOPMENT; *WATER SUPPLY; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 18P.

ABSTRACT: ADDRESSED IS THE DEVELOPMENT OF PRESENTATION SKILLS AND STRATEGIES FOR CITIZEN ADVISORY GROUPS WORKING TO PROMOTE CLEAN WATER.

AVAILABILITY: UNIVERSITY OF CINCINNATI, TEACHERS COLLEGE, CINCINNATI, OH 45221

IRIS ACCESSION NUMBER: EW006132

PUBLICATION DATE: 80
TITLE: OPERATION OF WASTEWATER TREATMENT PLANTS - VOLUME I - INSTRUCTOR'S GUIDE.

DESCRIPTOR: FACILITIES; *INSTRUCTIONAL MATERIALS; JOB TRAINING; *JOB SKILLS; *POST SECONDARY EDUCATION; PACKAGE PLANTS; *TEACHING GUIDES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 154P. RELATED MANUAL - EW 005 879

ABSTRACT: THE INSTRUCTOR'S GUIDE FOR OPERATION OF WASTEWATER TREATMENT PLANTS VOLUME I PROVIDES MATERIAL TO ASSIST THE INSTRUCTOR IN PROVIDING STUDENTS WITH KNOWLEDGE AND SKILLS NECESSARY TO OBTAIN A JOB AND ADVANCE IN THE FIELD OF WASTEWATER TREATMENT. VOLUME I IS PRIMARILY FOR ENTRY-LEVEL OPERATORS AND THE OPERATORS OF SMALL TREATMENT PLANTS OR PACKAGE TREATMENT PLANTS. INCLUDED FOR EACH CHAPTER ARE OBJECTIVES, INSTRUCTIONAL APPROACH, TEST QUESTIONS, AND TEST ANSWERS. DISCUSSION AND REVIEW QUESTIONS ARE ALSO LISTED.

AVAILABILITY: CALIFORNIA STATE UNIVERSITY AT SACRAMENTO, KENNETH D. KERRI, DEPARTMENT OF CIVIL ENGINEERING, 6000 "J" STREET, SACRAMENTO, CA 95819

IRIS ACCESSION NUMBER: EW006133

PUBLICATION DATE: 80

TITLE: OPERATION OF WASTEWATER TREATMENT PLANTS - VOLUME II - INSTRUCTOR'S GUIDE.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *FACILITIES; *INSTRUCTIONAL MATERIALS; JOB TRAINING; *JOB SKILLS; *LABORATORY PROCEDURES; MAINTENANCE; *MANAGEMENT; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *TEACHING GUIDES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 222P. RELATED MANUAL - EW 005 880

ABSTRACT: THIS INSTRUCTOR'S GUIDE FOR OPERATION OF WASTEWATER TREATMENT PLANTS VOLUME II PROVIDES MATERIAL TO ASSIST THE INSTRUCTOR IN PROVIDING STUDENTS WITH KNOWLEDGE AND SKILLS NECESSARY TO OBTAIN A JOB AND ADVANCE IN THE FIELD OF WASTEWATER TREATMENT. VOLUME II EMPHASIZES MATERIAL NEEDED BY INTERMEDIATE LEVEL OPERATORS AND STRESSES THE OPERATION AND MAINTENANCE OF CONVENTIONAL TREATMENT PLANTS. THIS VOLUME CONTAINS INFORMATION FOR SUPERVISORS AND MANAGERS. HOW TO SOLVE TREATMENT PLANT PROBLEMS AND PERFORM LABRATORY TESTS ALSO ARE INCLUDED. INCLUDED FOR EACH CHAPTER ARE OBJECTIVES, INSTRUCTIONAL APPROACH, TEST ANSWERS, AND DISCUSSION AND REVIEW QUESTIONS.

AVAILABILITY: CALIFORNIA STATE UNIVERSITY AT SACRAMENTO, KENNETH D. KERRI, DEPARTMENT OF CIVIL ENGINEERING, 6000 "J" STREET, SACRAMENTO, CA 95819

IRIS ACCESSION NUMBER: EW006134

PUBLICATION DATE: 80

TITLE: OPERATION OF WASTEWATER TREATMENT PLANTS - VOLUME III - INSTRUCTOR'S GUIDE.

DESCRIPTOR: ACTIVATED SLUDGE; *ADVANCED WASTEWATER; *FACILITIES; *INSTRUCTIONAL MATERIALS; JOB TRAINING; JOB SKILLS; *MAINTENANCE; *MANAGEMENT; NUTRIENTS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; SOLIDS; *TEACHING GUIDES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 207P. RELATED MANUAL - EW 005 881

ABSTRACT: THIS INSTRUCTOR'S GUIDE FOR OPERATION OF WASTEWATER TREATMENT PLANTS VOLUME III PROVIDES MATERIAL TO ASSIST THE INSTRUCTOR IN PROVIDING STUDENTS WITH KNOWLEDGE AND SKILLS NECESSARY TO OBTAIN A JOB AND ADVANCE IN THE FIELD OF WASTEWATER TREATMENT. VOLUME III IS FOR ADVANCED-LEVEL TREATMENT PLANT OPERATORS. CHAPTERS IN THIS VOLUME CONTAIN INFORMATION ON THE OPERATIONAL STRATEGIES FOR THE ACTIVATED SLUDGE PROCESS AND THE USE OF PURE OXYGEN, THE HANDLING AND DISPOSAL OF SOLIDS, ADVANCED TREATMENT PROCESSES FOR THE REMOVAL OF SOLIDS AND NUTRIENTS FROM SECONDARY EFFLUENTS, MONITORING AND TREATMENT OF INDUSTRIAL WASTES, AND MAINTAINING AND TROUBLESHOOTING INSTRUMENTATION AND SUPPORT SYSTEMS. INCLUDED FOR EACH CHAPTER ARE OBJECTIVES, INSTRUCTIONAL APPROACH , TEST ANSWERS AND EXPLANATIONS, AND DISCUSSION AND REVIEW QUESTIONS.

AVAILABILITY: CALIFORNIA STATE UNIVERSITY AT SACRAMENTO, KENNETH D. KERRI, DEPARTMENT OF CIVIL ENGINEERING, 6000 "J" STREET, SACRAMENTO, CA 95819

IRIS ACCESSION NUMBER: EW006146

PUBLICATION DATE: OCT 80

TITLE: OZONIZATION USED IN WATER AND SEWAGE TREATMENT. 1970-AUGUST, 1980, (CITATIONS FROM THE NTIS DATA BASE).

PERSONAL AUTHOR: CAVAGNARO, DIANE M.; HUNDEMANN, AUDREY S.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *DISINFECTION; EQUIPMENT; *INDUSTRIAL WASTES; *OZONE; POTABLE WATER; SEWAGE; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL; *WATER TREATMENT

DESCRIPTIVE NOTE: 168P. PB80-815616

ABSTRACT: THE BIBLIOGRAPHY CITES FEDERALLY-FUNDED RESEARCH IN THE USE OF OZONE TO TREAT INDUSTRIAL WASTE WATER, SEWAGE, AND DRINKING WATER. IT DISCUSSES TREATMENT, TESTS, PERFORMANCE OF EQUIPMENT, AND EFFECTIVENESS OF OZONE IN WATER POLLUTION CONTROL. (THIS UPDATED BIBLIOGRAPHY CONTAINS 132 ABSTRACTS, 36 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW006148

PUBLICATION DATE: 79

TITLE: HYDROBIOLOGY: A TEXT FOR ENGINEERS AND SCIENTISTS.

PERSONAL AUTHOR: UHLMANN, DIETRICH

DESCRIPTOR: AQUATIC ENVIRONMENTS; *BIOLOGY; ENGINEERING EDUCATION; *INSTRUCTIONAL MATERIALS; *LIMNOLOGY; *SEWAGE TREATMENT; SCIENCE EDUCATION; *TEXTBOOKS; *WATER TREATMENT

DESCRIPTIVE NOTE: 313P. PRICE: $42.00

ABSTRACT: THIS INTRODUCTION TO THE BIOLOGY OF FRESH WATERS AND WATER INSTALLATIONS IS INTENDED TO PROVIDE BOTH ENGINEERS ALREADY WORKING IN THE FIELD OF WATER ECONOMY AND FUTURE ENGINEERS WITH A KNOWLEDGE OF FUNDAMENTAL BIOLOGICAL PRINCIPLES. THE AUTHOR ATTEMPTS TO DEMONSTRATE THE GREAT PROGRESS MADE DURING THE LAST FEW YEARS IN THE FIELD OF LIMNOLOGY, PARTICULARLY IN THE UNDERSTANDING OF PROCESSES OF METABOLISM AND MATERIAL TRANSPORT, FOR WHICH THE RELATIONSHIP BETWEEN THE ECONOMY, TREATMENT, AND ENGINEERING OF WATER IS VERY IMPORTANT.

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

IRIS ACCESSION NUMBER: EW006149

PUBLICATION DATE: 80

TITLE: GROUNDWATER HYDROLOGY.

PERSONAL AUTHOR: TODD, DAVID KEITH

DESCRIPTOR: AQUIFIERS; ENVIRONMENTAL INFLUENCES; *GROUNDWATER; *HYDROLOGY; *INSTRUCTIONAL MATERIALS; MANAGEMENT; MODELING; *TEXTBOOKS; WATER QUALITY; *WATER RESOURCES; WATER SUPPLY; WELLS

DESCRIPTIVE NOTE: 535P. PRICE: $53.95

ABSTRACT: THIS TEXT PRESENTS THE FUNDAMENTALS OF GROUNDWATER HYDROLOGY IN A MANNER UNDERSTANDABLE TO A WIDE RANGE OF READERS. CHAPTERS INCLUDE: OCCURENCE OF GROUNDWATER; GROUNDWATER MOVEMENT; GROUNDWATER AND WELL HYDRAULICS; WATER WELLS; GROUNDWATER LEVELS AND ENVIRONMENTAL INFLUENCES; QUALITY OF GROUNDWATER; POLLUTION OF GROUNDWATER; MANAGEMENT OF GROUNDWATER; GROUNDWATER MODELING TECHNIQUES; SURFACE INVESTIGATIONS OF GROUNDWATER; SUBSURFACE INVESTIGATIONS OF GROUNDWATER; ARTIFICIAL RECHARGE OF GROUNDWATER; AND SALINE WATER INTRUSION IN AQUIFERS.

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

IRIS ACCESSION NUMBER: EW006155
PUBLICATION DATE: DEC 80

TITLE: ENVIRONMENTAL PROTECTION ISSUES IN THE 1980'S.

DESCRIPTOR: *ECONOMIC FACTORS; *ENVIRONMENTAL PROTECTION; EVALUATION; *FEDERAL ROLE; LAWS; *POLLUTION CONTROL; *REGULATIONS; STANDARDS; *WATER QUALITY

DESCRIPTIVE NOTE: 56P. FIRST FIVE COPIES ARE FREE OF CHARGE, ADDITIONAL COPIES OF BOUND AUDIT REPORTS ARE $3.25 EACH.

ABSTRACT: THE STUDY EXAMINES CURRENT AND EMERGING ISSUES RELATING TO FEDERAL INVOLVEMENT IN THE ENVIRONMENTAL PROTECTION AREA AND REPRESENTS THE PERSPECTIVE USED IN ORGANIZING GAO AUDIT EFFORTS. THE STUDY PRESENTS AN OVERVIEW OF THE ENVIRONMENTAL PROTECTION AREA, IDENTIFIES ENVIRONMENTAL ISSUES MERITING PRIORITY ATTENTION, AND REVIEWS OTHER ISSUES SUCH AS NOISE POLLUTION, DRINKING WATER QUALITY, ENVIRONMENTAL RESEARCH AND DEVELOPMENT, ENVIRONMENTAL STANDARDS, AND THE NATIONAL ENVIRONMENTAL POLICY ACT.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

INSTITUTION NAME: U.S. GENERAL ACCOUNTING OFFICE.

IRIS ACCESSION NUMBER: EW006156

PUBLICATION DATE: MAY 73

TITLE: PUBLIC PARTICIPATION IN WATER AND LAND MANAGEMENT.

PERSONAL AUTHOR: THOMSEN, ARVID LEE

DESCRIPTOR: CASE STUDIES; GREAT LAKES; *GUIDELINES; *LAND MANAGEMENT; *MANAGEMENT; NATURAL RESOURCES; PLANNING; *PUBLIC PARTICIPATION; *WATER RESOURCES

DESCRIPTIVE NOTE: 194P.

ABSTRACT: THIS STUDY IDENTIFIES SOME OF THE SOCIAL FORCES IN WATER AND LAND MANAGEMENT, SUGGESTS HOW AN EXPERIMENTAL APPROACH TO PUBLIC PARTICIPATION CAN INCREASE KNOWLEDGE ABOUT THIS SOCIAL DIMENSION, AND ILLUSTRATES THROUGH A CASE STUDY HOW A PUBLIC PARTICIPATION PROGRAM MIGHT BE PLANNED AND IMPLEMENTED.

AVAILABILITY: CENTER FOR ENVIRONMENTAL RESEARCH, CORNELL UNIVERSITY, ITHACA, NY 14853

IRIS ACCESSION NUMBER: EW006157

TITLE: SAFETY AT THE SPILL SCENE, PART 1 AND 2.

DESCRIPTOR: *ACCIDENT PREVENTION; *AUDIOVISUAL AIDS; CHEMICALS; FIRES; *INSTRUCTIONAL MATERIALS; MARINE SAFETY; *OIL SPILLS; *POST SECONDARY EDUCATION; SAFETY; *SAFETY EDUCATION; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: $90.00 3/4" VIDEO-TAPE CASSETTE, $220.00- 16MM FILM: PART ONE; $90.00 3/4" VIDEO-TAPE CASSETTE, $220.00 - 16MM FILM: PART TWO. PRICES LISTED IN CANADIAN FUNDS. ORDERS OUTSIDE CANADA $25.00 HANDLING CHARGE.

ABSTRACT: THIS VIDEO-TAPE CASSETTE TRAINING MODULE IS DIVIDED INTO FOUR SECTIONS PROVIDING SOME OF THE IMPORTANT SAFETY GUIDELINES FOR: (1) HANDLING SPILLED PETROLEUM AND CHEMICAL PRODUCTS; (2) HANDLING SPILLED PETROLEUM AND CHEMICAL PRODUCTS IN CONFINED AREAS; (3) MARINE SAFETY; AND (4) APPROACHING SMALL FIRES AT THE SPILL SITE.

AVAILABILITY: PETROLEUM ASSOCIATION FOR CONSERVATION OF THE CANADIAN ENVIRONMENT (PACE), SUITE 400, 130 ALBERT STREET, OTTAWA, ONTARIO K1P 5G4, CANADA

IRIS ACCESSION NUMBER: EW006158

TITLE: PUBLIC RELATIONS AT THE SPILL SCENE.

DESCRIPTOR: AUDIOVISUAL AIDS; *COMMUNICATIONS; *INSTRUCTIONAL MATERIALS; *NEWS MEDIA; *OIL SPILLS; *PUBLIC RELATIONS; POST SECONDARY EDUCATION; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: PRICE: $90.00 - 3/4" VIDEO-TAPE CASSETTE, PRICES LISTED IN CANADIAN FUNDS. ORDERS OUTSIDE CANADA $25.00 HANDLING CHARGE.

ABSTRACT: THIS AUDIOVISUAL TRAINING MODULE OUTLINES THE PROCEDURES FOR STAFF TO RESPOND TO QUESTIONS FROM THE NEWS MEDIA AT THE SPILL SITE. IT REPRESENTS THE POINT OF VIEW FROM THE SIDES OF BOTH THE WORKER WHO IS TRYING TO DO HIS ASSIGNED TASKS, AND THE REPORTER WHO IS TRYING TO OBTAIN A STORY.

AVAILABILITY: PETROLEUM ASSOCIATION FOR CONSERVATION OF THE CANADIAN ENVIRONMENT (PACE), SUITE 400, 130 ALBERT STREET, OTTAWA, ONTARIO, K1P 5G4, CANADA

IRIS ACCESSION NUMBER: EW006159

TITLE: OPERATION BAY RUN.

DESCRIPTOR: AUDIOVISUAL AIDS; *INSTRUCTIONAL MATERIALS; *OIL SPILLS; *OPERATIONS; *PLANNING; *POST SECONDARY EDUCATION; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: PRICE: $90.00 - 3/4" VIDEO-TAPE CASSETTE, $115.00 16MM FILM. PRICES LISTED IN CANADIAN FUNDS. ORDERS OUTSIDE CANADA $25.00 HANDLING CHARGE.

ABSTRACT: THIS AUDIOVISUAL TRAINING MODULE IS BASED ON A TRAINING AND MOBILIZATION EXERCISE CONDUCTED BY GOVERNMENT AGENCIES AND OIL INDUSTRY SPILL COOPERATIVES IN HAMILTON HARBOUR. THIS PRESENTATION DOCUMENTS THE ENTIRE OPERATION INCLUDING THE PLANNING PHASE, ORGANIZATION COMMAND STRUCTURE, MOBILIZATION OF MEN AND EQUIPMENT AND RECOMMENDATIONS FOR FUTURE CONSIDERATIONS.

AVAILABILITY: PETROLEUM ASSOCIATION FOR CONSERVATION OF THE CANADIAN ENVIRONMENT (PACE), SUITE 400, 130 ALBERT STREET, OTTAWA, ONTARIO K1P 5G4, CANADA

IRIS ACCESSION NUMBER: EW006160

TITLE: OPERATION PREPAREDNESS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CASE STUDIES; *EQUIPMENT EVALUATION; *INSTRUCTIONAL MATERIALS; *OIL SPILLS; *PLANNING; *PROGRAM EVALUATION; *POST SECONDARY EDUCATION; RIVERS; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: PRICE: $90.00 - 3/4" VIDEO-TAPE CASSETTE, $220.00 - 16MM FILM. PRICES LISTED IN CANADIAN FUNDS. ORDERS OUTSIDE CANADA $25.00 HANDLING CHARGE.

ABSTRACT: THIS AUDIOVISUAL TRAINING MODULE HIGHLIGHTS THE RESULTS OF A GOVERNMENT-INDUSTRY PROJECT TO DEVELOP PROCEDURES FOR DEALING WITH A MAJOR SPILL IN THE DETROIT-ST. CLAIR RIVER SYSTEM. THIS PROJECT WAS CONDUCTED UNDER THE AUSPICES OF THE JOINT CANADA - UNITED STATES CONTINGENCY PLAN. THIRTEEN COMMERCIALLY AVAILABLE BARRIERS WERE TESTED AND EVALUATED.

AVAILABILITY: PETROLEUM ASSOCIATION FOR CONSERVATION OF THE CANADIAN ENVIRONMENT (PACE), SUITE 400, 130 ALBERT STREET, OTTAWA, ONTARIO, K1P 5G4, CANADA

IRIS ACCESSION NUMBER: EW006161

TITLE: NEPCO 140 INCIDENT - ST. LAWRENCE RIVER.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CASE STUDIES; *INSTRUCTIONAL MATERIALS; *OIL SPILLS; OPERATIONS; POLLUTION CONTROL; *POST SECONDARY EDUCATION; *ST. LAWRENCE RIVER; *TRAINING PROGRAMS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: PRICE: $90.00 - 3/4" VIDEO-TAPE CASSETTE, $220.00 - 16MM FILM. PRICES LISTED IN CANADIAN FUNDS. ORDERS OUTSIDE CANADA $25.00 HANDLING CHARGE.

ABSTRACT: THIS AUDIOVISUAL TRAINING MODULE REVIEWS THE ACTUAL RESPONSE OPERATIONS TO A 300,000 GALLON (#6 FUEL OIL) SPILL FROM A TANK BARGE INTO THE ST. LAWRENCE RIVER. IT DEMONSTRATES HOW CANADA AND THE UNITED STATES WORK TOGETHER ON MAJOR SPILL INCIDENTS WHERE THE POLLUTION ACTUALLY OR POTENTIALLY CROSSES THE INTERNATIONAL BORDER.

AVAILABILITY: PETROLEUM ASSOCIATION FOR CONSERVATION OF THE CANADIAN ENVIRONMENT (PACE), SUITE 400, 130 ALBERT STREET, OTTAWA, ONTARIO, K1P 5G4, CANADA

IRIS ACCESSION NUMBER: EW006162

TITLE: OPERATION BLUE WATER RUN.

DESCRIPTOR: *AUDIOVISUAL AIDS; *CASE STUDIES; *INSTRUCTIONAL MATERIALS; *OIL SPILLS; OPERATIONS; POLLUTION CONTROL; *POST SECONDARY EDUCATION; *TRAINING PROGRAMS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: PRICE: $90.00 - 3/4" VIDEO-TAPE CASSETTE. PRICES LISTED IN CANADIAN FUNDS. ORDERS OUTSIDE CANADA $25.00 HANDLING CHARGE.

ABSTRACT: THIS AUDIOVISUAL TRAINING MODULE RECORDS A TRAINING AND MOBILIZATION EXERCISE CONDUCTED BY GOVERNMENT AGENCIES AND OIL INDUSTRY COOPERATIVES ON THE ST. CLAIR RIVER FROM SARNIA TO WALPOLE ISLAND IN MAY, 1977. GOOD USE IS MADE OF AERIAL PHOTOGRAPHY AND GRAPHICS TO DEPICT THE OPERATIONS OF SEVEN DIFFERENT TASK FORCES.

AVAILABILITY: PETROLEUM ASSOCIATION FOR CONSERVATION OF THE CANADIAN ENVIRONMENT (PACE), SUITE 400, 130 ALBERT STREET, OTTAWA, ONTARIO, K1P 5G4, CANADA

IRIS ACCESSION NUMBER: EW006163

TITLE: CONTINGENCY PLANNING GUIDELINES.

DESCRIPTOR: *AUDIOVISUAL AIDS; GUIDELINES; *INSTRUCTIONAL MATERIALS; *OIL SPILLS; *OPERATIONS; *PLANNING; POLLUTION CONTROL; PROGRAM DEVELOPMENT; *POST SECONDARY EDUCATION; *TRAINING PROGRAMS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: PRICE: $90.00 - 3/4" VIDEO-TAPE CASSETTE, $220.00 - 16MM FILM. PRICES LISTED IN CANADIAN FUNDS. ORDERS OUTSIDE CANADA $25.00 HANDLING CHARGE.

ABSTRACT: THIS AUDIOVISUAL TRAINING MODULE REVIEWS THE REQUIREMENTS FOR DEVELOPING EFFECTIVE CONTINGENCY PLANS FOR SPECIFIC OPERATIONS BY HIGHLIGHTING THE MOST IMPORTANT COMPONENTS OF A PLAN SUCH AS: ALERTING AND NOTIFICATION; RESPONSE; CLEAN UP; RESTORATION; AND DISPOSAL PROCEDURES.

AVAILABILITY: PETROLEUM ASSOCIATION FOR CONSERVATION OF THE CANADIAN ENVIRONMENT (PACE), SUITE 400, 130 ALBERT STREET, OTTAWA, ONTARIO, K1P 5G4, CANADA

IRIS ACCESSION NUMBER: EW006165

PUBLICATION DATE: DEC 73

TITLE: STUDIES IN ENVIRONMENT - VOLUME I - SUMMARY REPORT.

PERSONAL AUTHOR: SELDEN, MAURY; LLEWELLYN, LYNN G.

DESCRIPTOR: *COMMUNITY PROBLEMS; *ENVIRONMENT; *ENVIRONMENTAL IMPACT; GUIDES; *HEALTH; INDUSTRIAL WASTES; LEGISLATION; *MANAGEMENT MODELS; *PLANNING; POLLUTANTS; *QUALITY CONTROL; *RESEARCH; RESOURCES; *RECREATION; SAFETY; *WATER QUALITY

DESCRIPTIVE NOTE: 112P.

ABSTRACT: DISCUSSED ARE RESEARCH ON ENVIRONMENTAL MANAGEMENT, COMPREHENSIVE PLANNING, FORECASTING AND METHODOLOGIES FOR DETERMINING IMPACTS OF ALTERNATIVE POLICIES AND ANALYZING ENVIRONMENTAL PLANNING TECHNIQUES AT THE REGIONAL STATE, AND LOCAL LEVELS. CONTENTS INCLUDE: QUALITY OF LIFE; POLLUTION AND THE MUNICIPALITY; CONSUMPTION DIFFERENTIALS AND THE ENVIRONMENT; OUTDOOR RECREATION AND THE ENVIRONMENT; AND ENVIRONMENTAL MANAGEMENT.

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

IRIS ACCESSION NUMBER: EW006166

PUBLICATION DATE: MAR 74

TITLE: DEVELOPMENT OF PREDICTIONS OF FUTRUE POLLUTION PROBLEMS.

PERSONAL AUTHOR: FLINN, JAMES E; REIMERS, ROBERT S

DESCRIPTOR: *CHEMICALS; *ENIRONMENTAL IMPACT; *HAZARDOUS WASTES; *INDUSTRIES; *MANAGEMENT; *POLLUTANTS; *PLANNING; *RECYCLING; REGULATIONS; *TOXIC SUBSTANCES; VALUES; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 206P.

ABSTRACT: THE SOCIAL AND ECONOMIC IMPACTS OF ENVIRONMENTAL PROBLEMS ARE REVIEWED. RECYCLING AND OTHER RECOVERY OPERATIONS WITH EMPHASIS ON MONETARY INCENTIVES AND THE NON-SCIENTIFIC REALMS OF LEGAL SYSTEMS, CULTURAL VALUES, AND BUSINESS SYSTEMS ARE DISCUSSED.

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

IRIS ACCESSION NUMBER: EW006168

PUBLICATION DATE: FEB 74

TITLE: THE STATE OF THE SYSTEM (SOS) MODEL: MEASURING GROWTH LIMITATIONS USING ECOLOGICAL CONCEPTS.

PERSONAL AUTHOR: WILLIAMS, EDWARD R.; HOUSE, PETER W.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ECOLOGY; *ENVIRONMENT; *MANAGEMENT; *MODELS; *MEASUREMENT TECHNIQUES; *PLANNING; *POLICY ANALYSIS; *TECHNOLOGY

DESCRIPTIVE NOTE: 343P.

ABSTRACT: ADDRESSED IS RESEARCH ON ENVIRONMENTAL MANAGEMENT, COMPREHENSIVE PLANNING AND FORECASTING, AND ANALYSIS METHODOLOGIES. INCLUDED ARE TOOLS FOR DETERMINING VARYING IMPACTS OF ALTERNATIVE POLICIES, ANALYSES OF ENVIRONMENTAL PLANNING TECHNIQUES AT THE REGIONAL, STATE, AND LOCAL LEVELS, AND APPROACHES TO MEASURING ENVIRONMENTAL QUALITY PERCEPTIONS. SUCH TOPICS AS URBAN FORM INDUSTRIAL MIX, GROWTH POLICIES, CONTROL AND ORGANIZATIONAL STRUCTURE ARE DISCUSSED IN TERMS OF OPTIMAL ENVIRONMENTAL PERFORMANCE.

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

IRIS ACCESSION NUMBER: EW006181

PUBLICATION DATE: MAR 81

TITLE: QUALITY OF WORK LIFE ISSUES FOR THE 1980'S.

PERSONAL AUTHOR: ROSOW, JEROME M.

DESCRIPTOR: *CAREER INFORMATION; *ECONOMICS; *EMPLOYMENT; *EMPLOYER - EMPLOYEE RELATIONSHIPS; GOVERNMENT ROLE; *JOB SECURITY; *MANAGEMENT; OCCUPATIONAL HEALTH; *POLICY; *PLANNING

DESCRIPTIVE NOTE: 33-52P.

ABSTRACT: DISCUSSED ARE ECONOMIC, SOCIOLOGICAL, TECHNOLOGICAL, AND PSYCHOLOGICAL FACTORS INFLUENCING THE SHAPE OF WORK IN AMERICA DURING THE 1980'S. THE ENHANCEMENT AND IMPROVEMENT OF THE TRANSITION FROM THE EDUCATIONAL WORLD TO THE WORKPLACE, LABOR-MANAGEMENT RELATIONSHIPS, AND NATIONAL WORK FORCE POLICY ARE DESCRIBED.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V35 N3

IRIS ACCESSION NUMBER: EW006182

PUBLICATION DATE: MAR 81

TITLE: PRIORITY POLLUTANTS SAMPLE COLLECTION AND HANDLING.

PERSONAL AUTHOR: BRANTNER, KARL A.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CARCINOGENS; *INDUSTRIAL WASTES; MUTAGENS; *POLLUTANTS; *SAMPLING; *SAMPLING TECHNIQUES; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 34-38P.

ABSTRACT: DISCUSSED IN DETAIL ARE EXTENSIVE AND SPECIAL PROCEDURES REQUIRED FOR PRIORITY POLLUTANT SAMPLING. THESE POLLUTANTS, CHOSEN BECAUSE THEY ARE KNOWN OR SUSPECTED CARCINOGENS, MUTAGENS, OR TETATOGENS, ARE EXTREMELY SUSCEPTIBLE TO CONTAMINATION AND DEGRADATION. SAMPLING OF THESE POLLUTANTS IS THE MOST IMPORTANT PART OF A SAMPLING/ANALYSIS PROGRAM.

AVAILABILITY: POLLUTION ENGINEERING, V13 N3

IRIS ACCESSION NUMBER: EW006183

PUBLICATION DATE: MAR 81

TITLE: TURBIDITY AND SUSPENDED SOLIDS: WHAT'S THE DIFFERENCE.

PERSONAL AUTHOR: CLACK, P. J.; WILLIAMS, F. L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *LABORATORY PROCEDURES; *MONITORING; *MEASUREMENT INSTRUMENTS; PARTICULATE WASTES; *SUSPENDED SOLIDS; *TURBIDITY; *WASTES

DESCRIPTIVE NOTE: 43-44P.

ABSTRACT: TWO INSTRUMENTATION CONCEPTS ARE DESCRIBED -- TURBIDITY AND SUSPENDED SOLIDS MONITORING -- IN WHICH PARTICLE SIZE DEFINES THE DIFFERENCE. TURBIDITY INSTRUMENTS SHOULD BE USED IN POTABLE WATER WHERE SUSPENDED SOLIDS ARE LESS THAN 1 PPM OR WHERE MEASUREMENTS ARE TO BE MADE PRIMARILY OF COLLOIDAL AND DISSOLVED SOLIDS.

AVAILABILITY: POLLUTION ENGINEERING, V13 N3

IRIS ACCESSION NUMBER: EW006184

PUBLICATION DATE: NOV 80

TITLE: COSTLY WASTEWATER TREATMENT PLANTS FAIL TO PERFORM AS EXPECTED.

DESCRIPTOR: CONSTRUCTION COSTS; *COST EFFECTIVENESS; *DESIGN; *EFFICIENCY; *EFFLUENTS; *ECONOMIC FACTORS; EVALUATION; *FACILITIES; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; POLLUTION CONTROL; PROBLEMS; *RECOMMENDATIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 66P.
AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW006186

PUBLICATION DATE: DEC 80

TITLE: EASY WAYS TO SAVE WATER MONEY & ENERGY AT HOME.

PERSONAL AUTHOR: WESELY, EDWIN F., JR.

DESCRIPTOR: *ENERGY; *HOME MANAGEMENT; *NATURAL RESOURCES; *SEPTIC TANKS; *WATER SUPPLY; *WATER RESOURCES; *WATER CONSERVATION

DESCRIPTIVE NOTE: 28P. ORDER NUMBER: FRD-14

ABSTRACT: RECOMMENDED ARE VARIOUS METHODS TO CONSERVE WATER, MONEY, AND ENERGY AT HOME. TOPICS INCLUDE HOUSEHOLD WATER, WATER SAVING PROGRAM, MONEY EARNED BY SAVING WATER, WAYS TO SAVE WATER, ADDITIONAL HOUSEHOLD TIPS, OUTDOOR WATER USE AND CONSERVATION, AND BUYING WATER SAVING DEVICES.

AVAILABILITY: POTOMAC RIVER & TRAILS COUNCIL, 12 SOUTH MARKET STREET, FREDERICK,MD 21701

IRIS ACCESSION NUMBER: EW006188

PUBLICATION DATE: MAR 81

TITLE: THMS IN DRINKING WATER.

PERSONAL AUTHOR: COTUVO, JOSEPH A.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CASE STUDIES; COST EFFECTIVENESS; *COMMUNITY HEALTH; *DRINKING WATER; HEALTH; HAZARDOUS POLLUTANTS; *MONITORING; *REGULATIONS; RESEARCH REPORTS; STANDARDS; *TRIHALOMETHANES; *WATER TREATMENT; *WATER SUPPLY; *WATER QUALITY; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 268-274P.

ABSTRACT: THIS ARTICLE REVIEWS THE REGULATORY HISTORY OF DRINKING WATER. CASE STUDIES ARE INCLUDED THAT REVEAL EFFECTS OF TRIHALOMETHANES INFLUENCING PUBLIC HEALTH AND ECONOMIC VARIABLES. EVIDENCE IS PRESENTED TO RECOMMEND AND SUPPORT CONTROL MEASURES ESTABLISHED BY THE EPA TO MONITOR TRIHALOMETHANE ACCUMULATION.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY, V15 N3

IRIS ACCESSION NUMBER: EW006189

PUBLICATION DATE: 81

TITLE: ENVIRONMENTAL BIOLOGY FOR ENGINEERS - A GUIDE TO ENVIRONMENTAL ASSESSMENT.
PERSONAL AUTHOR: CAMOUGIS, GEORGE

DESCRIPTOR: BIOLOGICAL SCIENCES; *ENGINEERING; *ENVIRONMENTAL ASSESSMENT; *ENVIRONMENTAL BIOLOGY; *HIGHER EDUCATION; *INSTRUCTIONAL MATERIALS; LEGISLATION; PLANNING; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TEXTBOOKS

DESCRIPTIVE NOTE: 214P. PRICE: $19.95

ABSTRACT: THIS TEXT PROVIDES ENVIRONMENTAL ENGINEERS, ENVIRONMENTAL PLANNERS, PROJECT ENGINEERS, AND PROJECT PLANNERS WITH PRACTICAL GUIDELINES ON THE APPLICATIONS OF ENVIRONMENTAL BIOLOGY TO ENVIRONMENTAL ASSESSMENTS. IN ADDITION, THE BOOK ACHIEVES SEVERAL OBJECTIVES: (1) TO PRESENT THE VOCABULARY OF ENVIRONMENTAL BIOLOGY CLEARLY AND SYSTEMATICALLY; (2) TO DISCUSS ENVIRONMENTAL BIOLOGY IN RELATION TO BOTH ENVIRONMENTAL ENGINEERING AND ENVIRONMENTAL LEGISLATION; AND (3) TO RELATE THE THEORY AND PRACTICE OF ENVIRONMENTAL BIOLOGY TO "REAL WORLD" APPLICATIONS.

AVAILABILITY: MCGRAW-HILL BOOK COMPANY, MID CONTINENT DIST. CENTER, MANCHESTER ROAD, MANCHESTER, MD 63001

IRIS ACCESSION NUMBER: EW006225

PUBLICATION DATE: SEP 79

TITLE: COST OF LAND TREATMENT SYSTEMS.

PERSONAL AUTHOR: REED, SHERWOOD C.; AND OTHERS

DESCRIPTOR: *CONSTRUCTION; *COST EFFECTIVENESS; *DESIGN; *ENGINEERING; *LAND TREATMENT; LAND USE; *WASTE DISPOSAL; *WATER RESOURCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 135P. ORDER NUMBER: MCD-10

ABSTRACT: THIS IS AN AID FOR THE PLANNER AND ENGINEER TO EVALUATE MONETARY COSTS AND BENEFITS OF LAND TREATMENT SYSTEMS, THE THREE BASIC MODES ARE CONSIDERED: SLOW RATE (FORMERLY IRRIGATION), RAPID INFILTRATION,AND OVERLAND FLOW.

AVAILABILITY: GENERAL SERVICES ADMINISTRATION (8BRC), CENTRALIZED MAILING LIST SERVICES, BUILDING 41, DENVER FEDERAL CENTER, DENVER, CO 80225

IRIS ACCESSION NUMBER: EW006226

PUBLICATION DATE: DEC 79

TITLE: CHEMICAL AIDS MANUAL FOR WASTEWATER TREATMENT FACILITIES.

PERSONAL AUTHOR: HEIM, NANCY E.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICALS; *CHEMICAL REACTIONS; EQUIPMENT; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; SLUDGE;

*SAFETY; *WASTEWATER TREATMENT; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 182P. ORDER NUMBER: MO-25

ABSTRACT: THIS MANUAL ADDRESSES THE PROPER USE OF COMMONLY USED CHEMICALS IN WASTEWATER TREATMENT PROCESSES. EMPHASIZED IS PRACTICAL GUIDANCE ON THE USE OF CHEMICALS TO OVERCOME TEMPORARY OPERATIONAL PROBLEMS AND TO UPGRADE PERFORMANCE WITHOUT EXTENSIVE DESIGN WORK OR PLANT MODIFICATIONS.

AVAILABILITY: GENERAL SERVICES ADMINISTRATION (8BRC), CENTRALIZED MAILING LISTS, BUILDING 41, DENVER FEDERAL CENTER, DENVER, CO 80225

IRIS ACCESSION NUMBER: EW006227

PUBLICATION DATE: FEB 80

TITLE: EVALUATION OF SLUDGE MANAGEMENT SYSTEMS.

PERSONAL AUTHOR: CULP, CORDON L.; AND OTHERS

DESCRIPTOR: *DESIGN; *EQUIPMENT; *FACILITIES; *MAINTENANCE; *OPERATIONS WASTEWATER; *PLANNING; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 245P. ORDER NUMBER: MCD-61

ABSTRACT: THIS IS AN AID FOR REVIEWING (1) FACILITY PLANS, AND (2) OPERATION AND MAINTENANCE MANUALS WHICH DEAL WITH SLUDGE MANAGEMENT SYSTEMS. A CHECKLIST OF PERTINENT FACTORS IS PROVIDED TO ENSURE THE GUIDELINES CAN BE FOLLOWED BY PUBLIC OFFICIALS, PLANNERS, ENGINEERS AND EVALUATORS IN THE PLANNING AND DESIGN FACILITIES.

AVAILABILITY: GENERAL SERVICES ADMINISTRATION (8FFS), CENTRALIZED MAILING LISTS SERVICES, BUILDING 31, DENVER FEDERAL CENTER, DENVER, CO 80225

IRIS ACCESSION NUMBER: EW006228

PUBLICATION DATE: MAR 78

TITLE: WASTEWATER ENGINEERING TECHNOLOGY PROGRAMS: COURSE GUIDES FOR INSTRUCTORS - BOOK 1: GUIDE TO PROGRAM IMPLEMENTATION, SUPPORT COURSES, AND RELATIONSHIP WITH TWO-YEAR ASSOCIATE PROGRAMS.

DESCRIPTOR: *CURRICULUM; CURRICULUM PLANNING; EDUCATIONAL PROGRAMS; *ENGINEERING EDUCATION; *INSTRUCTIONAL MATERIALS; MANPOWER DEVELOPMENT; *POST SECONDARY EDUCATION; *PROGRAM DESCRIPTIONS; *TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 45P. PRICE: $2.35

ABSTRACT: THIS WASTEWATER ENGINEERING TECHNOLOGY CURRICULUM IS DESIGNED FOR TRAINING A WASTEWATER TECHNOLOGIST OVER A FOUR-YEAR PERIOD. THE CURRICULUM IS PRESERVED IN A SERIES OF EIGHT BOOKS AND IS BASED ON THE DESIRED ON-THE-JOB PERFORMANCE OF A PROGRAM GRADUATE. COURSE GUIDES FOR THIS CURRICULUM ARE WRITTEN IN BEHAVIORAL TERMS USING PERFORMANCE OBJECTIVES. THIS BOOK CONTAINS A BRIEF DESCRIPTION OF THE OTHER COURSES IN THE CURRICULUM AND AN OVERVIEW OF THE RATIONALE AND METHODOLOGY EMPLOYED IN THIS CURRICULUM.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006229

PUBLICATION DATE: MAR 78

TITLE: WASTEWATER ENGINEERING TECHNOLOGY PROGRAMS: COURSE GUIDES FOR INSTRUCTORS - BOOK 2: CHEMISTRY.

DESCRIPTOR: *CHEMISTRY; *CURRICULUM GUIDES; *ENGINEERING EDUCATION; *INSTRUCTIONAL MATERIALS; LABORATORY TRAINING; MANPOWER TRAINING; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 158P. PRICE: $5.75

ABSTRACT: THIS WASTEWATER ENGINEERING TECHNOLOGY CURRICULUM IS DESIGNED FOR TRAINING A WASTEWATER TECHNOLOGIST OVER A FOUR-YEAR PERIOD. THE CURRICULUM IS PRESENTED IN A SERIES OF EIGHT BOOKS AND IS BASED ON THE DESIRED ON-THE-JOB PERFORMANCE OF A PROGRAM GRADUATE. COURSE GUIDES FOR THIS CURRICULUM ARE WRITTEN IN BEHAVIORAL TERMS USING PERFORMANCE OBJECTIVES. THIS GUIDE PROVIDES MATERIAL ON THE FUNDAMENTAL PRINCIPLES OF CHEMISTRY AND THEIR APPLICATIONS. TOPICS COVERED INCLUDE: THE SCIENTIFIC METHOD, THE NATURE OF MATTER, CHEMICAL BONDS AND REACTIONS, ORGANIC CHEMISTRY, CHANGES OF STATE, CHEMICAL EQUILIBRIA, AND LABORATORY TECHNIQUES.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006230

PUBLICATION DATE: MAR 78

TITLE: WASTEWATER ENGINEERING TECHNOLOGY PROGRAMS: COURSE GUIDES FOR INSTRUCTORS - BOOK 3: BIOLOGY.

DESCRIPTOR: *BIOLOGY; *CURRICULUM GUIDES; ECOLOGY; *ENGINEERING EDUCATION; *INSTRUCTIONAL MATERIALS; LABORATORY TRAINING; MANPOWER TRAINING; *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 86P. PRICE: $2.60

ABSTRACT: THIS WASTEWATER ENGINEERING TECHNOLOGY CURRICULUM IS DESIGNED FOR TRAINING A WASTEWATER TECHNOLOGIST OVER A FOUR-YEAR PERIOD. THE CURRICULUM IS PRESENTED IN A SERIES OF EIGHT BOOKS AND IS BASED ON THE DESIRED ON-THE-JOB PERFORMANCE OF A PROGRAM GRADUATE. COURSE GUIDES FOR THIS

CURRICULUM ARE WRITTEN IN BEHAVIORAL TERMS USING PERFORMANCE OBJECTIVES. THIS GUIDE PROVIDES MATERIAL ON THE FUNDAMENTALS OF BASIC BIOLOGY. TOPICS COVERED INCLUDE: THE BASIC BIOLOGICAL, CHEMICAL, AND PHYSICAL PROCESSES OF LIFE; CELLS; TAXONOMY; INTERRELATIONSHIPS OF ORGANISMS; MICROORGANISMS; AND ECOLOGICAL SYSTEMS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006231

PUBLICATION DATE: MAR 78

TITLE: WASTEWATER ENGINEERING TECHNOLOGY PROGRAMS: COURSE GUIDES FOR INSTRUCTORS - BOOK 4: HYDRAULICS.

DESCRIPTOR: *CURRICULUM GUIDES; *ENGINEERING EDUCATION; *HYDRAULICS; *INSTRUCTIONAL MATERIALS; MANPOWER TRAINING; PIPES; *POST SECONDARY EDUCATION; PUMPS; *TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 75P. PRICE: $3.25

ABSTRACT: THIS WASTEWATER ENGINEERING TECHNOLOGY CURRICULUM IS DESIGNED FOR TRAINING A WASTEWATER TECHNOLOGIST OVER A FOUR-YEAR PERIOD. THE CURRICULUM IS PRESENTED IN A SERIES OF EIGHT BOOKS AND IS BASED ON THE DESIRED ON-THE-JOB PERFORMANCE OF A PROGRAM GRADUATE. COURSE GUIDES FOR THIS CURRICULUM ARE WRITTEN IN BEHAVIORAL TERMS USING PERFORMANCE OBJECTIVES. THIS GUIDE PROVIDES MATERIAL ON THE PROPERTIES OF FLUIDS AND PRINCIPLES OF FLUID BEHAVIOR. TOPICS COVERED INCLUDE: PRACTICAL APPLICATION OF THE PRINCIPLES OF FLUID MECHANICS; PUMPS; PIPES; OPEN-CHANNELS; AND THE USE OF HYDRAULIC EQUIPMENT.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006232

PUBLICATION DATE: MAR 78

TITLE: WASTEWATER ENGINEERING TECHNOLOGY PROGRAMS: COURSE GUIDES FOR INSTRUCTORS - BOOK 5: ENVIRONMENTAL CONTROL.

DESCRIPTOR: *CURRICULUM GUIDES; *ECOLOGY; ENGINEERING EDUCATION; *ENVIRONMENTAL CONTROL; *INSTRUCTIONAL MATERIALS; *LABORATORY TRAINING; MANPOWER TRAINING; *OPERATIONS (WASTEWATER); POLLUTION; *POST SECONDARY EDUCATION; REGULATIONS; SCIENCE EDUCATION; TRAINING PROGRAMS; WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 50P. PRICE: $2.50

ABSTRACT: THIS WASTEWATER ENGINEERING TECHNOLOGY CURRICULUM IS DESIGNED FOR TRAINING A WASTEWATER TECHNOLOGIST OVER A FOUR-YEAR PERIOD. THE CURRICULUM IS PRESENTED IN A SERIES OF EIGHT BOOKS AND IS BASED ON THE DESIRED ON-THE-JOB PERFORMANCE OF A PROGRAM GRADUATE. COURSE GUIDES FOR THIS CURRICULUM ARE WRITTEN IN BEHAVIORAL TERMS USING PERFORMANCE OBJECTIVES. THIS GUIDE PROVIDES MATERIAL ON BASIC FACTS ABOUT THE ENVIRONMENT AND THE NEED TO PROTECT IT. TOPICS COVERED INCLUDE: NATURAL ENVIRONMENTAL PROCESSES; GOVERNMENTAL REGULATION; SOURCES OF POLLUTION; WASTE DISPOSAL AND ENVIRONMENTAL CONTROL; LABORATORY TESTS FOR TREATMENT PLANT EVALUATION; SLUDGE CONDITIONING; CHLORINATION; AND ADVANCED WASTEWATER TREATMENT METHODS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006233

PUBLICATION DATE: MAR 78

TITLE: WASTEWATER ENGINEERING TECHNOLOGY PROGRAMS: COURSE GUIDES FOR INSTRUCTORS - BOOK 6: WASTEWATER TREATMENT PLANT OPERATIONS.

DESCRIPTOR: *CURRICULUM GUIDES; *ENGINEERING EDUCATION; FACILITIES; INDUSTRIAL WASTE; *INSTRUCTIONAL MATERIALS; MANPOWER TRAINING; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; SCIENCE EDUCATION; TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 95P. PRICE: $3.85

ABSTRACT: THIS WASTEWATER ENGINEERING TECHNOLOGY CURRICULUM IS DESIGNED FOR TRAINING A WASTEWATER TECHNOLOGIST OVER A FOUR-YEAR PERIOD. THE CURRICULUM IS PRESENTED IN A SERIES OF EIGHT BOOKS AND IS BASED ON THE DESIRED ON-THE-JOB PERFORMANCE OF A PROGRAM GRADUATE. COURSE GUIDES FOR THIS CURRICULUM ARE WRITTEN IN BEHAVIORAL TERMS USING PERFORMANCE OBJECTIVES. THIS GUIDE PROVIDES MATERIAL ON THE FUNDAMENTALS OF WASTEWATER AND WASTEWATER TREATMENT. MAJOR SECTIONS INCLUDED IN THIS GUIDE ARE: WASTEWATER UNIT OPERATIONS; COLLECTION SYSTEM MAINTENANCE AND CONSTRUCTION; INDUSTRIAL WASTE CONTROL AND MANAGEMENT; AND EVALUATION OF WASTEWATER TREATMENT FACILITIES.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006234

PUBLICATION DATE: MAR 81

TITLE: WASTEWATER ENGINEERING TECHNOLOGY PROGRAMS: COURSE GUIDES FOR INSTRUCTORS - BOOK 7: WASTEWATER TREATMENT PLANT DESIGN.

DESCRIPTOR: *CURRICULUM GUIDES; *DESIGN; ENGINEERING EDUCATION; *FACILITIES; *INSTRUCTIONAL MATERIALS; MANPOWER TRAINING; *POST SECONDARY EDUCATION; PRIMARY TREATMENT; SCIENCE EDUCATION; SECONDARY TREATMENT; TRAINING PROGRAMS;

*WASTEWATER TREATMENT
DESCRIPTIVE NOTE: 42P. PRICE: $2.30

ABSTRACT: THIS WASTEWATER ENGINEERING TECHNOLOGY CURRICULUM IS DESIGNED FOR TRAINING A WASTEWATER TECHNOLOGIST OVER A FOUR-YEAR PERIOD. THE CURRICULUM IS PRESENTED IN A SERIES OF EIGHT BOOKS AND IS BASED ON THE DESIRED ON-THE-JOB PERFORMANCE OF A PROGRAM GRADUATE. COURSE GUIDES FOR THIS CURRICULUM ARE WRITTEN IN BEHAVIORAL TERMS USING PERFORMANCE OBJECTIVES. THIS GUIDE PRESENTS MATERIAL ON SELECTING APPROPRIATE PROCESS UNITS TO TREAT WASTEWATER TO MEET PRESCRIBED CRITERIA. TOPICS COVERED INCLUDE DESIGNS FOR SIMPLE TREATMENT SYSTEMS SUCH AS LAGOONS, PACKAGE PLANTS, AND PRIMARY SYSTEMS, AND FOR SECONDARY (BIOLOGICAL) TREATMENT SYSTEMS AND ADVANCED TREATMENT SYSTEMS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006235

PUBLICATION DATE: MAR 78

TITLE: WASTEWATER ENGINEERING TECHNOLOGY PROGRAMS: COURSE GUIDES FOR INSTRUCTIONS - BOOK 8: GOVERNMENT SYSTEMS FOR ENVIRONMENTAL CONTROL.

DESCRIPTOR: BUDGETING; *CURRICULUM GUIDES; *ENGINEERING EDUCATION; *ENVIRONMENTAL CONTROL; *FUNDING SOURCES; *GOVERNMENT ROLE; *INSTRUCTIONAL MATERIALS; MANPOWER TRAINING; *POST SECONDARY EDUCATION; REGULATIONS; SCIENCE EDUCATION; TRAINING PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 50P. PRICE: $2.50

ABSTRACT: THIS WASTEWATER ENGINEERING TECHNOLOGY CURRICULUM IS DESIGNED FOR TRAINING A WASTEWATER TECHNOLOGIST OVER A FOUR YEAR PERIOD. THE CURRICULUM IS PRESENTED IN A SERIES OF EIGHT BOOKS AND IS BASED ON THE DESIRED ON-THE-JOB PEROFRMANCE OF A PROGRAM GRADUATE. COURSE GUIDES FOR THIS CURRICULUM ARE WRITTEN IN BEHAVIORAL TERMS USING PERFORMANCE OBJECTIVES. THIS GUIDE PROVIDES INFORMATION ON FEDERAL, STATE, AND LOCAL AGENCIES AND ORGANIZATIONS WHICH ARE INVOLVED IN PLANNING, REGULATING, AND ENFORCING ENVIRONMENTAL CONTROL PROJECTS IN THE UNITED STATES. ALSO DISCUSSED ARE SOURCES OF FUNDS FOR FINANCING WATER POLLUTION CONTROL PROJECTS; AND THE PLANNING, PROGRAMMING, AND BUDGETING REQUIREMENTS FOR APPLYING SUCH FUNDS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006236

PUBLICATION DATE: AUG 76

TITLE: A FOUR-YEAR WASTEWATER TECHNOLOGY PROGRAM: CURRICULUM GUIDE, VOLUME 1.
PERSONAL AUTHOR: CHISMAN, JAMES A.; AND OTHERS

DESCRIPTOR: *CURRICULUM GUIDES; *INSTRUCTIONAL MATERIALS; MANPOWER TRAINING; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; SCIENCE EDUCATION; *TECHNICAL EDUCATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 75P. PRICE: $3.25

ABSTRACT: THIS PROGRAM IS DESIGNED FOR TRAINING A FOUR-YEAR WASTEWATER TECHNOLOGIST BASED ON THE ON-THE-JOB PERFORMANCE OF THE PROGRAM GRADUATE. THIS GRADUATE MIGHT FILL POSITIONS WITH REGULATORY, CONSULTING, INDUSTRIAL, MUNICIPAL, AND MANUFACTURING ORGANIZATIONS. THIS VOLUME PROVIDES THE CURRICULUM FOR THE FIRST YEAR OF THE FOUR-YEAR PROGRAM. TOPICS INCLUDED ARE: CHEMISTRY; BIOLOGY; FUNDAMENTAL ENGLISH COMPOSITION AND RHETORIC; ALGEBRA; ENVIRONMENTAL CONTROL; MICROBIOLOGY; TRIGONOMETRY; AND WASTEWATER UNIT OPERATIONS.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006237

PUBLICATION DATE: AUG 76

TITLE: A FOUR-YEAR WASTEWATER TECHNOLOGY PROGRAM: CURRICULUM GUIDE, VOLUME 2.

PERSONAL AUTHOR: CHISMAN, JAMES A.; AND OTHERS

DESCRIPTOR: ADMINISTRATION; *CURRICULUM GUIDES; *INSTRUCTIONAL MATERIALS; MATHEMATICS; MANPOWER TRAINING; MANAGEMENT; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; SCIENCES; *TECHNICAL EDUCATION; *WASTEWATER TREATMENT; WRITING SKILLS

DESCRIPTIVE NOTE: 115P. PRICE: $4.50

ABSTRACT: THIS PROGRAM IS DESIGNED FOR TRAINING A FOUR-YEAR WASTEWATER TECHNOLOGIST BASED ON THE DESIRED ON-THE-JOB PERFORMANCE OF THE PROGRAM GRADUATE. THIS VOLUME PROVIDES THE CURRICULUM FOR THE 2ND, 3RD, AND 4TH YEARS OF THE FOUR-YEAR CURRICULUM. TOPICS COVERED INCLUDE: SANITARY CHEMISTRY; FUNDAMENTAL PHYSICS; SURVEYING; ENVIRONMENTAL CONTROL; DRAFTING; CALCULUS AND ANALYTICAL GEOMETRY; MECHANICS-STATICS; COLLECTION SYSTEM MAINTENANCE AND CONSTRUCTION; REPORT WRITING; MECHANICS - STRENGTH OF MATERIALS; ECONOMICS; ACCOUNTING AND MANAGEMENT; INSTRUMENTATION LABORATORY; GOVERNMENT SYSTEMS; CONSTRUCTION MANAGEMENT; AND WASTEWATER TREATMENT PLANT DESIGN AND OPERATION.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006238
PUBLICATION DATE: AUG 76

TITLE: A FOUR-YEAR WASTEWATER TECHNOLOGY PROGRAM: PROGRAM IMPLEMENTATION.

PERSONAL AUTHOR: CHISMAN, JAMES A.; AND OTHERS

DESCRIPTOR: CURRICULUM; *ENGINEERING EDUCATION; *INSTRUCTIONAL MATERIALS; *MANPOWER TRAINING; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *PROGRAM DESCRIPTIONS; *TECHNICAL EDUCATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 25P. PRICE: $1.75

ABSTRACT: THIS DOCUMENT SUMMARIZES THE MAJOR ATTRIBUTES OF AN INSTITUTION THAT WISHES TO OFFER A FOUR-YEAR BACHELOR OF WASTEWATER ENGINEERING TECHNOLOGY PROGRAM. THE GRADUATE OF SUCH A PROGRAM WILL HAVE SUFFICIENT KNOWLEDGE TO OPERATE AND/OR MANAGE THE MODERN WASTE TREATMENT FACILITIES AND ALSO TO FUNCTION AS AN INTEGRAL MEMBER OF DESIGN, MONITORING, AND ENFORCEMENT TEAMS. THIS DOCUMENT OFFERS SUGGESTIONS FOR ADMINISTERING SUCH A PROGRAM AND PROVIDES A SUGGESTED FOUR-YEAR CURRICULUM.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD - 3RD FLOOR, COLUMBUS, OHIO 43212

IRIS ACCESSION NUMBER: EW006251

PUBLICATION DATE: JAN 79

TITLE: RESOURCE CONSERVATION AND RECOVERY ACT: A COMPLIANCE ANALYSIS

PERSONAL AUTHOR: SULLIVAN, THOMAS F. P.

DESCRIPTOR: *HAZARDOUS WASTES; *HEALTH; *LAWS; *LEGISLATION; *MANAGEMENT; *PROGRAM DEVELOPMENT; *REGULATIONS; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 162P.

ABSTRACT: DISCUSSED ARE: (1) THE SCOPE AND EFFECTS OF HAZARDOUS WASTES ON HEALTH AND ENVIRONMENT; (2) PROGRAM AND POLICY ATTITUDES OF THE FEDERAL HAZARDOUS WASTE LAW BEFORE 1976; (3) LEGISLATIVE HISTORY OF THE FEDERAL LAW; (4) DUTIES ESTABLISHED FOR THOSE WHO OPERATE, TRANSPORT, TREAT, AND STORE OR DISPOSE OF HAZARDOUS WASTES; AND (5) THE ENFORCEMENT PROCEDURES TO INSURE IMPLEMENTATION OF THE FEDERAL HAZARDOUS WASTE LAWS.

AVAILABILITY: GOVERNMENT INSTITUTES, INC., 4733 BETHESDA AVENUE, N.W., WASHINGTON, DC 20014

IRIS ACCESSION NUMBER: EW006252
PUBLICATION DATE: DEC 79

TITLE: DEVELOPMENT DOCUMENT FOR EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE PAINT FORMULATING. POINT SOURCE CATEGORY.

PERSONAL AUTHOR: SCHAFFER, ROBERT B.; AND OTHERS

DESCRIPTOR: CLEAN WATER ACT; *EFFLUENTS; ENVIRONMENTAL IMPACTS; GUIDELINES; *INDUSTRIAL WASTES; *INDUSTRY; *PAINT MANUFACTURING; *POINT SOURCE; *PRETREATMENT; *STANDARDS; *WASTE DISPOSAL; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 469P.

ABSTRACT: THIS DOCUMENT PRESENTS THE FINDINGS OF AN EXTENSIVE STUDY OF THE PAINT MANUFACTURING INDUSTRY FOR THE PURPOSE OF DEVELOPING EFFLUENT LIMITATIONS FOR EXISTING POINT SOURCES AND STANDARDS OF PERFORMANCE FOR NEW SOURCES AND PRETREATMENT STANDARDS FOR EXISTING AND NEW SOURCES TO IMPLEMENT SECTIONS 301, 304, 306, AND 307 OF THE CLEAN WATER ACT. THE STUDY COVERS APPROXIMATELY 1500 PAINT MANUFACTURING FACILITIES. SECTIONS IN THIS REPORT INCLUDE: INDUSTRY SUB-CATEGORIZATION; WATER USE AND WASTE CHARACTERISTICS; SELECTION OF POLLUTION PARAMETERS; CONTROL AND TREATMENT TECHNOLOGY; COST, ENERGY, AND NONWATER QUALITY ASPECTS; EFFLUENT REDUCTION ATTAINABLE THROUGH THE APPLICATION OF THE BEST AVAILABLE TECHNOLOGY; NEW SOURCE PERFORMANCE STANDARDS; AND PRETREATMENT STANDARDS FOR EXISTING SOURCES.

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

IRIS ACCESSION NUMBER: EW006254

PUBLICATION DATE: DEC 80

TITLE: DEVELOPMENT DOCUMENT FOR EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE PULP, PAPER AND PAPERBOARD AND THE BUILDERS' PAPER AND BOARD MILLS. POINT SOURCE CATEGORIES.

PERSONAL AUTHOR: DENIT, JEFFERY D.; DELLINGER, ROBERT W.

DESCRIPTOR: *CLEAN WATER ACT; *EFFLUENTS; ENVIRONMENTAL IMPACTS; GUIDELINES; *INDUSTRIAL WASTES; *INDUSTRY; *PAPER; *POINT SOURCE; *PRETREATMENT; *PULP; *STANDARDS; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 634P.

ABSTRACT: THIS DOCUMENT PRESENTS THE FINDINGS OF A STUDY OF THE PULP, PAPER, AND PAPERBOARD AND THE BUILDERS' PAPER AND BOARD MILLS POINT SOURCE CATEGORIES FOR THE PURPOSE OF DEVELOPING EFFLUENT LIMITATION GUIDELINES FOR EXISTING AND NEW POINT SOURCES AND TO ESTABLISH PRETREATMENT STANDARDS FOR EXISTING AND NEW DISCHARGERS TO PUBLICLY OWNED TREATMENT WORKS TO IMPLEMENT SECTIONS 301, 304, 306, 307, 308, AND 501 OF THE CLEAN WATER ACT. INFORMATION IS PRESENTED TO SUPPORT BEST AVAILABLE TECHNOLOGY ECONOMICALLY ACHIEVABLE (BAT),

BEST CONVENTIONAL POLLUTANT CONTROL TECHNOLOGY (BCT), NEW SOURCE PERFORMANCE STANDARDS FOR NEW AND EXISTING SOURCES (PSNS), (PSES). THE REPORT PRESENTS AND DISCUSSES DATA GATHERING EFFORTS, SUBCATEGORIZATION, WATER USE, POLLUTANT PARAMETERS, CONTROL AND TREATMENT TECHNOLOGIES, DEVELOPMENT OF REGULATORY OPTIONS, COST AND NON-WATER QUALITY CONSIDERATIONS, AND THE METHODOLOGY FOR DEVELOPMENT OF EFFLUENT LIMITATIONS.

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

IRIS ACCESSION NUMBER: EW006258

PUBLICATION DATE: DEC 80

TITLE: TREATABILITY STUDIES OF PESTICIDE MANUFACTURING WASTEWATERS: DAZOMET.

DESCRIPTOR: CHEMICALS; *DAZOMET; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); *POLLUTION; *PESTCIDES POLLUTION CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 41P. PB81-129033

ABSTRACT: REPORTED ARE THE RESULTS OF LABORATORY STUDIES OF THE TREATABILITY OF WASTEWATER RESULTING FROM THE SYNTNESIS OF THE PESTICIDE DAZOMET. IT IS RECOMMENDED THAT DAZOMET WASTEWATER BE DILUTED TO AT LEAST 1:1000 IN MUNICIPAL WASTEWATER TO MINIMIZE THE NEGATIVE EFFECTS ON THE NITRIFICATION OF AMMONIA DURING THE ACTIVATED SLUDGE TREATMENT PROCESS.

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

IRIS ACCESSION NUMBER: EW006272

PUBLICATION DATE: SEP 79

TITLE: SMALL SYSTEMS WATER TREATMENT SYMPOSIUM. NOVEMBER 28 -29, 1979 REPORT OF SYMPOSIUM PROCEEDINGS.

DESCRIPTOR: *FACILITIES; *MONITORING; *MANAGEMENT; *MAINTERANCE; *OPERATIONS (WATER); *PLANNING; *REGULATIONS; *RURAL AREAS; STARDARDS; UTILITIES *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 124P.

ABSTRACT: DISCUSSED ARE WATER QUALITY PROBLEMS IN SMALL WATER SYSTEMS. CONSIDERED ARE ALTERNATIVE PROGRAMS TO IMPROVE INADEQUATE FACILITIES, INADEQUATE OPERATIONS AND MAINTENANCE, INADEQUATE WATER QUALITY MONITORING, AND CONTAMINATION VIOLATIONS.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, US GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW006274

PUBLICATION DATE: JUL 80

TITLE: TREATABILITY STUDIES FOR THE INORGANIC CHEMICALS MANUFACTURING POINT SOURCE CATEGORY.

PERSONAL AUTHOR: SCHAFFER, ROBERT B.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICALS; *INDUSTRIAL WASTES; *INORGANIC CHEMISTRY; *OPERATIONS (WASTEWATER); *REGULATIONS; STANDARDS; TECHNOLOGY; *WASTE DISPOSAL; *WASTEWATER TREATMENT; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 232P.

ABSTRACT: EVALUATED ARE AVAILABLE TREATMENT TECHNOLOGIES FOR THE TREATMENT AND CONTROL OF POLLUTANT DISCHARGES FROM CHEMICAL INDUSTRIES. PROVIDED IS TREATMENT INFORMATION APPLICABLE TO SELECTED INORGANIC CHEMICAL SUBCATEGORIES, WHICH INCLUDE: NICKEL SULFATE; HYDROFLOURIC ACID; COPPER SULFATE; CHLOR-ALKALI; TITANIUM DIOXIDE; CHROME PIGMENTS; SODIUM DICHROMATE; SODIUM BISULFITE; SODIUM HYDROSULFITE.

AVAILABILITY: SUPERINTENDENT OF DOCUMENT, US GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW006276

PUBLICATION DATE: 81

TITLE: BUILDING COST MANUAL 1981.

PERSONAL AUTHOR: MOSELLE, GARY

DESCRIPTOR: *BUILDINGS; *CONSTRUCTION; *COSTS; ESTIMATED COSTS; *GUIDES; *INDEXES; RESOURCE MATERIALS

DESCRIPTIVE NOTE: 240P. PRICE: $10.00

ABSTRACT: THIS PUBLICATION CONTAINS 1981 SQUARE FOOT COSTS FOR RESIDENTIAL, COMMERCIAL, INDUSTRIAL, AGRICULTURAL, AND MILITARY STRUCTURES. INCLUDED IN THE COST ESTIMATES ARE: BUILDING QUALITY, BUILDING SHAPES, AREA OF BUILDINGS, ADJUSTMENTS, AND DEPRECIATION.

AVAILABILITY: CRAFTSMAN BOOK COMPANY, 542 STEVENS AVENUE, P. O. BOX 109, SOLANA BEACH, CA 92075

IRIS ACCESSION NUMBER: EW006277

PUBLICATION DATE: 81

TITLE: NATIONAL CONSTRUCTION ESTIMATOR, 1981.

PERSONAL AUTHOR: SARVIEL, EDWARD; AND OTHERS

DESCRIPTOR: *CONSTRUCTION; *COSTS; *EQUIPMENT; ESTIMATED COSTS; *GUIDES; *INDEXES; *LABOR; RESOURCE MATERIALS

DESCRIPTIVE NOTE: 288P. PRICE: $10.75
ABSTRACT: THIS PUBLICATION CONTAINS LABOR AND MATERIAL COSTS FOR RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL CONSTRUCTION. INCLUDED IN THE REVIEW OF EACH CONSTRUCTION ITEM ARE MATERIAL COSTS, LABOR COSTS, SUBCONTRACT COSTS, MARK-UP, ADJUSTMENTS, COVERAGE, SIZE OR QUANTITY, AND TOTAL COSTS WHERE APPLICABLE.

AVAILABILITY: CRAFTSMAN BOOK COMPANY, 542 STEVENS AVENUE, P. O. BOX 109, SOLANA BEACH, CA 92075

IRIS ACCESSION NUMBER: EW006278

PUBLICATION DATE: 75

TITLE: ACTIVATED SLUDGE PROCESS CONTROL.

DESCRIPTOR: *ACTIVATED SLUDGE; *EQUIPMENT; *FACILITIES; *OPERATIONS (WASTEWATER); *SLUDGE; SUSPENDED SOLIDS; *TROUBLE SHOOTING; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 73P.

ABSTRACT: DISCUSSED ARE THE VARIATIONS OF THE ACTIVATED SLUDGE PROCESS IN WASTEWATER TREATMENT OPERATIONS. PROCESSES INCLUDE CONTACT STABILIZATION, EXTENDED AERATION, AND STEP FEED PROCESS. CONTENTS INCLUDE: (1) PROCESS MECHANICS; (2) FORMATION OF ACTIVATED SLUDGE; (3) TYPES OF SLUDGE; (4) UNIT DESCRIPTION; (5) FACTORS AFFECTING OPERATION; (6) PROCESS MODIFICATIONS; (7) TYPICAL ACTIVATED SLUDGE DESIGN PARAMETERS; (8) CALCULATIONS; AND (9) OPERATIONAL TROUBLE SHOOTING.

AVAILABILITY: COMMONWEALTH OF VIRGINIA, STATE WATER CONTROL BOARD

IRIS ACCESSION NUMBER: EW006279

PUBLICATION DATE: SEP 80

TITLE: REPORT TO CONGRESS-SECTION 74-SEAFOOD PROCESSING STUDY EXECUTIVE SUMMARY.

DESCRIPTOR: COST EFFECTIVENESS; ENVIRONMENT; *ENVIRONMENTAL IMPACT; *FOOD INDUSTRY; FOOD PROCESSING; *INDUSTRIAL WASTES; *MANAGEMENT; *MARINE BIOLOGY; NUTRIENTS; *OPERATIONS (WASTEWATER); *OCEANOGRAPHY; *RESOURCE RECOVERY; *SEAFOODS ; WASTEWATER TREATMENT; *WASTE DISPOSAL; *WATER QUALITY

DESCRIPTIVE NOTE: 79P.

ABSTRACT: ANALYZED ARE THE ECOLOGICAL CONSEQUENCES OF MARINE DISPOSAL OF SEAFOOD PROCESSING WASTES. INCLUDED IS ASSESSMENT OF TECHNOLOGIES FOR CONTROL OF SEAFOOD WASTE DISCHARGES AND IDENTIFICATION OF USES FOR THE NUTRIENTS CONTAINED IN THE WASTE

AVAILABILITY: SUPERINTENDENT OF DOCUMENT, US GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW006280
PUBLICATION DATE: MAR 81

TITLE: SEALING SEWERS IN UNSTABLE SOILS.

DESCRIPTOR: *MAINTENANCE; OPERATIONS (WASTEWATER); *PIPES; *SEWERS; *SEALS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 48-49P.

ABSTRACT: THIS ARTICLE DESCRIBES THE USE OF A SEALING GEL TO SEAL SEWER JOINTS AS AN ALTERNATIVE TO EXCAVATION AND REPLACEMENT. THE GEL FORMS A NEW RUBBERY GASKET IN A LEAKING PIPE JOINT AS WELL AS FORMING A COLLAR AROUND THE OUTSIDE OF THE PIPE JOINT. GEL WAS FOUND TO BE THE BEST SEALENT AS IT WAS ELASTIC ENOUGH TO SHIFT WITH PIPES IN UNSTABLE SOIL.

AVAILABILITY: AMERICAN CITY & COUNTY, V96 N3

IRIS ACCESSION NUMBER: EW006281

PUBLICATION DATE: MAR 81

TITLE: TROUBLESHOOTING PROVIDES KEY TO SEWAGE PLANT DESIGN.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *EQUIPMENT; *FACILITIES; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PREVENTIVE MAINTENANCE; *TROUBLE SHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 55-57P.

ABSTRACT: THIS ARTICLE DESCRIBES THE DESIGN OF A SMALL SEWAGE TREATMENT PLANT TO MINIMIZE OPERATING AND MAINTENANCE PROBLEMS. TYPES AND LOCATION OF EQUIPMENT WITHIN THE PLANT AS WELL AS RATIONALE FOR EQUIPMENT ARE DISCUSSED.

AVAILABILITY: AMERICAN CITY & COUNTY, V96 N3

IRIS ACCESSION NUMBER: EW006285

PUBLICATION DATE: 80

TITLE: OPERATION AND MAINTENANCE OF WASTEWATER COLLECTION SYSTEMS.

PERSONAL AUTHOR: MCMAHON, THOMAS E.; AND OTHERS

DESCRIPTOR: *EQUIPMENT; *FACILITIES; *MAINTENANCE; MANAGEMENT; *OPERATIONS (WASTEWATER); PUBLIC RELATIONS; PUMP STATIONS; *PREVENTIVE MAINTENANCE; SAFETY; *WASTEWATER TREATMENT; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 88P. PRICE: $6.00 FOR MEMBERS AND $12.00 FOR NON-MEMBERS.

ABSTRACT: THIS MANUAL PRESENTS PROCEDURES, PRACTICES, AND GUIDANCE TO HELP MAINTAIN WASTEWATER COLLECTION SYSTEMS EFFICIENTLY. IT IS DESIGNED TO COVER THE BROAD SPECTRUM OF

COLLECTION SYSTEMS UNDER VARYING OPERATING CONDITIONS. CHAPTERS INCLUDE PREVENTIVE MAINTENANCE; PUMP STATIONS; MAINTENANCE MANAGEMENT; DESIGN CONSIDERATIONS; GOVERNMENT AND COMMUNITY RELATIONS; AND SAFETY.

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

IRIS ACCESSION NUMBER: EW006286

PUBLICATION DATE: JUL 80

TITLE: AN ANALYSIS OF THE ROLE OF THE US ENVIRONMENTAL PROTECTION AGENCY IN THE DEVELOPMENT OF MANPOWER FOR WATER POLLUTION CONTROL.

DESCRIPTOR: *ENVIRONMENTAL PROTECTION AGENCY; *EVALUATION; *FEDERAL ROLE; *MANPOWER DEVELOPMENT; *MANPOWER NEEDS; *POLLUTION CONTROL; *TRAINING; *WATER QUALITY

DESCRIPTIVE NOTE: 122P.

ABSTRACT: THE AMERICAN ACADEMY OF ENVIRONMENTAL ENGINEERS EXAMINED THE ROLE OF THE USEPA IN THE DEVELOPMENT OF MANPOWER SKILLED IN WATER QUALITY CONTROL AND REPORTED THEIR FINDINGS IN THIS PUBLICATION. THEY CONCLUDED THAT THE PRESENT USEPA POLICY OF LEAVING MANPOWER DEVELOPMENT PRIMARILY TO MARKETPLACE FORCES IS INAPPROPRIATE AND FAILS TO RESPOND TO A GROWING NATIONAL NEED. THE ACADEMY RECOMMENDED THAT USEPA SHOULD TAKE THE LEADERSHIP ROLE IN ASSURING AN ADEQUATE AND APPROPRIATELY TRAINED ENVIRONMENTAL WORKFORCE.

AVAILABILITY: MANPOWER PLANNING AND TRAINING BRANCH, MUNICIPAL OPERATORS AND TRAINING DIVISION, ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW006292

PUBLICATION DATE: 79

TITLE: STUDIES IN TRAINING AND DEVELOPMENT.

PERSONAL AUTHOR: PETERSON, RICHARD O.

DESCRIPTOR: *DEVELOPMENT; *EDUCATIONAL RESEARCH; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *PROGRAM DESIGN; *PROGRAM DEVELOPMENT; *RESEARCH REVIEWS; *RESEARCH METHODOLOGY; RESEARCH; *TRAINING

DESCRIPTIVE NOTE: 196P.

ABSTRACT: THIS PUBLICATION ATTEMPTS TO DISPEL MISLEADING MYTHS ABOUT TRAINING AND DEVELOPMENT RESEARCH BEING CONDUCTED IN REAL-WORLD ORGANIZATIONS. IT ALSO ENCOURAGES TRAINING AND DEVELOPMENT PRACTITIONERS TO DO MORE SYSTEMATIC STUDY OF TRAINING AND DEVELOPMENT INVOLVING THE COLLECTION AND ANALYSIS OF RELEVANT DATA IN RESEARCH SETTINGS. TOPICS COVERED INCLUDE A VARIETY OF TRAINING SUBJECT MATTER, RESEARCH METHODOLOGY, AND ORGANIZATIONAL SETTINGS.

AVAILABILITY: AMERICAN SOCIETY FOR TRAINING AND DEVELOPMENT, P.O. BOX 5307, MADISON, WI 53705

IRIS ACCESSION NUMBER: EW006293

PUBLICATION DATE: 79

TITLE: A GUIDE FOR CAREER DEVELOPMENT INQUIRY.

PERSONAL AUTHOR: STOREY, WALTER D.

DESCRIPTOR: *ADMINISTRATIVE PLANNING; *CAREER PLANNING; *CAREERS; *GUIDES; *INSTRUCTIONAL MATERIALS; *PROGRAM DESIGN; *PROGRAM DEVELOPMENT; *POST SECONDARY EDUCATION; *TEACHING GUIDES

DESCRIPTIVE NOTE: 48P. PRICE: $3.95 NATIONAL ASTD MEMBERS, $5.25 NON-MEMBERS, $.25SHIPPING

ABSTRACT: THIS PUBLICATION IS INTENDED TO HELP CLARIFY THE OBJECTIVES AN ORGANIZATION MAY HAVE IN UNDERTAKING A CAREER DEVELOPMENT PROGRAM. CONTENTS INCLUDE: (1) FORCES INFLUENCING INTEREST OR LACK OF INTEREST IN CAREER DEVELOPMENT; (2) PURPOSES AND ASSUMPTIONS AFFECTING THE DESIGN AND TRUST OF PROGRAMS; AND (3) IMPLICATIONS OF SUCCESS OR FAILURE.

AVAILABILITY: AMERICAN SOCIETY FOR TRAINING AND DEVELOPMENT, P.O. BOX 5307, MAIDSON, WI 53705

IRIS ACCESSION NUMBER: EW006294

PUBLICATION DATE: 79

TITLE: DETERMINING THE PAYOFF OF MANAGEMENT TRAINING.

PERSONAL AUTHOR: PETERSON, RICHARD O.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *EVALUATION; *MANAGEMENT; MANAGEMENT SYSTEMS; *MANPOWER DEVELOPMENT; ORGANIZATIONAL EFFECTIVENESS; RESEARCH REPORTS; *TRAINING

DESCRIPTIVE NOTE: 384P. PRICE: $11.95 NATIONAL ASTD MEMBERS, $14.95 NON-MEMBERS, $ .85 POSTAGE & HANDLING.

ABSTRACT: THIS PUBLICATION CONTAINS THE PROCEEDINGS FROM THE ASTD FIRST ANNUAL INVITATIONAL RESEARCH SEMINAR, HELD AT POMONA, CALIFORNIA, OCTOBER 31 - NOVEMBER 2, 1978. INCLUDED ARE 11 PRESENTATIONS ACCOMPANIED BY DISCUSSIONS. TOPICS COVERED INCLUDE EVALUATING MANAGEMENT TRAINING, POLICY FORECASTING SIMULATIONS, EXECUTIVE DEVELOPMENT PROGRAMS, ORGANIZATION AND MANAGEMENT IN STATE AGENCIES, AND AWARENESS TRAINING PROGRAMS FOR MANAGERS.

AVAILABILITY: AMERICAN SOCIETY FOR TRAINING & DEVELOPMENT, P. O. BOX 5307, MADISON, WI 53705

IRIS ACCESSION NUMBER: EW006295
PUBLICATION DATE: 80

TITLE: JOB PERFORMANCE STANDARDS AND MEASURES.

PERSONAL AUTHOR: SPRINGER, JUDITH W.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; EVALUATION; HUMAN RELATIONS; *JOB SKILLS; JOB TRAINING; *MANAGEMENT; *MANPOWER TRAINING; *PERFORMANCE CRITERIA; RESEARCH REPORTS; STANDARDS; *TRAINING

DESCRIPTIVE NOTE: 250P. PRICE: $7.50 NATIONAL ASTD MEMBERS, $9.50 NON-MEMBERS, $ .60 SHIPPING

ABSTRACT: THIS PUBLICATION CONTAINS THE PROCEEDINGS FROM THE ASTD SECOND ANNUAL INVITATIONAL RESEARCH SEMINAR, HELD AT SAVANNAH, GEORGIA, IN NOVEMBER, 1979. THIS BOOK CONTAINS SEVEN DOCUMENTS FROM THE INVITED PRESENTATIONS AND FOUR INTEGRATING THE INVITED PRESENTATIONS WITH THE RESULTS OF PARTICIPANT DISCUSSION AT THE CONFERENCE. THIS MATERIAL IS INTENDED FOR USE BY MANAGERS AND HUMAN RESOURCE DEVELOPMENT PROFESSIONALS IN THEIR CONTINUING EFFORT TO ESTABLISH JOB PERFORMANCE STANDARDS THAT WILL SATISFY INCREASING LEGAL REQUIREMENTS, AND THAT WILL ALSO BE FAIR AND USEFUL TO BOTH JOB INCUMBENTS AND THEIR MANAGERS.

AVAILABILITY: AMERICAN SOCIETY FOR TRAINING & DEVELOPMENT, P. O. BOX 5307, MADISON, WI 53705

IRIS ACCESSION NUMBER: EW006297

PUBLICATION DATE: 79

TITLE: PRODUCING WORKSHOPS, SEMINARS, AND SHORT COURSES: A TRAINER'S HANDBOOK.

PERSONAL AUTHOR: LOUGHARY, JOHN W.; HOPSON, BARRIE

DESCRIPTOR: *CURRICULUM DESIGN; GUIDES; *INSTRUCTIONAL MATERIALS; *INSTRUCTION; MODELING; PLANNING; *PROGRAM DEVELOPMENT; *SEMINARS; *TRAINING PROGRAMS; *WORKSHOPS

DESCRIPTIVE NOTE: 202P. PRICE: $12.75 NATIONAL ASTD MEMBERS, $15.95 NON-MEMBERS, $ .75 SHIPPING.

ABSTRACT: THIS BOOK PROVIDES A BASIC MODEL FOR TRAINING PROGRAMS THAT ARE ONE HOUR TO FOUR WEEKS IN TIME, AND IT ILLUSTRATES HOW THE MODEL CAN BE USED IN A VARIETY OF CONTEXTS. DIFFERENCES BETWEEN SHORT-TERM TRAINING AND TRADITIONAL INSTRUCTION ARE DISCUSSED AS WELL AS THE FOLLOWING TOPICS: SOLVING PROBLEMS THROUGH TRAINING, SHORT-TERM TRAINING MODEL, CONTRACT BUILDING, DESIGNING THE COURSE, DEVELOPMENT STAGE, CONDUCTING THE PROGRAM, EVALUATION, AND RESOURCES.

AVAILABILITY: AMERICAN SOCIETY FOR TRAINING & DEVELOPMENT, P. O. BOX 5307, MADISON, WI 53705

IRIS ACCESSION NUMBER: EW006298
PUBLICATION DATE: APR 81

TITLE: GUIDE FOR DESIGNING TRAINING PROGRAMS.

DESCRIPTOR: *GUIDES; *GUIDELINES; *INSTRUCTION; *PLANNIN *PROGRAM PLANNING; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 6-7P.

ABSTRACT: TEN GENERAL AREAS ARE IDENTIFIED FOR THE DEVELOPMENT OF A TRAINING EVENT: ASSESS NEEDS; SET TRAINING GOAL; ASSESS STAFF RESOURCES AND SKILLS; SELECT TRAINING STRATEGIES; STATE OBJECTIVES OF PROGRAM; PREDICT TIME SCHEDULE; ALLOCATE A STAFF MEMBER TO EACH ELEMENT OF THE PROGRAM; ASSESS LOGISTICAL ELEMENTS; DEFINE PRIMARY CLIENT CONCERNS; PROVIDE FOR EVALUATION.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V35 N4

IRIS ACCESSION NUMBER: EW006299

PUBLICATION DATE: APR 81

TITLE: MANAGING THE STRESS OF ORGANIZATION DEVELOPMENT.

PERSONAL AUTHOR: WARRICK, D. D.

DESCRIPTOR: *ADMINISTRATION; HEALTH; *HEALTH NEEDS; *JOB STRESS; *ORGANIZATIONS; *STRESS MANAGEMENT; *STRESS; *SUPERVISION; *WORK ENVIRONMENT

DESCRIPTIVE NOTE: 37-41P.

ABSTRACT: THIS ARTICLE EMPHASIZES THE IMPORTANCE OF RECOGNIZING AND MANAGING THE STRESS PRODUCED BY ORGANIZATION DEVELOPMENT (OD) AND ENCOURAGES OD PRACTITIONERS TO ACKNOWLEDGE STRESS MANAGEMENT AS AN IMPORTANT OD SKILL. TYPES OF STRESS ARE DEFINED AND STRESS MANAGEMENT TECHNIQUES ARE DISCUSSED.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V34 N4

IRIS ACCESSION NUMBER: EW006301

PUBLICATION DATE: 79

TITLE: GEOCHEMISTRY OF WATER IN RELATION TO CARDIOVASCULAR DISEASE.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMISTRY; CASE STUDIES; *CARDIOVASCULAR DISEASE; *DRINKING WATER; *GEOCHEMISTRY; *HEALTH; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *RESEARCH; *STANDARDS; *WATER QUALITY; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 98P. PRICE: $10.75

ABSTRACT: THIS IS VOLUME 1 OF A THREE VOLUME SERIES

CONCERNING TRACE AND MAJOR ELEMENT CHEMISTRY OF DRINKING WATER AND CARDIOVASCULAR DISEASES. TOPICS RANGE FROM THE EFFECTS OF THE DISTRIBUTION SYSTEMS ON WATER CHEMISTRY TO THE ROLE OF THE CONSTITUENTS OF DRINKING WATER IN CARDIOVASCULAR DISEASE.

AVAILABILITY: NATIONAL ACADEMY OF SCIENCES, 2101 CONSTITUTION AVENUE, NW, WASHINGTON, DC 20418

IRIS ACCESSION NUMBER: EW006302

PUBLICATION DATE: MAR 81

TITLE: NAWDEX: FOCAL POINT FOR WATER DATE INFORMATION.

PERSONAL AUTHOR: EDWARDS, MELVIN D.

DESCRIPTOR: DATA ANALYSIS; *DATA COLLECTION; *INDEXES; *INFORMATION RETRIEVAL; *INFORMATION SYSTEMS; WATER COLLECTION SYSTEMS; *WATER RESOURCES

DESCRIPTIVE NOTE: 77-83P.

ABSTRACT: THE NATIONAL WATER DATA EXCHANGE (NAWDEX) WAS ESTABLISHED BY THE UNITED STATES GEOLOGICAL SURVEY IN 1976. NAWDEX SERVES AS A NATIONAL FOCAL POINT FOR CATALOGING AND INDEXING WATER DATA THAT ARE AVAILABLE THROUGHOUT THE NATION, AND IT PROVIDES THE NECESSARY LINKAGES BETWEEN THE COLLECTOR AND USER COMMUNITIES. AVAILABLE WATER DATA HAVE BEEN INDEXED FOR OVER 400 ORGANIZATIONS. ADDITIONALLY, INFORMATION HAS BEEN GATHERED ON OVER 700 ORGANIZATIONS THAT ARE COLLECTORS OF WATER DATA OR INVOLVED IN WATER-RELATED PROGRAMS. AID IN IDENTIFYING AND LOCATING NEEDED WATER DATA IS PROVIDED BY A NETWORK OF ASSISTANCE CENTERS LOCATED IN 45 STATES AND PUERTO RICO.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION, V107 WR1

IRIS ACCESSION NUMBER: EW006303

PUBLICATION DATE: MAR 81

TITLE: RESIDENTIAL WATER CONSERVATION.

PERSONAL AUTHOR: FLACK, J. ERNEST

DESCRIPTOR: CASE STUDIES; *CONSERVATION; CONSUMER ATTITUDES; CONSUMER EDUCATION; RESIDENTIAL PATTERNS; *WATER SUPPLY; *URBAN PLANNING; *WATER CONSERVATION; *WATER DEMAND; WATER METERS; WATER RATES; WATER REUSE; *WATER USE

DESCRIPTIVE NOTE: 85-95P.

ABSTRACT: SEVERE PRESSURES ON MANY URBAN WATER UTILITIES ARE THE RESULT OF WATER SHORTAGES, HIGH TREATMENT COSTS, SCARCE SUPPLIES AND RAPID GROWTH. VARIOUS WATER CONSERVATION TECHNIQUES CAN BE USED TO REDUCE THE DEMAND FOR WATER BY URBAN CUSTOMERS. THESE INCLUDE RESTRICTIONS ON USE, INSTALLATION OF WATER-SAVING DEVICES, METERING, HORTICULTURAL CHANGES, PRESSURE REDUCTION, REUSE, AND PUBLIC EDUCATION. THE EFFECTS OF METERING, WATER-SAVING DEVICES AND PRICE INCREASES ON RESIDENTIAL WATER DEMAND ARE EXPLORED FOR SOME TYPICAL COMMUNITIES. SECONDARY EFFECTS OF CONSERVATION ON REVENUE PRODUCTION ARE ALSO DISCUSSED.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION, V107 N WR1

IRIS ACCESSION NUMBER: EW006304

PUBLICATION DATE: MAR 81

TITLE: CITIZEN GROUPS AND ENVIRONMENTAL GOALS.

PERSONAL AUTHOR: FROEHLICH, DAVID S.

DESCRIPTOR: CITIZEN PARTICIPATION; *COMMUNICATIONS; COMMUNITY PLANNING; *COMMUNITY ROLE; *ENVIRONMENTAL MANAGEMENT; *ENVIRONMENTAL QUALITY; PLANNING; *PUBLIC PARTICIPATION; PUBLIC SUPPORT

DESCRIPTIVE NOTE: 113-119P.

ABSTRACT: CITIZEN ORGANIZATIONS HELP ENGINEERS TO SET ENVIRONMENTAL OBJECTIVES. PUBLIC OPINION AND RESPONSES TO IMPORTANT ISSUES CAN BE OBTAINED MORE EFFECTIVELY BY WORKING THROUGH EXISTING ORGANIZATIONS THAN THROUGH PRESENTLY USED PUBLIC PARTICIPATION MECHANISMS. THE CITIZEN ORGANIZATION SHOULD BE TREATED AS A CONSULTANT TO ENSURE THAT THE INFORMATION GATHERED IS PROPERLY COLLECTED, TIMELY, AND REFLECTIVE OF A GROUP'S MEMBERSHIP. THE GROUP SHOULD HAVE A WORK PROGRAM, SPECIFIC TASKS, AND SHOULD BE PAID. THE TASKS THAT A GROUP IS ASKED TO PERFORM COULD INCLUDE WRITING ARTICLES, HOLDING MEETINGS, AND ESTABLISHING SUGGESTED ENVIRONMENTAL OBJECTIVES.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION, V107 N WR1

IRIS ACCESSION NUMBER: EW006305

PUBLICATION DATE: MAR 81

TITLE: NEW APPROACHES TO WATER UTILITY PLANNING.

PERSONAL AUTHOR: ROWE, ALAN K.; SANDER, DANIEL

DESCRIPTOR: CASE STUDIES; DESIGN; LAWS; *MANAGEMENT; PLANNING; *REGIONAL PLANNING; *UTILITIES; *WATER RESOURCES; *WATER SUPPLY; *WASHINGTON

DESCRIPTIVE NOTE: 139-148P.

ABSTRACT: WASHINGTON STATE HAS TWO RECENT LAWS AIMED AT FACILITATING WATER UTILITIES' PREDICTIONS OF FUTURE SERVICE AND ASSURING THEM THAT THEY WILL BE ABLE TO IMPLEMENT THEIR PLANS. THE WATER RESOURCES ACT OF 1971 PROVIDES A SYSTEM FOR SETTING ASIDE SUFFICIENT WATER SUPPLY FOR FUTURE DOMESTIC NEEDS. WATER IS RESERVED BY REGION RATHER THAN BY SYSTEM,

THEREBY ALLOWING FOR A COMPREHENSIVE LOOK AT AVAILABLE RESOURCES AND MANDATING INTERSYSTEM COOPERATION. THE PUBLIC WATER SYSTEM COORDINATION ACT OF 1977 PROVIDES A STEP-BY-STEP PROCESS FOR WATER UTILITIES AND LOCAL GOVERNMENT TO COORDINATE UTILITY GROWTH WITH LOCAL DEVELOPMENT POLICIES. KEY CONCEPTS INCLUDE THE IDENTIFICATION OF UTILITY SERVICE AREAS AND THE ESTABLISHMENT OF REGIONAL DESIGN STANDARDS.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION, V107 N WR1

IRIS ACCESSION NUMBER: EW006306

PUBLICATION DATE: MAR 81

TITLE: RISK AVOIDANCE OBJECTIVE IN WATER RESOURCES.

PERSONAL AUTHOR: NAZAR, ATA M.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; EVALUATION; IRRIGATION; *MANAGEMENT; MATHEMATICAL APPLICATIONS; PLANNING; *PROJECT PLANNING; RESERVOIRS; *RISK; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 201-209P.

ABSTRACT: IN THE PAST, RISK HAS BEEN CONSIDERED IMPLICITLY IN THE PLANNING AND MANAGEMENT OF WATER RESOURCES SYSTEMS ANALYSIS. A METHOD IS DEVELOPED THROUGH WHICH RISK INDICIES ARE EXPLICITLY DEFINED FOR THE OPERATION OF A WATER SUPPLY SYSTEM THAT PROVIDES WATER MAINLY TO MEET REGIONAL IRRIGATION AND ENERGY REQUIREMENTS. THE RISK INDICIES OBTAINED CAN BE INCLUDED IN THE SYSTEM OBJECTIVE FUNCTION TO BE OPTIMIZED.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION, V107 N WR1

IRIS ACCESSION NUMBER: EW006307

PUBLICATION DATE: MAR 81

TITLE: CONVERSATIONAL WATER QUALITY DATA RETRIEVAL SYSTEM.

PERSONAL AUTHOR: LARSON, DOUGLAS W.; BINGHAM, THOMAS

DESCRIPTOR: *COMPUTER APPLICATIONS; COMPUTERS; *DATA BASES; *DECISION MAKING; *INFORMATION RETRIEVAL; *INFORMATION SYSTEMS; MANAGEMENT; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 239-243P.

ABSTRACT: A WATER QUALITY DATA MANAGEMENT SYSTEM WHICH SIMPLIFIES THE RETRIEVAL OF COMPUTER-STORED DATA IS EXPLAINED. EVERYDAY CONVERSATIONAL LANGUAGE PROVIDES THE COMMUNICATION BETWEEN THE DATA RETRIEVER AND THE COMPUTER, MINIMIZING THE NEED FOR SPECIALIZED TRAINING AND EXPERTISE IN COMPUTER OPERATIONS. INFORMATION IS HANDLED THROUGH USE OF THE DATA BASE MANAGEMENT SYSTEM SIR (SCIENTIFIC INFORMATION RETRIEVAL) AND A FORTRAN PROGRAM THAT INTERFACES SIR WITH THE USER. BECAUSE ALL OPERATING COMMANDS ARE BUILT INTO THE SYSTEM, LITTLE OR NO EXPERIENCE WITH COMPUTERS IS REQUIRED.

AVAILABILITY: JOURNAL OF THE WATER RESOURCES PLANNING AND MANAGEMENT DIVISION, V107 N WR1

IRIS ACCESSION NUMBER: EW006308

PUBLICATION DATE: JAN 81

TITLE: MULTIPORT SLEEVE VALVE DEVELOPMENT AND APPLICATION.

PERSONAL AUTHOR: BURGI, PHILLIP H.; AND OTHERS

DESCRIPTOR: *DESIGN; *FLOW REGULATORS; FLUID FLOW; *HYDRAULICS; *LABORATORY TESTS; MATHEMATICAL MODELS; PIPES; *SLEEVE VALVES; *VALVES

DESCRIPTIVE NOTE: 95-111P.

ABSTRACT: THE HISTORY OF THE DEVELOPMENT AND USE OF MULTIPORT SLEEVE VALVES IS REVIEWED. THE CONCEPT OF USING THE MULTIPORT SLEEVE VALVE AS AN ENERGY DISSIPATOR AS WELL AS A CONTROL VALVE FOR WATER PIPELINES IS EXPLORED. IT IS EXPECTED THAT HIGH-PRESSURE HEAD FLOWS (150-300M) CAN BE CONTROLLED WITH THE USE OF THE MULTIPORT SLEEVE VALVE. HEAD LOSS COEFFICIENTS FOR TWO SLEEVE VALVE DESIGNS ARE PRESENTED BASED ON LABORATORY TESTS OF 200-MM VALVE. PHYSICAL AND MATHEMATICAL MODELS ARE DESCRIBED WHICH WERE USED TO DEVELOP A HORIZONTAL MULTIPORT SLEEVE VALVE FOR LONG PIPELINES. THE MULTIPORT SLEEVE VALVE IS QUITE VERSATILE WITH RESPECT TO HYDRAULIC AND MECHANICAL DESIGN.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N HY1

IRIS ACCESSION NUMBER: EW006312

PUBLICATION DATE: APR 81

TITLE: TRACE METALS IN CONTAMINATED WATERS.

PERSONAL AUTHOR: SPOSITO, GARRISON

DESCRIPTOR: *CHEMICAL ANALYSIS; *DESIGN; *MATHEMATICAL MODELS; *MODELS; *METALS; *SLUDGE; *TRACE METALS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 396-403P.

ABSTRACT: PRESENTED ARE MODELS USED TO PREDICT THE BEHAVIOR OF SOLUBLE METALS IN NATURAL WATERS CONTAMINATED BY MUNICIPAL SEWAGE AND SLUDGE. THE COMPARISONS OF THE MODELS TO MIXTURE MODELS ARE EVALUATED FOR TREATED SEWAGE.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY, V15 N4

IRIS ACCESSION NUMBER: EW006314
PUBLICATION DATE: APR 78

TITLE: A PROCESS FOR THE EVALUATION OF TRAINING

DESCRIPTOR: *EVALUATION; INSTRUCTIONAL MATERIALS; INSTRUCTION; *MANAGEMENT; *PROGRAM DEVELOPMENT; *POST SECONDARY EDUCATION; *TRAINING; *TRAINING GUIDES; *TRAINING TECHNIQUES

DESCRIPTIVE NOTE: 23P.

ABSTRACT: EMPHASIZED IS THE EVALUATION OF TRAINING PROGRAMS THAT HAVE BEEN COMPLETED AS COMPARED TO THE EVALUATION OF PROGRAMS AS THEY ARE BEING DEVELOPED. CONTENTS INCLUDE FOCUSING, PLANNING AND IMPLEMENTING PROCESSES.

AVAILABILITY: US OFFICE OF PERSONNEL MANAGEMENT, TRAINING INFORMATION BUREAU, WED, P.O. BOX 14108, WASHINGTON, DC 20044

IRIS ACCESSION NUMBER: EW006316

PUBLICATION DATE: JUL 80

TITLE: PACKAGE WATER TREATMENT PLANTS. VOLUME 1 - A PERFORMANCE EVALUATION.

PERSONAL AUTHOR: MORAND, JAMES M.; COBB, CRAIG R.

DESCRIPTOR: *CASE STUDIES; *COSTS; *FACILITIES; *OPERATIONS (WATER); *PACKAGE PLANTS; PERFORMANCE DATA; *RESEARCH REPORTS; *WATER TREATMENT

DESCRIPTIVE NOTE: 43P. PB81-110934

ABSTRACT: THE COST OF BUILDING A CONVENTIONAL WATER TREATMENT PLANT TO PROVIDE HIGHER QUALITY WATER FOR A SMALL COMMUNITY MAY BE PROHIBITIVE. PACKAGE WATER TREATMENT PLANTS ARE A POSSIBLE ALTERNATIVE TO CONVENTIONAL WATER TREATMENT. THESE PLANTS ARE SELF-CONTAINED UNITS THAT CAN BE INSTALLED FOR MINIMUM COST. THIS VOLUME (VOLUME 1) CONTAINS THE PERFORMANCE DATA FROM THE STUDY WITH MINIMAL COST DATA.

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

IRIS ACCESSION NUMBER: EW006317

PUBLICATION DATE: JUN 80

TITLE: EXEC/OP REFERENCE MANUAL.

PERSONAL AUTHOR: ROSSMAN, LEWIS A.

DESCRIPTOR: *COMPUTER PROGRAMS; DESIGN; *FACILITIES; *MANUALS; MODELS; *OPERATIONS (WASTEWATER); *REFERENCE MATERIALS; SLUDGE DISPOSAL; SLUDGE TREATMENT; SYSTEMS ANALYSIS; UNIT PROCESSES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 157P. PB81-104176

ABSTRACT: THE ORIGINAL VERSION OF EXEC/OP, A FORTRAN COMPUTER PROGRAM THAT SYNTHESIZES PRINCIPAL WASTEWATER TREATMENT SYSTEM DESIGNS FROM A SPECIFIED LIST OF UNIT TREATMENT PROCESSES, HAS BEEN UPDATED. REVISIONS HAVE BEEN MADE IN SEVERAL OF THE UNIT PROCESS PERFORMANCE SUB-MODELS TO PRODUCE RESULTS THAT CONFORM MORE CLOSELY TO ACCEPTED DESIGN PRACTICES. THIS NEW REFERENCE MANUAL DESCRIBES THE ELEMENTS OF THE EXEC/OP PROGRAM, GIVES INSTRUCTIONS ON HOW TO PREPARE INPUT DATA FOR THE PROGRAM, AND ILLUSTRATES ITS APPLICATION TO A SAMPLE DESIGN PROBLEM. ALSO INCLUDED IS A LISTING OF THE UPDATED FORTRAN SOURCE CODE AND DEFINITIONS OF THE PROGRAM'S VARIABLES. A COMPUTER TAPE OF THE FORTRAN SOURCE CODE IS AVAILABLE THROUGH NTIS.

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

IRIS ACCESSION NUMBER: EW006320

PUBLICATION DATE: JUN 80

TITLE: TREATMENT OF EFFLUENT STREAM (JUN 76-MAY 80) CITATIONS FROM THE ENERGY DATA BASE.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *EFFLUENTS; HEAVY METALS; *INDUSTRIAL WASTES; POLLUTION; *POLLUTION CONTROL; *RESEARCH REVIEWS; RECYCLING; SLUDGE; *WASTEWATER TREATMENT; WATER POLLUTION

DESCRIPTIVE NOTE: 50P. PB80-858533

ABSTRACT: THIS RETROSPECTIVE BIBLIOGRAPHY ABSTRACTS 39 REPORTS ON THE TREATMENT OF INDUSTRIAL (EXCEPT MINING) EFFLUENT STREAMS FOR POLLUTION CONTROL, PURIFICATION, AND WASTE DISPOSAL AS WELL AS FOR REMOVAL, RECLAMATION, AND RECYCLING OF VARIOUS STREAM COMPONENTS FOR THE PERIOD JUNE 1976 TO MAY 1980.

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

IRIS ACCESSION NUMBER: EW006322

PUBLICATION DATE: FEB 72

TITLE: A TRAINING COST MODEL

DESCRIPTOR: *COST EFFECTIVENESS; *DESIGN; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *PLANNING; *POST SECONDARY EDUCATION; *TRAINING PROGRAMS

DESCRIPTIVE NOTE: 8P.

ABSTRACT: IT IS IMPORTANT TO MAINTAIN A MANAGEMENT TRAINING PROGRAM WITH LIMITED AVAILABLE FUNDS TO SUPPORT TRAINING. DESCRIBED IS A SYSTEM TO IMPROVE TRAINING MANAGEMENT AND TO REDUCE COSTS OF CONDUCTING THE PROGRAM.

AVAILABILITY: US OFFICE OF PERSONNEL MANAGEMENT, TRAINING INFORMATION BUREAU, WED, P.O. BOX 14108, WASHINGTON, DC 20044

IRIS ACCESSION NUMBER: EW006324

PUBLICATION DATE: SEP 80

TITLE: AUTOMATIC ACQUISITION OF WATER QUALITY DATA. 1978-AUGUST 1980, (CITATIONS FROM THE NTIS DATA BASE).

PERSONAL AUTHOR: CAVAGNARO, DIANE M.; HUNDEMANN, AUDREY S.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *DATA COLLECTION; *MONITORING; *MEASUREMENT; PLANNING; *REMOTE SENSING; *SAMPLING; *WATER QUALITY

DESCRIPTIVE NOTE: 168P. PB80-815772

ABSTRACT: THIS BIBLIOGRAPHY CITES TECHNIQUES USED TO OBTAIN CONTINUOUS WATER QUALITY DATA, WITH EMPHASIS ON BIOLOGICAL AND SATELLITE REMOTE SENSING TECHNIQUES. MONITOR DESIGN AND PERFORMANCE AND GENERAL SYSTEMS MANAGEMENT AND PLANNING STUDIES ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 168 CITATIONS, 30 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW006325

PUBLICATION DATE: 79

TITLE: WATER AND WASTE WATER ANALYSIS. A COURSE MANUAL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; LABORATORY TECHNIQUES; *MANUALS; MONITORING; *SAMPLING; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER ANALYSIS; *WATER QUALITY

DESCRIPTIVE NOTE: 134P. PB81-103756

ABSTRACT: WATER AND WASTEWATER ANALYSES HAVE BECOME INCREASINGLY IMPORTANT IN WATER QUALITY MONITORING. ANALYTICAL TECHNIQUES ADOPTED SHOULD BE PRECISE AND ACCURATE. THE METHODS SHOULD TAKE INTO CONSIDERATION THE LIMITATIONS IN DEVELOPING COUNTRY SITUATIONS. THE STUDY DESCRIBES THE ANALYTICAL TECHNIQUES.

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

IRIS ACCESSION NUMBER: EW006331

PUBLICATION DATE: AUG 80

TITLE: POLLUTION DETECTION (JUN 70 - JUN 80), (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AIR POLLUTION; *BIBLIOGRAPHIES; *EQUIPMENT; *LABORATORY PROCEDURES; *MEASUREMENT; *OIL POLLUTION; *POLLUTION; POLLUTANTS; *RESEARCH REVIEWS; *SAMPLING; *WATER POLLUTION

DESCRIPTIVE NOTE: 94P. PB80-857956

ABSTRACT: RESEARCH STUDIES AND ARTICLES CITED IN THIS BIBLIOGRAPHY DESCRIBE THE METHODS, EQUIPMENT, AND TECHNOLOGY USED IN THE DETECTION AND MEASUREMENT OF VARIOUS TYPES OF ENVIRONMENTAL POLLUTANTS. CONTAINS 94 CITATIONS.

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

IRIS ACCESSION NUMBER: EW006335

PUBLICATION DATE: MAY 80

TITLE: ASSESSMENT OF CURRENT INFORMATION ON OVERLAND FLOW TREATMENT OF MUNICIPAL WASTEWATER.

PERSONAL AUTHOR: HINRICHS, DANIEL J.; AND OTHERS

DESCRIPTOR: *DESIGN; *LAND TREATMENT; *LAND APPLICATION; *OPERATIONS (WASTEWATER); *OVERLAND FLOW; *TECHNICAL REPORTS; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 141P. PLEASE INDICATE THE MCD-66 NUMBER AND TITLE OF PUBLICATION.

ABSTRACT: THIS REPORT PROVIDES A TECHNICAL DISCUSSION OF RECENT INFORMATION ON DESIGN AND PERFORMANCE OF THE OVERLAND-FLOW TREATMENT PROCESS. OVERLAND-FLOW TREATMENT OF MUNICIPAL WASTEWATERS IS A RAPIDLY DEVELOPING TECHNOLOGY WHICH IS ATTRACTIVE AS A SIMPLE AND LOW COST SOLUTION FOR SMALLER COMMUNITIES. IT IS THE LAND TREATMENT APPROACH WHICH IS SUITED TO LOCATIONS WITH IMPERMEABLE SOILS THAT COULD NOT BE USED FOR OTHER LAND TREATMENT APPROACHES.

AVAILABILITY: GENERAL SERVICES ADMINISTRATION (8BRC), CENTRALIZED MAILING LISTS SERVICES, BLDG. 41, DENVER FEDERAL CENTER, DENVER, CO 80224

IRIS ACCESSION NUMBER: EW006336

PUBLICATION DATE: 80

TITLE: PREPARATION FOR PESTICIDE CERTIFICATION EXAMINATIONS.

PERSONAL AUTHOR: FRISHMAN, AUSTIN M.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *INDIVIDUALIZED INSTRUCTION; *PESTICIDES; POST SECONDARY EDUCATION; *PEST CONTROL; REGULATIONS; *SAFETY; *STANDARDS; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 161P. PRICE: $10.00

ABSTRACT: THIS MANUAL IS DESIGNED TO PREPARE PEOPLE FOR THE PESTICIDES CERTIFICATION EXAMINATION AS A TRAINING AID FOR USE OF THOSE ALREADY CERTIFIED, AND FOR OTHERS INTERESTED IN PESTICIDES.

AVAILABILITY: ARCO PUBLISHING, INC., 219 PARK AVENUE, NEW YORK, NY 10003

IRIS ACCESSION NUMBER: EW006340

PUBLICATION DATE: AUG 80

TITLE: HEALTH PLANNING RELATED TO ENVIRONMENTAL FACTORS: PRELIMINARY TECHNICAL GUIDELINES.

PERSONAL AUTHOR: PURDOM, P. W.; AND OTHERS

DESCRIPTOR: AIR POLLUTION; DISEASES; *ENVIRONMENTAL FACTORS; *GUIDELINES; *HEALTH; HEALTH NEEDS; *HAZARDS; *POLLUTION; WATER POLLUTION

DESCRIPTIVE NOTE: 200P. HRP-0101801

ABSTRACT: THESE GUIDELINES PROVIDE TECHNICAL ASSISTANCE TO HEALTH PLANNING AGENCIES IN ADDRESSING PROBLEMS ASSOCIATED WITH ENVIRONMENTAL FACTORS IN THEIR HEALTH SYSTEMS PLANNING. IN THIS STUDY, THE CONCERNS ARE WITH WATER, AIR, AND POLLUTION; RESIDENTIAL, RECREATIONAL AND HIGHWAY HAZARDS; AND THE CONTROL OF INSECT AND ANIMAL DISEASE HAZARDOUS TO THE ENVIRONMENT. IN ADDITION TO PROVIDING AN INTRODUCTION TO THE WIDE RANGE OF ENVIRONMENTAL THREATS TO HUMAN HEALTH, THE GUIDELINES IDENTIFY FEDERAL AND STATE AGENCIES AND LOCAL COMMUNITY GROUPS WITH WHICH PLANNERS CAN COORDINATE THEIR ACTIVITIES TO REDUCE THESE HAZARDS AS WELL AS TO TAKE CORRECTIVE ACTION. DIAGRAMS AND TABLES ARE INCLUDED FOR ASSESSING CURRENT HEALTH STATUS PROBLEMS AND FOR FORECASTING FUTURE INDICATOR LEVELS.

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

IRIS ACCESSION NUMBER: EW006345

PUBLICATION DATE: 80

TITLE: WATER CONSERVATION STRATEGIES.

DESCRIPTOR: *CONSERVATION; *DROUGHT; ECONOMICS; EFFICIENCY; EDUCATION; *JOURNAL ARTICLES; *MANAGEMENT; POLICY; *URBAN PROBLEMS; *WATER CONSERVATION; *WATER RESOURCES

DESCRIPTIVE NOTE: 100P. PRICE: MEMBERS - $5.25, NONMEMBERS - $10.50

ABSTRACT: THIS PUBLICATION IS A COMPILATION OF SELECTED ARTICLES FROM RECENT ISSUES OF THE AWWA JOURNAL ON RESOURCE CONSERVATION, PARTICULARLY WATER CONSERVATION STRATEGIES. TOPICS DISCUSSED INCLUDE WATER RATIONING, DEALING WITH DROUGHT, ECONOMICS OF WATER CONSERVATION, WATER CONSERVATION EDUCATION FOR THE PUBLIC, AND INCREASING WATER SYSTEM EFFICIENCY THROUGH CONTROL OF UNACCOUNTED-FOR WATER.

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

IRIS ACCESSION NUMBER: EW006346

PUBLICATION DATE: 79

TITLE: HANDBOOK OF VARIABLES FOR ENVIRONMENTAL IMPACT ASSESSMENT.

PERSONAL AUTHOR: CANTER, LARRY W.; HILL, LOREN G.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; AQUATIC ENVIRONMENTS; ASSESSMENT; *ENVIRONMENTAL IMPACT STATEMENTS; *ENVIRONMENTAL INFLUENCES; HANDBOOKS; *MEASUREMENT TECHNIQUES; *PLANNING; TERRESTRIAL ENVIRONMENTS; *WATER RESOURCES

DESCRIPTIVE NOTE: 201P.

ABSTRACT: THE OBJECTIVE OF THIS HANDBOOK IS TO PROVIDE (1) A COMPREHENSIVE LISTING OF VARIABLES RELEVANT TO THE ENVIRONMENTAL QUALITY OBJECTIVE OF WATER RESOURCES PLANNING; AND (2) DESCRIPTIONS OF MEASUREMENT, PREDICTION AND ASSESSMENT TECHNIQUES FOR THE SELECTED VARIABLES WHEN USED FOR ENVIRONMENTAL IMPACT ASSESSMENT OF WATER AND RELATED LAND MANAGEMENT STUDIES. SECTIONS INCLUDE: TERRESTRIAL VARIABLES; AQUATIC VARIABLES; AIR VARIABLES; AND HUMAN INTERFACE VARIABLES.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, INC., C/O BUTTERWORTH PUBLISHERS, INC., 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006347

PUBLICATION DATE: 80

TITLE: WASTEWATER REUSE AND RECYCLING TECHNOLOGY 1980.

PERSONAL AUTHOR: CULP, GORDON; AND OTHERS

DESCRIPTOR: AGRICULTURE; CONSERVATION; INDUSTRY; MUNICIPALITIES; *RECYCLING; RESEARCH; *REUSE; *TECHNOLOGICAL ADVANCEMENTS; *WATER RESOURCES; *WASTEWATER; WASTEWATER TREATMENT; WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 838P. PRICE: $48.00

ABSTRACT: THIS VOLUME EVALUATES THE TECHNOLOGY FOR WATER REUSE AND RECYCLING, AS WELL AS DESCRIBING THE MAGNITUDE OF THE POTENTIAL FOR REUSING INDUSTRIAL, AGRICULTURAL, AND MUNICIPAL WASTEWATER. SECTIONS INCLUDE: WATER NEEDS AND AVAILABILITY; EXISTING AND PROPOSED WATER REUSE AND RECYCLING PROJECTS; WATER QUALITY REQUIREMENTS, POTENTIAL WASTEWATER REUSE AND RECYCLE; LOWER COLORADO REGIONAL EVALUATION; CALIFORNIA REGIONAL EVALUATION; BENEFICIAL USES OF RECLAIMED WASTEWATER; WATER QUALITY CRITERIA FOR BENEFICIAL USES; MUNICIPAL WASTEWATER TREATMENT PROCESS

EVALUATION; SPECIAL TREATMENT CONSIDERATIONS; WASTEWATER TREATMENT SYSTEMS; TREATMENT SYSTEM COMPATIBILITY WITH REUSE AND APPLICATIONS; AND THRUST OF CURRENT RESEARCH.

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

IRIS ACCESSION NUMBER: EW006348

TITLE: PUBLIC PARTICIPATION HANDBOOK-PART III-USERS' GUIDE, PART IV-DESK REFERENCE.

DESCRIPTOR: *ADMINISTRATIVE GUIDES; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *PLANNING; *POST SECONDARY EDUCATION; *PUBLIC PARTICIPATION; *PROGRAM DESIGN

ABSTRACT: THIS HANDBOOK WAS DEVELOPED TO HELP AGENCY PERSONNEL TO ACCURATELY OBTAIN AND PRESENT PUBLIC RESPONSES TO FACILITATE DECISION MAKING. INCLUDED ARE GENERAL PROCEDURES FOR CONTENT ANALYSIS, PROGRAM DESIGN, AND PUBLIC PARTICIPATION PROCESSES.

AVAILABILITY: USDS-FOREST SERVICE, PUBLIC INVOLVEMENT GROUP, WASHINGTON OFFICE, P.O. BOX 2417, WASHINGTON, DC 20013

IRIS ACCESSION NUMBER: EW006349

PUBLICATION DATE: APR 81

TITLE: MICROPROCESSOR CONTROLLED RO PLAN.

DESCRIPTOR: *AUTOMATED SYSTEMS; *CONTROL SYSTEMS; *EQUIPMENT; *MICROPROCESSORS; *OPERATIONS (WATER); *OSMOSIS; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 18P.

ABSTRACT: DESCRIBED IS THE OPERATION OF THE FIRST OSMOSIS WATER PURIFICATION PLANT UNDER MICROPROCESSOR CONTROL. THE SYSTEMS EMPLOYED PROVIDE HIGH EFFICIENCY.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N4

IRIS ACCESSION NUMBER: EW006350

PUBLICATION DATE: APR 81

TITLE: RECYCLING URBAN STORMWATER FOR PROFIT.

PERSONAL AUTHOR: FIELD, RICHARD; FAN, CHI-YUAN

DESCRIPTOR: *COST EFFECTIVENESS; *INDUSTRY; *OPERATIONS (WATER); *RECYCLING; *STORMWATER; *WATER RESOURCES; *WATER SUPPLY; *WATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 30-33P.

ABSTRACT: ILLUSTRATED IS THE COST EFFECTIVENESS OF USING URBAN STORMWATER FOR INDUSTRIAL SUBPOTABLE WATER SUPPLY. POLLUTION CONTROL, DRAINAGE, AND AESTHETICS ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N4

IRIS ACCESSION NUMBER: EW006351

PUBLICATION DATE: APR 81

TITLE: INFILTRATION/INFLOW REMOVAL.

PERSONAL AUTHOR: CONKLIN, GERARD F.

DESCRIPTOR: *COST EFFECTIVENESS; *DESIGN; *FACILITIES; *GROUNDWATER; *INFILTRATION; *INFLOW; *MONITORING; *OPERATIONS (WASTEWATER); *SEWERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 34-37P.

ABSTRACT: ADDRESSED IS THE INEFFECTIVENESS OF THE INFILTRATION/INFLOW PROGRAM OF REMOVING EXTRANEOUS WATER FROM SEWER SYSTEMS. THE NEED FOR EFFICIENT AND EFFECTIVE OPERATIONS ARE STRESSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N4

IRIS ACCESSION NUMBER: EW006352

PUBLICATION DATE: APR 81

TITLE: AWT: A CHICAGO SUCCESS STORY.

PERSONAL AUTHOR: PRENDIVILLE, PAUL W.; MCALOON, TIM

DESCRIPTOR: *AUTOMATED SYSTEMS; ACTIVATED SLUDGE; *COMPUTERS; *CONTROL SYSTEMS; DESIGN; *EFFLUENT; *FACILITIES; *INSTRUMENTATION; *MONITORING; *OPERATIONS (WASTEWATER); *TERTIARY TREATMENT; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 38-40P.

ABSTRACT: DISCUSSED ARE THE OPERATIONS OF A WASTEWATER TREATMENT FACILITY WHICH DISCHARGES A HIGH QUALITY EFFLUENT THAT SURPASSES STRINGENT FEDERAL AND STATE WATER QUALITY STANDARDS. THE AUTOMATIC AND COMPUTERIZED PROCESSES ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N4

IRIS ACCESSION NUMBER: EW006353

PUBLICATION DATE: APR 81

TITLE: INTENSIVE FLOW METERING--IS IT REALLY COST EFFECTIVE?

PERSONAL AUTHOR: CLARK, THOMAS J.
DESCRIPTOR: *COST EFFECTIVENESS; *FLOW MEASUREMENT; *FLOW METERS; *MONITORING; *OPERATIONS (WASTEWATER); *SEWERS

DESCRIPTIVE NOTE: 43P.

ABSTRACT: METHODS OF SYSTEM ELIMINATION BY INTENSIVE FLOW METERING ARE EXAMINED AS ECONOMICAL STEPS IN SEWER SYSTEM EVALUATION STUDIES. DISCUSSED ARE ALTERNATIVE STEPS AFTER GROSS FLOW MONITORING.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N4

IRIS ACCESSION NUMBER: EW006354

PUBLICATION DATE: APR 81

TITLE: WATER SYSTEM CONTROLLED BY LOAD MANAGEMENT PROGRAM.

PERSONAL AUTHOR: RODEMANN, V. W.

DESCRIPTOR: *AUTOMATED CONTROLS; *COST EFFECTIVENESS; *COMPUTERS; *DESIGN; *MANAGEMENT; MAINTENANCE; *MONITORING; *UTILITIES; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 44, 49-50P.

ABSTRACT: THE OPERATIONS OF A LOAD MANAGEMENT SYSTEM WHICH ENCOMPASSES WATER, GAS, AND LIGHT SERVICES UNDER A UNIT OF CENTRAL CONTROL ARE DESCRIBED. PERFORMANCE DATA AND OPERATIONAL ADVANTAGES PRIOR AND AFTER IMPLEMENTATION OF THE COMPUTERIZED SYSTEM ARE COMPARED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N4

IRIS ACCESSION NUMBER: EW006355

PUBLICATION DATE: APR 81

TITLE: O'HARE PLANT DESIGNED FOR COMMUNITY ACCEPTANCE.

PERSONAL AUTHOR: BECKMAN, WALLACE J.; GILBERTSEN, FRED O.

DESCRIPTOR: COST EFFECTIVENESS; *DESIGN; *EQUIPMENT; *FACILITIES; *MANAGEMENT; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PLANNING; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 52-55P.

ABSTRACT: DESCRIBED IS A WASTEWATER TREATMENT PLANT DESIGNED TO BE FUNCTIONAL AS WELL AS PLEASING TO THE ADJACENT RESIDENTIAL COMMUNITY. EMPHASIZED ARE THE SPECIAL FEATURES AND OPERATIONS OF THE STRUCTURES OF THE SUBTERRANEAN SYSTEM.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N4

IRIS ACCESSION NUMBER: EW006356
PUBLICATION DATE: APR 81

TITLE: MODERN MANAGEMENT TECHNIQUES: PART II B--CASE HISTORY OF PRODUCTIVE IMPROVEMENT.

PERSONAL AUTHOR: THOMPSON, GARY S.; MCCOY, THOMAS C.

DESCRIPTOR: *CONSTRUCTION; *COST EFFECTIVENESS; *ENGINEERING; *MANAGEMENT; *PROJECT CONTROL; *PLANNING; PERSONNEL; *PERFORMANCE MEASURES; *RECORDS; *RECORD KEEPING; SEWERS; *TECHNICAL REPORTS; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 56, 59-60P.

ABSTRACT: DESCRIBED IS THE MANAGEMENT SYSTEM DESIGNED FOR THE CONSTRUCTION SECTION OF THE FIELD OPERATIONS GROUP. DISCUSSED ARE FOUR PRIMARY ELEMENTS: (1) THE WATER/SEWER FOREMAN'S DAILY REPORT; (2) THE GENERAL FOREMAN'S WEEKLY CONSTRUCTION REPORT; (3) THE PROJECT CONTROL SHEET; AND (4) THE COST SUMMARY FORM.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N4

IRIS ACCESSION NUMBER: EW006357

PUBLICATION DATE: APR 81

TITLE: FOAM CONTROL IN AERATION TANKS.

PERSONAL AUTHOR: NELSON, EUGENE D.

DESCRIPTOR: *AERATION TANKS; *COST EFFECTIVENESS; *DESIGN; *EQUIPMENT; *FOAM; *FOAM CONTROL; *FACILITIES; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 63-64P.

ABSTRACT: ATTEMPTS TO DEVELOP A METHOD TO REDUCE FOAM GENERATED FROM THE OPERATIONS OF A WASTEWATER TREATMENT FACILITY ARE DISCUSSED. DESCRIBED IS THE USE OF A MOTOR DRIVEN BRUSH DESIGNED TO REDUCE FOAM THICKNESS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N4

IRIS ACCESSION NUMBER: EW006358

PUBLICATION DATE: APR 81

TITLE: WHAT THE PUBLIC THINKS--RECLAIMING AND REUSING WASTEWATER.

PERSONAL AUTHOR: BRUVOLD, WILLIAM H.; COOK, JAMES

DESCRIPTOR: *ATTITUDES; *DRINKING WATER; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *PUBLIC HEALTH; *RECYCLING; *SURVEYS; *WASTEWATER TREATMENT; *WATER REUSE; *WATER TREATMENT; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 65-71P.

ABSTRACT: PRESENTED IS A STUDY THAT ASSESSES PUBLIC ATTITUDES TOWARD THE USE OF RECLAIMED WATER FOR DRINKING. RESULTS FAVOR ADVANCED WASTEWATER TREATMENT FOLLOWED BY A BENEFICIAL REUSE NOT INVOLVING A HIGH DEGREE OF HUMAN CONTACT.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N4

IRIS ACCESSION NUMBER: EW006359

PUBLICATION DATE: APR 81

TITLE: TREATMENT PROCESSES TO MEET WATER REUSE REQUIREMENTS.

PERSONAL AUTHOR: CULP, RUSSELL L.

DESCRIPTOR: *COST EFFECTIVENESS; *DRINKING WATER; *GROUNDWATER; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *PUBLIC HEALTH; POTABLE WATER; REGULATIONS; SECONDARY TREATMENT; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER SUPPLY; *WATER QUALITY; *WATER REUSE

DESCRIPTIVE NOTE: 72-76P.

ABSTRACT: DISCUSSED IS THE PUBLIC'S ACCEPTANCE OF WATER REUSE PROGRAMS AS BASED ON PRESENT AND PROPOSED WASTEWATER TREATMENT METHODS. PROPOSED ARE PROCESSES WHICH USE GROUNDWATER RECHARGE AS AN ALTERNATIVE TO THE DEVELOPMENT AND TREATMENT OF FRESH WATER FROM NEW SOURCES.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N4

IRIS ACCESSION NUMBER: EW006360

PUBLICATION DATE: MAR 81

TITLE: SUCCESSFUL STORAGE LAGOON ODOR CONTROL.

PERSONAL AUTHOR: PODUSKA, RICHARD A.; ANDERSON, B. D.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CASE STUDIES; *COLLECTION SYSTEMS; LABORATORY TESTING; *LAGOONS; *ODORS; *OPERATIONS (WASTEWATER); *SLUDGE; SODIUM NITRATE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 299-310P.

ABSTRACT: PRIOR TO THE INSTALLATION OF BELT-FILTER SLUDGE DEWATERING, WASTE ACTIVATED SLUDGE FROM AN INDUSTRIAL ACTIVATED SLUDGE SYSTEM TREATING 1.13 X 10**5 KG OF 5-DAY BIOCHEMICAL OXYGEN DEMAND PER DAY WAS STORED IN EARTH-DIKED LAGOONS. SEVERAL KNOWN ODOR CONTROL TECHNIQUES, SUCH AS CHEMICAL OXIDATION WITH HYPOCHLORITE OR PEROXIDE, PH ELEVATION WITH LIME OR CAUSTIC, AND ALTERATION OF THE BIOLOGICAL ENVIRONMENT WITH SODIUM NITRATE, WERE INVESTIGATED IN THE LABORATORY. THE METHOD MOST EASILY IMPLEMENTED AT THE LOWEST COST, AND WITH THE HIGHEST POTENTIAL FOR LONG-TERM SUCCESS, WAS THE ADDITION OF A LOCALLY OBTAINED 40% WASTE SODIUM NITRATE LIQUOR. THE OXIDATION-REDUCTION POTENTIAL OF THE SLUDGE WAS DETERMINED THE MOST SATISFACTORY QUANTITATIVE MEASURE OF ODOR POTENTIAL. VALUES GREATER THAN +100 MILLIVOLTS INDICATE A LOW ODOR POTENTIAL AND THE ADDITION OF EXCESS NITRATE WILI MAINTAIN OXIDATION REDUCTION POTENTIAL VALUES OF +25(MILLIVOLTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N3

IRIS ACCESSION NUMBER: EW006361

PUBLICATION DATE: MAR 81

TITLE: BIOLOGICAL TREATMENT OF WOOL SCOURING WASTEWATER.

PERSONAL AUTHOR: CHAO, ALLEN C.; YANG, WAN-FA

DESCRIPTOR: *ACTIVATED SLUDGE; *BIOLOGICAL TREATMENT; *EFFLUENTS; *GROUNDWATER; *INDUSTRIAL WASTES; PRETREATMENT; *SCOURING; *WASTEWATER TREATMENT; WATER QUALITY; WOOL SCOURING

DESCRIPTIVE NOTE: 311-317P.

ABSTRACT: WASTEWATER FROM A WOOL SCOURING PLANT IS TREATED IN A PLANT-OWNED ACTIVATED SLUDGE SYSTEM. THE QUALITY OF A BIOLOGICALLY TREATED EFFLUENT FAILED TO MEET THE IMPOSED EFFLUENT LIMITATIONS BECAUSE THE WASTEWATER TREATMENT SYSTEM WAS OVERLOADED. IN-PLANT SEPARATION OF THE CONCENTRATED COMPONENT STREAMS THAT CONSTITUTE 6% OF THE FLOW RATE FROM THE TOTAL DISCHARGE HAS BEEN IMPLEMENTED AS A PRETREATMENT ALTERNATIVE FOR ALLEVIATING THE OVERLOADING SITUATION. THE METHOD IS ABLE TO REDUCE 65% OF THE GREASE, 38% OF CHEMICAL OXYGEN DEMAND, 24% OF 5-DAY BIOCHEMICAL OXYGEN DEMAND, AND 38% OF SUSPENDED SOLIDS OF THE TOTAL DISCHARGE FROM THE WOOL SCOURING PROCESS, RESULTING IN AN IMPROVED QUALITY OF THE TREATED EFFLUENT. THE SEPARATED WASTEWATER STREAMS ARE MIXED WITH THE EXCESS BIOLOGICAL SLUDGE AND THE MIXTURE STABILIZED IN AN AEROBIC DIGESTER. THE DIGESTED SUSPENSION IS INJECTED INTO THE SUBSURFACE LAYER OF A 50 ACRE DISPOSAL SITE. AFTER A 6 MONTH OPERATION, THE GROUNDWATER QUALITY HAD NOT DETERIORATED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N3

IRIS ACCESSION NUMBER: EW006362

PUBLICATION DATE: MAR 81

TITLE: START-UP OF A PHYSICAL-CHEMICAL TREATMENT PLANT.

PERSONAL AUTHOR: LYNCH, WILLIAM O.; POTTER, LEO R.

DESCRIPTOR: *CASE STUDIES; *COSTS; *DESIGN; *FACILITIES; *OPERATIONS (WASTEWATER); *PHYSICAL-CHEMICAL TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 318-324P.
ABSTRACT: START-UP AND INITIAL OPERATION EXPERIENCES FOR THE CORTLAND, NY (10 MGD) WASTEWATER TREATMENT PLANT ARE DESCRIBED. THIS PLANT PROVIDES SECONDARY TREATMENT OF A DOMESTIC/INDUSTRIAL WASTEWATER UTILIZING THE PHYSICAL-CHEMICAL TREATMENT PROCESS OF CHEMICAL COAGULATION, SEDIMENTATION, ACTIVATED CARBON ADSORPTION-FILTRATION, AND BREAKPOINT CHLORINATION. THE SOLIDS PROCESSING FACILITIES INCLUDE THICKENING OF PRIMARY RAW AND CHEMICAL SLUDGE, HIGH-RATE DIGESTION, VACUUM FILTRATION OR OPEN-BED DRYING, AND LAND DISPOSAL. DATA HAVE BEEN COLLECTED ON POLYMER, ALUM AND FERRIC CHLORIDE ADDITION FOR COAGULATION; SLUDGE THICKENING, DIGESTION, AND POLYMER ADDITION FOR SLUDGE CONDITIONING; VACUUM FILTRATION AND OPEN-BED DRYING; CARBON ADSORPTION-FILTRATION; AND CARBON TRANSFER AND OVERALL PROCESS PERFORMANCES AND TREATMENT COSTS. OPERATION OF THE TREATMENT PROCESS TO DATE HAS INDICATED THAT TREATMENT REMOVALS IN EXCESS OF DESIGN CAN BE ACHIEVED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N3

IRIS ACCESSION NUMBER: EW006363

PUBLICATION DATE: MAR 81

TITLE: DESIGN TO OPTIMIZE MULTI-STAGE UNIT PROCESSES FOR PEAK FLOWS.

PERSONAL AUTHOR: NOLAND, RICHARD F.; MATHER, WAYNE A.

DESCRIPTOR: *CASE STUDIES; *COST EFFECTIVENESS; *DESIGN; EQUIPMENT; *FACILITIES; FLOW MEASUREMENT; *OPERATIONS (WASTEWATER); SEWERS; *UNIT PROCESSES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 340-343P.

ABSTRACT: AT A 6 MGD ADVANCED WASTEWATER TREATMENT PLANT, THE REQUIREMENTS OF A VERY HIGH DEGREE OF WASTEWATER TREATMENT DURING AVERAGE AND DRY WEATHER FLOWS, AND THE ADDITIONAL REQUIREMENT OF PROVIDING TREATMENT FOR A WIDE RANGE OF WET WEATHER FLOWS, HAS PROMPTED A DESIGN CONCEPT TO OPTIMIZE UNIT PROCESSES DURING BOTH FLOW CONDITIONS. KEY COMPONENTS OF THE PROCESS FOR CONTROLLING FLOW RATES ARE THE PRIMARY DISTRIBUTION CENTER, FLOW CONTROL BUILDING, FIRST STAGE BYPASS CONTROL WEIR, SECOND STAGE BYPASS CONTROL WEIR, AND THE TERTIARY BYPASS. SYSTEM OPERATION IS DETAILED IN THIS ARTICLE FOR SEVERAL FLOW RATES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N3

IRIS ACCESSION NUMBER: EW006364

PUBLICATION DATE: MAR 81

TITLE: TYPE A ZEOLITE IN THE ACTIVATED SLUDGE PROCESS--II: HEAVY METAL REMOVAL.

PERSONAL AUTHOR: CARRONDO, MANUEL J. T.
DESCRIPTOR: *ACTIVATED SLUDGE; ANALYTICAL TECHNIQUES; *CASE STUDIES; *HEAVY METALS; *OPERATIONS (WASTEWATER); RESEARCH; SLUDGE; *WASTEWATER TREATMENT; *ZEOLITE

DESCRIPTIVE NOTE: 344-351P.

ABSTRACT: PILOT PLANT STUDIES WERE CONDUCTED OVER A RANGE OF TYPE A ZEOLITE CONCENTRATIONS EXPECTED IN SETTLED WASTEWATER AND AT TWO DEGREES OF CALCIUM EXHANGE FOR SODIUM IN THE ZEOLITE. TWO HYDRAULIC REGIMES ALSO WERE EXAMINED. AN IDENTICAL PILOT PLANT, OPERATING UNDER CONDITIONS IDENTICAL TO THOSE OF THE TEST UNIT AND TO WHICH NO ZEOLITE WAS ADDED, PROVIDED A CONTROL. AT THE HIGH CALCIUM EXCHANGE RATE, NO EFFECT WAS DETECTED ON HEAVY METAL REMOVAL. AT THE LOW CALCIUM EXCHANGE, THE REMOVALS OF CADMIUM, CHROMIUM, NICKEL, AND LEAD WERE UNAFFECTED. THERE ALSO SEEMED TO BE A SLIGHT DETERIORATION IN ZINC REMOVAL AND AN EQUALLY SMALL IMPROVEMENT IN COPPER REMOVAL, BUT THE EVIDENCE FOR BOTH WAS INCONCLUSIVE. ALTHOUGH NOT STUDIED SO INTENSIVELY, THE REMOVAL OF IRON SEEMED TO BE UNAFFECTED BY ZEOLITE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N3

IRIS ACCESSION NUMBER: EW006365

PUBLICATION DATE: MAR 81

TITLE: SOLUBILIZATION OF PARTICULATE ORGANIC CARBON DURING THE ACID PHASE OF ANAEROBIC DIGESTION.

PERSONAL AUTHOR: EASTMAN, JOHN A.; FERGUSON, JOHN F.

DESCRIPTOR: *ANAEROBIC DIGESTION; *ANALYTICAL TECHNIQUES; *CHEMICAL OXYGEN DEMAND; MATHEMATICAL MODELS; *ORGANIC CARBON; *RESEARCH; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 352-366P.

ABSTRACT: ACID PHASE SOLUBILIZATION OF PARTICULATE ORGANIC CARBON WAS INVESTIGATED IN LABORATORY-SCALE ANAEROBIC DIGESTERS WHEN METHANE PRODUCTION WAS SUPPRESSED BY OPERATIONAL CONTROL. THE SOLUBLE CHEMICAL OXYGEN DEMAND OBTAINED FROM DOMESTIC PRIMARY SLUDGE CONSISTED ALMOST EXCLUSIVELY OF VOLATILE FATTY ACIDS, THE DISTRIBUTION OF WHICH WAS AFFECTED BY OPERATION CONDITIONS. VERY LOW CONCENTRATIONS OF HYDROLYSIS INTERMEDIATES WERE FOUND UNDER ALL CONDITIONS, DEMONSTRATING THAT THE RATE-LIMITING STEP IN THE ACID PHASE IS THE HYDROLYSIS OF PARTICULATES, NOT FERMENTATION OF SOLUBLE INTERMEDIATES. A MATHEMATICAL MODEL OF THE ACID PHASE SHOWING GOOD AGREEMENT WITH EXPERIMENTAL DATA WAS DEVELOPED. BIOMASS WAS ESTIMATED USING ADENOSINE TRIPHOSPHATE. CARBOHYDRATES, MOSTLY CELLULOSE, WERE MORE EXTENSIVELY DEGRADED THAN NITROGENOUS MATERIALS. LIPIDS ARE NOT DEGRADED IN THE ACID PHASE. OVERALL, THE ACID PHASE IS CAPABLE OF SOLUBILIZING UP TO 50% OF THE NONLIPID CHEMICAL OXYGEN DEMAND IN DOMESTIC PRIMARY SLUDGE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N3

IRIS ACCESSION NUMBER: EW006366
PUBLICATION DATE: 80

TITLE: THE MANAGEMENT OF HAZARDOUS SUBSTANCES: A SURVEY OF STATE LAWS 1976-1980.

PERSONAL AUTHOR: SIMCOE, BARBARA THERESA

DESCRIPTOR: *DISPOSAL SITES; *ENVIRONMENT; FEDERAL PROGRAMS; *FUNDING; *HAZARDOUS WASTES; *HEALTH; *LEGISLATION; *MANAGEMENT; *REGULATIONS; *STATE LAWS; *TOXICITY; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 160-169P.

ABSTRACT: STRESSED IS THE URGENCY TO IMPLEMENT COMPREHENSIVE HAZARDOUS WASTE MANAGEMENT TECHNOLOGIES TO FORESTALL ANY FURTHER NEGLIGENT DEGRADATION OF THE ENVIRONMENT. DISCUSSED ARE THE SURFACING ILL-EFFECTS PRODUCED AS A RESULT OF PAST IMPROPER WASTE DISPOSAL PRACTICES.

AVAILABILITY: THE ENVIRONMENTAL PROFESSIONAL, V2 N2

IRIS ACCESSION NUMBER: EW006367

PUBLICATION DATE: 80

TITLE: ENVIRONMENTAL EDUCATION: SOME ISSUES AND REFLECTIONS.
PERSONAL AUTHOR: PARK, CHRIS C.

DESCRIPTOR: *CURRICULUM DEVELOPMENT; CRITICAL THINKING; CAREER OPPORTUNITIES; *ENVIRONMENTAL EDUCATION; *EDUCATIONAL PROGRAMS; *EDUCATIONAL NEEDS; ORGANIZATIONS; *PLANNING; *POST SECONDARY EDUCATION; TRAINING

DESCRIPTIVE NOTE: 184-190P.

ABSTRACT: THE MOST SUITABLE TYPES OF ENVIRONMENTAL EDUCATION AND THE TARGET GROUPS FOR WHOM IT IS PLANNED ARE DISCUSSED. THE RANGE OF DIFFERENT APPROACHES TO ENVIRONMENTAL EDUCATION AND THE APPARENT EFFECTIVENESS OF EXISTING SYSTEMS OF ENVIRONMENTAL EDUCATION ARE CONSIDERED.

AVAILABILITY: THE ENVIRONMENTAL PROFESSIONAL, V2 N2

IRIS ACCESSION NUMBER: EW006368

PUBLICATION DATE: APR 81

TITLE: PRIORITY POLLUTANTS PART 2: ANALYTICAL TESTING.

PERSONAL AUTHOR: BRANTNER, KARL A.; POJASEK, ROBERT B.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; ASBESTOS; CYANIDES; *EFFLUENTS; LABORATORY PROCEDURES; METALS; MONITORING; ORGANIC COMPOUNDS; PESTICIDES; POLLUTION; *QUALITY ASSURANCE; *TOXICITY; *WASTEWATER TREATMENT
DESCRIPTIVE NOTE: 30-32P.

ABSTRACT: THE SECOND PART OF A TWO-PART SERIES DESCRIBES THE PROCEDURES USED IN THE ANALYSIS OF POLLUTANTS IN WASTEWATER DISCHARGES AFTER A VALID SAMPLE HAS BEEN PROPERLY COLLECTED.

AVAILABILITY: POLLUTION ENGINEERING, V13 N4

IRIS ACCESSION NUMBER: EW006369

PUBLICATION DATE: APR 81

TITLE: CHAIN AND SCRAPER SLUDGE COLLECTOR MAINTENANCE.

PERSONAL AUTHOR: HUMCKE, MICHAEL W.

DESCRIPTOR: *EQUIPMENT; *FACILITIES; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PLANNING; *PREVENTIVE MAINTENANCE; *SLUDGE COLLECTORS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 34-37P.

ABSTRACT: DESCRIBED IS A MAINTENANCE PROGRAM FOR FORECASTING AND PLANNING REPAIR WORK. IT MINIMIZES THE FREQUENCY AND SEVERITY OF MECHANICAL FAILURE OF WASTEWATER TREATMENT FACILITIES. GUIDELINES TO PROLONG THE LIFE OF A SLUDGE COLLECTOR ARE PRESENTED.
AVAILABILITY: POLLUTION ENGINEERING, V13 N4

IRIS ACCESSION NUMBER: EW006370

PUBLICATION DATE: APR 81

TITLE: SLIP-LINING SOLVES SEWER LEAKING.

PERSONAL AUTHOR: BISSON, BRIAN T.

DESCRIPTOR: *CORROSION; *MAINTENANCE; OPERATIONS (WASTEWATER); *PIPES; POLYPROPYLENE PIPES; *REPAIRS; *SEWERS; *SLIP LINING; *WASTEWATER TREATMENT; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 38-40P.

ABSTRACT: SLIP-LINING WITH POLYPROPYLENE PIPE TO PREVENT SEWER CORROSION AT A WASTEWATER TREATMENT FACILITY IS DESCRIBED. STRESSED IS THE PRELIMINARY PREPARATION REQUIRED TO COMPLETE A PROJECT EFFICIENTLY.

AVAILABILITY: POLLUTION ENGINEERING, V13 N4

IRIS ACCESSION NUMBER: EW006371
PUBLICATION DATE: APR 81

TITLE: WATERMAIN LEAKS -- A PROFIT CENTER?

PERSONAL AUTHOR: FOSTER, WILLIAM S.

DESCRIPTOR: *COST EFFECTIVENESS; COSTS; *LEAK DETECTION; *MAINTENANCE; *OPERATIONS (WATER); *PIPES; *WATER SUPPLY; *WATER MAINS; *WATER PIPES; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 36P.

ABSTRACT: LEAK DETECTION AND REPAIR OF WATER MAINS IS DISCUSSED AS A MONEY SAVING PRACTICE. COST EFFECTIVENESS OF LEAK DETECTION AND BENEFITS TO CUSTOMERS IS PRESENTED.

AVAILABILITY: AMERICAN CITY & COUNTY, V96 N4

IRIS ACCESSION NUMBER: EW006372

PUBLICATION DATE: APR 81

TITLE: FERRET OUT SEWER STOPPAGES.

DESCRIPTOR: *CLEANING; *JET PUMPS; *MAINTENANCE; *PIPES; *SEWERS; *WASTE DISPOSAL; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 65P.

ABSTRACT: THIS JOURNAL ARTICLE DESCRIBES THE USE OF THE "JET-ACTION FERRET" FOR CLEANING OF SEWER PIPES. THE FERRET ATTACHES TO A JETTER HOSE, AND ITS TWO KEY FEATURES ARE THAT ITS CUTTERS RIDE ABOUT A QUARTER OF AN INCH FROM THE INSIDE WALL OF THE PIPE, AND ITS JETS OPERATE AT 2000 PSI.

AVAILABILITY: AMERICAN CITY & COUNTY, V96 N4

IRIS ACCESSION NUMBER: EW006373

PUBLICATION DATE: APR 81

TITLE: 'FOAMING CLEANSER' CLEARS SEWER ROOTS / DIRTY PIPES ARE 'ENERGY EATERS'.

PERSONAL AUTHOR: JOLLY, DONALD G.

DESCRIPTOR: *CLEANING; *CHEMICAL CLEANING; *MAINTENANCE; *PIPES; *SEWERS; WASTE DISPOSAL; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 66-68P.

ABSTRACT: DESCRIBED IS THE USE OF A FOAMING CLEANSER CONSISTING OF METHAM AND DICHLOBENIL ALONG WITH GREASE EMULSIFIERS AND A FOAMING AGENT FOR CLEARING THE SANITARY SEWER SYSTEM IN COLUMBIA HEIGHTS, MINNESOTA. THE FOAM WAS FOUND TO BE EXTREMELY EFFECTIVE IN CLEARING TREE ROOTS, AND COST ABOUT $0.35 PER FOOT TO TREAT A SEWER LINE EIGHT INCHES IN DIAMETER.

AVAILABILITY: AMERICAN CITY & COUNTY, V96 N4

IRIS ACCESSION NUMBER: EW006375

PUBLICATION DATE: APR 81

TITLE: ENERGY CONSERVATION OPPORTUNITIES IN MUNICIPAL WATER AND WASTEWATER SYSTEMS.

PERSONAL AUTHOR: LYSTRA, DONALD W.; AND OTHERS

DESCRIPTOR: CASE STUDIES; *COST EFFECTIVENESS; *ENERGY CONSERVATION; FACILITIES; *MANAGEMENT; *MICHIGAN; MUNICIPALITIES; *OPERATIONS (WASTEWATER); *UTILITIES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 170-177P.

ABSTRACT: MUNICIPAL WATER AND WASTEWATER SYSTEMS HAVE BEEN SHOWN TO BE THE LARGEST ENERGY CONSUMERS IN LOCAL GOVERNMENTS. BY STUDYING UNIT PROCESSES AT FOUR UTILITIES IN THE STATE OF MICHIGAN, THE AUTHORS WERE ABLE TO PINPOINT SEVERAL AREAS IN WHICH SIZABLE ENERGY SAVINGS COULD BE REALIZED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N4

IRIS ACCESSION NUMBER: EW006376

PUBLICATION DATE: APR 81

TITLE: RIGHTS AND LIABILITIES OF WATER SUPPLIERS ARISING FROM GROUNDWATER POLLUTION.

PERSONAL AUTHOR: SELIG, EDWARD I.

DESCRIPTOR: *ACCIDENT PREVENTION; *CONTAMINATION; *GROUNDWATER; LAWS; LEGAL PROBLEMS; *LEGAL RESPONSIBILITIES; POLLUTION CONTROL; *PUBLIC HEALTH; RECOMMENDATIONS; WATER SUPPLIES

DESCRIPTIVE NOTE: 186-187P.

ABSTRACT: TO STEER CLEAR OF TROUBLE FROM CONTAMINATION, WATER SUPPLIERS SHOULD TEST FOR PRIORITY TOXIC POLLUTANTS AND LEARN BOTH THE WASTE DISPOSAL PRACTICES AND GROUNDWATER FLOW SYSTEMS OF THEIR WATERSHEDS, IN ORDER TO FORMULATE AND PURSUE PREVENTATIVE STRATEGIES BEFORE TROUBLE OCCURS. SUCH STRATEGIES MAY INCLUDE REDUCTION OF PUMPING RATES, DEMANDS FOR LAND-USE CONTROLS IN CRITICAL RECHARGE ZONES, AND LAWSUITS FOR DAMAGES AND INJUNCTIONS AGAINST UPSTREAM SOURCES OF CONTAMINATION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N4

IRIS ACCESSION NUMBER: EW006377

PUBLICATION DATE: APR 81

TITLE: CONDUCT AND USES OF JAR TESTS.

PERSONAL AUTHOR: HUDSON, HERBERT E., JR.; WAGNER, E. G.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; COAGULATION; COST EFFECTIVENESS; *DATA COLLECTION; FILTRATION; *JAR TESTS; *LABORATORY EQUIPMENT; *LABORATORY PROCEDURES; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); PRETREATMENT; RESEARCH REPORTS; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 218-223P.

ABSTRACT: IF PROCEDURES THAT SIMULATE TREATMENT PLANT CONDITIONS ARE FOLLOWED, JAR TESTING CAN PRODUCE IMPORTANT INFORMATION QUICKLY AND ECONOMICALLY, AND THE DATA ARE DIRECTLY APPLICABLE TO PLANT DESIGN, MODIFICATION, AND OPERATION. THE PROCEDURE OFFERS GREATER FLEXIBILITY AND ECONOMY THAN THE TRADITIONAL PILOT PLANT TEST FOR PRETREATMENT. IT HAS SHOWN EXCELLENT SCALE-UP CORRELATIONS WITH PLANT OPERATING RECORDS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, V73 N4

IRIS ACCESSION NUMBER: EW006378

PUBLICATION DATE: JUL 80

TITLE: GUIDE FOR THE PREVENTION, CONTROL, AND CLEANUP OF PESTICIDE FIRES.

PERSONAL AUTHOR: WELLS, RICHARD D.

DESCRIPTOR: *ACCIDENT PREVENTION; *FIRES; *FIRST AID; *FIRE PREVENTION; *GUIDES; HAZARDOUS MATERIALS; *PESTICIDES; *FIRES; PLANNING; SAFETY; *TECHNICAL REPORTS; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 11P.

ABSTRACT: GUIDANCE IS PROVIDED FOR PREPLANNING, FIGHTING, AND CLEANING UP OF PESTICIDE FIRES TO AID IN THE REDUCTION OR PREVENTION OF PERSONAL HARM OR ENVIRONMENTAL DAMAGE CAUSED BY A PESTICIDE FIRE EMERGENCY. ALSO INCLUDED ARE BURNING CHARACTERISTICS OF PESTICIDES AND FIRST-AID PROCEDURES IN THE EVENT OF EXPOSURE TO PESTICIDES.

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

IRIS ACCESSION NUMBER: EW006379

PUBLICATION DATE: JUL 80

TITLE: ENVIRONMENTAL AND CHEMICAL ANALYSIS TECHNICIAN CURRICULUM PLANNING GUIDE.

DESCRIPTOR: *CURRICULUM GUIDES; *CURRICULUM PLANNING; *CHEMICAL ANALYSIS; *ENVIRONMENT; *JOB SKILLS; *POST SECONDARY EDUCATION; *SKILL DEVELOPMENT; *TEACHING GUIDES; TECHNICAL EDUCATION

DESCRIPTIVE NOTE: 265P.

ABSTRACT: THE ENVIRONMENTAL AND CHEMICAL ANALYSIS TECHNICIAN (ECAT) CURRICULUM PLANNING GUIDE IS ONE OF THREE SUCH GUIDES DEVELOPED AS PART OF PROJECT RP 1266-6 , EDUCATIONAL RESEARCH IN SOLID FUEL TECHNOLOGY. THE FIRST PHASE OF THE PROJECT INCLUDED A NEEDS ASSESSMENT SURVEY TO DETERMINE THE NUMBER OF ENTRY-LEVEL EMPLOYEES REQUIRED AS ENVIRONMENTAL AND CHEMICAL ANALYSIS TECHNICIANS. THE NEED FOR 2900 TECHNICIANS OVER THE NEXT DECADE WARRANTS THE DEVELOPMENT OF A SPECIAL ECAT CURRICULUM. A DETAILED TASK INVENTORY OF THE SKILLS AND KNOWLEDGE USED BY ECAT'S IN THE SAFE AND EFFICIENT PERFORMANCE OF THEIR JOBS HAS BEEN COMPLETED. THE TASK INVENTORY FORMS THE BASIS OF A TWO YEAR CURRICULUM PRESENTED IN THIS DOCUMENT. COURSE AND MODULE OUTLINES ARE INCLUDED WHICH HAVE BEEN FORMULATED TO PROVIDE STUDENTS WITH ENTRY-LEVEL SKILLS AND THE BACKGROUND NECESSARY FOR FURTHER ADVANCEMENT.

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

IRIS ACCESSION NUMBER: EW006381

PUBLICATION DATE: 76

TITLE: PUMP HANDBOOK.

PERSONAL AUTHOR: KARASSIK, IGOR J.; AND OTHERS

DESCRIPTOR: *APPLICATION; CENTRIFUGAL PUMPS; *DESIGN; DISPLACEMENT PUMPS; *HANDBOOK; JET PUMPS; *MAINTENANCE; PIPES; *PUMPS; *REFERENCE MATERIALS; TESTING; VALUES

DESCRIPTIVE NOTE: 1058P. PRICE: $36.00

ABSTRACT: THIS DETAILED REFERENCE TEXT EXAMINES THE DESIGN, APPLICATION, SPECIFICATION, OPERATION, AND MAINTENANCE OF A GREAT VARIETY OF PUMPS. CHAPTERS INCLUDE: CLASSIFICATION OF PUMPS; CENTRIFUGAL PUMPS; DISPLACEMENT PUMPS; JET PUMPS; MATERIALS OF CONSTRUCTION; PUMP DRIVERS; PUMP CONTROLS AND VALVES; SUPERVISORY AND MONITORING INSTRUMENTATION; PUMP SYSTEMS; PUMP SERVICES; INTAKES AND SUCTION PIPING; SELECTING AND PURCHASING PUMPS; INSTALLATION; OPERATION, AND MAINTENANCE; AND PUMP TESTING.

AVAILABILITY: MCGRAW-HILL BOOK COMPANY, P. O. BOX 400, HIGHTSTOWN, NJ 08520

IRIS ACCESSION NUMBER: EW006382

PUBLICATION DATE: AUG 80

TITLE: AN APPROACH TO WATER RESOURCES EVALUATION OF NON-POINT SILVICULTURAL SOURCES (A PROCEDURAL HANDBOOK).

DESCRIPTOR: ANALYTICAL TECHNIQUES; *ENVIRONMENTAL IMPACTS; EVALUATION; *FORESTRY; GUIDELINES; *HANDBOOKS; *MANAGEMENT ACTIVITIES; *NON POINT SOURCES; POLLUTION CONTROL; *SILVICULTURE; *WATER RESOURCES

DESCRIPTIVE NOTE: 847P. PB81-119828

ABSTRACT: THIS HANDBOOK PROVIDES AN ANALYSIS METHODOLOGY THAT CAN BE USED TO DESCRIBE AND EVALUATE CHANGES TO THE WATER RESOURCES RESULTING FROM NON-POINT SILVICULTURAL ACTIVITIES. IT COVERS ONLY THE POLLUTANT GENERATION AND TRANSPORT PROCESSES AND DOES NOT CONSIDER THE ECONOMIC, SOCIAL, AND POLITICAL ASPECTS OF POLLUTION CONTROL. THIS HANDBOOK ALSO PROVIDES QUANTITATIVE TECHNIQUES FOR ESTIMATING POTENTIAL CHANGES IN STREAMFLOW, SURFACE EROSION, SOIL MASS MOVEMENT, TOTAL POTENTIAL SEDIMENT DISCHARGE, AND TEMPERATURE. QUALITATIVE DISCUSSIONS OF THE IMPACTS OF SILVICULTURAL ACTIVITIES ON DISSOLVED OXYGEN, ORGANIC MATTER, NUTRIENTS, AND INTRODUCED CHEMICALS ARE INCLUDED. A CONTROL SECTION PROVIDES A LIST OF CONTROL PRACTICES THAT HAVE BEEN USED EFFECTIVELY AND A METHODOLOGY FOR SELECTING MIXTURES OF THESE CONTROLS FOR THE PREVENTION AND MITIGATION OF WATER RESOURCE IMPACTS.

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

IRIS ACCESSION NUMBER: EW006383

PUBLICATION DATE: APR 80

TITLE: CONSTRUCTION COSTS FOR MUNICIPAL WASTEWATER TREATMENT PLANTS: 1973-1978.

DESCRIPTOR: *CONSTRUCTION; *COSTS; *CONSTRUCTION COSTS; *FACILITIES; *TECHNICAL REPORTS; *WATER POLLUTION CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 129P. PB81-118697

ABSTRACT: THIS REPORT PRESENTS THE COSTS ASSOCIATED WITH THE CONSTRUCTION OF PUBLICLY OWNED WASTEWATER TREATMENT FACILITIES. THESE COSTS ARE ALL DERIVED FROM THE ACTUAL WINNING BID DOCUMENTS FOR TREATMENT PLANTS ELIGIBLE TO RECEIVE MONIES FROM THE CONSTRUCTION GRANTS PROGRAM OF THE EPA. ONLY PLANTS FUNDED UNDER THE FEDERAL WATER POLLUTION CONTROL ACT AND ITS AMENDED VERSION ARE A PART OF THE DATA BASE.

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

IRIS ACCESSION NUMBER: EW006385

PUBLICATION DATE: DEC 80

TITLE: STUDENT HANDBOOK FOR WATER DISTRIBUTION OPERATORS - GRADE D.

PERSONAL AUTHOR: FRIEDMAN, A. A.; JENNETTE, J. CHARLES

DESCRIPTOR: DISINFECTION; *EQUIPMENT; EMERGENCIES; *FACILITIES; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *PLANNING; SAFETY; *STANDARDS; *TROUBLE SHOOTING; *WATER MAINS; *WATER DISTRIBUTION; *WATER TREATMENT; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 83P.

ABSTRACT: THIS COURSE IS TO FAMILIARIZE THE POTIENTIAL WATER FACILITY OPERATOR WITH BOTH WATER DISTRIBUTION SYSTEM REQUIREMENTS AND OPERATOR CERTIFICATION REQUIREMENTS. SUBJECTS INCLUDED ARE; (1) SUSPENSION SOLUTION; (2) DISEASE; (3) WATER SYSTEMS DEFECTS; (4) DISINFECTION OF WATER MAINS; (5) DAILY WATER USE GRAPH; (6) SAMPLE MAINTENANCE LOG CARD; AND (7) COMMON EMERGENCIES.

AVAILABILITY: CIVIL ENGINEERING, SYRACUSE UNIVERSITY, SYRACUSE, NY 13210

IRIS ACCESSION NUMBER: EW006386

TITLE: ACTIVATED SLUDGE TECHNOLOGY.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ACTIVATED SLUDGE; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WASTEWATER); POST SECONDARY EDUCATION; *SAFETY; SLUDGE; *WASTEWATER TREATMENT

ABSTRACT: REVIEWED ARE PROCEDURES REQUIRED TO OPERATE AND MAINTAIN A WASTEWATER TREATMENT FACILITY. EMPHASIZED IS ACTIVATED SLUDGE TECHNOLOGY. CONTENTS INCLUDE: (1) TERMINOLOGY; (2) CALCULATION FORMULAS; (3) PROCESS CONTROL STRATEGIES; (4) MICROORGANISMS; (5) STANDARD OPERATING PROCEDURES; AND (6) SAFETY PROGRAMS.

AVAILABILITY: NYSDEC, BUREAU OF TRAINING AND DEVELOPMENT, 50 WOLF ROAD, ALBANY, NY 12233 TELEPHONE (518) 457-6610

IRIS ACCESSION NUMBER: EW006388

PUBLICATION DATE: APR 81

TITLE: PESTICIDES.

PERSONAL AUTHOR: SHERMA, JOSEPH; ZWEIG, GUNTER

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIBLIOGRAPHIES; *LABORATORY PROCEDURES; *LITERATURE REVIEWS; *MONITORING; *PESTICIDES; *PUBLIC HEALTH; RESEARCH; *SAMPLING

DESCRIPTIVE NOTE: 77R-88RP.

ABSTRACT: REVIEWED IS LITERATURE ON PESTICIDE ANALYSIS FOR THE PERIOD OF SEPTEMBER 1978 TO SEPTEMBER 1980. INCLUDED ARE HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY, GAS CHROMATOGRAPHY, MASS SPECTROMETRY INTERFACE ANALYSIS, AND AUTOMATED ANALYSIS.

AVAILABILITY: ANALYTICAL CHEMISTRY, V53 N5

IRIS ACCESSION NUMBER: EW006389
PUBLICATION DATE: APR 81

TITLE: WATER ANALYSIS.

PERSONAL AUTHOR: FISHMAN, M. J.; AND OTHERS

DESCRIPTOR: *ANALYTICAL CHEMISTRY; *CHEMISTRY; *ANALYTICAL TECHNIQUES; *BIBLIOGRAPHIES; *LITERATURE REVIEWS; *LABORATORY PROCEDURES; METALS; *ORGANIC COMPOUNDS; POLLUTION; *PUBLIC HEALTH; *SAMPLING; STANDARDS; *WATER QUALITY; *WATER ANALYSIS; *WATER CHARACTERISTICS

DESCRIPTIVE NOTE: 182R-214RP.

ABSTRACT: PRESENTED IS A LITERATURE REVIEW OF ANALYTICAL CHEMISTRY APPLIED TO WATER ANALYSIS WHICH COVERS THE PERIOD FROM OCTOBER, 1978 THROUGH SEPTEMBER, 1980. TOPICS INCLUDE ANALYSIS OF THE PHYSICAL, INORGANIC, AND ORGANIC CONSTITUENTS OF WATER POLLUTION.

AVAILABILITY: ANALYTICAL CHEMISTRY; V53 N5

IRIS ACCESSION NUMBER: EW006390

PUBLICATION DATE: MAY 80

TITLE: CONTROLLING HAZARDOUS WASTES RESEARCH SUMMARY.

PERSONAL AUTHOR: SCHAEFER, MARK

DESCRIPTOR: EMERGENCY PROGRAMS; *HAZARDOUS WASTES; IDENTIFICATION; *MANAGEMENT; MONITORING; *POLLUTANTS; *RESEARCH REPORTS; TECHNOLOGICAL ADVANCEMENTS; *TOXIC SUBSTANCES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 24P. PB80-194202

ABSTRACT: THIS BROCHURE CONTAINS A CONCISE DESCRIPTION OF USEPA'S HAZARDOUS WASTES RESEARCH PROGRAM. THE 3-PART DISCUSSION FOCUSES ON HAZARDOUS WASTES IDENTIFICATION, EMERGENCY RESPONSE, AND LONG-TERM CONTROL TECHNOLOGIES.

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

IRIS ACCESSION NUMBER: EW006391

PUBLICATION DATE: 80

TITLE: PLASTIC-PACKED TRICKLING FILTERS.

PERSONAL AUTHOR: SARNER, ERIK

DESCRIPTOR: DOMESTIC WASTES; *EQUIPMENT; EVALUATION; *FACILITIES; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *RESEARCH; TECHNOLOGICAL ADVANCEMENTS; *TEXTBOOKS; *TRICKLING FILTERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 226P. PRICE: $12.50
ABSTRACT: THIS BOOK OFFERS THE LATEST RESEARCH ON THE PURIFICATION PROCESS IN HIGH-RATE PLASTIC-PACKED TRICKLING FILTERS TREATING DOMESTIC SEWAGE. ACTUAL RESULTS OF A STUDY MADE AT A SEWAGE PLANT ARE INCLUDED. CONTENTS INCLUDE: SURVEY OF THE LITERATURE; EQUIPMENT AND EXPERIMENTAL PROCEDURES; RAW SEWAGE QUALITY; EXPERIMENTAL RESULTS - TRICKLING FILTERS; EXPERIMENTAL RESULTS - CHEMICAL POST-PRECIPITATION; TOTAL EFFICIENCY OF THE SYSTEM; PRETREATMENT - TRICKLING FILTER - CHEMICAL PRECIPITATION; AND THE ECONOMY OF PLASTIC-PACKED TRICKLING FILTERS VERSUS ACTIVATED SLUDGE TREATING DOMESTIC SEWAGE.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, INC., THE BUTTERWORTH GROUP, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006392

PUBLICATION DATE: JAN 81

TITLE: CHEMICAL AND NON-CHEMICAL DISINFECTION.

PERSONAL AUTHOR: CHEREMISINOFF, N. P.; AND OTHERS

DESCRIPTOR: *CHEMICAL TREATMENT; CHLORINATION; *DISINFECTION; *INSTRUCTIONAL MATERIALS; *NON-CHEMICAL DISINFECTION; OZONE; *TECHNOLOGICAL ADVANCEMENTS; *TEXTBOOKS; *WASTEWATER TREATMENT; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 172P. PRICE: $29.50

ABSTRACT: THIS TEXT IS A GUIDE TO WATER AND WASTEWATER TREATMENT FOR CHEMISTS AND CHEMICAL ENGINEERS, ENVIRONMENTAL AND POLLUTION CONTROL ENGINEERS, AND ALL TYPES OF WATER-TREATMENT PERSONNEL. IT OFFERS AN IN-DEPTH BACKGROUND TO CHEMICAL DISINFECTION AND DESCRIBES THE ACCEPTED BASES FOR THIS COMMONLY ACCEPTED FORM OF DISINFECTION. THE EMPHASIS OF THIS BOOK IS ON NON-CHEMICAL DISINFECTION. SECTIONS INCLUDE: BIOLOGY OF AQUATIC SYSTEMS; DISINFECTION BY CHLORINATION; DISINFECTION WITH INTERHALOGENS AND HALOGEN MIXTURES; WASTEWATER DISINFECTION USING OZONE; ELECTROMAGNETIC RADIATION TECHNIQUES; ULTRAVIOLET DISINFECTION; DISINFECTION WITH SOUND; ULTRAFILTRATION; REVERSE OSMOSIS AND FREEZE CONCENTRATION; AND THERMAL DISINFECTION.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, INC., THE BUTTERWORTH GROUP, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006393

PUBLICATION DATE: MAR 81

TITLE: SLUDGE AND ITS ULTIMATE DISPOSAL.

PERSONAL AUTHOR: BORCHARDT, JACK A.

DESCRIPTOR: ECONOMIC FACTORS; *INDUSTRIAL WASTES; LAND APPLICATION; *MANAGEMENT; MONITORING; POLLUTION CONTROL;

REGULATIONS; SLUDGE; *SLUDGE DISPOSAL; *TEXTBOOKS; TOXICOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 286P. PRICE: $37.50

ABSTRACT: THIS BOOK ASSESSES REASONABLE AND ECONOMIC SOLUTIONS FOR THE DISPOSAL OF THE FINAL CONCENTRATED POLLUTANTS FOUND IN WATER AND WASTEWATER AS A RESULT OF THEIR GENERATION IN INDUSTRY. ALSO PRESENTED ARE THE CHEMICAL ASPECTS, TOXICOLOGICAL PROBLEMS, AND ADMINISTRATIVE DIFFICULTIES INVOLVED IN SLUDGE DISPOSAL. SECTIONS INCLUDE: SLUDGE MANAGEMENT -- TECHNICAL ASPECTS; SLUDGE CHARACTERISTICS, COMPOSITION, AND ANALYSIS; LAND DISPOSAL; MONITORING THE ENVIRONMENT; AND FEDERAL REGULATORY CONSIDERATIONS IN SLUDGE DISPOSAL.

AVAILABILITY: ANN ARBOR SCIENCE PUBLISHERS, INC., THE BUTTERWORTH GROUP, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006394

PUBLICATION DATE: AUG 79

TITLE: ESTIMATING WATER TREATMENT COSTS, VOLUME 4 - COMPUTER USER'S MANUAL FOR RETRIEVING AND UPDATING COST DATA.

PERSONAL AUTHOR: LINECK, THOMAS S.; AND OTHERS

DESCRIPTOR: CONSTRUCTION; *COSTS; *CONTAMINANTS; *COMPUTER PROGRAMS; *DRINKING WATER; *ECONOMIC FACTORS; ENERGY; MAINTENANCE; *OPERATIONS (WATER); *REPORTS; *SAFE DRINKING WATER ACT; *UNIT PROCESSES; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: 88P. EPA 600/2-79-162D

ABSTRACT: THIS REPORT DISCUSSES UNIT PROCESSES AND COMBINATIONS OF UNIT PROCESSES THAT ARE CAPABLE OF REMOVING CONTAMINANTS INCLUDED IN THE NATIONAL INTERIM PRIMARY DRINKING WATER REGULATIONS. CONSTRUCTION AND OPERATION AND MAINTENANCE COST CURVES ARE PRESENTED FOR 99 UNIT PROCESSES THAT ARE CONSIDERED TO BE ESPECIALLY APPLICABLE TO CONTAMINANT REMOVAL. THE REPORT IS DIVIDED INTO FOUR VOLUMES. VOLUME 1 IS A SUMMARY VOLUME. VOLUME 2 PRESENTS COST CURVES APPLICABLE TO LARGE WATER SUPPLY SYSTEMS WITH TREATMENT CAPACITIES BETWEEN 1 AND 200 MGD, AS WELL AS INFORMATION ON VIRUS AND ASBESTOS REMOVAL. VOLUME 3 INCLUDES COST CURVES APPLICABLE TO FLOWS OF 2500 GPD TO 1 MGD. VOLUME 4 IS A COMPUTER PROGRAM USER'S MANUAL FOR THE CURVES INCLUDED IN THE REPORT.

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

IRIS ACCESSION NUMBER: EW006395

TITLE: FINAL TASK II REPORT - DEVELOP A RESIDENTIAL WATER CONSERVATION HANDBOOK AND INFORMATION DISSEMINATION PLAN.

DESCRIPTOR: ANNOTATED BIBLIOGRAPHIES; *CONSERVATION EDUCATION; *CONSUMER EDUCATION; EVALUATION; *INFORMATION DISSEMINATION; *LITERATURE REVIEWS; PERFORMANCE SPECIFICATIONS; *RESEARCH REPORTS; *WATER SUPPLY; *WATER CONSERVATION

ABSTRACT: THIS PUBLICATION IS A REPORT ON A LITERATURE REVIEW/DATA COLLECTION EFFORT PREREQUISITE TO THE DEVELOPMENT OF A CONSUMER HANDBOOK ON WATER CONSERVATION AIMED AT HOMEOWNERS AND TENANTS. DATA COLLECTED INCLUDE WATER CONSERVATION TIPS, PERFORMANCE STANDARDS AND REQUIREMENTS FOR WATER CONSERVATION DEVICES AND APPLIANCES, CURRENT COST INFORMATION ON TIPS, DEVICES AND APPLIANCES, POTENTIAL COST SAVINGS, PLUMBING REPAIRS AND MODIFICATIONS, REGIONAL WATER USE DATA, AND PUBLIC INFORMATION/EDUCATION CAMPAIGNS FOR WATER CONSERVATION. THIS REPORT ALSO CONTAINS AN ANNOTATED BIBLIOGRAPHY, MANUFACTURERS/DISTRIBUTORS OF WATER CONSERVATION PRODUCTS, AND EVALUATION OF PRODUCTS.

AVAILABILITY: PABON, SIMS, SMITH AND ASSOCIATES, INC., 1435 G. STREET N.W., SUITE #603, WASHINGTON, DC 20005

IRIS ACCESSION NUMBER: EW006396

PUBLICATION DATE: JAN 81

TITLE: PROGRAM REQUIREMENTS MEMORANDA FOR FISCAL YEAR 1981. MUNICIPAL WASTEWATER TREATMENT WORKS CONSTRUCTION GRANTS PROGRAM.

DESCRIPTOR: *CONSTRUCTION GRANTS PROGRAM; *COSTS; *FACILITIES; *FEDERAL PROGRAMS; *GRANTS; MUNICIPAL WASTES; *MANUALS; *PROGRAM MEMORANDA; *PROGRAM DESCRIPTIONS; POLLUTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 225P.

ABSTRACT: THIS BOOKLET CONTAINS ALL PROGRAM REQUIREMENTS MEMORANDA (PRMS) TO WHICH ALL EDA AND HUD ASSISTED PROJECTS MUST CONFORM. THESE REQUIREMENTS ARE EFFECTIVE IN FISCAL YEAR 1981 BEGINNING WITH JANUARY 1981. INCLUDED ARE PRMS 81-1 AND 81-2 WHICH WERE APPROVED AFTER THE LAST SET OF PRMS WERE PUBLISHED (MCD 02.10). REMOVED FROM THIS COMPILATION ARE THOSE PRMS WHICH WERE SUPERCEDED BY LATER REGULATIONS OR PRMS OR OTHERWISE OUTDATED.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW006397

PUBLICATION DATE: 80

TITLE: ENVIRONMENTAL PROTECTION CAREERS GUIDEBOOK.

DESCRIPTOR: AIR POLLUTION CONTROL; *CAREER OPPORTUNITIES; *CAREER EXPLORATION; *EMPLOYMENT OPPORTUNITIES; *ENVIRONMENT; JOB SKILLS; NATURAL RESOURCES; NOISE; *OCCUPATIONAL INFORMATION; *POST SECONDARY EDUCATION; POLLUTION; RADIATION; SOLID WASTES; TOXIC SUBSTANCES; WATER POLLUTION CONTROL; WILDLIFE MANAGEMENT

DESCRIPTIVE NOTE: 205P.
ABSTRACT: THIS HANDBOOK DESCRIBES CURRENT PROBLEMS IN ENVIRONMENTAL PROTECTION, PREDICTS TRENDS FOR THE FUTURE, AND GIVES A LARGE LISTING OF CAREER DESCRIPTIONS PERTAINING TO ENVIRONMENTAL PROTECTION. EACH CAREER DESCRIPTION IS LISTED UNDER ITS PREFERRED OCCUPATIONAL TITLE. ALTERNATE TITLES BY WHICH THE CAREER IS KNOWN ARE ALSO LISTED, ALONG WITH A DESCRIPTION OF MAJOR JOB DUTIES, PLACES OF EMPLOYMENT, AND AREAS OF SPECIALIZATION WITHIN THE FIELD. THE OCCUPATIONS ARE GROUPED ACCORDING TO TYPES OF ENVIRONMENTAL PROBLEMS. THESE GROUPINGS INCLUDE WATER AND WASTEWATER, NOISE CONTROL, AIR RESOURCE MANAGEMENT, LAND, FISH AND WILDLIFE MANAGEMENT, PESTICIDES AND TOXIC SUBSTANCES, SOLID WASTE MANAGEMENT, RADIATION CONTROL, AND OTHER ENVIRONMENTAL ACTIVITIES.

AVAILABILITY: U. S. DEPARTMENT OF LABOR, EMPLOYMENT AND TRAINING ADMINISTRATION, WASHINGTON, DC 20213

IRIS ACCESSION NUMBER: EW006398

PUBLICATION DATE: 79

TITLE: INTRODUCTION TO WATER SOURCES AND TRANSMISSION - VOLUME 1.

DESCRIPTOR: EQUIPMENT; HYDROLOGY; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *TEXTBOOKS; TRAINING PROGRAMS; *WATER TREATMENT; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 168P. PRICE: $6.00

ABSTRACT: THIS TEXT IS THE FIRST VOLUME IN A FIVE-PART SERIES DESIGNED FOR USE IN A COMPREHENSIVE TRAINING PROGRAM TITLED "PRINCIPLES AND PRACTICES OF WATER SUPPLY OPERATIONS". THIS VOLUME CONTAINS BACKGROUND INFORMATION ON WATER SOURCES AND CHARACTERISTICS, FACTORS INFLUENCING WATER DEMAND, THE DEVELOPMENT OF WATER SOURCES, AND TRANSMISSION SYSTEMS. COURSE CONTENT OF THIS SERIES HAS BEEN SPECIFICALLY DESIGNED TO MEET THE TRAINING REQUIREMENTS OF BASIC TO INTERMEDIATE GRADE WATER TREATMENT AND WATER DISTRIBUTION OPERATORS. A MODULAR FORMAT HAS BEEN DEVELOPED THROUGHOUT THE SERIES TO PROVIDE FLEXIBILITY IN CONDUCTING SHORT OR LONG TERM TRAINING COURSES.

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

IRIS ACCESSION NUMBER: EW006399

PUBLICATION DATE: 79

TITLE: INSTRUCTOR GUIDE AND SOLUTIONS MANUAL - VOLUME 1 INTRODUCTION TO WATER SOURCES AND TRANSMISSION.

DESCRIPTOR: EQUIPMENT; HYDROLOGY; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *TEACHING GUIDES; TRAINING PROGRAMS; *WATER DISTRIBUTION; *WATER TREATMENT; *WATER RESOURCES; *WATER SUPPLY
DESCRIPTIVE NOTE: PRICE: $30.00

ABSTRACT: THIS INSTRUCTOR'S GUIDE CONTAINS THE NECESSARY RESOURCE MATERIAL FOR TEACHING AND EVALUATING STUDENT PERFORMANCE FOR THE ACCOMPANYING TEXT "INTRODUCTION TO WATER SOURCES AND TRANSMISSION." INCLUDED IN THIS GUIDE AND THE TEXT ARE THE FOLLOWING FOUR MODULES OF INSTRUCTION: SOURCES AND CHARACTERISTICS; WATER USE; DEVELOPING THE WATER SUPPLY; AND WATER TRANSMISSION. THIS GUIDE CONTAINS 15 COMPLETE LESSON PLANS AND TESTS FOR THESE FOUR MODULES.

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

IRIS ACCESSION NUMBER: EW006400

PUBLICATION DATE: 80

TITLE: REFERENCE HANDBOOK BASIC SCIENCE CONCEPTS AND APPLICATIONS - PRINCIPLES AND PRACTICES OF WATER SUPPLY OPERATIONS.

DESCRIPTOR: *APPLIED SCIENCE; *CHEMISTRY; *ELECTRICITY; *HYDRAULICS; *INSTRUCTIONAL MATERIALS; *MATHEMATICS; *OPERATIONS (WATER); SCIENCE EDUCATION; *TEXTBOOKS; *WATER RESOURCES; *WATER SUPPLY; WATER TREATMENT

DESCRIPTIVE NOTE: 751P. PRICE: $18.50

ABSTRACT: THIS TEXT HAS BEEN DEVELOPED AS A SUPPLEMENTARY REFERENCE BOOK TO ACCOMPANY VOLUMES 1 THROUGH 4 OF THE "PRINCIPLES AND PRACTICES OF WATER SUPPLY OPERATIONS" COURSE OF STUDY. THE SECTIONS OF THIS REFERENCE BOOK -- MATHEMATICS, HYDRAULICS, CHEMISTRY, AND ELECTRICITY -- PROVIDE EXTENDED DISCUSSIONS OF THE PRINCIPLES AND OPERATIONAL CALCULATIONS RELATED TO SELECTED TOPICS IN THE FOUR VOLUMES.

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

IRIS ACCESSION NUMBER: EW006401

PUBLICATION DATE: APR 81

TITLE: SLUDGE TREATMENT/HANDLING PRELIMINARY TREATMENT, AND INSTRUMENTATION TOP O & M PROBLEM LIST.

PERSONAL AUTHOR: HADEED, SAM J.

DESCRIPTOR: *EQUIPMENT; ENGINEERING; *FACILITIES; *INSTRUMENTATION; *MAINTENANCE; *MONITORING; *OPERATIONS (WASTEWATER); *PLANNING; *PROBLEMS; *PROBLEM IDENTIFICATION; SLUDGE; SAFETY; *TRAINING; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 412-420P.

ABSTRACT: ANALYZED ARE OPERATION AND MAINTENANCE PROBLEMS OF WASTEWATER TREATMENT PLANTS BASED ON SIZE AND FACILITY TYPE. ONSITE TRAINING AND ASSISTANCE FOR OPERATORS TO IDENTIFY PROBLEM SOURCES ARE SUGGESTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N4

IRIS ACCESSION NUMBER: EW006402

PUBLICATION DATE: APR 81

TITLE: THE MANY USES OF REMOTE SENSING.

PERSONAL AUTHOR: KISH, TONY

DESCRIPTOR: COST EFFECTIVENESS; *DATA COLLECTION; *ENGINEERING; *INSTRUMENTATION; *LAND USE; *MONITORING; *MEASUREMENT TECHNIQUES; *PHOTOGRAPHY; *POLLUTION; *REMOTE SENSING; *WATER QUALITY

DESCRIPTIVE NOTE: 420-425P.

ABSTRACT: REMOTE SENSING CAN BE USED TO MONITOR THE EARTH'S LAND, AIR, AND WATER SYSTEMS. PRESENT AND FUTURE USES OF ELECTRONIC INSTRUMENTS ABOARD SATELLITES OR AIRPLANES TO STUDY WATER PARAMETERS ARE EMPHASIZED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N4

IRIS ACCESSION NUMBER: EW006403

PUBLICATION DATE: APR 81

TITLE: OPERATOR TRAINING IS KEY TO OXIDATION DITCH START-UP AND OPERATION.

PERSONAL AUTHOR: SANKS, ROBERT L.; CONNELL, JOHN E.

DESCRIPTOR: *DESIGN; *INSTRUCTIONAL MATERIALS; *MONITORING; *OXIDATION DITCHES; *OPERATIONS (WASTEWATER); *PROGRAM DEVELOPMENT; *START-UP; *TROUBLESHOOTING; *TRAINING; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 444-450P.

ABSTRACT: THE NEED FOR EFFICIENT OPERATIONS TO PRODUCE HIGH QUALITY EFFLUENTS IS EMPHASIZED. PROGRAMS INCLUDE OPERATION AND MAINTENANCE MANUALS, HANDS-ON TRAINING, COOPERATIVE EXPERIMENTATION, AND MONITORING OF RESULTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N4

IRIS ACCESSION NUMBER: EW006404

PUBLICATION DATE: APR 81

TITLE: START-UP AND OPERATION OF AN OXYGEN-ACTIVATED ADVANCED WASTEWATER TREATMENT SYSTEM.

PERSONAL AUTHOR: JOHNSON, JAMES A.

DESCRIPTOR: ADVANCED WASTEWATER TREATMENT; *ACTIVATED SLUDGE; CHLORINATION; *DESIGN; *EQUIPMENT; *ENGINEERING; *FACILITIES; *MAINTENANCE; *OPERATIONS (WASTEWATER); PUMPS; PROJECT PLANNING; *START-UP; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 451-456P.

ABSTRACT: DISCUSSED IS THE INITIATION OF A FACILITY AND ITS SUBSEQUENT PLANT OPERATIONS AND PERFORMANCE TO TREAT MUNICIPAL AND INDUSTRIAL WASTEWATER. THE DISTRICT'S SYSTEM USES ADVANCED OXYGEN ACTIVATED SLUDGE TREATMENT.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N4

IRIS ACCESSION NUMBER: EW006405

PUBLICATION DATE: APR 81

TITLE: STABILITY OF ACTIVATED SLUDGE PROCESSES BASED ON STATISTICAL MEASURES.

PERSONAL AUTHOR: NIKU, SALAR; SCHROEDER, EDWARD D.

DESCRIPTOR: *ACTIVATED SLUDGE; EFFLUENTS; *ENGINEERING; INDUSTRIAL WASTES; LABORATORY TECHNIQUES; MATHEMATICAL MODELS; *OPERATIONS (WASTEWATER); *STATISTICS; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 457-470P.

ABSTRACT: PRESENTED IS AN EVALUATION OF THE STABILITY OF ACTIVATED SLUDGE WASTEWATER TREATMENT PROCESSES BASED ON STATISTICAL MEASURES. A NEW METHOD TO DEFINE AND COMPARE THE STABILITY OF THESE PROCESSES IS REVIEWED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N4

IRIS ACCESSION NUMBER: EW006406

PUBLICATION DATE: APR 81

TITLE: DISCHARGE STANDARDS BASED ON GEOMETRIC MEAN.

PERSONAL AUTHOR: NIKU, SALAR; AND OTHERS

DESCRIPTOR: *EFFLUENTS; *MONITORING; *MEASUREMENT; *OPERATIONS (WASTEWATER); *REGULATIONS; *STANDARDS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 471-473P.
ABSTRACT: EXAMINED IS THE APPROPRIATENESS OF EFFLUENT STANDARDS AS THEY ARE CURRENTLY ESTABLISHED FOR WASTEWATER TREATMENT FACILITIES. UTILIZATION OF THE GEOMETRIC MEAN CONCENTRATE VALUE IS COMPARED TO CURRENT MATHEMATICAL PROCEDURES FOR SETTING DISCHARGE GUIDELINES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N4

IRIS ACCESSION NUMBER: EW006407

PUBLICATION DATE: APR 81

TITLE: UPGRADING WITH ROTATING BIOLOGICAL CONTACTORS FOR BOD REMOVAL.

PERSONAL AUTHOR: POON, CALVIN P. C.; AND OTHERS

DESCRIPTOR: *BIOLOGICAL CONTACTORS; *BOD; *DESIGN; *EQUIPMENT; *FACILITIES; *OPERATIONS (WASTEWATER); *ROTATING BIOLOGICAL CONTACTORS; SECONDARY TREATMENT; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 474-481P.

ABSTRACT: THE APPLICATION AND PERFORMANCE OF A ROTATING BIOLOGICAL CONTACTORS PILOT TREATMENT UNIT FOR TRICKLING FILTERS IS DESCRIBED. IT CAN BE USED TO IMPROVE THE EFFLUENT QUALITY OF SECONDARY WASTEWATER PLANTS.
AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N4

IRIS ACCESSION NUMBER: EW006408

PUBLICATION DATE: APR 81

TITLE: MUNICIPAL WASTEWATER TREATMENT WITH THE ANAEROBIC ATTACHED MICROBIAL FILM EXPANDED BED PROCESS.

PERSONAL AUTHOR: JEWELL, WILLIAM J.; AND OTHERS

DESCRIPTOR: *ANAEROBIC PROCESSES; *DESIGN; *EQUIPMENT; *OPERATIONS (WASTEWATER); *SLUDGE; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 482-490P.

ABSTRACT: A NEW, BIOLOGICAL ENERGY PRODUCING PROCESS THAT PRODUCES LITTLE OR NO EXCESS SLUDGE IS DESCRIBED. IMPLEMENTATION OF AN ANAEROBIC EXPANDED BED PROCESS TO OVERCOME PREVIOUS LIMITATIONS OF ANAEROBIC PROCESSES IS INDICATED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N4

IRIS ACCESSION NUMBER: EW006409
PUBLICATION DATE: APR 81

TITLE: ONE TECHNIQUE FOR ESTIMATING INFLOW WITH SURCHARGE CONDITIONS.

PERSONAL AUTHOR: NOGAJ, RICHARD J.; HOLLENBECK, ALAN J.

DESCRIPTOR: *FLOW MEASUREMENT; *FACILITIES; *INFLOW; *MAINTENANCE; *MEASUREMENT; *OPERATIONS (WASTEWATER); *STORMWATER; *SURFACE RUNOFF; *SURCHARGE CONDITIONS; *WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 491-496P.

ABSTRACT: INTRODUCED IS A TECHNIQUE FOR DETERMINING THE EXTENT SEWERS AND WASTEWATER TREATMENT FACILITIES NEED INFLOW RELIEF BECAUSE OF SURCHARGE CONDITIONS IN THE SYSTEM. ADJUSTED INFLOW RATES BALANCE THE SYSTEM TO A DESIRED STORM FREQUENCY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N4

IRIS ACCESSION NUMBER: EW006410

PUBLICATION DATE: APR 81

TITLE: COMBINED SEWER OVERFLOW CONTROL--MARGINAL BENEFIT VERSUS COST ANALYSIS.
PERSONAL AUTHOR: REYNOLDS, DAVID T.; AND OTHERS

DESCRIPTOR: *COST EFFECTIVENESS; *DESIGN; *FACILITIES; *FLOW MEASUREMENTS; *OPERATIONS (WASTEWATER); *REGULATIONS; *SEWER OVERFLOW; *WASTEWATER TREATMENT; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 497-501P.

ABSTRACT: PRESENTED ARE METHODS USED BY WASTEWATER TREATMENT PLANTS TO ECONOMICALLY ELIMINATE COMBINED SEWER OVERFLOWS. EPA CRITERIA CAN BE MET BY COMPARING INCREMENT COSTS OF VARIOUS LEVELS OF CONTROL WITH MARGINAL BENEFITS TO RECEIVING UNITS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N4

IRIS ACCESSION NUMBER: EW006411

PUBLICATION DATE: APR 81

TITLE: COMPUTERIZED BIOLOGICAL MONITORING FOR DEMONSTRATING WASTEWATER DISCHARGE.

PERSONAL AUTHOR: GRUBER, DAVID; AND OTHERS

DESCRIPTOR: *BIOMONITORING; *COST EFFECTIVENESS;

*INDUSTRIAL WASTES; *MONITORING; *OPERATIONS (WASTEWATER); *REGULATIONS; *SAFETY; *TOXIC SUBSTANCES; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 505-511P.

ABSTRACT: USE OF BIOMONITORING TO DETECT AND ASSESS INDUSTRIAL WASTEWATER QUALITY IS DESCRIBED. THE NECESSITY FOR TRADITIONAL METHODS OF MONITORING COULD BE REDUCED BY SIMULTANEOUS APPLICATION OF SENSORS TO DETECT POTENTIAL TOXIC CONDITIONS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N4

IRIS ACCESSION NUMBER: EW006412

PUBLICATION DATE: SPR 81

TITLE: AN INTRODUCTION TO GROUND-WATER MONITORING.

PERSONAL AUTHOR: KAZMANN, RAPHAEL G.

DESCRIPTOR: AQUIFER DEGRADATION; *COST EFFECTIVENESS; *DESIGN; *FLOW MEASUREMENT; *GROUNDWATER; INDUSTRIAL WASTES; *MONITORING; *MONITORING SYSTEMS; *OPERATIONS (WATER); PIPES; *WATER SUPPLY; *WASTE DISPOSAL; *WATER QUALITY

DESCRIPTIVE NOTE: 28-30P.

ABSTRACT: SUGGESTED IS HOW MONITORING OF GROUNDWATER SYSTEMS MAY BEST BE ACCOMPLISHED TO DELINEATE UNSOLVED PRACTICAL AND CONCEPTUAL PROBLEMS OF GROUNDWATER PROTECTION. CHECKLISTS THAT INCLUDE POTENTIOMETRIC CHANGE, TEMPERATURE, AND WATER QUALITY ARE STRESSED.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N1

IRIS ACCESSION NUMBER: EW006413

PUBLICATION DATE: SPR 81

TITLE: GUIDELINES FOR DEVELOPING A STATEWIDE GROUND-WATER MONITORING PROGRAM.

PERSONAL AUTHOR: MILLER, DAVID W.

DESCRIPTOR: *COST EFFECTIVENESS; *DISPOSAL; DISPOSAL SITES; *GUIDELINES; *GROUNDWATER; *MONITORING; MANAGEMENT; *PLANNING; *REGULATIONS; *STANDARDS; *SAMPLING TECHNIQUES; WATER SUPPLY; *WASTE DISPOSAL; *WATER QUALITY; *WATER ANALYSIS

DESCRIPTIVE NOTE: 32-33P.

ABSTRACT: GUIDELINES ARE DISCUSSED FOR REGULATORY OFFICIALS CHARGED WITH THE DESIGN, IMPLEMENTATION, AND ENFORCEMENT OF GROUNDWATER MONITORING PROGRAMS. A PROPOSED PLAN INCLUDES QUALITY ASSURANCE, COMPLIANCE, ENERGY RESPONSE, AND STATISTICAL ANALYSIS.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N1

IRIS ACCESSION NUMBER: EW006414

PUBLICATION DATE: SPR 81

TITLE: GROUND-WATER MONITORING REQUIREMENTS OF RCRA.

PERSONAL AUTHOR: GRAVES, LAWRENCE S.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DESIGN; *FACILITIES; FEDERAL REGULATIONS; *GUIDELINES; *HAZARDOUS WASTES; *GROUNDWATER; *PLANNING; *REGULATIONS; *STANDARDS; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 34-36P.

ABSTRACT: PRESENTED IS A SIMPLIFIED STEP-BY-STEP ANALYSIS FOR AN EASIER COMPREHENSION OF GROUNDWATER MONITORING REQUIREMENTS WHICH CAN BE USED BY AN OWNER/OPERATOR OF A HAZARDOUS WASTE FACILITY.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N1

IRIS ACCESSION NUMBER: EW006415

PUBLICATION DATE: SPR 81

TITLE: RECOMMENDED SAMPLING PROCEDURES FOR MONITORING WELLS.

PERSONAL AUTHOR: SCHULLER, RUDOLPH; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHEMICAL ANALYSIS; *GROUNDWATER; HYDROLOGY; *LABORATORY PROCEDURES; *MONITORING; *SAMPLING TECHNIQUES; *WELLS; *WATER WELLS; *WASTE DISPOSAL; *WATER SUPPLY; *WATER POLLUTION CONTROL; WATER QUALITY

DESCRIPTIVE NOTE: 42-46P.

ABSTRACT: MONITORING OF WELLS IS THE MAIN SOURCE OF DATA FOR EVALUATING THE EFFECTS OF WASTE DISPOSAL SITES ON GROUNDWATER. DISCUSSED IS THE DEVELOPMENT OF A SAMPLING PROTOCOL ENTAILING THE SELECTION OF THE TYPES OF SAMPLING DEVICES; PREPARATION, PRESERVATION AND STORAGE OF SAMPLES; AND PROCEDURES FOR MONITORING THE INDIVIDUAL HYDROLOGIC AND CHEMICAL CHARACTERISTICS OF THE WELLS.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N1

IRIS ACCESSION NUMBER: EW006416

PUBLICATION DATE: SPR 81

TITLE: A MULTILEVEL DEVICE FOR GROUND-WATER SAMPLING.

PERSONAL AUTHOR: PICKENS, J. F.; AND OTHERS

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *GROUNDWATER; *INSTRUMENTATION; *MONITORING; *SAMPLING TECHNIQUES; *WATER QUALITY; WASTE DISPOSAL; *WATER SUPPLY

DESCRIPTIVE NOTE: 48-51P.

ABSTRACT: PRESENTED ARE GROUNDWATER MONITORING TECHNIQUES APPLICABLE TO WASTE MANAGEMENT FACILITIES. INCLUDED ARE DESIGN, CONSTRUCTION TECHNIQUES, AND METHODS OF INSTALLATION, PIEZOMETERS AND MULTILEVEL SAMPLING DEVICES FOR WELLS.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N1

IRIS ACCESSION NUMBER: EW006417

PUBLICATION DATE: SPR 81

TITLE: AIR-LIFT SAMPLERS FOR ZONE-OF-SATURATION MONITORING.

PERSONAL AUTHOR: MORRISON, ROBERT D.; BREWER, PAUL E.

DESCRIPTOR: COST EFFECTIVENESS; *DESIGN; *ENGINEERING; *EQUIPMENT; *GROUNDWATER; *MONITORING; *SAMPLING TECHNIQUES; WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 52-55P.

ABSTRACT: SUGGESTED FOR ZONE-OF-SATURATION MONITORING OF GROUNDWATER IS THE EMPLOYMENT OF AIRLIFT SAMPLERS IN WELLS. THIS ECONOMICAL ALTERNATIVE INCLUDES MULTI-LEVEL CAPABILITIES, MINIMIZATION OF OXIDATION, REDUCTION OF REACTIONS DURING SAMPLING, AND EFFECTIVE HYDRAULIC-HEAD MEASUREMENTS.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N1

IRIS ACCESSION NUMBER: EW006418

PUBLICATION DATE: SPR 81

TITLE: CONFIDENCE IN GROUND-WATER MONITORING.

PERSONAL AUTHOR: SGAMBAT, JEFFREY P.; STEDINGER, JERY R.

DESCRIPTOR: CHEMICAL ANALYSIS; *COST EFFECTIVENESS; *GROUNDWATER; *MATHEMATICAL MODELS; *MONITORING; *RELIABILITY; *STANDARDS; *SAMPLING; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 62-69P.

ABSTRACT: CONSIDERED IS THE RELIABILITY OF METHODS USED TO ANALYZE GROUNDWATER AS CHALLENGED BY INDUSTRY AND REGULATORY PERSONNEL. INTERPRETATION OF QUANTITATIVE DATA AND THE PROBLEMS ASSOCIATED WITH THE TRANSLATION OF COLLECTED INFORMATION TO AN UNDERSTANDING OF GROUNDWATER QUALITY ARE STUDIED.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N1

IRIS ACCESSION NUMBER: EW006421

PUBLICATION DATE: 81

TITLE: HAZARDS IN THE CHEMICAL LABORATORY, THIRD EDITION.

PERSONAL AUTHOR: BRETHERICK, L.

DESCRIPTOR: *HAZARDOUS SUBSTANCES; *INSTRUCTIONAL MATERIALS; *LABORATORY SAFETY; LABORATORY PROCEDURES; OCCUPATIONAL SAFETY; *POST SECONDARY EDUCATION; *REFERENCE MATERIALS; *SAFETY

DESCRIPTIVE NOTE: 592P. PRICE: $39.50

ABSTRACT: THIS BOOK PROVIDES A HANDBOOK OF SAFETY MEASURES, PRACTICE, AND TOXIC EFFECTS FOR LABORATORIES HANDLING CHEMICALS AND CHEMICAL EQUIPMENT. INCLUDED ARE CHAPTERS COVERING SAFETY PLANNING AND MANAGEMENT, FIRE PROTECTION, REACTIVE CHEMICAL HAZARDS, HEALTH CARE AND FIRST AID, AND PRECAUTIONS AGAINST RADIATION.

AVAILABILITY: THE ROYAL SOCIETY OF CHEMISTRY, DISTRIBUTION CENTRE, BLACKHORSE ROAD, LETCHWORTH, HERTS SG6 1HN, ENGLAND

IRIS ACCESSION NUMBER: EW006423

PUBLICATION DATE: 81

TITLE: DEVELOPMENT OF DESIGN AND OPERATIONAL CRITERIA FOR WASTEWATER TREATMENT.

PERSONAL AUTHOR: ADAMS, CARL E., JR.; AND OTHERS

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *EQUIPMENT; *FACILITIES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *OPERATIONS (WASTEWATER); POST SECONDARY EDUCATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 504P. PRICE: $40.00

ABSTRACT: THIS TEXTBOOK PRESENTS THE EXPERIMENTAL AND SYSTEMATIC TEST PROCEDURES REQUIRED TO DESIGN AN EFFECTIVE WASTEWATER TREATMENT FACILITY, OR TO MAKE EXISTING FACILITIES MORE EFFICIENT. EMPHASIS IS ON THE PRACTICAL APPLICATION OF TREATMENT THEORIES. INCLUDED ARE SPECIFIC DISCUSSIONS ON TECHNIQUES AND PROCEDURES FOR GATHERING INFORMATION FOR CONVENTIONAL AND ADVANCED TECHNOLOGY, CORRELATION OF DATA FOR MOST EFFICIENT USE IN DESIGN AND OPERATION, AND SCALE-UP CONSIDERATIONS FROM SMALL-SCALE TO FULL-SCALE FACILITIES.

AVAILABILITY: CBI PUBLISHING CO., INC., 51 SLEEPER STREET, BOSTON, MA 02210 OR ENVIRO PRESS, INC., P. O. BOX 40284, NASHVILLE, TN 37204

IRIS ACCESSION NUMBER: EW006424

PUBLICATION DATE: 81

TITLE: OPERATION, CONTROL AND MANAGEMENT OF ACTIVATED SLUDGE PLANTS.

PERSONAL AUTHOR: ECKENFELDER, W. WESLEY, JR.; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; AERATION; DENITRIFICATION; *INSTRUCTIONAL MATERIALS; NITRIFICATION; *OPERATIONS (WASTEWATER); POST SECONDARY EDUCATION; SLUDGE DISPOSAL; *SLUDGE; *TEXTBOOKS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 300P. PRICE: $40.00

ABSTRACT: THIS BOOK GIVES ACTIVATED SLUDGE PLANT MANAGERS A COMPREHENSIVE TOOL TO CONTROL SYSTEM PERFORMANCE. PLANT OPERATIONS PERSONNEL WILL GAIN A BETTER UNDERSTANDING OF ANALYTICAL AND OPERATIONAL MONITORING, TROUBLE-SHOOTING, AND THE METHODOLOGY FOR OPERATIONAL CONTROL FOR THE ACTIVATED SLUDGE PROCESS. CHAPTERS INCLUDED ARE: (1) PERFORMANCE MONITORING; (2) ACTIVATED SLUDGE PROCESSES; (3) OPERATION AND CONCEPTS OF AERATION SYSTEMS; (4) DESIGN, OPERATION, AND CONTROL OF BIOLOGICAL NITRIFICATION-DENITRIFICATION SYSTEMS; AND (5) SLUDGE HANDLING AND DISPOSAL.

AVAILABILITY: CBI PUBLISHING CO., INC., 51 SLEEPER STREET, BOSTON, MA 02210 OR ENVIRO PRESS, INC., P. O. BOX 40284, NASHVILLE, TN 37204

IRIS ACCESSION NUMBER: EW006425

PUBLICATION DATE: MAY 81

TITLE: A/C PIPE--ASSESSMENT OR ADVOCACY?

PERSONAL AUTHOR: WELCH, JOHN F.

DESCRIPTOR: ASBESTOS CEMENT PIPES; *ASBESTOS; CARCINOGENS; COMMUNITY HEALTH; *CORROSION; *DRINKING WATER; PUBLIC HEALTH; *PIPES; *WATER ANALYSIS; WATER PIPES; *WATER QUALITY

DESCRIPTIVE NOTE: 44, 48, 54-59P.

ABSTRACT: PRESENTED IS THE EPA'S UNCERTAIN POSITION ON THE INGESTION RISKS AND DANGERS OF ASBESTOS CEMENT PIPE. ADDITIONAL RESULTS OF HUMAN AND ANIMAL EXPOSURE TO ASBESTOS THROUGH DRINKING WATER ARE BEING ANALYZED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N5

IRIS ACCESSION NUMBER: EW006426

PUBLICATION DATE: MAY 81

TITLE: AN ALTERNATIVE SOLUTION TO THE THM PROBLEM.

PERSONAL AUTHOR: RICE, L. M.; BOLDING, M. E.

DESCRIPTOR: *CHLORINATION; CHEMICAL TREATMENT; COST EFFECTIVENESS; *DRINKING WATER; *RESEARCH REPORTS; *TRIHALOMETHANES; UTILITIES; WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 59-60, 65-66P.

ABSTRACT: INTRODUCED ARE PROPOSED METHODS FOR CONTROLLING TOTAL TRIHALOMETHANES IN DRINKING WATER WITHOUT GRANUALAR ACTIVATED CARBON TREATMENT. THE USE OF QUALITY ASSURANCE TESTS SUPPORTS THE RELIABILITY OF AMMONIA NITROGEN IN ADVANCE OF CHLORINATION.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N5

IRIS ACCESSION NUMBER: EW006427

PUBLICATION DATE: MAY 81

TITLE: BUILDING HRD MODELS FOR FUN AND PROFIT.

PERSONAL AUTHOR: BELLMAN, GEOFFREY

DESCRIPTOR: ADMINISTRATION; BUSINESS; *BUSINESS ADMINISTRATION; EVALUATION; *HUMAN RESOURCE DEVELOPMENT; *MANAGEMENT; MODELS; *PERSONNEL DEVELOPMENT; PLANNING; *SYSTEMS APPROACH; *SYSTEMS ANALYSIS

DESCRIPTIVE NOTE: 31-34P.

ABSTRACT: DESCRIBES THE STEP-BY-STEP CONSTRUCTION OF A MODEL OF HUMAN RESOURCE DEVELOPMENT (HRD) WHICH SORTS OUT ACTIONS IMPORTANT IN PERSONNEL GROWTH AND PERFORMANCE. DEPICTED ON THE MODEL ARE DAILY, QUARTERLY AND YEARLY CYCLES OF PERFORMANCE, RESULTS AND FEEDBACK.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL, V35 N5

IRIS ACCESSION NUMBER: EW006428

PUBLICATION DATE: MAY 81

TITLE: CAREER DEVELOPMENT: THE INTEGRATING FORCE.

PERSONAL AUTHOR: KAYE, BEVERELY L.

DESCRIPTOR: BUSINESS ADMINISTRATION; *CAREER DEVELOPMENT; CAREER EDUCATION; *CAREER PLANNING; EMPLOYEE ORGANIZATION RELATIONSHIP; *HUMAN RESOURCE DEVELOPMENT; ON THE JOB TRAINING; *PERSONNEL DEVELOPMENT; PERSONNEL MANAGEMENT; STAFF DEVELOPMENT; SYSTEMS APPROACH

DESCRIPTIVE NOTE: 36-40P.

ABSTRACT: DESCRIBES SIX STAGES IN THE CAREER DEVELOPMENT PROGRAM PLANNING PROCESS AND DISCUSSES HOW CAREER DEVELOPMENT CAN AND SHOULD BE LINKED TO AN ORGANIZATION'S OTHER HUMAN RESOURCE DEVELOPMENT EFFORTS.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N5

IRIS ACCESSION NUMBER: EW006429
PUBLICATION DATE: MAY 81

TITLE: USING COGNITIVE MAPPING TO CAPITALIZE ON LEARNING STRENGTHS.

PERSONAL AUTHOR: IHLENFELDT, WILLIAM A.

DESCRIPTOR: *COGNITIVE STYLE; *COGNITIVE STYLE MAPPING; COMPUTER ORIENTED PROGRAMS; *DIAGNOSTIC TEACHING; *EDUCATIONAL TECHNOLOGY; LEARNING MODALITIES; *LEARNING PROBLEMS; LEARNING PROCESSES; LEARNING THEORIES; POST SECONDARY EDUCATION; TECHNICAL EDUCATION

DESCRIPTIVE NOTE: 99-104P.

ABSTRACT: DISCUSSES COGNITIVE STYLE MAPPING, A COMPUTER-ASSISTED DIAGNOSTIC PROGRAM WHICH INDICATES STUDENTS' LEARNING STRENGTHS, WEAKNESSES, STYLES, AND SKILL LEVELS. THE TECHNIQUE IS INTENDED TO HELP IDENTIFY AND AVOID LEARNING PROBLEMS, REDUCE THE DROPOUT RATE, MATCH STUDENTS WITH COURSES, AND IMPROVE OVERALL LEARNING PERFORMANCE.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N5

IRIS ACCESSION NUMBER: EW006430

PUBLICATION DATE: MAY 81

TITLE: RECOGNIZING THE NEED FOR SUCCESSION PLANNING.

PERSONAL AUTHOR: SCHOLL, JACK

DESCRIPTOR: ADMINISTRATORS; BUSINESS ADMINISTRATION; *CAREER DEVELOPMENT; CASE STUDIES; OCCUPATIONAL MOBILITY; *OCCUPATIONAL PROMOTION; ON THE JOB TRAINING; *PERSONNEL DEVELOPMENT; PERSONNEL MANAGEMENT; PROGRAM DESCRIPTIONS; *SUCCESSION PLANNING

DESCRIPTIVE NOTE: 106-108P.

ABSTRACT: PRESENTS A CASE STUDY OF SUCCESSION PLANNING AT MEMPHIS LIGHT, GAS AND WATER. THE COMPANY'S POTENTIAL SUPERVISORY TRAINING PROGRAM PREPARES EMPLOYEES TO FILL POSSIBLE VACANCIES IN SUPERVISORY POSITIONS.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N5

IRIS ACCESSION NUMBER: EW006431

PUBLICATION DATE: MAY 81

TITLE: WRITING TRAINING MATERIALS THAT TURN PEOPLE ON.

PERSONAL AUTHOR: JOSEPH, ALBERT

DESCRIPTOR: EDUCATIONAL MEDIA; *INSTRUCTIONAL MATERIALS; LANGUAGE SKILLS; *MATERIAL DEVELOPMENT; POST SECONDARY EDUCATION; PUBLICATIONS; *TRAINING MATERIALS; *WRITING (COMPOSITION); *WRITING SKILLS
DESCRIPTIVE NOTE: 111-114P.

ABSTRACT: WRITTEN MATERIALS CONTINUE TO DO A TRAINING JOB LONG AFTER THE PROGRAM ENDS. ACCORDINGLY, THIS ARTICLE PRESENTS GUIDELINES FOR TEXT ORGANIZATION, CLEAR WRITING, IMPROVING THE VISUAL APPEARANCE OF TRAINING MATERIALS, THE USE OF NONSEXIST LANGUAGE, AND PREPARATION OF JOB DESCRIPTIONS.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N5

IRIS ACCESSION NUMBER: EW006432

PUBLICATION DATE: MAY 81

TITLE: HOW TO DETERMINE OFF-SITE MEETING COSTS.

PERSONAL AUTHOR: MCKEON, WILLIAM J.

DESCRIPTOR: BUSINESS ADMINISTRATION; *COST ANALYSIS; COST EFFECTIVENESS; *MEETINGS; *MONEY MANAGEMENT; *OFF-SITE MEETINGS; ORGANIZATIONAL EFFECTIVENESS; *STAFF MEETINGS; TRAINING COSTS; TRAVEL

DESCRIPTIVE NOTE: 116-120P.

ABSTRACT: DESCRIBES THE USE OF A VIDEODISC AND MICROPROCESSOR TO IMPROVE STUDENT LEARNING BY COMBINING COMPUTER-ASSISTED INSTRUCTION WITH A VIDEO DISPLAY INTERACTIVE SYSTEM. MAJOR ADVANTAGES LIE IN THE ECONOMY AND FLEXIBILITY OF THE TRAINING PROCESS.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N5

IRIS ACCESSION NUMBER: EW006433

PUBLICATION DATE: MAY 81

TITLE: THE VIDEODISC/MICROPROCESSOR FOR TRAINING.

PERSONAL AUTHOR: KETNER, WILLIAM D.

DESCRIPTOR: AUDIOVISUAL AIDS; *COMPUTER ASSISTED INSTRUCTION; COMPUTER ORIENTED PROGRAMS; *EDUCATIONAL MEDIA; *EDUCATIONAL TECHNOLOGY; *MICROPROCESSORS; MILITARY TRAINING; POST SECONDARY EDUCATION; TECHNICAL EDUCATION; *VIDEODISCS

DESCRIPTIVE NOTE: 151-153P.

ABSTRACT: DESCRIBES THE USE OF A VIDEODISC AND MICROPROCESSOR TO IMPROVE STUDENT LEARNING BY COMBINING COMPUTER-ASSISTED INSTRUCTION WITH A VIDEO DISPLAY INTERACTIVE SYSTEM. MAJOR ADVANTAGES LIE IN THE ECONOMY AND FLEXIBILITY OF THE TRAINING PROCESS.

AVAILABILITY: TRAINING & DEVELOPMENT JOURNAL, V35 N5

IRIS ACCESSION NUMBER: EW006434

PUBLICATION DATE: MAY 81

TITLE: COMPOSITING TRIHALOMETHANE SAMPLES CAN SAVE MONEY.

PERSONAL AUTHOR: SYLVIA, ALBERT E.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COST EFFECTIVENESS; *LABORATORY PROCEDURES; *MONITORING; *OPERATIONS (WATER); *SAMPLING; *TRIHALOMETHANES; *WATER TREATMENT; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 20P.

ABSTRACT: DESCRIBED IS HOW ONE ANALYSIS PRODUCES THE SAME RESULTS AS FOUR, WITH A CLEAR SAVING FOR THE WATER UTILITY. NO SIGNIFICANT DECREASE IN ACCURACY IS REPORTED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N5

IRIS ACCESSION NUMBER: EW006435

PUBLICATION DATE: MAY 81

TITLE: A REGIONAL RESPONSE TO WATER SUPPLY EMERGENCIES.

PERSONAL AUTHOR: HOOKER, DONALD

DESCRIPTOR: *COOPERATIVE PLANNING; *COMMUNITY INVOLVEMENT; *EMERGENCY PROGRAMS; *MANAGEMENT; *OPERATIONS (WATER); *PLANNING; *WATER SUPPLY; *WATER DISTRIBUTION; *WATER RESOURCES

DESCRIPTIVE NOTE: 232-237P.

ABSTRACT: EXAMINED IS A COOPERATIVE PROGRAM THAT PROVIDES FOR COORDINATION AND IMPLEMENTATION MEASURES FOR WATER SHORTAGES. PROVISIONS THAT ALLOW FOR EQUITABLE MANAGEMENT OF WATER SUPPLY DURING EMERGENCIES, WHILE PROTECTING THE HEALTH AND SAFETY OF RESIDENTS IS DESCRIBED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N5

IRIS ACCESSION NUMBER: EW006436

PUBLICATION DATE: MAY 81

TITLE: ELICITING PUBLIC PARTICIPATION.

PERSONAL AUTHOR: FOHS, LINDA H.

DESCRIPTOR: *CITIZEN INVOLVEMENT; *EDUCATIONAL PROGRAMS; GOVERNMENT ROLE; *MANAGEMENT; *PUBLIC PARTICIPATION; *PLANNING; *PROGRAM DESCRIPTIONS; *WATER SUPPLY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 246-250P.

ABSTRACT: DESCRIBED ARE THE EFFORTS OF PUBLIC PARTICIPATION THAT ALLOW PLANNERS TO REACH LOCAL RESIDENTS. ENVIRONMENTAL CONCERNS MUST BE ADEQUATELY REFLECTED IN THE PLANNING AND IMPLEMENTATION PROCESS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N5

IRIS ACCESSION NUMBER: EW006437

PUBLICATION DATE: MAY 81

TITLE: CUSTOMER METERING PRACTICES.

DESCRIPTOR: *EQUIPMENT; *EVALUATION; *MEASUREMENT INSTRUMENTS; *RATES; *SURVEYS; UTILITIES; *WATER SUPPLY; *WATER METERS

DESCRIPTIVE NOTE: 251-253P.

ABSTRACT: IT IS RECOMMENDED THAT EACH UTILITY INTERESTED IN A REPLACEMENT PROGRAM STUDY, TEST, AND RECORD THE ACCURACY OF A METER BROUGHT IN FROM THE FIELD TO ENSURE ACCURATE SAMPLING.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N5

IRIS ACCESSION NUMBER: EW006438

PUBLICATION DATE: MAY 81

TITLE: THE OCCURRENCE AND REDUCTION OF SODIUM IN DRINKING WATER.

PERSONAL AUTHOR: LAUCH, RICHARD P.; SORG, THOMAS J.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DRINKING WATER; *MONITORING; *OPERATIONS (WATER); *PUBLIC HEALTH; *SODIUM; *SODIUM REMOVAL; *STANDARDS; *TOXICITY; *WATER SUPPLY; *WATER QUALITY; *WATER TREATMENT; *WATER STANDARDS

DESCRIPTIVE NOTE: 256-265P.

ABSTRACT: THIS ARTICLE CONSIDERS HOW SODIUM CAN BE INCREASED DURING DRINKING WATER TREATMENT, WHAT CONCENTRATIONS CAN BE EXPECTED AFTER TREATMENT, AND HOW SODIUM IN DRINKING WATER CAN BE REDUCED OR ELIMINATED. TREATMENT TECHNIQUES FOR REDUCTION OF TOTAL DISSOLVED SOLIDS AND THE HEALTH EFFECTS OF SODIUM ARE ALSO PRESENTED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N5

IRIS ACCESSION NUMBER: EW006439

PUBLICATION DATE: MAY 81

TITLE: ESTIMATING COLOR IN HAZEN UNITS BY SPECTROPHOTOMETRY.

PERSONAL AUTHOR: CROWTHER, JOAN; EVANS, JOHN

DESCRIPTOR: ANALYTICAL TECHNIQUES; *COLORIMETRY; *HAZEN UNITS; *LABORATORY PROCEDURES; *MEASUREMENT TECHNIQUES; *SPECTROPHOTOMETRY; *WATER ANALYSIS; *WATER QUALITY

DESCRIPTIVE NOTE: 265-270P.

ABSTRACT: THE DEVELOPMENT OF A SIMPLE SPECTROPHOTOMETRIC COLOR TEST TO PRODUCE PRECISE DATA IS EXPLAINED. THE PRECISION OF THE PROPOSED PHOTOELECTRIC METHOD TO ENABLE DIFFERENT LABORATORIES TO OBTAIN COMPARABLE ESTIMATES OF COLOR WAS EVALUATED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N5

IRIS ACCESSION NUMBER: EW006440

PUBLICATION DATE: MAY 81

TITLE: COMMON PIPE FLOW FORMULAS COMPARED WITH THE THEORY OF ROUGHNESS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ENGINEERING; *FLOW MEASUREMENT; *FORMULAS; *HYDRAULICS; *MATHEMATICAL APPLICATIONS; *MATHEMATICAL MODELS; *PIPES; *ROUGHNESS; *STANDARDS; *WATER MAINS; *WATER PIPES; *WATER SUPPLY

DESCRIPTIVE NOTE: 274-280P.

ABSTRACT: EVALUATED ARE FORMULAS THAT ENABLE COMPLEX PROBLEMS INVOLVING WATER AND OTHER LIQUIDS TO BE SOLVED OVER A WIDE RANGE OF VELOCITY. REVIEWED ARE THE THEORY OF ROUGHNESS AND THE TEST RESULTS ON WHICH THE RECOMMENDED ROUGHNESS VALUES WERE BASED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N5

IRIS ACCESSION NUMBER: EW006441

PUBLICATION DATE: MAY 81

TITLE: DIGESTER CLEANING 'KEEPS ON TRUCKIN'.

DESCRIPTOR: COST EFFECTIVENESS; *EQUIPMENT; *LAND FILLS; LAND APPLICATION; *OPERATIONS (WASTEWATER); *SLUDGE; *SLUDGE DISPOSAL; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 78-79P.

ABSTRACT: SUGGESTED IS AN ALTERNATIVE METHOD FOR ECONOMICAL DISPOSAL OF SLUDGE. A SMALL CREW PUMPS AND TRANSFERS THE LIQUID DIRECTLY BY TRUCK FROM A SECONDARY CLARIFIER TO AN APPROVED LANDFILL.

AVAILABILITY: AMERICAN CITY & COUNTY, V96 N5

IRIS ACCESSION NUMBER: EW006442

PUBLICATION DATE: MAY 81

TITLE: NEW SEWER CLEANER AIDS I/I STUDY.

PERSONAL AUTHOR: D'ALTILIO, MICHAEL

DESCRIPTOR: *CLEANING; *DESIGN; *EQUIPMENT; *MAINTENANCE; *OPERATIONS (WASTEWATER); *SEWERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 68-69P.

ABSTRACT: INTRODUCED IS A NEW MACHINE FOR CLEANING SEWERS. APPLICATIONS AND CAPACITY ARE DISCUSSED.

AVAILABILITY: PUBLIC WORKS, V112 N5

IRIS ACCESSION NUMBER: EW006443

PUBLICATION DATE: MAY 81

TITLE: INDUSTRIAL WASTE INSPECTION PROCEDURE FOR A REGIONAL AUTHORITY.

PERSONAL AUTHOR: BARATTA, NOEL D.; GRANDIN, WAYNE T.

DESCRIPTOR: *EQUIPMENT; *FACILITIES; *HAZARDOUS WASTES; *INDUSTRIAL WASTES; *INSPECTION; *MANAGEMENT; MAINTENANCE; *OPERATIONS (WASTEWATER); PLANNING; *PROGRAM DEVELOPMENT; REGULATIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 77-80P.

ABSTRACT: THE DEVELOPMENT OF AN INDUSTRIAL WASTE INSPECTION PROCEDURE THAT IS APPLICABLE FOR HAZARDOUS WASTE PROGRAMS IS EXPLAINED. MUTUAL UNDERSTANDING, COOPERATION, AND INDIVIDUAL FACILITY INSPECTION PRIOR TO ESTABLISHMENT OF AN ACCURATE DATA BASE ARE NEEDED.

AVAILABILITY: PUBLIC WORKS, V112 N5

IRIS ACCESSION NUMBER: EW006444

PUBLICATION DATE: MAY 81

TITLE: DEVELOPMENT OF A RURAL WATER DISTRICT.

PERSONAL AUTHOR: CORLEW, PHILIP M.; HARRIS, GARY F.

DESCRIPTOR: *CONSTRUCTION; *DRINKING WATER; ENGINEERING; *EQUIPMENT; *FACILITIES; *MANAGEMENT; *PROGRAM DEVELOPMENT;

*PUMPS; PUBLIC PARTICIPATION; *RURAL AREAS; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 86-87P.

ABSTRACT: EXPLAINED ARE PROCEDURES FOR INITIATION AND DEVELOPMENT OF A RURAL WATER DISTRICT PLAN. FEASIBILITY STUDIES, CONSTRUCTION, SYSTEMS DESIGN AND PUBLIC PARTICIPATION ARE FACTORS INCLUDED FOR PROGRAM STRUCTURE.

AVAILABILITY: PUBLIC WORKS, V112 N5

IRIS ACCESSION NUMBER: EW006445

PUBLICATION DATE: MAY 81

TITLE: COMPARATIVE ANALYSIS OF SLUDGE AND REFUSE LEACHATE: A PRELIMINARY REPORT.

PERSONAL AUTHOR: GILLIGAN, DANIEL S.; PIERCE, JEFFREY L.

DESCRIPTOR: *FACILITIES; *HAZARDOUS WASTES; *HEALTH; *LEACHATE CONTROL; *LANDFILLS; *OPERATIONS (WASTEWATER); REGULATIONS; *SLUDGE; SAFETY; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 89-93P.

ABSTRACT: DISCUSSED ARE PRIMARY AND SECONDARY SLUDGE HANDLING AND DISPOSAL PROCEDURES OF MUNICIPAL WASTEWATER FACILITIES. IMPROVED LEACHATE CONTROL AND TREATMENT TECHNIQUES APPLICABLE TO WATER AND AIR PROTECTION AT CONTROLLED LANDFILL SITES ARE INDICATED.

AVAILABILITY: PUBLIC WORKS, V112 N5

IRIS ACCESSION NUMBER: EW006446

PUBLICATION DATE: MAY 81

TITLE: CITY COPES WITH UNUSUAL SEWER MAINTENANCE PROBLEMS.

DESCRIPTOR: *COST EFFECTIVENESS; *EQUIPMENT; *FACILITIES; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WASTEWATER); *UTILITIES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 92-93P.

ABSTRACT: A MAINTENANCE METHOD FOR A LIMITED CAPACITY WASTEWATER TREATMENT PLANT IS PRESENTED.

AVAILABILITY: PUBLIC WORKS, V112 N5

IRIS ACCESSION NUMBER: EW006447

PUBLICATION DATE: 80

TITLE: FIRST AID MANUAL FOR CHEMICAL ACCIDENTS - FOR USE WITH NONPHARMACEUTICAL CHEMICALS.

PERSONAL AUTHOR: LEFEVRE, MARC J.

DESCRIPTOR: *FIRST AID; *INSTRUCTIONAL MATERIALS; INDUSTIRAL SAFETY; *MANUALS; POISONS; *POST SECONDARY EDUCATION; REFERENCE BOOKS; *SAFETY; *TEXTBOOKS; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 218P. PRICE: $25.00

ABSTRACT: THIS FIRST AID MANUAL PROVIDES A SOURCE OF CLEAR INFORMATION ON THE PROPER TREATMENT OF PERSONS EXPOSED TO TOXIC LEVELS OF INDUSTRIAL CHEMICALS. A LIST OF INDUSTRIAL PRODUCTS AND THEIR MOST COMMON SYNONYMS IS FOLLOWED BY SECTIONS ON TOXICOLOGY, FIRST AID IN CASE OF INHALATION, INGESTION, SKIN CONTACT, AND EYE CONTACT. EACH OF THESE SECTIONS IS COLOR CODED FOR EASY REFERENCE.

AVAILABILITY: ACADEMIC PRESS INC., 111 FIFTH AVENUE, NEW YORK, NY 10003

IRIS ACCESSION NUMBER: EW006448

PUBLICATION DATE: MAY 81

TITLE: WATER CLARIFICATION PROCESSES - PRACTICAL DESIGN AND EVALUATION.

PERSONAL AUTHOR: HUDSON, HERBERT E., JR.

DESCRIPTOR: *CLARIFICATION; *DESIGN; ENGINEERING; EVALUATION; HYDRAULICS; *INSTRUCTIONAL MATERIALS; MANAGEMENT; *OPERATIONS (WATER); *TEXTBOOKS; *WATER TREATMENT

DESCRIPTIVE NOTE: 368P. PRICE: $26.50

ABSTRACT: THIS BOOK IS CONCERNED PRIMARILY WITH THE ENGINEERING AND HYDRAULIC ASPECTS OF WATER CLARIFICATION PROCESSES. IT IS DESIGNED TO SERVE AS A REFERENCE BOOK FOR THOSE RESPONSIBLE FOR PLANT OPERATION, FOR DESIGNERS AND CONSULTANTS, AND AS A TEXT FOR SHORT COURSES FOR PRACTICING ENGINEERS AND GRADUATE COURSES IN TREATMENT PLANT DESIGN. CHAPTERS INCLUDE: EVALUATION OF PLANT OPERATING RECORDS; JAR TESTING AND UTILIZATION OF JAR TEST DATA; VELOCITY GRADIENTS; RESIDENCE TIMES IN PRETREATMENT; MIXING AND FLOCCULATION; DENSITY CONSIDERATIONS IN SEDIMENTATION; HORIZONTAL-FLOW SEDIMENTATION; UPFLOW SEDIMENTATION; BEHAVIOR OF FILTERS; DESIGN OF FILTRATION SYSTEMS; FILTER WASHING; PILOT FILTER TESTING; CHEMICAL HANDLING AND FEEDING; MANIFOLD HYDRAULICS; JOINTING AND SEALING OF WATER HOLDING STRUCTURES; AUXILIARIES, LABORATORIES, AND PROCESS WASTE DISPOSAL; PLANT UP-RATING CASE STUDIES; GENERAL CONSIDERATIONS IN PLANT LOCATION AND DESIGN; AND TYPICAL NEW PLANT DESIGNS.

AVAILABILITY: VAN NOSTRAND REINHOLD, LITTON EDUCATION PUBLISHING, INC., 7625 EMPIRE DRIVE, FLORENCE, KY 41042

IRIS ACCESSION NUMBER: EW006450
PUBLICATION DATE: MAR 71

TITLE: AN INTRODUCTION TO SAMPLE SURVEYS FOR GOVERNMENT MANAGERS.

PERSONAL AUTHOR: WEISS, CAROL H.; HATRY, HARRY P.

DESCRIPTOR: *ATTITUDES; *COSTS; *CITIZEN PARTICIPATION; *INSTRUCTIONAL MATERIALS; MANAGEMENT; *POST SECONDARY EDUCATION; *PLANNING; *PUBLIC PARTICIPATION; QUESTIONNAIRES; *RESEARCH METHODOLOGY; *SURVEYS; SAMPLING

DESCRIPTIVE NOTE: 48P. PRICE: $3.50

ABSTRACT: THIS REPORT IS INTENDED TO PROVIDE GOVERNMENT MANAGERS WITH SOME PERSPECTIVE ON THE NATURE AND IMPLICATIONS OF SAMPLE SURVEYS, THEIR LIKELY COSTS, AND WHAT CAN BE EXPECTED FROM THEM. RECOMMENDED IS A BASIC STRATEGY OF SAMPLING SO THAT THE NEEDS OF THE TOTAL POPULATION CAN BE ESTIMATED FROM A RELATIVELY SMALL NUMBER OF CASES TO DETERMINE THE ADEQUACY OF PUBLIC SERVICES AND PROVIDE GUIDANCE ON HOW TO IMPROVE THESE SERVICES. INCLUDED ARE SURVEY STRATEGIES RELATED TO PERSONAL INTERVIEWS, MAIL QUESTIONNAIRES, AND TELEPHONE INTERVIEWS.

AVAILABILITY: URBAN INSTITUTE PRESS, FULFILLMENT DIVISION, 2100 "M" STREET, NW, WASHINGTON, DC 20037

IRIS ACCESSION NUMBER: EW006451

PUBLICATION DATE: SEP 80

TITLE: STORMWATER MANAGEMENT IN THE UNITED STATES. A STUDY OF INSTITUTIONAL PROBLEMS, SOLUTIONS AND IMPACTS.

PERSONAL AUTHOR: POERTNER, HERBERT G.

DESCRIPTOR: ADMINISTRATION; *CASE STUDIES; *FACILITIES; *MANAGEMENT; *PLANNING; *RUNOFF WATERS; *RESEARCH REPORTS; *STORMWATER; *URBAN PROBLEMS

DESCRIPTIVE NOTE: 240P. PB81-121048

ABSTRACT: THIS REPORT IS THE RESULT OF INTERVIEWS CONDUCTED IN MANY URBAN AND METROPOLITAN AREAS OF THE UNITED STATES TO INVESTIGATE INSTITUTIONAL PROBLEMS IN STORMWATER MANAGEMENT. SUCCESSFUL SOLUTIONS AND THE IMPACT AND TRANSFERABILITY OF SOLUTIONS WERE STUDIED IN DETAIL IN ORDER TO ASSIST LOCAL PUBLIC OFFICIALS AND MANAGEMENT PERSONNEL IN DEVELOPING AND OPERATING EFFECTIVE, ECONOMICAL AND TIMELY PROGRAMS AND FACILITIES FOR MANAGING STORMWATER. THE INSTITUTIONAL PROBLEMS INVESTIGATED WERE THOSE THAT TYPICALLY ARISE IN CREATING, SUPPORTING AND OPERATING LOCAL STORMWATER MANAGEMENT ORGANIZATIONS AND PROGRAMS. ALSO STUDIED WERE THE INSTITUTIONAL PROBLEMS ASSOCIATED WITH IMPLEMENTATION ACTIVITIES. CASE STUDIES OF SEVERAL URBAN AREAS ARE INCLUDED.

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

IRIS ACCESSION NUMBER: EW006453
PUBLICATION DATE: JUN 79

TITLE: WATER QUALITY MANAGEMENT PLAN.

DESCRIPTOR: *EROSION; *FORESTRY; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *PLANNING; *POST SECONDARY EDUCATION; *SILVICULTURE; *STANDARDS; *WATER QUALITY

DESCRIPTIVE NOTE: 80P.

ABSTRACT: RECOMMENDED ARE GUIDELINES FOR MANAGEMENT PRACTICES TO MINIMIZE WATER POLLUTION FROM FOREST RELATED ACTIVITIES. TOPICS INCLUDED ARE: (1) EROSION, SILTATION, AND WATER QUALITY; (2) FOREST ENVIRONMENT ASSESSMENT; (3) SEEDING MIXTURES; (4) PESTICIDE USE; AND (5) DESIGN STANDARDS AND SPECIFICATIONS.

AVAILABILITY: WEST VIRGINIA DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WATER RESOURCES, 1201 GREENBRIER STREET, CHARLESTON, WV 25305

IRIS ACCESSION NUMBER: EW006454

PUBLICATION DATE: JUN 79

TITLE: CONSTRUCTION WATER QUALITY MANAGEMENT PLAN.

DESCRIPTOR: *BEST MANAGEMENT PRACTICES; *CONSTRUCTION; *ENVIRONMENTAL IMPACT; *INSTRUCTIONAL MATERIALS; *LAND USE; *MANAGEMENT; *POST SECONDARY EDUCATION; *PUBLIC PARTICAPATION; *PLANNING; *POLLUTION; *SURFACE RUNOFF; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 200P.

ABSTRACT: PRESENTED IS A PLAN FOR CONTROL AND/OR ELIMINATION OF POLLUTION RESULTING FROM CONSTRUCTION ACTIVITIES. CONTENTS INCLUDED ARE: (1) PROBLEM IDENTIFICATION AND ASSESSMENT; (2) FACTORS WHICH AFFECT RUNOFF CHARACTERISTICS; (3) LAND USE; (4) PROGRAM MANAGEMENT; AND (5) BEST MANAGEMENT PRACTICES.

AVAILABILITY: WEST VIRGINIA DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WATER RESOURCES, 1201 GREENBRIER STREET, CHARLESTON, WV 25305

IRIS ACCESSION NUMBER: EW006455

PUBLICATION DATE: JUN 79

TITLE: AGRICULTURAL WATER QUALITY MANAGEMENT PLAN.

DESCRIPTOR: AGRICULTURE; *COMMUNITY PLANNING; *ENVIRONMENTAL IMPACT; *LAND USE; *MANAGEMENT; *PUBLIC PARTICIPATION; *PLANNING; *WATER QUALITY; *WATER POLLUTION CONTROL; *WATERSHEDS

DESCRIPTIVE NOTE: 280P.

ABSTRACT: DISCUSSED ARE AN AGRICULTURAL COMMUNITY'S PLANS TO REDUCE POTENTIAL POLLUTION SOURCES THAT CONTRIBUTE TO WATER POLLUTION. CONTENTS INCLUDED ARE: (1) AGRICULTURE AND WATER; (2) AGRICULTURE MANAGEMENT FOR WATER QUALITY IMPROVEMENT; (3) DESIGNATED PRIORITY AREAS; (4) IMPLEMENTATION RESPONSIBILITIES; AND (5) ENVIRONMENTAL ASSESSMENT.

AVAILABILITY: WEST VIRGINIA DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WATER RESOURCES, 1201 GREENBRIER STREET, CHARLESTON, WV 25305

IRIS ACCESSION NUMBER: EW006456

PUBLICATION DATE: 80

TITLE: BIOLOGICAL MONITORING METHODS FOR INDUSTRIAL CHEMICALS.

PERSONAL AUTHOR: BASELT, RANDALL C.

DESCRIPTOR: ANALYTICAL TECHNIQUES; BIOLOGY; *CHEMICALS; *DIRECTORIES; *INDUSTRIAL CHEMICALS; *LABORATORY PROCEDURES; *MONITORING; *METALS; *ORGANIC COMPOUNDS; *PESTICIDES; *REFERENCE MATERIALS; *STANDARDS; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 300P. PRICE: $47.00

ABSTRACT: PRESENTED ARE MONOGRAPHS OF INDUSTRIAL CHEMICALS USED BY BIOCHEMISTS, INDUSTRIAL HYGIENISTS, TOXICOLOGISTS, OCCUPATIONAL HEALTH OFFICERS AND ENVIRONMENTAL SCIENTISTS. INFORMATION ABOUT THE SUBSTANCES INCLUDES: (1) OCCURRENCE AND USAGE; (2) BLOOD CONCENTRATIONS; (3) METABOLISM AND EXCRETION; (4) TOXICITY; (5) BIOLOGICAL MONITORING; AND (6) ANALYSIS. COMPLETE LITERATURE CITATIONS ARE AT THE END OF EACH MONOGRAPH.

AVAILABILITY: BIOMEDICAL PUBLICATIONS, P. O. BOX 495, DAVIS, CA 95617

IRIS ACCESSION NUMBER: EW006457

PUBLICATION DATE: 79

TITLE: GROUNDWATER POLLUTION: TECHNOLOGY, ECONOMICS AND MANAGEMENT.

DESCRIPTOR: *AQUIFERS; ANALYSIS; CASE STUDIES; *ECONOMICS; *GROUNDWATER; LAND USE; *MANAGEMENT; *POLLUTION; *RESEARCH REPORTS; *TECHNOLOGY; *WATER POLLUTION; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 137P. PRICE: $8.00

ABSTRACT: THIS BOOK PRESENTS AN INVESTIGATION OF THE TECHNICAL, ECONOMIC AND INSTITUTIONAL ASPECTS OF GROUNDWATER POLLUTION. GROUNDWATER POLLUTION IS SHOWN TO BE CHARACTERIZED BY A WIDE VARIETY OF SOURCES AND TYPES OF POTENTIAL POLLUTANTS. THE POLLUTION SOURCES ARE WIDELY SCATTERED WITH EFFECTS RANGING FROM THE ACUTE AND LOCAL, TO THE CHRONIC AND REGIONAL. THE SOURCE AND TYPE OF POLLUTION IS OFTEN ASSOCIATED WITH LAND USE. THE TECHNICAL FACTORS FOR CARRYING OUT INSTITUTIONAL OR ECONOMIC POLICIES ARE DESCRIBED IN TERMS OF SOURCE CONTROL, SUCH AS WASTEWATER TREATMENT, OR AQUIFER REHABILITATION AND/OR CONTROL.

AVAILABILITY: UNIPUB, INC., P. O. BOX 433, NEW YORK, NY 10016

IRIS ACCESSION NUMBER: EW006458

PUBLICATION DATE: AUG 80

TITLE: MUNICIPAL WASTEWATER TREATMENT WORKS CONSTRUCTION GRANTS PROGRAM. PROGRAM REQUIREMENTS MEMORANDA.

DESCRIPTOR: *CONSTRUCTION GRANTS PROGRAM; CONSTRUCTION; *FACILITIES; *FEDERAL PROGRAMS; *GRANTS; *MANUALS; MUNICIPAL WASTES; PROGRAM DESCRIPTIONS; *PROGRAM MEMORANDA; *REGULATIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 43P. PB81-121113

ABSTRACT: THIS BOOKLET IS AN UPDATE OF PROGRAM REQUIREMENTS MEMORANDA FOR MUNICIPAL WASTEWATER TREATMENT WORKS CONSTRUCTION GRANTS PROGRAM. IT INCLUDES MEMORANDA ISSUED BETWEEN JUNE 25, 1973 AND AUGUST 29, 1980.

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

IRIS ACCESSION NUMBER: EW006459

PUBLICATION DATE: SEP 80

TITLE: RECOMMENDATIONS FROM VALUE ENGINEERING STUDIES ON WASTEWATER TREATMENT WORKS.

DESCRIPTOR: *CONSTRUCTION GRANT PROJECTS; *CONSTRUCTION; *DESIGN; *ENGINEERING; *FACILITIES; *PLANNING; *TECHNICAL REPORTS; *VALUE ENGINEERING; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 229P. PB81-120941

ABSTRACT: THIS PUBLICATION SUMMARIZES THE BEST IDEAS/RECOMMENDATIONS FROM 93 VALUE ENGINEERING (VE) REPORTS WHICH WERE COMPLETED UNDER EPA'S MANDATORY VE PROGRAM FOR 75 CONSTRUCTION GRANT PROJECTS. DATA ABSTRACTED FROM THESE REPORTS PROVIDED THE BASIS FOR AN OVERALL EVALUATION OF THE VE PROGRAM. APPLICATION OF VE IDEAS/RECOMMENDATIONS AND EVALUATION RESULTS PRESENTED IN THIS PUBLICATION SHOULD ENHANCE THE EFFECTIVENESS OF VE IN THE DESIGN OF FUTURE WASTEWATER TREATMENT FACILITIES.

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

IRIS ACCESSION NUMBER: EW006460
PUBLICATION DATE: AUG 79

TITLE: PROCEEDINGS NATIONAL CONFERENCE ON WATER CONSERVATION & MUNICIPAL WASTEWATER FLOW REDUCTION NOVEMBER 28 & 29, 1978 CHICAGO, ILLINOIS.

DESCRIPTOR: CASE STUDIES; *CONFERENCE PROCEEDINGS; *CONSERVATION; EQUIPMENT; FLOW MEASUREMENT; FLOW REDUCTION; *MANAGEMENT; REGULATIONS; *TECHNOLOGICAL ADVANCEMENTS; *WASTEWATER; *WATER CONSERVATION; WATER QUALITY

DESCRIPTIVE NOTE: 288P. PB80-125065

ABSTRACT: THIS PUBLICATION CONTAINS THE PROCEEDINGS OF THE NATIONAL CONFERENCE ON WATER CONSERVATION AND MUNICIPAL WASTEWATER FLOW REDUCTION, HELD NOVEMBER 28 AND 29, 1978, IN CHICAGO, ILLINOIS. THE CONFERENCE FOCUSED MAINLY UPON MUNICIPAL AND HOUSEHOLD CONSERVATION MEASURES, WITH SPEAKERS PRESENTING PAPERS RANGING FROM THE THEORETICAL TO THE HIGHLY PRACTICAL. TOPICS COVERED DURING THE TWO-DAY MEETING VARIED FROM THE ANALYSIS OF RATE STRUCTURES THAT ENCOURAGE CONSERVATION, TO DISCUSSIONS OF HOUSEHOLD WATER FLOW CONTROL DEVICES.

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

IRIS ACCESSION NUMBER: EW006462

PUBLICATION DATE: 80

TITLE: WHAT EVERY ENGINEER SHOULD KNOW ABOUT HUMAN RESOURCES MANAGEMENT.

PERSONAL AUTHOR: MARTIN, DESMOND D.; SHELL, RICHARD L.

DESCRIPTOR: *COMMUNICATIONS; *EMPLOYEE RELATIONS; *ENGINEERING; *HUMAN RELATIONS; HUMAN RESOURCES; LEADERSHIP; *MANAGEMENT; MANPOWER NEEDS; *ORGANIZATIONAL EFFECTIVENESS; *ORGANIZATIONAL THEORY; PROBLEM SOLVING; STAFF RELATIONS

DESCRIPTIVE NOTE: 192P. PRICE: $12.50

ABSTRACT: THE PURPOSE OF THIS BOOK IS TO PROVIDE TECHNICAL MANAGERS WITH TESTED MANAGEMENT CONCEPTS AND TECHNIQUES THAT CAN BE APPLIED TO INCREASE BOTH MANAGERIAL AND ORGANIZATIONAL EFFECTIVENESS. IN ORDER TO ACHIEVE THIS GOAL, THE ANALYSIS OF MANAGEMENT PROBLEMS HAS BEEN BROKEN DOWN TO INCLUDE SOUND PRINCIPLES AND PRACTICES OF MANAGEMENT WITH A HEAVY EMPHASIS ON BEHAVIORAL CONCEPTS. CHAPTERS INCLUDE: PLANNING AND FORECASTING; ORGANIZING AND STAFFING; DIRECTING AND CONTROLLING; DECISION MAKING; INDIVIDUALS AND GROUPS: THEIR NEEDS AND BEHAVIOR; BUILDING EFFECTIVE COMMUNICATION; MOTIVATING THE TECHNICAL EMPLOYEE; LEADERSHIP IN THE TECHNICAL ENVIRONMENT; EFFECTIVE MANAGEMENT OF THE CHANGE PROCESS; MANAGEMENT BY OBJECTIVES: A SUCCESSFUL TOOL FOR INTEGRATING PARTICIPATION AND CONTROL; AND MANAGERIAL AND ORGANIZATIONAL EFFECTIVENESS.

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

IRIS ACCESSION NUMBER: EW006463

PUBLICATION DATE: DEC 80

TITLE: AMERICA'S SOIL AND WATER: CONDITION AND TRENDS.

DESCRIPTOR: AGRICULTURE; *CONSERVATION; FORESTRY; LAND MANAGEMNET; *LAND USE; *MANAGEMENT; *SOILS; *WATER RESOURCES; WATER SUPPLY; WATER USE

DESCRIPTIVE NOTE: 32P.

ABSTRACT: THIS PUBLICATION EXAMINES THE CONDITION OF SOIL AND WATER ON AMERICA'S NON-FEDERAL LANDS. TOPICS COVERED INCLUDE: LAND CLASSIFICATION; LOSS OF FARMLANDS; SOIL CONDITIONS; EROSION; TRENDS IN LAND USE; FOREST MANAGEMENT; LAND RECLAMATION; WETLANDS; WATER SUPPLY, USE, AND POLLUTION; AND CONSERVATION AND POLLUTION CONTROL TECHNIQUES. THE TEXT IS WELL ILLUSTRATED WITH MAPS AND GRAPHS.

AVAILABILITY: U. S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, WASHINGTON, DC 20250

IRIS ACCESSION NUMBER: EW006464

TITLE: WETLAND - OUR NATURAL PARTNERS IN WASTEWATER MANAGEMENT.

DESCRIPTOR: *COSTS; *FACILITIES; LAND USE; *LAND APPLICATION; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PLANNING; *TERTIARY TREATMENT; *WETLANDS; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: FREE ON LOAN 16MM SOUND FILM.

ABSTRACT: DESCRIBED AND ILLUSTRATED IS THE USE OF WETLANDS AS A SUBSTITUTE FOR A TERTIARY TREATMENT FACILITY. THE USE OF THIS NATURAL NUTRIENT ABSORPTION SYSTEM CAN BE COST EFFECTIVE AND ATTAIN QUALITY RESULTS.

AVAILABILITY: MODERN TALKING PICTURE SERVICE, ROOM 107, 2000 "L" STREET, NW, WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW006465

PUBLICATION DATE: NOV 80

TITLE: 109(B) STATE TRAINING CENTER FACILITY ASSESSMENT, PROGRAM EVALUATION, AND GUIDE DEVELOPMENT. FINAL REPORT.

PERSONAL AUTHOR: MIKLAS, MICHAEL P., JR.

DESCRIPTOR: FEDERAL PROGRAMS; POST SECONDARY EDUCATION; *PROGRAM DESCRIPTIONS; *PROGRAM EVALUATION; STATE PROGRAMS; TECHNICAL EDUCATION; WASTE DISPOSAL; *WATER POLLUTION;

*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 285P. EDRS PRICE: MF01/PC12 PLUS POSTAGE; CONTAINS MARGINAL LEGIBILITY IN APPENDICES.

ABSTRACT: SECTION 109(B) OF THE 1972 FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS AUTHORIZED FUNDING FOR THE CONSTRUCTION OF STATEWIDE WATER TREATMENT TRAINING FACILITIES. DESCRIBED IN THIS REPORT IS WORK CONDUCTED BY SOUTHWEST RESEARCH INSTITUTE (SWRI) TO: (1) AID IN DEVELOPING UPDATED 109(B) GUIDANCE DOCUMENTS; (2) CHARACTERIZE AND EVALUATE EXISTING 109(B) CENTERS; AND (3) COORDINATE A WORKSHOP FOR REPRESENTATIVES OF 109(B) STATEWIDE TRAINING CENTERS. CHAPTERS I THROUGH V DISCUSS BACKGROUND INFORMATION ON 109(B) LEGISLATION, IMPLEMENTATION, GUIDANCE DOCUMENTS, AND PROGRAMS. PROGRAMS AT EXISTING OR PLANNED 109(B) FACILITIES ARE DESCRIBED IN CHAPTER VI, WHILE CHAPTER VII SUMMARIZES THE TWO AND ONE-HALF DAY "109(B) GUIDANCE DEVELOPMENT WORKSHOP" PROCEEDINGS. PRESENTED IN THE APPENDIX ARE RELEVANT GOVERNMENT DOCUMENTS, SWRI'S 109(B) QUESTIONNAIRE, AND A LIST OF CONTACT PERSONS.(ED 195 407)

AVAILABILITY: ERIC, DOCUMENT REPRODUCTION SERVICE, PO BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW006466

PUBLICATION DATE: NOV 79

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY AND WATER RESOURCES MATERIALS. SUPPLEMENT I (1979-80).

DESCRIPTOR: *AUDIOVISUAL AIDS; ENVIRONMENTAL EDUCATION; *INFORMATION DISSEMINATION; *INSTRUCTIONAL MATERIALS; PESTICIDES; TECHNOLOGY; *WATER POLLUTION; WATER RESOURCES; *WASTEWATER TREATMENT; WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: SUBSCRIPTION $12.00, $4.00 EACH

ABSTRACT: PRESENTED ARE ABSTRACTS AND INDEXES TO SELECTED PRINT AND NON-PRINT MATERIALS RELATED TO WASTEWATER TREATMENT AND WATER QUALITY EDUCATION AND INSTRUCTION. 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.(ED 195 448)

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006467

PUBLICATION DATE: MAR 80

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY AND WATER RESOURCES MATERIALS. SUPPLEMENT II (1980).

DESCRIPTOR: *AUDIOVISUAL AIDS; ENVIRONMENTAL EDUCATION; *INFORMATION DISSEMINATION; *INSTRUCTIONAL MATERIALS; PESTICIDES; TECHNOLOGY; *WATER POLLUTION; WATER RESOURCES; *WASTEWATER TREATMENT; WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: SUBSCRIPTION $12.00, $4.00 EACH

ABSTRACT: PRESENTED ARE ABSTRACTS AND INDEXES TO SELECTED PRINT AND NON-PRINT MATERIALS RELATED TO WASTEWATER TREATMENT AND WATER QUALITY EDUCATION AND INSTRUCTION. 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.(ED 195 449)

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006468

PUBLICATION DATE: JUL 80

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY AND WATER RESOURCES MATERIALS. SUPPLEMENT III (1980).

DESCRIPTOR: *AUDIOVISUAL AIDS; ENVIRONMENTAL EDUCATION; *INFORMATION DISSEMINATION; *INSTRUCTIONAL MATERIALS; PESTICIDES; TECHNOLOGY; *WATER POLLUTION; WATER RESOURCES; *WASTEWATER TREATMENT; WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: SUBSCRIPTION $12.00, $4.00 EACH

ABSTRACT: PRESENTED ARE ABSTRACTS AND INDEXES TO SELECTED PRINT AND NON-PRINT MATERIALS RELATED TO WASTEWATER TREATMENT AND WATER QUALITY EDUCATION AND INSTRUCTION. 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.(ED 195 450)

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006469

PUBLICATION DATE: DEC 79

TITLE: A COURSE ON TROUBLESHOOTING O & M PROBLEMS IN WASTEWATER TREATMENT FACILITIES. COURSE NUMBER 179.2. INSTRUCTOR NOTEBOOK.

PERSONAL AUTHOR: BRYANT, JAMES O., JR.; AND OTHERS

DESCRIPTOR: ENVIRONMENTAL STANDARDS; INSTRUCTIONAL MATERIALS; POST SECONDARY EDUCATION; *SANITATION; *TECHNICAL EDUCATION; TECHNOLOGY; *UTILITIES; *WASTE DISPOSAL; *WATER POLLUTION; WATER RESOURCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1,756P. EDRS PRICE: MF15/PC71 PLUS

POSTAGE; PAGES T3.2.5-T3.2.18 REMOVED DUE TO COPYRIGHT RESTRICTIONS.

ABSTRACT: INTENDED FOR PERSONS ASSOCIATED WITH WASTEWATER TREATMENT PLANT OPERATIONS AND MANAGEMENT (O&M), THE COURSE DESCRIBED IS DESIGNED TO ADDRESS SIGNIFICANT FACTORS CONTRIBUTING TO POOR PLANT PERFORMANCE. THE TRAINING MATERIALS DISCUSS THE INTERACTION BETWEEN SEVERAL POTENTIAL CAUSES OF PROBLEMS AND STRESS THE NEED FOR COMPREHENSIVE CORRECTIVE ACTION PROGRAMS. FOLLOWING A SET OF GUIDELINES FOR THE COURSE DIRECTOR, 15 UNITS OF INSTRUCTION ARE PRESENTED. THESE CONTAIN A TOTAL OF 49 LESSONS AND ARE GENERALLY OFFERED AS A 30-35 HOUR SHORT COURSE. IN ADDITION TO THE 12 UNITS WHICH DEAL DIRECTLY WITH O&M PROBLEMS ARE INTRODUCTORY AND CLOSING UNITS AND A UNIT WHICH EXAMINES ELEMENTS OF THE TROUBLESHOOTING PROCESS. EACH LESSON PLAN INCLUDES THE PURPOSE, TRAINEE ENTRY-LEVEL BEHAVIORS, OBJECTIVES, SCHEDULE, MATERIALS, CLASSROOM SETUP, LESSON OUTLINE, AND REFERENCES. ALL MATERIALS THAT APPEAR IN A TRAINEE'S NOTEBOOK OR WHICH SHOULD BE REPRODUCED AS HANDOUTS ARE LOCATED AFTER CORRESPONDING LESSONS. INSTRUCTIONAL APPROACHES RANGE FROM LECTURES TO SIMULATIONS, ANALYSES OF RECORDS, AND SMALL GROUP PROBLEM-SOLVING SESSIONS. THE COURSE IS DESIGNED TO HELP TRAINEES DEVELOP A SET OF BASIC TOOLS TO APPLY IN A VARIETY OF O&M SITUATIONS.(ED 195 390)

AVAILABILITY: ERIC, DOCUMENT REPRODUCTION SERVICE, PO BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW006470

PUBLICATION DATE: JUN 80

TITLE: GROUNDWATER AND DISTRIBUTION WORKBOOK.

PERSONAL AUTHOR: EKMAN, JOHN E.

DESCRIPTOR: EARTH SCIENCE; POST SECONDARY EDUCATION; PUBLIC HEALTH; *PUBLIC SERVICE OCCUPATIONS; SCIENCE EDUCATION; *TECHNICAL EDUCATION; TECHNICAL OCCUPATIONS; *UTILITIES; *WATER RESOURCES; *GROUNDWATER; WATER DISTRIBUTION; WATER QUALITY; WATER SUPPLY; *WATER WORKS OPERATORS

DESCRIPTIVE NOTE: 263P. EDRS PRICE: MF01/PC11 PLUS POSTAGE.

ABSTRACT: PRESENTED IS A STUDENT MANUAL DESIGNED FOR THE WISCONSIN VOCATIONAL, TECHNICAL AND ADULT EDUCATION GROUNDWATER AND DISTRIBUTION TRAINING COURSE. THIS PROGRAM INTRODUCES WATERWORKS OPERATORS-IN-TRAINING TO BASIC SKILLS AND KNOWLEDGE REQUIRED FOR THE OPERATION OF A GROUNDWATER DISTRIBUTION WATERWORKS FACILITY. ARRANGED ACCORDING TO THE GENERAL ORDER OF WATER FLOW THROUGH A WATER SUPPLY FACILITY, WORKBOOK TOPICS ARE OFFERED IN A COMPETENCY-BASED MODULAR FORMAT. EACH MODULE CONTAINS SIX SECTIONS: (1) INTRODUCTION, (2) OBJECTIVES, (3) LEARNING ACTIVITIES, (4) WORKSHEETS, (5) STUDENT SELF-CHECK, AND (6) FINAL CHECKOUT. RECOMMENDED LEARNING MATERIALS TO BE USED IN CONJUNCTION WITH THIS WORKBOOK INCLUDE TEXTBOOKS, FILMS, SLIDES, A VIDEO TAPE, MAPS, AND PAMPHLETS. TAKEN TOGETHER, EACH STUDENT'S FINAL CHECKOUTS COMPRISE AN INDIVIDUAL PROGRESS RECORD WHICH CAN BE USED TO IDENTIFY ACHIEVEMENT OF COURSE OBJECTIVES.(ED 195 406)

AVAILABILITY: ERIC, DOCUMENT REPRODUCTION SERVICE, PO BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW006471

PUBLICATION DATE: 81

TITLE: PIPELAYING EQUIPMENT.

DESCRIPTOR: *CONSTRUCTION; *EQUIPMENT; *PIPES; *SEWERS; *WASTEWATER COLLECTION; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: A-8 - A-9P.

ABSTRACT: THE MOVEMENT OF WATER, WHETHER IT BE STORMWATER, POTABLE WATER SUPPLY OR SEWAGE, IS ACCOMPLISHED PRIMARILY THROUGH PIPES. BOTH GRAVITY FLOW AND PUMPED FLOW ARE USED. IN MOST INSTANCES, BECAUSE OF CLIMATE, CONTOUR, OR OTHER CIRCUMSTANCES, THE PIPES ARE BURIED. THUS TRENCHING AND/OR JACKING AND BORING BECOME THE HANDMAIDENS OF PIPE INSTALLATION.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006472

PUBLICATION DATE: 81

TITLE: RAW WATER PREPARATION.

DESCRIPTOR: COAGULATION; *EQUIPMENT; FILTRATION; *GROUNDWATER; *OPERATIONS (WATER); SEDIMENTATION; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: C-2 - C-10P.

ABSTRACT: THIS JOURNAL ARTICLE DESCRIBES THE TECHNIQUES USUALLY APPLIED TO SURFACE WATERS WHICH ARE NEEDED FOR PUBLIC CONSUMPTION. THE TREATMENT OF SURFACE WATERS CONSISTS OF A MINIMUM OF COAGULATION, FLOCCULATION, SETTLING, FILTRATION, AND DISINFECTION IN ORDER TO MEET THE REQUIREMENTS FOR TURBIDITY, COLOR, ODOR, AND MICROORGANISM REMOVAL. SIMILAR TECHNIQUES FOR GROUNDWATER ARE ALSO DESCRIBED.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006473

PUBLICATION DATE: 81

TITLE: FILTRATION.

DESCRIPTOR: COAGULATION; *EQUIPMENT; *FILTRATION; GROUNDWATER; *OPERATIONS (WATER); *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: C-10 - C-15P.
ABSTRACT: AFTER THE CLARIFICATION STEP IN WATER TREATMENT, A FILTER IS REQUIRED TO REMOVE ALL THE SUSPENDED MATTER. FILTRATION WILL NOT ONLY REMOVE RESIDUAL FORMS OF TURBIDITY BUT ALSO MICROORGANISMS INCLUDING MANY OF THE DISEASE PRODUCING FORMS OF PROTOZOA. MANY MECHANISMS ARE EMPLOYED, BUT THE CONVENTIONAL PROCESS USES FILTRATION THROUGH A GRANULAR MEDIUM - SAND, ANTHRACITE COAL, GRANULAR ACTIVATED CARBON, GRAPHITE, GARNET, GRAVEL AND COMBINATIONS. FILTRATION CAN BE ACCOMPLISHED IN GRAVITY-FLOW ARRANGEMENTS OR WITH THE SYSTEM COMPLETELY UNDER PRESSURE. THE PRIMARY DRINKING WATER REGULATIONS ADOPTED PURSUANT TO THE PASSAGE OF THE SAFE DRINKING WATER ACT SPECIFY LIMITS ON TURBIDITY WHICH CAN GENERALLY BE MET WITH THE APPLICATION OF MODERN FILTRATION SYSTEMS.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006474

PUBLICATION DATE: 81

TITLE: SOFTENING, IRON AND MANGANESE REMOVAL.

DESCRIPTOR: DESALINATION; EQUIPMENT; *GROUNDWATER; *IRON; *MANGANESE; *MINERALS; *OPERATIONS (WATER); *WATER TREATMENT; *WATER SOFTENING

DESCRIPTIVE NOTE: C-15 - C-21P.

ABSTRACT: REMOVAL OF EXCESSIVE OR UNDESIRABLE MINERALS IS BEING MORE AND MORE HIGHLY REGULATED. BECAUSE OF THE HIGH SOLVENT CAPABILITY OF WATER, IT ALWAYS CONTAINS DISSOLVED IMPURITIES IN ITS STATE AS A NATURAL RESOURCE, WHETHER THE AQUIFER SOURCE IS UNDERGROUND OR ON THE GROUND SURFACE. THE CONCENTRATION OF IMPURITIES WILL VARY EXTENSIVELY DEPENDING ON THE MINERALS AND OTHER SUBSTANCES TO WHICH THE WATER HAS BEEN EXPOSED.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006475

PUBLICATION DATE: 81

TITLE: DISINFECTION, TASTE AND ODOR CONTROL.

DESCRIPTOR: *DISINFECTION; EQUIPMENT; *ODORS; *OPERATIONS (WATER); *TASTES; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: C-21 - C-26P.

ABSTRACT: A PRIME REQUIREMENT OF QUALITY WATER IS THAT IT BE SAFE FOR CONSUMPTION. OTHER QUALITIES ARE THAT IT BE FREE FROM ODORS AND UNPLEASANT TASTES. THE SECONDARY DRINKING WATER REGULATIONS INDICATE A MAXIMUM ODOR NUMBER OF 3. THE USUAL METHOD OF REDUCING ODOR CONCENTRATIONS IN WATER IS THE APPLICATION OF POWDERED ACTIVATED CARBON. FILTRATION THROUGH GRANULAR ACTIVATED CARBON BEDS IS A DESIRABLE ALTERNATIVE.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006476

PUBLICATION DATE: 81

TITLE: MAINS AND SERVICES.

DESCRIPTOR: *EQUIPMENT; *PIPES; *WATER SUPPLY; *WATER STORAGE; *WATER PIPES; *WATER MAINS; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: C-26 - C-35P.

ABSTRACT: THE WATER DISTRIBUTION SYSTEM HAS THE FUNCTION OF GETTING THE TREATED WATER TO THE RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL USERS IN THE COMMUNITY. THE PRINCIPAL TASK OF THE SYSTEM IS TRANSPORTATION VIA AN UNDERGROUND FABRICATED PIPE NETWORK THAT REACHES ALL PARTS OF THE SERVICE AREA. DISTRIBUTION ALSO INVOLVES STORAGE OF WATER TO FULFILL PEAK DEMANDS AND TO MAINTAIN A FAIRLY CONSTANT PRESSURE THROUGHOUT THE SYSTEM. THE CHOICE OF MATERIALS IS VARIED IN THAT DUCTILE IRON, CAST IRON, ASBESTOS-CEMENT, STEEL, CONCRETE, AND THERMOPLASTICS ARE AVAILABLE. STANDARD SPECIFICATIONS FOR WATER SERVICE ARE ESTABLISHED FOR ALL AND ALL HAVE ACCEPTABLE RECORDS OF EXPERIENCE, WITHIN SPECIFICATION LIMITS.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006477

PUBLICATION DATE: 81

TITLE: PUMPS AND MOTORS.

DESCRIPTOR: *DISTRIBUTION SYSTEMS; *EQUIPMENT; MANUALS; *MOTORS; *PUMPS; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: C-35 - C-42P.

ABSTRACT: IN ORDER TO OVERCOME FRICTION IN PIPES AND FITTINGS IN WATER DISTRIBUTION SYSTEMS, AND TO SUPPLY THE REQUIRED PRESSURES, ENERGY IS ADDED TO THE SYSTEM BY USING ELECTRIC POWER TO OPERATE MOTORS AND PUMPS. THERE ARE FIVE BASIC TYPES OF PUMPS USED IN WATER DISTRIBUTION SYSTEMS. THEY ARE TERMED: LOW LIFT, DEEP WELL, HIGH LIFT, BOOSTER, AND STANDBY.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006478

PUBLICATION DATE: 81

TITLE: VALVES AND HYDRANTS.

DESCRIPTOR: *EQUIPMENT; HYDRAULICS; *HYDRANTS; MAINTENANCE; *VALVES; *WATER TREATMENT; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: C-42 - C-48P.

ABSTRACT: COMPLEMENTING FEATURES OF THE WATER TREATMENT AND DISTRIBUTION SYSTEM ARE VALVES AND HYDRANTS. VALVES ARE USED FOR MANY PURPOSES BEYOND TURNING COMPONENTS "ON" AND "OFF". ONE OF THE PRIMARY FUNCTIONS IN THE DISTRIBUTION NETWORK IS TO ISOLATE SECTIONS FOR REPAIR AND REHABILITATION. THEY ARE ALSO USED IN FLOW CONTROL, PROCESS CONTROL, PREVENTION OF PIPELINE SURGES AFTER A PUMP HAS STOPPED, PUMP THROTTLING, AND PRESSURE CONTROL IN MAINS. THE PRIMARY IMPORTANCE OF A HYDRANT IS IN PROVIDING ADEQUATE QUANTITIES OF WATER AT REQUIRED PRESSURES FOR FIREFIGHTING. OPERATION ACCESSORIES, SUCH AS GEARING FOR MANUAL OPERATION, MOTOR OR HYDRAULIC OPERATORS AND SOLENOIDS ADD TO THE VERSITILITY OF THEIR APPLICATION. AS WITH ALL MECHANICAL DEVICES, VALVES REQUIRE MAINTENANCE AND PERIODIC ATTENTION TO MAKE SURE THEY OPERATE AS DESIGNED AND NEEDED.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006479

PUBLICATION DATE: 81

TITLE: WATER STORAGE.

DESCRIPTOR: *CONSTRUCTION; *EQUIPMENT; *FACILITIES; GROUNDWATER; *RESERVOIRS; *WATER SUPPLY; *WATER STORAGE; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: C-48 - C-56P.

ABSTRACT: AFTER WATER HAS BEEN PUMPED INTO THE DISTRIBUTION NETWORK, THE SUPPLY AND DEMAND SITUATION IS CREATED ALL OVER AGAIN. ADEQUATE STORAGE CAPACITY CAN BUFFER THE SYSTEM AGAINST PERIODS OF HIGH DEMAND AND AGAINST DROUGHT OR OTHER INTERRUPTIONS IN THE HYDROLOGIC CYCLE. ANOTHER FUNCTION OF THE STORAGE FACILITY IS TO AID IN MAINTAINING ADEQUATE PRESSURE THROUGHOUT THE SYSTEM. IN SYSTEM DESIGN, THE ADEQUACY OF ALL OF THE COMPONENTS MUST BE CONSIDERED FROM A QUANTITY STANDPOINT AND ON PROTECTION OF WATER IN STORAGE FROM QUALITY DETERIORATION. THIS SECTION OF THE MANUAL COVERS CONSTRUCTION FEATURES OF RESERVOIRS, BOTH ELEVATED AND GROUND SURFACE, AND DEVELOPMENT OF GROUNDWATER SOURCES THROUGH WELL CONSTRUCTION.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006480

PUBLICATION DATE: 81

TITLE: METERING, MONITORING AND QUALITY CONTROL.

DESCRIPTOR: *EQUIPMENT; *MONITORING; *QUALITY CONTROL; SAMPLING; *WATER TREATMENT; *WATER METERS; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: C-56 - C-68P.

ABSTRACT: METERING, MONITORING, AND QUALITY CONTROL ARE THREE MAJOR ACCESSORY FUNCTIONS OF WATER TREATMENT OPERATIONS. ANALYTICAL PROCEDURES FOR PUBLIC WATER SUPPLY SYSTEMS HAVE TAKEN ON NEW SIGNIFICANCE WITH THE ADOPTION OF THE INTERIM PRIMARY DRINKING WATER REGULATIONS UNDER THE SAFE DRINKING WATER ACT, PL93-523. MICROBIOLOGICAL DETERMINATIONS ARE REQUIRED FOR ALL TREATMENT FACILITIES, ON AT LEAST A MONTHLY BASIS AND MONITORING FOR TRACE ORGANICS AND INORGANICS AT PERIODIC INTERVALS. A SECOND PURPOSE IS CONTROL OF THE TREATMENT PROCESS. EFFLUENTS MUST BE CONTINUALLY MONITORED TO EVALUATE THE EFFECTIVENESS OF THE TREATMENT PROCEDURES AND TO MAKE ADJUSTMENTS AS REQUIRED.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006481

PUBLICATION DATE: 81

TITLE: SYSTEM MAINTENANCE.

DESCRIPTOR: *EQUIPMENT; *MAINTENANCE; *OPERATIONS (WATER); VALVES; *WATER TREATMENT; *WATER DISTRIBUTION; *WATER STORAGE

DESCRIPTIVE NOTE: C-68 - C-74P.

ABSTRACT: THE EQUIPMENT AND SERVICES AVAILABLE IN THE MARKETPLACE COVER ALL PHASES OF MONITORING, DETECTING, CHECKING, PROTECTING, CLEANING, INSTALLING, REPAIRING, AND REHABILITATION OF THE GENERAL SYSTEM FOR WATER TREATMENT AND DISTRIBUTION. THIS SECTION OF THE MANUAL DISCUSSES THE EQUIPMENT AND SERVICES COVERING THE ABOVE ITEMS. VALVE, STORAGE TANK, AND METER MAINTENANCE ARE COVERED AND PIPE TOOLS ARE DESCRIBED.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006482

PUBLICATION DATE: 81

TITLE: COLLECTION SYSTEMS.

DESCRIPTOR: *COLLECTION SYSTEMS; *EQUIPMENT; *SEWERS; *WASTE DISPOSAL; *WASTEWATER COLLECTION; *WASTEWATER

DESCRIPTIVE NOTE: D-2 - D-9P.

ABSTRACT: THE DESIGN AND CONSTRUCTION OF THE NETWORK OF COLLECTING SEWERS AND INTERCEPTORS ARE CRITICAL FACTORS IN AVOIDING FUTURE PROBLEMS WITH BOTH THE MAINTENANCE OF THE SYSTEM AND OPERATION OF THE TREATMENT PLANT. THE COLLECTION SYSTEM REPRESENTS THE LARGEST PORTION OF THE INVESTMENT IN A SEWERAGE SYSTEM AND SHOULD BE ADEQUATE TO SERVE THE COMMUNITY WITHOUT REPLACEMENT WITHIN THE PERIOD OF AMORITIZATION. ALIGNMENTS SHOULD BE SELECTED WITH DUE REGARD TO ANTICIPATED FLOW AND PIPE SIZE, PIPE SHOULD BE DURABLE FOR THE CONDITIONS ENCOUNTERED, AND THE PIPE FLOW CHARACTERISTICS MUST BE CONSIDERED.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006483

PUBLICATION DATE: 81

TITLE: PUMPS AND VALVES.

DESCRIPTOR: *EQUIPMENT; *LIFT STATIONS; *PUMPS; *PUMP STATIONS; *VALVES; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: D-10 - D-18P.

ABSTRACT: IN GENERAL, WASTEWATER COLLECTION SYSTEMS ARE DESIGNED TO CARRY THE FLOW BY MEANS OF GRAVITY IN ORDER TO KEEP MAINTENANCE AND INSTALLATION COSTS TO A MINIMUM. PRACTICALLY, BECAUSE OF VARIATIONS IN TOPOGRAPHY, MINIMUM FLOW REQUIREMENTS, AND GRADES, PUMPING FACILITIES OF ONE TYPE OR ANOTHER ARE ALMOST ALWAYS REQUIRED. WHENEVER THERE IS A PUMPING FACILITY, USE OF VALVES IS REQUIRED -- TO CONTROL SURGES, PRESSURE, AND REGULATE FLOW THROUGHOUT A TREATMENT PLANT AND EFFLUENT DISCHARGE SYSTEM. BOTH PUMPS AND VALVES USED IN SEWER COLLECTION SYSTEMS REQUIRE CAREFUL DESIGN TO AVOID CLOGGING AND FLOW RESTRICTIONS.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006484

PUBLICATION DATE: 81

TITLE: PRIMARY TREATMENT.

DESCRIPTOR: *CLARIFICATION; *EQUIPMENT; *FACILITIES; *OPERATIONS (WASTEWATER); *PRIMARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D-18 - D-26P.

ABSTRACT: PRIMARY TREATMENT IN THE FIRST STEP OF POLLUTION CONTROL INVOLVES THE USE OF SCREENS, DIFFERENTIAL SETTLING, FLOTATION SEPARATORS, GRAVITY SETTLING, AND OTHER MISCELLANEOUS MEANS FOR THE REMOVAL OF SOLIDS FROM THE WASTEWATER STREAM. THE MORE EFFICIENT THIS INITIAL PROCESS, THE BETTER THE REMAINDER OF THE SYSTEM WILL OPERATE. THE SCREENS, SCREENING DISPOSAL DEVICES AND GRIT CHAMBERS ARE OFTEN SOURCES OF ODORS BECAUSE OF HYDROGEN SULFIDE BEING CARRIED BY THE INFLUENT. HYDROGEN PEROXIDE, AS AN ADDITIVE AT THESE SO CALLED HEADWORKS OR UPSTREAM OF THEM IN THE SEWERS WILL HELP SOLVE THIS PROBLEM AND WILL INHIBIT THE GROWTH OF ANEROBES THROUGHOUT THE PRIMARY TREATMENT PROCESS.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006485
PUBLICATION DATE: 81

TITLE: SECONDARY TREATMENT.

DESCRIPTOR: ACTIVATED SLUDGE; *AERATION; *OPERATIONS (WASTEWATER); *SECONDARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D-26 - D-35P.

ABSTRACT: MOST NATURALLY OCCURING ORGANIC COMPOUNDS IN WASTEWATER CAN BE OXIDIZED THROUGH AERATION PROCEDURES. BECAUSE THEY ARE USUALLY APPLIED FOLLOWING A PRELIMINARY STEP OF SOLIDS REMOVAL, THE OXIDATION PROCESSES ARE TERMED "SECONDARY TREATMENT". SECONDARY TREATMENT IS MOST OFTEN CONCERNED WITH THE CARBON AND SULPHER CYCLES. SOME OXIDATION OF NITROGEN MAY OCCUR, BUT THOSE COMPOUNDS AND THOSE OF PHOSPHOROUS ARE NOT EASILY DEGRADED BY SECONDARY TREATMENT.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006486

PUBLICATION DATE: 81

TITLE: ADVANCED TREATMENT.

DESCRIPTOR: EQUIPMENT; *FACILITIES; *OPERATIONS (WASTEWATER); *TERTIARY TREATMENT; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: D-35 - D-42P.

ABSTRACT: TERTIARY TREATMENT REFERS TO ANY ADDITIONAL PROCESSES APPLIED TO WASTEWATER BEYOND PRIMARY AND SECONDARY TREATMENT. A TERTIARY STEP MAY NOT BE NEEDED AT ALL, BUT WHERE SOLIDS ARE TO BE EFFECTIVELY REDUCED OR NITROGEN OR SOLUBLE BOD IS TO BE REMOVED FOLLOWING CONVENTIONAL SECONDARY TREATMENT, A TERTIARY STEP IS IN ORDER. TERTIARY TREATMENT MAY TAKE THE FORM OF SOLIDS REMOVAL FACILITIES, SUCH AS MULT-MEDIA FILTERS OR MICROSTRAINERS; CARBON FILTERS OR COLUMNS TO ABSORB NITROGEN AND ORGANICS; ION EXCHANGERS; PHOSPHOROUS REMOVAL TECHNIQUES; OR COMBINATIONS OF THESE.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006487

PUBLICATION DATE: 81

TITLE: SLUDGE DIGESTION AND DISPOSAL.

DESCRIPTOR: ANAEROBIC DIGESTION; AEROBIC TREATMENT; *EQUIPMENT; FACILITIES; *SLUDGE; *SLUDGE DIGESTION; *SLUDGE DISPOSAL; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D-42 - D-53P.

ABSTRACT: DISPOSAL OF SLUDGE HAS BECOME AN INCREASINGLY

DIFFICULT PROBLEM. FOR VARYING APPLICATIONS AND STEPS OF THE TREATMENT PROCESS, ANAEROBIC AND AEROBIC DIGESTION METHODS ARE USED FOR STABILIZATION OF ORGANIC MATERIAL. VARIOUS PROBLEMS SUCH AS DETENTION TIME REQUIREMENTS, SIZING OF DIGESTION TANKS, AND DEWATERING OF THE SLUDGE MUST ALL BE CONSIDERED. IN EITHER METHOD OF DISPOSAL OR COMBINATION THEREOF, THE FINAL DISPOSITION OF THE SOLIDS WHETHER BY LAND DISPOSAL, INCINERATION, COMPOSTING, OR OCEAN DUMPING PRESENTS ITS OWN SET OF PROBLEMS.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006488

PUBLICATION DATE: 81

TITLE: DISINFECTION, ODOR PREVENTION AND CONTROL.

DESCRIPTOR: *DISINFECTION; *EFFLUENTS; *ODORS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D-53 - D-57P.

ABSTRACT: DECOMPOSITION OF ORGANIC MATERIAL DURING THE WASTEWATER TREATMENT PROCESS CAN FREQUENTLY GIVE RISE TO UNPLEASANT ODORS AND POTENTIALLY DANGEROUS GASSES. ALSO, PATHOGENIC BACTERIA AND VIRUSES MAY ALSO SURVIVE ADVANCED TREATMENT PROCESSES AND THUS THE EFFLUENT REQUIRES A MEANS OF DISINFECTION BEFORE BEING DISCHARGED INTO THE ENVIRONMENT. BECAUSE OF ITS AVAILABILITY, CHLORINE HAS OFTEN BEEN USED AS A DISINFECTANT. RECENTLY OZONATION, ULTRAVIOLET RADIATION AND SULPHER DIOXIDE TREATMENT HAVE ALSO BEEN USED. CHLORINATION AND OZONATION IF APPLIED BEFORE OR AT INTERMEDIATE TREATMENT STAGES FUNCTION AS SEPTICITY RETARDANTS AND HELP CONTROL ODORS.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006489

PUBLICATION DATE: 81

TITLE: OPERATION CONTROL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSES; *EQUIPMENT; *LABORATORY PROCEDURES; *MONITORING; *MEASUREMENT; *PHYSICAL ANALYSIS; *QUALITY CONTROL; *SAMPLING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: D-57 - D-62P.

ABSTRACT: COMPLIANCE WITH THE NPDES REQUIRES THE CAREFUL MONITORING AND ANALYSIS OF THE WASTEWATER FLOW. THE CLEAN WATER ACT, OF WHICH THE NPDES IS A PART, ESTABLISHED A SERIES OF EXACTING CRITERIA FOR THE TREATMENT OF WASTEWATER AND FOR THE QUALITY OF THE EFFLUENT DISCHARGE. OPERATIONAL DATA IS NECESSARY IN ORDER TO FURNISH PROOF THAT THE PROVISIONS OF THE ACT ARE BEING COMPLIED WITH. CONSTANT SURVEILLANCE OF THE OVERALL TREATMENT OPERATION ALSO ALLOWS FOR DETECTION OF UNUSUAL FLOW OR INFLUENT CHARACTERISTICS AND PROVIDES INFORMATION NECESSARY TO APPLY CORRECTIVE MEASURES. PHYSICAL AND CHEMICAL ANALYSIS AT VARIOUS STAGES WILL INDICATE THE EFFICIENCY OF THE PROCESS AND WILL PINPOINT THOSE AREAS THAT MIGHT REQUIRE MODIFICATIONS.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006490

PUBLICATION DATE: 81

TITLE: SEWER MAINTENANCE AND REHABILITATION.

DESCRIPTOR: EQUIPMENT; FACILITIES; *MAINTENANCE; *REHABILITATION; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: D-62 - D-67P.

ABSTRACT: MAINTENANCE AND REHABILITATION ARE NECESSARY ANCILLARY FUNCTIONS OF ANY WASTEWATER COLLECTION AND TREATMENT SYSTEM. WITH PROPER ENGINEERING DESIGN, INSTALLATION, AND INSPECTION, A COLLECTION SYSTEM AND ITS APPURTENANCES SHOULD FUNCTION FOR MANY YEARS WITH LITTLE TROUBLE. CONTINUED INSPECTION AND MAINTENANCE CAN HELP INSURE ITS PROPER OPERATION. IN TIME, UNANTICIPATED IMPACT LOADING, SETTLEMENT, UNUSUAL FLOW CONDITIONS, CONTAMINANTS, AND OTHER FACTORS CAN LEAD TO THE EVENTUAL DETERIORATION OF THE SYSTEM. IN THE CASE OF COMBINED SYSTEMS, WHERE SANITARY SEWAGE AND STORMWATER FLOW IN A COMMON CONDUIT, ADDITIONAL DEMANDS ARE PLACED ON THE COLLECTION SYSTEM AND TREATMENT FACILITY. REHABILITATION OF PORTIONS OF THE SYSTEM CAN BE A COST-EFFECTIVE MEANS OF EXTENDING THE LIFE OF THE EQUIPMENT WITHOUT RESORTING TO COMPLETE RECONSTRUCTION.

AVAILABILITY: 1981 PUBLIC WORKS MANUAL

IRIS ACCESSION NUMBER: EW006491

PUBLICATION DATE: APR 80

TITLE: WORKSHOP ON VERIFICATION OF WATER QUALITY MODELS.

DESCRIPTOR: BACTERIA; EUTROPHICATION; HAZARDOUS SUBSTANCES; *MODELS; NONPOINT POLLUTION; OXYGEN; PLANNING; *REPORTS; SALINITY; SIMULATIONS; TEMPERATURE; VIRUSES; WASTES; WASTEWATER; *WORKSHOPS; *WATER QUALITY

DESCRIPTIVE NOTE: 258P. PB80-186539

ABSTRACT: THE U.S. EPA SPONSORED A "NATIONAL WORKSHOP ON THE VERIFICATION OF WATER QUALITY MODELS" TO EVALUATE THE STATE-OF-THE-ART OF WATER QUALITY MODELING AND MAKE SPECIFIC RECOMMENDATIONS FOR THE DIRECTION OF FUTURE MODELING EFFORTS. PARTICIPANTS REPRESENTED A BROAD CROSS-SECTION OF PRACTITIONERS OF WATER QUALITY MODELING IN GOVERNMENT, ACADEMIA, INDUSTRY, AND PRIVATE PRACTICE. THE ISSUES DISCUSSED DURING THIS WORKSHOP (HELD IN WEST POINT, NY, ON 7 - 9 MARCH 1979) WERE MODELS IN DECISION MAKING, MODEL DATA BASES, MODELING FRAMEWORK AND SOFTWARE VALIDATION, MODEL PARAMETER ESTIMATION, MODEL VERIFICATION, AND MODELS AS

PROJECTION TOOLS. THESE TOPICS WERE DISCUSSED BY PARTICIPANTS ORGANIZED INTO SMALL GROUPS ON WASTELOAD GENERATION, TRANSPORT, SALINITY-TDS, DISSOLVED OXYGEN-TEMPERATURE, BACTERIA-VIRUS, EUTROPHICATION, AND HAZARDOUS SUBSTANCES.

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

IRIS ACCESSION NUMBER: EW006492

PUBLICATION DATE: JUL 80

TITLE: ACTIVATED CARBON: OTHER USES. 1976-JUNE, 1980. (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

PERSONAL AUTHOR: CAVAGNARO, DIANE M.

DESCRIPTOR: AIR POLLUTION; ALTERNATIVE TECHNOLOGY; *ACTIVATED CARBON; *ANNOTATED BIBLIOGRAPHIES; *DRINKING WATER; INDUSTRY; POTABLE WATER; *WATER TREATMENT

DESCRIPTIVE NOTE: 363P. PB80-812514

ABSTRACT: THE USES OF ACTIVATED CARBON FOR OTHER THAN INDUSTRIAL WASTE TREATMENT ARE COVERED IN THIS BIBLIOGRAPHY OF WORLDWIDE RESEARCH. THE CITATIONS COVER THE USE OF ACTIVATED CARBON IN AIR POLLUTION, TEXTILES PROCESSING, ABSORPTION OF CHEMICALS AND RADIOACTIVE ISOTOPES, DRINKING WATER TREATMENT, THE MINING INDUSTRY, AND ELECTROCHEMISTRY. ITS PROPERTIES ARE ALSO DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 294 CITATIONS, 69 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW006493

PUBLICATION DATE: JUL 80

TITLE: SEWAGE SLUDGE DISPOSAL. FEBRUARY, 1976-JUNE, 1980. (CITATIONS FROM THE ENGINEERING INDEX DATA BASE).

PERSONAL AUTHOR: HUNDEMANN, AUDREY S.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *LAND APPLICATION; *SLUDGE; *SLUDGE DISPOSAL; SLUDGE DEWATERING; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 330P. PB80-813033

ABSTRACT: CITATIONS ON WORLDWIDE STUDIES ON SLUDGE RECYCLING, LAND APPLICATION, INCINERATION, BIOLOGICAL DEGRADATION, AND OCEAN DUMPING ARE PRESENTED. SLUDGE DEWATERING, DRYING, FREEZING, DETOXIFICATION, PIPING, AND FERMENTATION ARE AMONG TOPICS INCLUDED. CHEMICAL ANALYSIS, WATER POLLUTION IMPACTS, SOIL FERTILIZATION, AND CROP MONITORING ARE ALSO COVERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 298 CITATIONS, 32 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW006494

PUBLICATION DATE: JUL 80

TITLE: PLANNING AND MANAGEMENT OF WATER RESOURCE PROGRAMS. JUNE, 1977-MAY, 1980. (CITATIONS FROM THE NTIS DATA BASE).

PERSONAL AUTHOR: BROWN, ROBENA J.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *GROUNDWATER; IRRIGATION; INDUSTRIAL WATER; POTABLE WATER; *WATER RESOURCES; *WATER CONSERVATION; WATER QUALITY

DESCRIPTIVE NOTE: 300P. PB80-812670

ABSTRACT: THE CITED STUDIES COVER PLANNING AND MANAGEMENT OF WATER RESOURCE PROGRAMS AND PROJECTS AT THE LOCAL, REGIONAL, STATE, AND NATIONAL LEVELS. WATER QUALITY, DRINKING WATER, IRRIGATION WATER, AND INDUSTRIAL WATER STUDIES OF SPECIFIC LOCALITIES ARE INCLUDED IF THEY ARE APPLICABLE TO OTHER AREAS. THE TOPICS CONCERN THE IMPACT AND BENEFITS OF WATER RESOURCE DEVELOPMENT, WATER COSTS, WATER CONSERVATION, GROUNDWATER MANAGEMENT, DECISION MAKING, AND MODELING. (THIS UPDATED BIBLIOGRAPHY CONTAINS 170 CITATIONS, 130 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

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

IRIS ACCESSION NUMBER: EW006495

PUBLICATION DATE: SPR 80

TITLE: CAPITAL UNIVERSITY LAW REVIEW: SYMPOSIUM: HAZARDOUS WASTE MANAGEMENT.

DESCRIPTOR: *CASE STUDIES; *HAZARDOUS WASTES; *LEGAL PROOF; *LEGISLATION; *LAWS; *MANAGEMENT; *STATISTICAL PROOF; *SYMPOSIA

DESCRIPTIVE NOTE: 193P. PRICE: $5.00

ABSTRACT: THIS IS A REPORT OF A SYMPOSIUM FOR LAWYERS AND JUDGES HANDLING CASES RELATED TO HAZARDOUS WASTE MANAGEMENT. IT OFFERS CONCRETE ADVICE ABOUT HOW TO HANDLE VARIOUS ISSUES OF PROOF.

AVAILABILITY: CAPITAL UNIVERSITY LAW REVIEW, BUSINESS EDITOR, CAPITAL UNIVERSITY LAW & GRADUATE CENTER, 665 SOUTH HIGH STREET, COLUMBUS, OH 43215

IRIS ACCESSION NUMBER: EW006496
PUBLICATION DATE: APR 81

TITLE: PEAK-PERIOD DESIGN CRITERIA FOR WATER SUPPLY SYSTEMS.

PERSONAL AUTHOR: HUGHES, TREVOR C.

DESCRIPTOR: *DESIGN; *FACILITIES; *PLANNING; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: R-9 - R-15P.

ABSTRACT: ENGINEERS CUSTOMARILY DESIGN MUNICIPAL WATER DISTRIBUTION NETWORKS TO HANDLE PEAK-HOUR DEMANDS. TREATMENT PLANTS, WELL PUMPS AND FINISHED WATER RESERVOIRS MUST MEET 24 HOUR PEAKS. RAW WATER STORAGE RESERVOIRS ARE SIZED TO PROVIDE SEASONAL PEAK DEMANDS. DESPITE THE APPARENTLY ROUTINE NATURE OF THESE DESIGNS, NOT ENOUGH IS KNOWN ABOUT MATCHING WATER SUPPLY FACILITY CAPACITY TO FUTURE DEMAND LEVELS. THIS ARTICLE DEFINES SEVERAL CRITERIA HELPFUL IN DETERMINING THESE FUTURE DEMANDS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006497

PUBLICATION DATE: APR 81

TITLE: PH AND ALKALINITY IN BIOLOGICAL NITRIFICATION.

PERSONAL AUTHOR: STOVER, ENOS L.

DESCRIPTOR: *ALKALINITY; *BIOLOGICAL TREATMENT; *OPERATIONS (WASTEWATER); *PH; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: R-21 - R-23P.

ABSTRACT: DURING THE TREATMENT OF WASTEWATERS BY BIOLOGICAL TREATMENT PROCESSES, THE PH MUST USUALLY BE MAINTAINED WITHIN THE RANGE 6.0 TO 9.5, WITH BEST RESULTS NORMALLY OBTAINED BETWEEN PH 6.5 TO 8.5. THE OXIDATION OF NEUTRAL CARBON COMPOUNDS SUCH AS SUGARS BY HETEROTROPHIC BACTERIA RESULTS IN THE PRODUCTION OF ORGANIC ACIDS AS INTERMEDIATE PRODUCTS. THE FIRST STEP OF THE TWO-STEP ANAEROBIC TREATMENT PROCESS INVOLVES THE CONVERSION OF ORGANIC COMPOUNDS TO ORGANIC ACIDS. IF THE ALKALINITY AND BUFFERING CAPACITY OF THE WASTEWATERS SUBJECTED TO THESE PROCESSES ARE NOT SUFFICIENT, THE ALKALINITY AND PH MAY DECREASE TO LEVELS THAT INHIBIT THESE BACTERIOLOGICAL REACTIONS. CARBON DIOXIDE PRODUCED AS AN END PRODUCT OF BOTH AEROBIC AND ANAEROBIC BACTERIAL METABOLISM ALSO ACT TO REDUCE THE WASTEWATER ALKALINITY AND PH. THEREFORE, THE BUFFERING CAPACITY BECOMES AN IMPORTANT CHARACTERISTIC OF WASTEWATERS SUBJECTED TO CARBONACEOUS BIOLOGICAL TREATMENT PROCESSES.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006498
PUBLICATION DATE: APR 81

TITLE: MICROORGANISM INVENTORY IN ACTIVATED SLUDGE CONTROL.

PERSONAL AUTHOR: HIMEBAUGH, RONALD R.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ACTIVATED SLUDGE; HANDBOOKS; *MICROBIOLOGY; *MONITORING; *OPERATIONS (WASTEWATER); SLUDGE; *SLUDGE CHARACTERISTICS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: R-26 - R-30P.

ABSTRACT: IN THE FIELD OF WASTEWATER TREATMENT, THERE ARE SEVERAL CLASSICAL PARAMETERS USED SINGULARLY TO ASSESS AND CONTROL THE BIOLOGICAL ACTIVATED SLUDGE PROCESS. ALTHOUGH THE BIOLOGICAL TESTS SUCH AS THE OXYGEN UPTAKE RATE AND THE MICROORGANISM EXAMINATION HAVE BEEN IN EXISTENCE FOR YEARS, THEY HAVE FAILED TO BECOME MONITORING PARAMETERS WITH THE "CLOUT" THAT EXISTS WITH MOST OF THE OTHER COMMON PARAMETERS. POSSIBLY THIS SITUATION IS DUE TO A FAILURE ON THE PART OF PLANT OPERATORS TO RECOGNIZE THE ACTIVATED SLUDGE SYSTEM AS A MICROORGANISM SOCIETY AND ITS SUSCEPTIBILITY TO ADVERSE CHANGES IN THE ENVIRONMENT. FOR THIS REASON, A QUICK, EASY METHOD OF ASSESSING THE BIOLOGICAL STATUS OF THE ACTIVATED SLUDGE SYSTEM NEEDS TO BE INCORPORATED AS A DAILY PARAMETER OF CONSIDERATION.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006499

PUBLICATION DATE: APR 81

TITLE: EQUIPMENT PLANT START-UP.

PERSONAL AUTHOR: MARPLE, DONALD D.

DESCRIPTOR: *CONSTRUCTION; DESIGN; *EQUIPMENT; *FACILITIES; *MANAGEMENT; *OPERATIONS (WASTEWATER); START-UP; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: R-31 - R-32P.

ABSTRACT: THE WATER AND WASTEWATER EQUIPMENT MANUFACTURERS ASSOCIATION HAS SOME DEFINITE THOUGHTS AND COMMENTS ON IMPROVING THE OPERATION OF MUNICIPALLY OWNED WASTEWATER TREATMENT PLANTS, SPECIFICALLY ABOUT SOME THINGS THAT SHOULD BE DONE IN THE DESIGN, CONSTRUCTION, AND START-UP OF A PUBLICLY OWNED MUNICIPAL WASTEWATER TREATMENT FACILITY. SOME OF THESE COMMENTS ARE APPLICABLE TO ENGINEERS WHO DESIGN THE PLANT AND WHO WILL BE INVOLVED IN CHECKOUT, START-UP, AND THE INITIAL PHASES OF OPERATION. OTHER COMMENTS PERTAIN TO CONTRACTORS AND STILL OTHERS TO THE MANAGEMENT AND OPERATION OF THESE PLANTS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006500

PUBLICATION DATE: APR 81

TITLE: TEST EFFECT OF CHEMICALS ON BIOLOGICAL PROCESSES.

PERSONAL AUTHOR: SUN, WILLIAM; REGISTER, DONALD W.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIOLOGICAL ANALYSIS; *BIOLOGICAL TREATMENT; *CHEMICALS; *MONITORING; *TOXIC WASTES; *WASTE TREATMENT

DESCRIPTIVE NOTE: R-34 - R-47P.

ABSTRACT: THE IMPACT OF INCOMPATIBLE AND TOXIC POLLUTANTS ON A BIOLOGICAL WASTE TREATMENT SYSTEM IS WELL KNOWN. THOUSANDS OF CHEMICALS, ESPECIALLY ONES IN THE ORGANIC REALM, HAVE FORMIDABLE NAMES AND LIVE UP TO THEIR REPUTATION OF BEING TOXIC AND REFRACTORY. WHERE TIME IS NO HOLDBACK, LARGE WELL-EQUIPPED PLANT LABORATORIES CAN BE SET UP FOR BIOASSAY, BUT IF THE PLANT IS SMALL AND THE LABORATORY GEARED ONLY FOR MONITORING LAW REPORTS, BIOASSAY MAY BE DONE BY USING BOD5, GLUCOSE, AND GLUTAMIC ACID ANALYSIS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006501

PUBLICATION DATE: APR 81

TITLE: PRIMING PUMPS--WHICH WAY FOR YOU?

PERSONAL AUTHOR: FRENCH, WILLIAM W.

DESCRIPTOR: *CENTRIFUGAL PUMPS; *COSTS; *EQUIPMENT; PIPES; *PUMPS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: R-48 - R-50P.

ABSTRACT: CENTRIFUGAL PUMPS MUST BE PRIMED BEFORE THEY CAN PERFORM, OTHERWISE THE IMPELLER WILL ONLY AGITATE THE AIR IN THE CASING. THEREFORE, THE CASING AND THE SUCTION PIPE MUST BE COMPLETELY FULL OF FLUID BEING PUMPED SO THAT THE PUMP WILL "CATCH PRIME". THERE ARE AT LEAST EIGHT METHODS FOR PRIMING PUMPS; SOME OF THEM AS SIMPLE AS A CONSTANT FLOODING FROM THE SOURCE TO OTHERS AS COMPLEX AS AN AUTOMATIC PRIMER OR VACUUM PUMP. WHILE ANY OF THESE METHODS MAY BE USED, SOME HAVE UNWARRANTED COSTS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006502

PUBLICATION DATE: APR 81

TITLE: IT DOES COMPUTE.

PERSONAL AUTHOR: WALDO, JONATHAN

DESCRIPTOR: *CALCULATOR PROGRAMS; *CALCULATORS; *HYDRAULICS; *PIPE DESIGN; *PIPES

DESCRIPTIVE NOTE: R-52 - R-55P.

ABSTRACT: THIS ARTICLE GIVES EXAMPLES OF PROGRAMS FOR PROGRAMMABLE CALCULATORS. THESE HYDRAULIC PROGRAMS HAVE BEEN DEVELOPED FOR THE HEWLETT-PACKARD HP19C CALCULATOR, AND MAY BE USED WITH THE HP29C CALCULATOR. INCLUDED ARE PROGRAMS ON SEWER PIPE DESIGN, PIPE CULVERT ANALYSIS UNDER OUTLET CONTROL, PIPE CULVERT DESIGN UNDER OUTLET CONTROL, TRAPEZOIDAL OPEN CHANNEL DESIGN, AND PIPE NETWORK ANALYSIS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006503

PUBLICATION DATE: APR 81

TITLE: SOME BASIC SAFETY RULES AND SAFE PRACTICES.

DESCRIPTOR: *ACCIDENT PREVENTION; *SAFETY; *SAFETY RULES; SAFETY EDUCATION; *SAFETY EQUIPMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: R-56 - R-59P.

ABSTRACT: SAFETY IS A MATTER OF IMPORTANT CONCERN TO MANAGERS AND STAFFS OF WATER AND WASTEWATER UTILITIES. EVERY UTILITY, LARGE AND SMALL, SHOULD HAVE A SAFETY PROGRAM AND A SET OF GUIDELINES FOR SAFE PRACTICES. THE CONDENSATION OF THE DALLAS WATER UTILITIES SAFE PRACTICES HANDBOOK INCLUDES BASIC MATERIAL ON THE SUBJECT.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006504

PUBLICATION DATE: APR 81

TITLE: TRIHALOMETHANES IN DRINKING WATER.

PERSONAL AUTHOR: UMPHRES, MARK D.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CARCINOGENS; CHEMISTRY; *ORGANIC COMPOUNDS; *POTABLE WATER; *QUALITY CONTROL; *TRIHALOMETHANES; *WATER TREATMENT; *WATER SUPPLY

DESCRIPTIVE NOTE: R-65 - R-76P.

ABSTRACT: DURING THE PAST SEVERAL YEARS THERE HAS BEEN GROWING CONCERN OVER THE POSSIBLE CARCINOGENICITY OF NUMEROUS SYNTHETIC ORGANIC CHEMICALS IN DRINKING WATER. THIS ARTICLE PRESENTS AN OVERVIEW OF TRIHALOMETHANES (THM'S) -- THEIR OCCURRENCE, FORMATION, ANALYSIS, AND TREATMENT.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006505
PUBLICATION DATE: APR 81

TITLE: OZONE WATER TREATMENT SYSTEMS.

PERSONAL AUTHOR: NEBEL, CARL

DESCRIPTOR: DESIGN; *DISINFECTION; *DRINKING WATER; *FACILITIES; *OPERATIONS (WATER); *OZONE; *POTABLE WATER; *WATER TREATMENT

DESCRIPTIVE NOTE: R-77 - R-84P.

ABSTRACT: THE EFFECTS OF OZONE ON POTABLE WATER AND ITS PRACTICAL APPLICATIONS IN THE UNITED STATES ARE WELL DOCUMENTED IN LITERATURE. ONCE THE DECISION TO EMPLOY OZONE HAS BEEN MADE, THERE ARE MANY DESIGN CONSIDERATIONS FOR THE ENGINEER CONCERNING THE DESIGN OF THE OZONE PORTION OF THAT PLANT. WHEN OZONE IS USED TO TREAT POTABLE WATER, IT MUST BE TRANSFERRED FROM THE AIR IN WHICH IT WAS GENERATED TO THE LIQUID PHASE. THIS IS REFERRED TO AS MASS TRANSFER. PURE OZONE IS 12.5 TIMES MORE SOLUBLE IN WATER THAN IS OXYGEN. UNFORTUNATELY, IT CAN ONLY BE GENERATED ECONOMICALLY FROM AIR TO CONCENTRATIONS UP TO 2 PERCENT BY WEIGHT. THEREFORE, AT THESE MUCH LOWER AVAILABLE PARTIAL PRESSURES, IT BECOMES DIFFICULT TO DISSOLVE MORE THAN A FEW MG/L OF OZONE IN WATER.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006506

PUBLICATION DATE: APR 81

TITLE: ARTIFICIAL BASIN RECHARGE.

PERSONAL AUTHOR: NIGHTINGALE, HARRY L.; BIANCHI, WILLIAM C.

DESCRIPTOR: *GROUNDWATER; HYDRAULICS; SOILS; WATER RESOURCES; *WATER SUPPLY; *WATER COLLECTION; *WATER STORAGE

DESCRIPTIVE NOTE: R-85 - R-92P.

ABSTRACT: THE PROBLEMS ASSOCIATED WITH GROUNDWATER RECHARGE MAY BE DIVIDED INTO TWO CATEGORIES: (1) STABILIZING THE HYDRAULIC CONDUCTIVITY OF SURFACE AND SUBSURFACE SOIL LAYERS, AND (2) QUALITY CHARACTERISTICS OF THE RECHARGE WATER. THE INTERACTION BETWEEN THESE TWO PROBLEM AREAS NEARLY ALWAYS CAUSES "SOIL CLOGGING," AS PARTICULATES ACCUMULATE WITHIN THE SOIL-PORE SPACES NEAR THE SOIL SURFACE, EVENTUALLY SEALING IT, OR AT THE BORE-HOLE AQUIFER INTERFACE WHICH ACTS AS A FILTER IN RECHARGING SHAFTS OR WELLS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006507
PUBLICATION DATE: APR 81

TITLE: THAWING FROZEN SERVICES AND MAINS.

PERSONAL AUTHOR: BOWEN, RON

DESCRIPTOR: *FREEZING; *MAINTENANCE; *PIPES; *THAWING; *WATER MAINS; WATER PIPES; WATER SUPPLY; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: R-96 - R-97P.

ABSTRACT: THERE IS A DIFFERENCE BETWEEN THAWING FROZEN SERVICES AND MAINS. A FROZEN MAIN IS THE RESPONSIBILITY OF THE WATER DEPARTMENT AND IT MUST BE THAWED IF CONTINUAL SERVICES ARE TO BE PROVIDED THROUGH THAT WATER MAIN. WATERWORKS PEOPLE ALSO GENERALLY ACCEPT THE RESPONSIBILITY OF OWNERSHIP OF THE SERVICE LINE FROM THE CORPORATION COCK ON THE MAIN TO THE CURBSTOP AT THE PROPERTY LINE. FROM THIS POINT INTO THE HOME OR BUSINESS, THE SERVICE LINE IS PRIVATE PROPERTY. THAWING THIS PORTION OF THE SERVICE LINE IS REALLY THE OWNER'S RESPONSIBILITY.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006508

PUBLICATION DATE: APR 81

TITLE: LEAK DETECTION PRODUCTIVITY.

PERSONAL AUTHOR: GREELEY, DOUGLAS S.

DESCRIPTOR: *CONSERVATION; COSTS; *LEAKAGE; *MAINTENANCE; *OPERATIONS (WATER); *PIPES; *WATER SUPPLY; *WATER DISTRIBUTION; WATER RESOURCES

DESCRIPTIVE NOTE: R-98 - R-103P.

ABSTRACT: ONE LOGICAL PLACE FOR A WATER SUPPLY MANAGER TO BEGIN CONSERVING IS IN THE FIELD OF LEAK DETECTION AND THE SUPPRESSION OF UNACCOUNTED FOR WATER WASTE. VARIOUS ESTIMATES OF UNACCOUNTED FOR WATER LOSSES IN DISTRIBUTION SYSTEMS THROUGHOUT THE COUNTRY RANGE FROM 5 TO 45 PERCENT OF AVERAGE SYSTEM DEMAND, WHICH, IF TREATED AS A QUALITY CONTROL PROBLEM BY INDUSTRY, WOULD DEMAND IMMEDIATE MANAGEMENT ACTION TO INSURE THE PROFITABILITY, IF NOT THE FUTURE EXISTENCE OF THE BUSINESS. IN ORDER TO ENLIGHTEN MUNICIPAL POLICYMAKERS AS TO THE BENEFITS OF A LEAK DETECTION PROGRAM AND HIGHLIGHT AREAS OF COST SAVINGS, THE WATER SUPPLY MANAGER SHOULD PREPARE A SUMMARY OF THE PROFITS TO BE DERIVED FROM A LEAKAGE SURVEY PROGRAM.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006509

PUBLICATION DATE: APR 81

TITLE: DISTRIBUTION SYSTEM LEAK DETECTION AND CONTROL.

PERSONAL AUTHOR: HANKE, STEVE H.

DESCRIPTOR: *COST BENEFIT ANALYSIS; *CONSERVATION; *DISTRIBUTION SYSTEMS; *LEAKAGE; MODELS; *MAINTENANCE; *OPERATIONS (WATER); *WATER SUPPLY; *WATER DISTRIBUTION; WATER RESOURCES

DESCRIPTIVE NOTE: R-107 - R-108P.

ABSTRACT: IN AN ARTICLE IN THE JOURNAL OF THE AMERICAN WATER WORKS ASSOCIATION IN 1979, THE AUTHOR PRESENTED A MODEL WHICH MADE IT POSSIBLE TO DETERMINE WHETHER A WATER CONSERVATION POLICY IS DESIRABLE OR UNDESIRABLE. THE PURPOSE OF THIS PAPER IS TO DEMONSTRATE THE USEFULNESS OF THIS MODEL BY A CONCRETE APPLICATION; NAMELY, THE EVALUATION OF WASTE CONTROL POLICIES FOR A LARGE URBAN WATER SYSTEM.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006510

PUBLICATION DATE: APR 81

TITLE: SIMPLIFIED MONITORING TECHNIQUES FOR URBAN RUNOFF.

PERSONAL AUTHOR: BINDER, JAMES J.; AND OTHERS

DESCRIPTOR: ANALYTICAL TECHNIQUES; *COLLECTION SYSTEMS; *MONITORING; *RUNOFF WATERS; *STORMWATER; *SEWERS; *SURFACE RUNOFF; URBAN AREAS; WASTEWATER COLLECTION

DESCRIPTIVE NOTE: R-112 - R-117P.

ABSTRACT: MONITORING TECHNIQUES FOR URBAN STORMWATER RUNOFF RANGE FROM SIMPLE TO SOPHISTICATED. THE DATA REQUIREMENTS ARE DICTATED BY THE MODELING RESULTS AND THE OBJECTIVES OF THE PROGRAM. WHEN THE PROGRAM OBJECTIVES AND THE MINIMUM DATA NECESSARY TO MEET THESE OBJECTIVES ARE KNOWN, THE DESIGNER MAY THEN BE SOMEWHAT CREATIVE IN THE SELECTION AND MONITORING TECHNIQUES.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006511

PUBLICATION DATE: APR 81

TITLE: GROUTING PASSES DIFFICULT TEST.

PERSONAL AUTHOR: BUECHLER, JOHN

DESCRIPTOR: CONSTRUCTION; *COSTS; *DISTRIBUTION SYSTEMS; *GROUTING; *LEAKAGE; *MAINTENANCE; *PIPES; *WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: R-118 - R-121P.

ABSTRACT: PROJECTED FLOW FROM FUTURE DEVELOPMENT INDICATED A CAPACITY PROBLEM WOULD DEVELOP IN THE NORTHEAST AREA OF INDIANAPOLIS. LINE GROUTING UNDER EXTREMELY DIFFICULT CONDITIONS IS ESTIMATED TO HAVE ELIMINATED APPROXIMATELY 400,000 GAL/DAY OF INFILTRATION, AND, TOGETHER WITH CONSTRUCTION OF AN EQUALIZATION BASIN TO HANDLE THE REMAINING DRY WEATHER FLOW, HAS HELPED RELIEVE THE POTENTIAL OVERLOAD PROBLEM.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006512

PUBLICATION DATE: APR 81

TITLE: SLUDGE BLANKET IN ACTIVATED FINAL CLARIFIERS.

PERSONAL AUTHOR: BOYLE, WILLIAM H.

DESCRIPTOR: *ACTIVATED SLUDGE; AERATION; *CLARIFICATION; *OPERATIONS (WASTEWATER); *SLUDGE; *SLUDGE TREATMENT; SOLID WASTES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: R124, R129-130P.P.

ABSTRACT: IN THE ACTIVATED SLUDGE PROCESS, THE FINAL CLARIFIER FOLLOWS THE AERATION UNIT AND ITS PRIMARY PURPOSES ARE TO SEPARATE, BY GRAVITY, THE SOLIDS FROM THE MIXED LIQUOR FLOW FROM THE AERATION SYSTEM, TO COLLECT THE SETTLED SOLIDS AT THE BOTTOM, AND TO RETURN THESE SOLIDS TO THE SAME AERATION BASINS AS WELL AS WASTING TO THE SOLIDS HANDLING SYSTEM. IT IS IMPORTANT TO KNOW AND EVALUATE HOW ACTIVATED SLUDGE PHYSICALLY ACTS AT THE BOTTOM OF THE FINAL CLARIFIER BECAUSE SLUDGE DEPOSITION AND REMOVAL IS CRITICAL TO THE MASS LOADING DESIGN FACTOR AS WELL AS THE CONCENTRATION OF RETURN AND WASTE SLUDGE. EXAMINATION OF THE LOGIC AND DATA FROM FIELD INSTALLATIONS PROVIDES AN INSIGHT INTO THE SLUDGE BLANKET LEVEL AND ITS SOLIDS' CONCENTRATION.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006513

PUBLICATION DATE: APR 81

TITLE: CONTROL OF THE ACTIVATED SLUDGE PROCESS.

PERSONAL AUTHOR: CARTER, RAYMOND P.

DESCRIPTOR: *ACTIVATED SLUDGE; *ANALYTICAL TECHNIQUES; *CLARIFICATION; *OPERATIONS (WASTEWATER); *SLUDGE; *SOLID WASTES; *WASTEWATER TREATMENT; WASTEWATER SLUDGE; *WASTE DISPOSAL

DESCRIPTIVE NOTE: R-131 - R-136P.
ABSTRACT: VARIOUS METHODS HAVE BEEN USED TO CONTROL THE ACTIVATED SLUDGE PROCESS. ONE, THE SO CALLED "AL WEST" METHOD, HAS RECEIVED CONSIDERABLE ATTENTION BECAUSE THE TESTS USED FOR CONTROL ARE RELATIVELY SIMPLE AND FAST. MANY OPERATORS, HOWEVER, FIND THIS METHOD DIFFICULT TO MAINTAIN A STEADY STATE CONDITION. IF PLOTTED ON A GRAPH, THIS METHOD OF CONTROL WOULD SIMULATE A SINE CURVE. THIS IS DUE TO THE BASIC PREMISE OF THE FUNDAMENTAL FORMULA FOR WITHDRAWING OF SLUDGE FROM THE FINAL CLARIFIER WHICH IS BASED ON A MASS BALANCE.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006514

PUBLICATION DATE: APR 81

TITLE: LAND DISPOSAL OF HIGH CADMIUM SLUDGE.

PERSONAL AUTHOR: TARQUIN, ANTHONY J.

DESCRIPTOR: ACTIVATED SLUDGE; AEROBIC TREATMENT; *CADMIUM; *EFFLUENTS; *HEAVY METALS; *LAND APPLICATION; *PUBLIC HEALTH; *SLUDGE DISPOSAL; SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: R-142 - R-144P.

ABSTRACT: THE EMPHASIS THAT HAS BEEN PLACED ON LAND DISPOSAL OF EFFLUENTS AND SLUDGES IN RECENT YEARS HAS LED TO AN INCREASED AWARENESS OF THE POTENTIAL THREAT POSED BY HEAVY METALS CONTAINED THEREIN. THE HEAVY METAL WHICH SEEMS TO HAVE GENERATED THE MOST CONCERN IS CADMIUM, WHICH HAS BEEN LINKED TO A NUMBER OF HEALTH PROBLEMS IN HUMANS AND HAS BEEN SHOWN TO HAVE DELETERIOUS EFFECTS ON PLANTS AND ANIMALS AS WELL. A THREE AND ONE-HALF YEAR PROJECT INVOLVING LAND APPLICATION OF A HIGH CADMIUM SLUDGE BEGAN IN FEBRUARY 1976, IN THE SOUTHEASTERN UNITED STATES. AEROBICALLY DIGESTED WASTE ACTIVATED SLUDGE FROM AN INDUSTRIAL WASTEWATER TREATMENT PROCESS IS SPRAYED THROUGH SLUDGE GUNS ONTO LAND PREVIOUSLY USED FOR PASTURE.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006515

PUBLICATION DATE: APR 81

TITLE: EXTRACTING HEAVY METALS AND TOXIC ORGANICS FROM SLUDGE.

PERSONAL AUTHOR: KALINSKE, A. A.

DESCRIPTOR: *DETOXIFICATION; *HEAVY METALS; *OPERATIONS (WASTEWATER); SLUDGE; *SLUDGE TREATMENT; *TOXIC SUBSTANCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: R-148 - R-151P.
ABSTRACT: THE METHOD OF CONDITIONING MUNICIPAL WASTEWATER TREATMENT PLANT SLUDGES AHEAD OF DEWATERING AND/OR DRYING AND THE HANDLING OF THE ASSOCIATED SIDESTREAMS CAN AFFECT THE AMOUNT OF TOXIC ORGANICS AND HEAVY METALS PRESENT IN THE SLUDGE. THE POSSIBILITIES OF DETOXIFYING ORGANIC AND INORGANIC SLUDGES AND RESIDUES BY REDUCING THE HEAVY METAL CONTENT MAY BE NECESSARY AND JUSTIFIABLE IN ORDER TO MAKE A SLUDGE OR RESIDUE NON-HAZARDOUS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006516

PUBLICATION DATE: APR 81

TITLE: CONTROL SYSTEMS FOR RETURN AND WASTE SLUDGE.

PERSONAL AUTHOR: MCCARTHY; ROBERT L.; SOKOL, ROBERT L.

DESCRIPTOR: ACTIVATED SLUDGE; *EQUIPMENT; *FACILITIES; *INSTRUMENTATION; *OPERATIONS (WASTEWATER); PIPES; SLUDGE; *SLUDGE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: R-152 - R-154P.

ABSTRACT: RETURN AND WASTING OF SLUDGE IS THE NERVE CENTER FOR THE ACTIVATED SLUDGE PROCESS. FOR THIS REASON, METHODS OF CONTROLLING THIS PART OF THE PROCESS ARE VERY IMPORTANT. THIS ARTICLE DEALS WITH DEVICES, INSTRUMENTATION AND PIPING ARRANGEMENTS WHICH MAY AID IN THE APPLICATION OF THESE PROCESSES. SLUDGE LEVEL SENSORS, AIR LIFTS AND A VARIETY OF CONTROL ARRANGEMENTS ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006517

PUBLICATION DATE: APR 81

TITLE: EVALUATION OF WINTER APPLICATION OF LIQUID SLUDGE TO FARMLAND.

PERSONAL AUTHOR: BATES, THOMAS; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *HEAVY METALS; *LAND APPLICATION; *NUTRIENTS; *OPERATIONS (WASTEWATER); SLUDGE; SLUDGE DISPOSAL; *SLUDGE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: R-155 - R-156P.

ABSTRACT: A MAJOR PROJECT WAS BEGUN IN ONTARIO IN 1972 TO STUDY THE USE OF SEWAGE SLUDGE ON AGRICULTURAL LAND. IN ADDITION TO RUNOFF STUDIES, SINCE 1973 THE PROJECT HAS INCLUDED THREE FIELD EXPERIMENTS WHERE THREE SLUDGES RESULTING FROM CALCIUM HYDROXIDE (LIME), FERRIC CHLORIDE AND ALUMINUM SULFATE TREATMENT OF SEWAGE ARE APPLIED AT A SERIES

OF RATES IN COMPARISON WITH EQUIVALENT RATES OF NITROGEN FERTILIZER.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT REFERENCE HANDBOOK 1981

IRIS ACCESSION NUMBER: EW006518

PUBLICATION DATE: JUN 81

TITLE: OZONE TREATMENT OF POTABLE WATER - PART 1.

PERSONAL AUTHOR: NEBEL, CARL

DESCRIPTOR: *DISINFECTION; DISEASE CONTROL; *DRINKING WATER; ODORS; *OZONE; *POTABLE WATER; TASTES; *WATER TREATMENT

DESCRIPTIVE NOTE: 86-90P.

ABSTRACT: OZONE HAS BEEN USED FOR APPROXIMATELY 80 YEARS FOR THE TREATMENT OF POTABLE WATER, PRIMARILY IN EUROPE. THE USE OF OZONE FOR TREATING DRINKING WATER IS LARGELY RELATED TO ITS POWER AS AN OXIDANT. OZONE NOT ONLY OXIDIZES ORGANIC POLLUTANTS, BUT IT HAS THE ABILITY TO ACT AS A STERILANT. OZONE, AS APPLIED TO DRINKING WATER, HAS MANY USES, INCLUDING: BACTERIAL AND VIRAL DESTRUCTION; INCREASED SETTLEABILITY; OXIDATION OF TRIHALOMETHANE PRECURSORS, SULFIDES, CYANIDES AND REMOVAL OF ORGANIC COMPOUNDS CAUSING TASTES, COLORS AND ODORS; DESTRUCTION OF ALGAE; OXIDATION OF ORGANICS SUCH AS DETERGENTS, PESTICIDES, PHENOLS AND HUMIC, FULVIC AND TANNIC ACIDS; OXIDATION OF IRON, MANGANESE AND HEAVY METALS; AND CONVERSION OF LARGE MOLECULAR WEIGHT AND LESS BIODEGRADABLE ORGANICS INTO THOSE OF SMALLER AND MORE EASILY BIODEGRADABLE COMPOUNDS.

AVAILABILITY: PUBLIC WORKS, V112 N6

IRIS ACCESSION NUMBER: EW006519

PUBLICATION DATE: JUN 81

TITLE: BUILDING AN EPA ASSISTED WASTEWATER TREATMENT PLANT.

PERSONAL AUTHOR: BOND, RONALD L.

DESCRIPTOR: *CONSTRUCTION; *COOPERATIVE PLANNING; *DESIGN; *ENVIRONMENTAL PROTECTION AGENCY; *FACILITIES; GRANTS; *PLANNING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 92-94P.

ABSTRACT: THE CONSTRUCTION OF A MAJOR WASTEWATER TREATMENT FACILITY UNDER THE EPA GRANT PROGRAM DEMANDS THE BEST OF ALL THOSE PARTICIPATING IN IT. CONFLICTS ARE INEVITABLE, COMPROMISE IS REQUIRED AND THE PERFECT SOLUTION IS SELDOM ACHIEVED. HOWEVER, IF ALL PARTIES WILL RECOGNIZE THE PROBLEMS, EXERCISE SOUND JUDGEMENT, ACCEPT RESPONSIBILITY FOR THEIR ACTIONS AND NEVER LOSE SIGHT OF THE ULTIMATE GOAL, THEN IT IS POSSIBLE FOR PROJECTS TO BE CONSTRUCTED.

AVAILABILITY: PUBLIC WORKS, V112 N6

IRIS ACCESSION NUMBER: EW006520

PUBLICATION DATE: JUN 81

TITLE: SLUDGE SETTLING HAMPERED BY INDUSTRIAL DISCHARGE.

PERSONAL AUTHOR: GERARDI, MICHAEL H.

DESCRIPTOR: *FILAMENTOUS BULKING; *INDUSTRIAL WASTES; ORGANIC COMPOUNDS; *SLUDGE; *SLUDGE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 95-97P.

ABSTRACT: FILAMENTOUS BULKING IS ANY MAJOR DISCHARGE OF SOLIDS FROM A TREATMENT PLANT'S CLARIFIER INDUCED BY BACTERIAL OR FUNGAL FILAMENTOUS GROWTH. THIS PHENOMENA IS A MAJOR OPERATION NUISANCE FOR MANY ACTIVATED SLUDGE WASTEWATER TREATMENT PLANTS. POOR SLUDGE SETTLING DUE TO GAS ENTRAPMENT BY MIXED-LIQUOR FILAMENTOUS ORGANISMS WAS A RECURRING PROBLEM AT THE WILLIAMSPORT SANITARY AUTHORITY'S ACTIVATED SLUDGE WEST WASTEWATER TREATMENT PLANT. DISCHARGE OF A FATTY ACID DERIVITIVE WASTE FROM A MANUFACTURER OF FOOD EMULSIFIERS WAS IDENTIFIED AS THE CAUSE OF THIS PROBLEM. THE FATTY ACID DERIVITIVE INDUCED THE DEVELOPMENT OF FILAMENTOUS ORGANISMS.

AVAILABILITY: PUBLIC WORKS, V112 N6

IRIS ACCESSION NUMBER: EW006521

PUBLICATION DATE: MAY 81

TITLE: ENERGY CONSERVATION FOR EXISTING WASTEWATER TREATMENT PLANTS.

PERSONAL AUTHOR: BURRIS, BRUCE E.

DESCRIPTOR: CONSTRUCTION; *DESIGN; *ENERGY CONSERVATION; *FACILITIES; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 536-545P.

ABSTRACT: ALTHOUGH TOTAL ENERGY REQUIREMENTS FOR WASTEWATER TREATMENT ARE LESS THAN 1% OF THE TOTAL U.S. ENERGY PRODUCTION, THERE IS A DEFINITE NEED FOR ENERGY CONSERVATION IN WASTEWATER TREATMENT. RECENT SHORTAGES AND THE HIGH COST OF ELECTRICITY, FUELS, AND CHEMICALS HAVE BECOME IMPORTANT PLANT DESIGN AND OPERATIONAL CONSIDERATIONS. THERE IS MORE OPPORTUNITY FOR ENERGY CONSERVATION IN PLANNING AND DESIGN OF WASTEWATER TREATMENT FACILITIES. HOWEVER, SIGNIFICANT OPPORTUNITIES DO EXIST FOR ENERGY CONSERVATION IN EXISTING WASTEWATER TREATMENT PLANTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N5

IRIS ACCESSION NUMBER: EW006522

PUBLICATION DATE: MAY 81

TITLE: FACTORS AFFECTING EFFLUENT VARIABILITY FROM ACTIVATED SLUDGE PROCESSES.

PERSONAL AUTHOR: NIKU, SALAR; SCHROEDER, EDWARD D.

DESCRIPTOR: *ACTIVATED SLUDGE; *EFFLUENTS; PROCESS CONTROL; *QUALITY CONTROL; *RESEARCH REPORTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 546-559P.

ABSTRACT: VARIATIONS IN THE EFFLUENT QUALITY FROM ACTIVATED SLUDGE PROCESSES ARE THE RESULT OF A NUMBER OF INTERNAL AND EXTERNAL FACTORS. THE OBJECTIVE OF THIS STUDY WAS TO DETERMINE THE NATURE AND THE EXTENT OF THE VARIABILITY IN EFFLUENT QUALITY AND TO IDENTIFY FACTORS CONTRIBUTING TO THIS VARIABLILITY THROUGH STATISTICAL ANALYSIS OF OPERATING DATA.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N5

IRIS ACCESSION NUMBER: EW006523

PUBLICATION DATE: MAY 81

TITLE: ECONOMICS OF SLUDGE MANAGEMENT.

PERSONAL AUTHOR: HASIT, YAKIR; VESILIND, P. AARNE

DESCRIPTOR: *COSTS; COST EFFECTIVENESS; *DESIGN; *ECONOMICS; *FACILITIES; *SLUDGE DISPOSAL; SLUDGE; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 560-564P.

ABSTRACT: SLUDGE MANAGEMENT, INCLUDING HANDLING, TRANSPORTATION, AND DISPOSAL, COMPRISES ABOUT 35% OF THE CAPITAL COSTS AND 55% OF THE ANNUAL OPERATIONS AND MAINTENANCE COSTS OF A WASTEWATER TREATMENT PLANT. A DIFFICULT ASPECT OF SLUDGE ECONOMICS HAS BEEN THE DETERMINATION OF THE BASIC VARIABLES USED TO EXPRESS COST FUNCTIONS. THIS PAPER SUGGESTS THAT THE BASIC DESIGN VARIABLES OF SLUDGE PROCESSES CAN AND ALSO SHOULD BE THE VARIABLES USED IN DEFINING COST FUNCTIONS AND PROVIDES A SET OF CONSISTENT AND USEFUL COST EQUATIONS FOR VARIOUS SLUDGE TREATMENT PROCESSES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N5

IRIS ACCESSION NUMBER: EW006524

PUBLICATION DATE: OCT 79

TITLE: DETERMINING WASTEWATER TREATMENT COSTS FOR YOUR COMMUNITY.

DESCRIPTOR: *COSTS; *CONSTRUCTION; *FACILITIES; *OPERATIONS (WASTEWATER); *PLANNING; *WATER POLLUTION CONTROL; *WASTEWATER TREATMENT; *WASTEWATER COLLECTION; *WASTEWATER DISPOSAL

DESCRIPTIVE NOTE: 25P. PB80-130966

ABSTRACT: THE U. S. ENVIRONMENTAL PROTECTION AGENCY PROVIDES THIS BROCHURE TO ASSIST A COMMUNITY IN DETERMINING THE APPROXIMATE COST OF BUILDING AND OPERATING A MUNICIPAL WASTEWATER COLLECTION AND TREATMENT SYSTEM. THE BROCHURE HAS BEEN DEVELOPED FOR FACILITIES SERVING LESS THAN 50,000 PEOPLE.

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

IRIS ACCESSION NUMBER: EW006525

PUBLICATION DATE: JAN 81

TITLE: TRAINING MATERIALS ON TOXIC SUBSTANCES: TOOLS FOR EFFECTIVE ACTION, BOOK 1.

DESCRIPTOR: *COMMUNITY PROGRAMS; *CITIZEN PARTICIPATION; *HEALTH; *INSTRUCTIONAL MATERIALS; *PUBLIC PARTICIPATION; *POST SECONDARY EDUCATION; *PROJECT PLANNING; *PROGRAM DEVELOPMENT; REGULATIONS; *SAFETY; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 229P. FREE OF CHARGE.

ABSTRACT: THIS IS FIRST OF A TWO-PART TRAINING GUIDE ON TOXIC SUBSTANCES. IT PRESENTS ACTIVITIES AND INSTRUCTIONAL MATERIAL TO BE USED BY GROUPS OF VARYING LEVELS OF KNOWLEDGE AND EXPERIENCE WISHING TO UNDERTAKE A COMMUNITY PROJECT ON TOXIC SUBSTANCES. INCLUDED TOPICS ARE: (1) ORGANIZERS' HANDBOOK; (2) FACILITATORS' HANDBOOK; (3) GENERAL TOXIC SUBSTANCES PROBLEMS; (4) CASE STUDIES; (5) SCIENCE OF TOXIC SUBSTANCES; (6) FIELD TRIPS; (7) DESIGNING A COMMUNITY RESEARCH PROGRAM; AND (8) CHOOSING AND PLANNING A PROJECT.

AVAILABILITY: JUDITH DUNOFSKY, DIRECTOR, TOXIC TRAINING PROGRAM, SIERRA CLUB, 530 BUSH STREET, SAN FRANCISCO, CA 94108, TELEPHONE 415/981-8634

IRIS ACCESSION NUMBER: EW006526

PUBLICATION DATE: JAN 81

TITLE: TRAINING MATERIALS ON TOXIC SUBSTANCES: TOOLS FOR EFFECTIVE ACTION, BOOK 2.

DESCRIPTOR: *CARCINOGENS; *COMMUNITY PROGRAMS; *COMMUNITY PARTICIPATION; *DRINKING WATER; HAZARDOUS WASTES; HEALTH; *INSTRUCTIONAL MATERIALS; *INDUSTRIES; PESTICIDES; REGULATIONS; *TOXIC SUBSTANCES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 375P. FREE OF CHARGE.

ABSTRACT: THIS IS THE SECOND OF A TWO-PART TRAINING GUIDE

ON TOXIC SUBSTANCES. IT PRESENTS READINGS AND INSTRUCTIONAL MATERIAL. INCLUDED ARE TOPICS ON: (1) OVERLOOK ON SEVERAL TOXIC SUBSTANCE PROBLEMS; (2) HAZARDOUS WASTES; (3) DRINKING WATER; AND (4) OCCUPATIONAL EXPOSURE TO TOXIC SUBSTANCES.

AVAILABILITY: JUDITH DUNOFSKY, DIRECTOR, TOXIC TRAINING PROGRAM, SIERRA CLUB, 530 BUSH STREET, SAN FRANCISCO, CA 94108, TELEPHONE 415/981-8634

IRIS ACCESSION NUMBER: EW006527

PUBLICATION DATE: 77

TITLE: INTRODUCTION TO SURFACE WATER SOURCES, RAW WATER STORAGE, AND WATER INTAKES - WORKBOOK.

PERSONAL AUTHOR: ARASMITH, E. E.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; SURFACE RUNOFF; *TEACHING GUIDES; *WATER SUPPLY; *WORKBOOKS; *WATER QUALITY; *WATER RESOURCES; *WATER STORAGE

DESCRIPTIVE NOTE: 62P. PRICE: $2.00 - WORKBOOK

ABSTRACT: THIS MODULE IS AN INTRODUCTION TO SURFACE WATER SOURCES, RAW WATER STORAGE AND SPILLWAYS, AND RAW WATER INTAKES. A TEACHER GUIDE IS INCLUDED.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321

IRIS ACCESSION NUMBER: EW006528

PUBLICATION DATE: 77

TITLE: MONITORING WATER QUALITY - WORKBOOK.

PERSONAL AUTHOR: ARASMITH, E. E.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CHLORINE; *INSTRUCTIONAL MATERIALS; *MONITORING; *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *SAMPLING; TEACHING GUIDES; TEXTBOOKS; WATER TREATMENT; *WATER DISTRIBUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 30P. PRICE: $1.50 WORKBOOK

ABSTRACT: THIS MODULE IS A DISCUSSION OF MONITORING WATER QUALITY IN A WATER DISTRIBUTION SYSTEM. MONITORING TECHNIQUES FOR TURBIDITY, CHLORINE RESIDUAL AND CORRECT METHODS OF SAMPLING FOR BACTERIALOGICAL TESTING ARE STUDIED.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321

IRIS ACCESSION NUMBER: EW006529

PUBLICATION DATE: 79

TITLE: LABORATORY MANUAL FOR WATER AND WASTEWATER PART I - BASIC.

PERSONAL AUTHOR: CARNEGIE, JOHN W.; WOOLEY, JOHN F.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; *LABORATORY TECHNIQUES; MONITORING; *POST SECONDARY EDUCATION; *REFERENCE MATERIALS; SAMPLING; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 163P. PRICE: $7.00

ABSTRACT: THIS MANUAL IS DESIGNED TO BE READ AND USED BY PLANT OPERATORS AND LABORATORY TECHNICIANS. IT IS MEANT TO BE TAKEN INTO THE LABORATORY AS A "RECIPE BOOK" AS WELL AS A REFERENCE. IT IS STRUCTURED SO AS TO DRAW ATTENTION TO THE PROCEDURAL STEPS IN AN OUTLINE FORM AND TO PROVIDE SUPPLEMENTARY INFORMATION AS WELL. THE BASIC MANUAL CONTAINS THOSE TESTS WHICH ARE MOST COMMONLY USED BY THE MAJORITY OF WATER AND WASTEWATER LABORATORIES, BOTH LARGE AND SMALL. IT IS ALSO DESIGNED FOR USE AS THE LAB MANUAL FOR BASIC AQUATIC CHEMISTRY AT LBCC.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321

IRIS ACCESSION NUMBER: EW006530
PUBLICATION DATE: 79

TITLE: LABORATORY MANUAL FOR WATER AND WASTEWATER PART III, MICROBIOLOGY.

PERSONAL AUTHOR: CARNEGIE, JOHN W.; WOOLEY, JOHN F.

DESCRIPTOR: ANALYTICAL TECHNIQUES; *INSTRUCTIONAL MATERIALS; LABORATORY TECHNIQUES; *MICROBIOLOGY; *POST SECONDARY EDUCATION; REFERENCE MATERIALS; *TEXTBOOKS; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 109P. PRICE: $4.00

ABSTRACT: THIS MANUAL IS DESIGNED TO BE READ AND USED BY PLANT OPERATORS AND LABORATORY TECHNICIANS. IT IS MEANT TO BE TAKEN INTO THE LABORATORY AS A "RECIPE BOOK" AS WELL AS A REFERENCE. THE MICROBIOLOGY PORTION CONTAINS THE MICROBIOLOGY PROCEDURES COMMONLY USED IN WATER AND WASTEWATER AND ALSO PROCEDURES DESIGNED TO TEACH BASIC MICRO LAB TECHNIQUES.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321

IRIS ACCESSION NUMBER: EW006531

PUBLICATION DATE: JUN 81

TITLE: SIMPLICITY AND AUTOMATION MAKE WORK WHEN NO ONE IS AROUND.

PERSONAL AUTHOR: GARDNER, WALTER A.

DESCRIPTOR: *AUTOMATION; *COMPUTER APPLICATIONS; CASE STUDIES; EQUIPMENT; *FACILITIES; MANAGEMENT; *MONITORING; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT PLANTS; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 43-44P.

ABSTRACT: THIS ARTICLE DESCRIBES THE AUTOMATION OF AN EXISTING WASTE TREATMENT FACILITY BY THE ADDITION OF SENSORS, AN INTEGRATED COMPUTER, AND SYSTEMS CONTROL MANAGEMENT. THE COMPUTERIZED SYSTEM HAS FREED OPERATOR TIME AND HAS BEEN RELATIVELY INEXPENSIVE.

AVAILABILITY: POLLUTION ENGINEERING, V13 N6

IRIS ACCESSION NUMBER: EW006532

PUBLICATION DATE: JUN 81

TITLE: CHEMICAL EMPLOYMENT LITTLE CHANGED IN 1980.

DESCRIPTOR: *CHEMICAL INDUSTRY; *EMPLOYMENT; INDUSTRY; INDUSTRIAL PERSONNEL; JOB ANALYSIS; STATISTICAL DATA; *WAGES

DESCRIPTIVE NOTE: 69-70P.

ABSTRACT: EMPLOYMENT IN THE U.S. CHEMICAL INDUSTRY TENDS TO BE RELATIVELY STABLE, DESPITE RECESSION. FOR 1980 AVERAGE EMPLOYMENT WAS NEARLY UNCHANGED, WITH BLUE COLLAR WORKERS DOWN ONLY 1%, AND SCIENTISTS AND ENGINEERS UP 5%. STATISTICS ON INDUSTRIAL EMPLOYMENT, EMPLOYMENT OF SCIENTISTS AND ENGINEERS, CHEMICAL EMPLOYMENT, AND WAGES ARE GIVEN FOR THE LAST TEN YEARS.

AVAILABILITY: CHEMICAL AND ENGINEERING NEWS, V59 N23

IRIS ACCESSION NUMBER: EW006533

PUBLICATION DATE: 79

TITLE: LABORATORY MANUAL FOR WATER AND WASTEWATER - PART II - ADVANCED.

PERSONAL AUTHOR: CARNEGIE, JOHN W.; WOOLEY, JOHN F.

DESCRIPTOR: *INSTRUCTIONAL MATERIALS; *LABORATORY MANUALS; *LABORATORY TECHNIQUES; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 165P.

ABSTRACT: THIS MANUAL IS DESIGNED TO BE READ AND USED BY PLANT OPERATORS AND LABORATORY TECHNICIANS. IT IS MEANT TO BE TAKEN INTO THE LABORATORY AS A "RECIPE BOOK" AS WELL AS A REFERENCE. IT IS STRUCTURED SO AS TO DRAW ATTENTION TO THE PROCEDURAL STEPS IN AN OUTLINE FORM AND TO PROVIDE SUPPLEMENTARY INFORMATION AS WELL. THIS PORTION OF THE MANUAL CONTAINS TESTS COMMONLY USED IN LARGE AND MORE COMPLETELY EQUIPPED WATER AND WASTEWATER LABS.

AVAILABILITY: LINN-BENTON COMMUNITY COLLEGE, WATER/WASTEWATER TECHNOLOGY, SCIENCE TECHNOLOGY DIVISION, 6500 SW PACIFIC BLVD., ALBANY, OR 97321

IRIS ACCESSION NUMBER: EW006534

PUBLICATION DATE: JAN 81

TITLE: DESIGN OF WASTEWATER AND STORMWATER PUMPING STATIONS. MANUAL OF PRACTICE NO. FD-4.

PERSONAL AUTHOR: GERMAIN, JAMES E.; AND OTHERS

DESCRIPTOR: *DESIGN; EQUIPMENT; *ENGINEERING; FACILITIES; *INSTRUCTIONAL MATERIALS; *MANUALS; POST SECONDARY EDUCATION; *PIPES; *PUMPING STATIONS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 150P. PRICE: $16.00

ABSTRACT: THIS MANUAL PROVIDES THE DESIGN ENGINEER WITH PRACTICAL AND PROVEN GUIDELINES FOR THE DESIGN OF WASTEWATER AND STORMWATER PUMPING STATIONS THAT MAY BE USED IN VARIOUS SITUATIONS, THE SELECTION AND DESIGN OF MECHANICAL EQUIPMENT, PIPING SYSTEM LAYOUT AND HYDRAULICS, ELECTRICAL DESIGN, AND STRUCTURAL AND ARCHITECTURAL CONSIDERATIONS.

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

IRIS ACCESSION NUMBER: EW006535

PUBLICATION DATE: 81

TITLE: RESOURCE RECOVERY PLANNING AND MANAGEMENT.

PERSONAL AUTHOR: CLARK, ROBERT M.; GILLEAN, JAMES I.

DESCRIPTOR: *CASE STUDIES; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *POST SECONDARY EDUCATION; *PLANNING; *RESOURCES; *RESOURCE RECOVERY; *SOLID WASTES; *WASTE DISPOSAL; *WASTE COLLECTION

DESCRIPTIVE NOTE: 167P. PRICE: $24.00

ABSTRACT: THIS BOOK EXAMINES THE GENERAL SOLID WASTE PROBLEM; THE PROBLEM OF LOCAL DECISION-MAKERS INVOLVED IN SOLID WASTE MANAGEMENT; OPTIMIZATION OF SOLID WASTE SYSTEMS; OPTIONS FOR RESOURCE RECOVERY; CASE STUDIES INVOLVING RESOURCE RECOVERY; AND HOW A RESOURCE RECOVERY SYSTEM MIGHT BE SELECTED.

AVAILABILITY: BUTTERWORTHS PUBLISHERS, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006536

PUBLICATION DATE: 81

TITLE: AUTOMATIC PROCESS CONTROL.

PERSONAL AUTHOR: CHEREMISINOFF, PAUL N.; PERLIS, HARLAN J.

DESCRIPTOR: *AUTOMATIC CONTROL SYSTEMS; *COMPUTER APPLICATIONS; *COMPUTERS; DATA COLLECTION; *DATA ANALYSIS; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; REFERENCE BOOKS

DESCRIPTIVE NOTE: 192P. PRICE: $39.95

ABSTRACT: THIS TEXTBOOK ADDRESSES ITSELF TO AUTOMATIC CONTROL FUNCTIONS, DATA TRANSMISSION AND ANALYSIS OF INSTRUMENT DATA. THE BOOK IS DIVIDED INTO SEVEN SECTIONS: THE PHILOSOPHY AND TECHNOLOGY FOR AUTOMATED PROCEDURES; A DISCUSSION OF CONTROL SYSTEMS IN CLASSIFIED AND HAZARDOUS LOCATIONS WITH ATTENDANT REQUIREMENTS; COMPUTER SIMULATION TO GENERATE CONTINUOUS SOLUTIONS TO MATHEMATICAL AND LOGIC MODELS OF DYNAMIC SYSTEMS; REMOTE DATA AQUISITION AND REMOTE CONTROL; DEVELOPMENT OF SOFTWARE FOR INDUSTRIAL MACHINE CONTROL; SMALL COMPUTER SYSTEM AND ITS USE IN AUTOMATIC AND INDUSTRIAL PROCESS CONTROL; AND AN OVERVIEW FOR HANDLING AND INTERPRETING STATISTICAL AND INSTRUMENTATION DATA.

AVAILABILITY: BUTTERWORTHS PUBLISHERS, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006537

PUBLICATION DATE: 81

TITLE: PURDUE 35TH INDUSTRIAL WASTE CONFERENCE PROCEEDINGS.

DESCRIPTOR: *CONFERENCE REPORTS; *HAZARDOUS WASTES; *INDUSTRIAL WASTES; *LAND DISPOSAL; *RESEARCH; *REFERENCE MATERIALS; REGULATIONS; WASTES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 994P. PRICE: $59.95

ABSTRACT: INCLUDED ARE THE PROCEEDINGS OF THE 35TH INDUSTRIAL WASTE CONFERENCE SPONSORED BY THE SCHOOL OF CIVIL ENGINEERING OF PURDUE UNIVERSITY. PAPERS PRESENTED ARE GROUPED UNDER THE FOLLOWING GENERAL HEADINGS: LAND DISPOSAL; AGRICULTURAL WASTES; PAPER WASTES; TEXTILE WASTES; PAINT AND INK WASTES; MINING WASTES; COAL, COKE AND POWER PLANT WASTES; CHEMICAL WASTES; FOOD WASTES; METAL WASTES; STEEL AND FOUNDRY WASTES; HAZARDOUS AND TOXIC WASTES; MISCELLANEOUS WASTES; AND LAWS AND REGULATIONS. A COMPREHENSIVE 10-YEAR INDEX IS INCLUDED AT THE END OF THE PROCEEDINGS.

AVAILABILITY: BUTTERWORTHS PUBLISHERS, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006538

PUBLICATION DATE: JUN 80

TITLE: RESEARCH SUMMARY - INDUSTRIAL WASTEWATER.

DESCRIPTOR: CHEMICALS; *EFFLUENTS; *INDUSTRY; *INDUSTRIAL WASTES; METALS; PAPER; PETROLEUM; PESTICIDES; RESEARCH REPORTS; *RECYCLING; TEXTILES; *WATER RESOURCES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 31P. FREE

ABSTRACT: THIS RESEARCH SUMMARY DETAILS THE USE OF WATER IN INDUSTRY AND THE RESULTING CONTAMINATION OF THAT WATER. WATER USE IN THE INDUSTRIES OF PETROCHEMICALS, PETROLEUM REFINING, PESTICIDES, METAL FINISHING, IRON AND STEEL, TEXTILES, AND PAPER IS DISCUSSED. REUSE, RECYCLING, AND PROCESS MODIFICATIONS ARE PRESENTED.

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

IRIS ACCESSION NUMBER: EW006539

PUBLICATION DATE: JUN 81

TITLE: TREATED WASTEWATER IRRIGATES FARMLAND.

PERSONAL AUTHOR: DICKENS, ROD

DESCRIPTOR: *AGRICULTURE; *DESIGN; EQUIPMENT; *ENGINEERING; FERTILIZER; *IRRIGATION; *LAND USE; *LAND APPLICATION; *MANAGEMENT; *OPERATIONS (WASTEWATER); *SLUDGE; *WASTEWATER TREATMENT; *WASTE DISPOSAL; *WATER RESOURCES

DESCRIPTIVE NOTE: 120-126P.

ABSTRACT: DESCRIBED ARE VARIOUS PLANT OPERATION METHODOLOGIES. TOPICS INCLUDED ARE: (1) A LAND DISPOSAL SYSTEM WHICH SUPPLIES WATER FOR IRRIGATION; (2) USE OF WOOD AND GEOTHERMAL HEAT TO FUEL A POWER PLANT; AND (3) THE USE OF PRESSURE RELIEF FILTERS TO PROCESS SLUDGE.

AVAILABILITY: CONSULTING ENGINEER, V56 N6

IRIS ACCESSION NUMBER: EW006540

PUBLICATION DATE: JUN 81

TITLE: TAMPA BAY WATER GUARDED BY COMPUTER.

PERSONAL AUTHOR: ARMSTRONG, RONALD N.; ALKEN, HAROLD V.

DESCRIPTOR: *COST EFFECTIVENESS; *COMPUTERS; *FLOW MEASUREMENT; *GROUNDWATER; *MANAGEMENT; *MONITORING; *PLANNING; *WATER SUPPLY; *WATER WELLS

DESCRIPTIVE NOTE: 33-35P.

ABSTRACT: DISCUSSED IS THE APPLICATION OF A COMPUTER MANAGEMENT SYSTEM TO CONTROL WATER USE. THE USE OF THE COMPUTER TO MONITOR, MANAGE, AND PROTECT GROUNDWATER RESOURCES TO MEET SHORT-TERM AND LONG-TERM WATER DEMANDS IS DESCRIBED.

AVAILABILITY: AMERICAN CITY & COUNTY, V96 N6

IRIS ACCESSION NUMBER: EW006541

PUBLICATION DATE: JUN 81

TITLE: COST, NOT MATERIAL, SHIFTING PIPE CHOICE. 1981 WATER MAIN PIPE SURVEY.

DESCRIPTOR: ASBESTOS CEMENT PIPES; *COST EFFECTIVENESS; *DUCTILE IRON PIPES; *PIPES; PLASTIC PIPES; *SURVEYS; *WATER SUPPLY; *WATER MAINS; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 41-44P.

ABSTRACT: THE CHANGE IN THE SELECTION OF PIPES USED FOR WATER SYSTEMS IS A REFLECTION OF TIGHTENING BUDGETS AND NOT DUE TO MATERIAL. THOUGH RESULTS INDICATE THAT DUCTILE IRON IS PREFERRED, USE OF PLASTIC PIPE IS EXPECTED TO INCREASE.

AVAILABILITY: AMERICAN CITY & COUNTY, V96 N6

IRIS ACCESSION NUMBER: EW006542
PUBLICATION DATE: JUN 81

TITLE: JET-RODDER SPEEDS SEWERAGE CLEANING TASKS.

DESCRIPTOR: *COST EFFECTIVENESS; *MAINTENANCE; *PUMP STATIONS; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 74P.

ABSTRACT: DISCUSSED IS THE USE OF A WATER-JET VACUUM CLEANER TO CLEAN MUNICIPAL SEWER SYSTEMS. THE AUTOMATIC PROCESS USED IN THE MAINTENANCE OF THE PUMP STATION'S WET WELLS IS DESCRIBED.

AVAILABILITY: AMERICAN CITY & COUNTY, V96 N6

IRIS ACCESSION NUMBER: EW006543

PUBLICATION DATE: JUN 81

TITLE: EMPIRE CONTROLLED BY COMPUTER.

PERSONAL AUTHOR: LUND, DONALD E.

DESCRIPTOR: COMPUTER APPLICATIONS; *COMPUTERS; COST EFFECTIVENESS; COMPUTER SOFTWARE; *MONITORING; *MANAGEMENT; *OPERATIONS (WASTEWATER); *TERTIARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 30-33P.

ABSTRACT: DISCUSSED IS A SOFTWARE PROGRAM WHICH OPERATES A SEVEN-COUNTY REGIONAL WASTEWATER TREATMENT FACILITY. THE COMPUTER MONITORS AND CONTROLS EACH PROCESS AND FUNCTIONS THROUGHOUT A TWO-STAGE ACTIVATED SLUDGE PROCESS FOLLOWED BY TERTIARY FILTRATION.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N6

IRIS ACCESSION NUMBER: EW006544

PUBLICATION DATE: JUN 81

TITLE: FOAM CONTROL IN AERATION TANKS.

PERSONAL AUTHOR: LUDWIG, KENNETH L.

DESCRIPTOR: *AERATION; *COST EFFECTIVENESS; *DESIGN; *EQUIPMENT; FOAM; *FOAM CONTROL; *MAINTENANCE; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 34, 39P.

ABSTRACT: DESCRIBED ARE ATTEMPTS TO CONTROL EXCESSIVE FOAMING CAUSED BY THE ORGANIC OVERLOADING OF SECONDARY BIOMASS IN WASTEWATER TREATMENT OPERATIONS. THE APPLICATION OF A PORTABLE FOAM SHEARING SYSTEM IS DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N6

IRIS ACCESSION NUMBER: EW006545

PUBLICATION DATE: JUN 81

TITLE: BETTER DEWATERING IMPROVES SLUDGE RECYCLING -- AND GIVES SIGNIFICANT ENERGY SAVINGS.

PERSONAL AUTHOR: BUNKER, THOMAS J.

DESCRIPTOR: ACTIVATED SLUDGE; *BELT PRESSES; COST EFFECTIVENESS; *DESIGN; *DEWATERING; *EQUIPMENT; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 40-42P.

ABSTRACT: A SLUDGE RECYCLING SYSTEM FOR A WASTEWATER TREATMENT FACILITY IS DISCUSSED. DESCRIBED IS A SLUDGE DEWATERING PROCESS THAT USES BELT PRESSES AS A REPLACEMENT TO VACUUM FILTERS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N6

IRIS ACCESSION NUMBER: EW006546

PUBLICATION DATE: JUN 81

TITLE: THE FLOWERING WASTEWATER TREATMENT.

PERSONAL AUTHOR: MIDDLEBROOKS, E. JOE; REED, SHERWOOD C.
DESCRIPTOR: *AQUATIC PLANTS; *BIODEGRATION; *BIOLOGICAL TREATMENT; *COST EFFECTIVENESS; *DESIGN; *HYACINTH; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 51-54P.

ABSTRACT: THE USE OF THE WATER HYACINTH PLANT FOR SMALL COMMUNITY WASTEWATER TREATMENT FACILITIES IS DISCUSSED. MEASURES TO INCREASE PERFORMANCE OF HYACINTH SYSTEM OPERATIONS ARE DISCUSSED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N6

IRIS ACCESSION NUMBER: EW006547

PUBLICATION DATE: JUN 81

TITLE: SUGGESTIONS FOR SLUDGE UTILIZATION ON LAND.

PERSONAL AUTHOR: DECKER, KEN

DESCRIPTOR: *AGRICULTURE; *COOPERATIVE PLANNING; *LAND APPLICATION; *LAND USE; *MANAGEMENT; *PLANNING; PUBLIC HEALTH; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 57-58P.

ABSTRACT: DISCUSSED ARE THE METHODS OF DISPOSAL THAT CONSIDER ECOLOGICAL AND ENVIRONMENTAL SAFETY AND THE PRESERVATION OF THE FOOD CHAIN. THE DEVELOPMENT OF A PROGRAM OF PUBLIC RELATIONS AND ENVIRONMENTAL CONCERN DIRECTED TOWARDS AGRICULTURAL USE OF SLUDGE IS EMPHASIZED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N6

IRIS ACCESSION NUMBER: EW006548

PUBLICATION DATE: JUN 81

TITLE: WHAT CAUSED THE BAD ODOR IN THE DRINKING WATER?

PERSONAL AUTHOR: GERARDI, MICHAEL H. AND MARILEE B.

DESCRIPTOR: *BACTERIA; *DRINKING WATER; MANAGEMENT; OPERATIONS (WATER); *ODORS; *PUBLIC PARTICIPATION; *PH; *TEMPERATURE; *WATER SUPPLY; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 63-65P.

ABSTRACT: DETECTION OF THE CAUSES FOR MALODOR IN DRINKING WATER SUPPLIES IS DESCRIBED. DISCUSSED IS THE CUSTOMER'S PARTICIPATION IN THE REDUCTION OF WATER TEMPERATURE AND PH LEVELS AS REMEDIAL METHODS TO CONTROL ODOR-CAUSING AGENTS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N6

IRIS ACCESSION NUMBER: EW006549
PUBLICATION DATE: JUN 81

TITLE: INDUSTRIAL WASTES INCINERATED AT TREATMENT PLANT.

PERSONAL AUTHOR: BRUNNER, CALVIN R.

DESCRIPTOR: *COST EFFECTIVENESS; FACILITIES; *HAZARDOUS WASTES; *INCINERATION; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); *SAFETY; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 66-68P.

ABSTRACT: DISPOSING OF INDUSTRIAL WASTE BY INCINERATION AT A WASTEWATER TREATMENT PLANT IS DESCRIBED. STRESSED IS THE USE OF VARIOUS TREATMENTS BASED ON WASTE CHARACTERISTICS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N6

IRIS ACCESSION NUMBER: EW006550

PUBLICATION DATE: JUN 81

TITLE: PRESSURE SEWER SYSTEMS.

PERSONAL AUTHOR: GLASGOW, DAN

DESCRIPTOR: *EQUIPMENT; FACILITIES; *INSTALLATION; *OPERATIONS (WASTEWATER); PUMPS; *PRESSURE SEWERS; *PRESSURE SEWER SYSTEMS; SEWERS; SEPTIC TANKS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 68-70P.

ABSTRACT: DESCRIBED ARE THE VARIOUS PRESSURE SEWER SYSTEMS THAT ARE USED IN PLACE OF GRAVITY SEWER SYSTEMS. THE INSTALLATION AND OPERATION OF THE GRINDER-PUMP SYSTEM AND THE SEPTIC TANK EFFLUENT SYSTEM ARE EVALUATED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N6

IRIS ACCESSION NUMBER: EW006551

PUBLICATION DATE: JUL 80

TITLE: PRIMER FOR WASTEWATER TREATMENT.

DESCRIPTOR: *FACILITIES; MAINTENANCE; *OPERATIONS (WASTEWATER); *PRIMARY TREATMENT; *SECONDARY TREATMENT; *TERTIARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 20P.

ABSTRACT: THIS BOOKLET DETAILS DIFFERENT METHODS OF WASTEWATER TREATMENT CURRENTLY IN USE. BASIC TREATMENT METHODS DISCUSSED INCLUDE PRIMARY AND SECONDARY TREATMENT, PONDS, LAND APPLICATION, AND SMALL ONSITE SYSTEMS. THE NEED FOR FURTHER TREATMENT AND ADVANCED METHODS OF TREATING WASTES ARE ALSO INCLUDED. THE BOOKLET CONTAINS DIAGRAMS OF

THE DIFFERENT TREATMENT METHODS AND PICTURES OF WASTEWATER IN DIFFERENT STAGES OF TREATMENT.

AVAILABILITY: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF WATER, PROGRAMS OPERATIONS (WH-547), WASHINGTON, DC 20460

IRIS ACCESSION NUMBER: EW006552

PUBLICATION DATE: MAY 80

TITLE: PUBLIC ATTITUDES TOWARD THE RECREATIONAL USE OF DRINKING WATER RESERVOIRS IN MASSACHUSETTS.

PERSONAL AUTHOR: KLAR, LAWRENCE R., JR.; AND OTHER

DESCRIPTOR: *ATTITUDES; *CASE STUDIES; *DRINKING WATER; *POTABLE WATER; *RESEARCH REPORTS; *RESERVOIRS; *RECREATION; *RECREATIONAL WATER; *SURVEYS; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 72P. PB80-207509

ABSTRACT: THIS STUDY IDENTIFIED PUBLIC ATTITUDES AMONG RESIDENTS TOWARD THE RECREATIONAL USE OF DRINKING WATER RESERVOIRS INCLUDING THE STATE'S LARGEST WATER SUPPLY SOURCE. RESULTS WERE COMPARED TO THE FINDINGSOF TWO RELATED STUDIES ON THE SAME TOPIC.

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

IRIS ACCESSION NUMBER: EW006553

PUBLICATION DATE: 80

TITLE: LABORATORY SAFETY: THEORY AND PRACTICE.

PERSONAL AUTHOR: FUSCALDO, A.; AND OTHERS

DESCRIPTOR: *ACCIDENT PREVENTION; *INSTRUCTIONAL MATERIALS; *LABORATORY SAFETY; *LABORATORY PROCEDURES; *MICROBIOLOGY; OCCUPATIONAL SAFETY; *POST SECONDARY EDUCATION; REFERENCE MATERIALS; *SAFETY

DESCRIPTIVE NOTE: 384P. PRICE: $46.00, NO. 2684J

ABSTRACT: THIS BOOK PROVIDES INFORMATION ON THE HAZARDS PRESENT IN MICROBIOLOGICAL AND RESEARCH LABORATORIES WHERE WORK IS ASSOCIATED WITH VIRUSES, CARCINOGENS, RECOMBINANT DNA AND OTHER POTENTIAL BIOHAZARDS. THE THEORETICAL ASPECTS OF THESE HAZARDS ARE EMPHASIZED TO EDUCATE THE READER TO THE POTENTIAL FOR HARM OF THESE AGENTS AND TO TEACH METHODS OF RISK ASSESSMENT FOR LABORATORY PERSONNEL.

AVAILABILITY: LAB SAFETY SUPPLY CO., A DIVISION OF SCIENCE RELATED MATERIALS, INC., P. O. BOX 1368, JANESVILLE, WI 53547

IRIS ACCESSION NUMBER: EW006554

PUBLICATION DATE: 81

TITLE: CANCER CAUSING CHEMICALS.

PERSONAL AUTHOR: SAX, N. IRVING

DESCRIPTOR: *CARCINOGENS; *CHEMICALS; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *SAFETY

DESCRIPTIVE NOTE: 400P. PRICE: $40.00, NO. 2411J

ABSTRACT: THIS BOOK DISCUSSES CARCINOGENS AND CHEMICAL CARCINOGENESIS AND THE SIGNIFICANCE TO THE GENERAL POPULATION. TABLES AND NUMERICAL DATA ARE INCLUDED FOR PRACTICAL USE. A TOTAL OF 2400 BASIC CARCINOGENS AND 25,000 SYNONYMS AND CROSS REFERENCES ARE LISTED AND DESCRIBED. EACH ENTRY IS RATED FOR "CONCLUSIVE," "SUGGESTIVE" OR "INDETERMINATE" CARCINOGENICITY.

AVAILABILITY: LAB SAFETY SUPPLY CO., A DIVISION OF SCIENCE RELATED MATERIALS, INC., P. O. BOX 1368, JANESVILLE, WI 53547

IRIS ACCESSION NUMBER: EW006555

PUBLICATION DATE: 78

TITLE: HIGHLY HAZARDOUS MATERIAL SPILLS AND EMERGENCY PLANNING.
PERSONAL AUTHOR: HIMMELMAN; ZAJIC

DESCRIPTOR: *ACCIDENT PREVENTION; *CHEMICALS; *EMERGENCY PLANNING; *HAZARDOUS MATERIALS; *SAFETY; SPILLS; *SPILL PREVENTION; TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 225P. PRICE: $29.50, NO. 1721J

ABSTRACT: THIS BOOK IS THE FIRST IN A SERIES ON HAZARDOUS AND TOXIC SUBSTANCES. SPECIAL EMPHASIS IS GIVEN TO EMERGENCY PLANNING FOR COMMUNITIES AFFECTED BY CHEMICAL SPILLS OR DISASTERS. IT PROVIDES AN EXTENSIVE CLASSIFICATION LIST OF HIGHLY HAZARDOUS MATERIALS AND A RATING SYSTEM.

AVAILABILITY: LAB SAFETY SUPPLY CO., A DIVISION OF SCIENCE RELATED MATERIALS, INC., P. O. BOX 1368, JANESVILLE, WI 53547

IRIS ACCESSION NUMBER: EW006556

PUBLICATION DATE: AUG 80

TITLE: TOXIC AND HAZARDOUS CHEMICAL SAFETY MANUAL.

DESCRIPTOR: *CHEMICALS; *HAZARDOUS MATERIALS; *INSTRUCTIONAL MATERIALS; *MANUALS; OCCUPATIONAL SAFETY; *POST SECONDARY EDUCATION; *SAFETY; TOXICITY; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 646P. PRICE: $80.00, NO. 1419J

ABSTRACT: THIS SAFETY MANUAL IS FILLED WITH DETAILED SAFETY INFORMATION FOR PERSONNEL HANDLING AND DISPOSING OF DANGEROUS CHEMICALS. THIS BOOK TELLS HOW THESE CHEMICALS SHOULD BE HANDLED TO PROTECT YOU, YOUR FELLOW WORKERS, AND THE COMMUNITY. TOXICITY AND HAZARD DATA IS GIVEN FOR ABOUT 700 CHEMICALS.

AVAILABILITY: LAB SAFETY SUPPLY CO., A DIVISION OF SCIENCE RELATED MATERIALS, INC., P. O. BOX 1368, JANESVILLE, WI 53547

IRIS ACCESSION NUMBER: EW006557

PUBLICATION DATE: DEC 79

TITLE: IDENTIFYING AND MEETING TRAINING NEEDS FOR PUBLIC PARTICIPATION IN WATER RESOURCES PLANNING.

PERSONAL AUTHOR: ERTEL, MADGE O.

DESCRIPTOR: *CASE STUDIES; CITIZEN PARTICIPATION; *PUBLIC PARTCIPATION; *PLANNING; *RESEARCH REPORTS; TRAINING; *TRAINING PROGRAMS; *WATER RESOURCES

DESCRIPTIVE NOTE: 32P. PB80-182827

ABSTRACT: THIS PROJECT DOCUMENTS RESOURCES AVAILABLE TO EMPLOY PROFESSIONALS WITH SKILLS THAT ARE CRUCIAL TO SUCCESSFUL PUBLIC PARTICIPATION PROGRAMMING. THROUGH A SURVEY OF PLANNERS IN COASTAL ZONE MANAGEMENT AND "208" PROGRAMS IN NEW ENGLAND, IT WAS FOUND THAT PLANNERS THEMSELVES ARE OFTEN REQUIRED TO PERFORM THIS FUNCTION IN ADDITION TO OTHER DUTIES. THE SURVEY ALSO IDENTIFIED THESE PRACTIONERS' EDUCATIONAL AND EXPERIENTIAL PREPARATION FOR PERFORMING PUBLIC PARTICIPATION FUNCTIONS, AS WELL AS THEIR OWN PERCEPTIONS OF THE RELATIVE IMPORTANCE OF THOSE FUNCTIONS.

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

IRIS ACCESSION NUMBER: EW006558

PUBLICATION DATE: AUG 79

TITLE: A FEASIBILITY INVESTIGATION TO DEMONSTRATE THE LAND APPLICATION OF SANITARY WASTEWATERS UTILIZING THE SPRAY RUNOFF TECHNIQUE.

PERSONAL AUTHOR: JACKSON, GAINES B.

DESCRIPTOR: *EFFLUENTS; FACILITIES; *LAND APPLICATION; *LAND USE; *RESEARCH REPORTS; *SPRAY IRRIGATION; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 234P.

ABSTRACT: PRESENTED ARE DATA COLLECTED FOR THE PURPOSE OF EVALUATING THE EFFECTS OF THE APPLICATION OF ESSENTIALLY RAW MUNICIPAL WASTEWATER TO LAND AT A PROJECTED LOADING OF ABOUT 200 POPULATION EQUIVALENTS PER ACRE USING "SPRAY-RUNOFF", ALSO KNOWN AS OVERLAND FLOW. DATA ARE ANALYZED AND CONCLUSIONS ARE DRAWN AS TO THE FEASIBILITY OF USING OVERLAND FLOW FOR WATEWATER TREATMENT.

AVAILABILITY: GAINES B. JACKSON, 1044 SW 26TH STREET, OKLAHOMA CITY, OK 73109

IRIS ACCESSION NUMBER: EW006559

PUBLICATION DATE: NOV 80

TITLE: OCEAN DUMPING: ISSUES AND ANSWERS CONCERNING SEWAGE SLUDGE DISPOSAL.

PERSONAL AUTHOR: ZIMMER, ROBIN D.; GOODWIN, HAROLD L.

DESCRIPTOR: *CONFERENCE REPORTS; *OCEANS; *POLLUTION; *SEWAGE; *SLUDGE DISPOSAL; *TOXIC SUBSTANCES; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 51P.

ABSTRACT: THIS IS A REPORT ON A CONFERENCE ON SEWAGE WASTE DISPOSAL HELD NOVEMBER 1, 1980 ON THE COOK COLLEGE CAMPUS OF RUTGERS UNIVERSITY. TOPICS SUMMARIZED INCLUDE: WHAT IS SEWAGE SLUDGE; SIZE OF THE PROBLEM; EFFECTS ON THE ECOSYSTEM; ALTERNATIVES TO DUMPING; AND THE PROBLEM OF TOXIC SUBSTANCES.

AVAILABILITY: COOPERATIVE EXTENSION SERVICE, NEW JERSEY MARINE ADVISORY SERVICE, NEW JERSEY MARINE SCIENCES CONSORTIUM, FORT HANCOCK, NJ 07732

IRIS ACCESSION NUMBER: EW006560

PUBLICATION DATE: 80

TITLE: THE TOXIC SUBSTANCES DILEMMA - A PLAN FOR CITIZEN ACTION.

PERSONAL AUTHOR: NATIONAL WILDLIFE FEDERATION

DESCRIPTOR: *CASE STUDIES; *CITIZEN PARTICIPATION; CHEMICALS; FEDERAL ROLE; LAWS; *PLANNING; *POLLUTANTS; *SAFETY; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 123P.

ABSTRACT: THIS HANDBOOK EXAMINES ONE PART OF THE POLLUTION PICTURE -- TOXIC SUBSTANCES -- REVIEWING TECHNICAL, LEGAL, AND ECONOMIC FACTS AND ISSUES. THE MANUAL ALSO DEALS WITH MYTHS AND MISCONCEPTIONS COMMONLY HELD ABOUT TOXIC SUBSTANCES. A STEP BY STEP PROCEDURE IS GIVEN WHICH CAN BE MODIFIED AND ADAPTED TO HELP CITIZENS STUDY AND IDENTIFY PROBLEMS IN THEIR OWN COMMUNITY. FEDERAL LAWS WHICH CONTROL TOXICS ARE ALSO EXPLAINED.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, US GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW006561

PUBLICATION DATE: APR 81

TITLE: HAZARDOUS WASTE SITES POSE INVESTIGATION, EVALUATION, SCIENTIFIC, AND LEGAL PROBLEMS.

DESCRIPTOR: ADMINISTRATIVE AGENCIES; *CASE STUDIES; *HAZARDOUS WASTES; *MONITORING; *PUBLIC HEALTH; *PLANNING; *REGULATIONS; *SAFETY; *WASTE DISPOSAL; *WATER QUALITY

DESCRIPTIVE NOTE: 65P.

ABSTRACT: EXAMINED IS THE CAPACITY TO COLLECT AND SUBSTANTIATE THE SCIENTIFIC EVIDENCE NECESSARY TO DETERMINE AND PROVE THE PRESENCE OF A HAZARD OR THE PRESENCE OF A RELATIONSHIP BETWEEN A DISPOSAL SITE AND IMPAIRED HEALTH.

AVAILABILITY: US GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW006562

PUBLICATION DATE: AUG 80

TITLE: CHLORINATION SYSTEM COMPONENTS - STUDENT WORKBOOK.

PERSONAL AUTHOR: HARTMANN, ED

DESCRIPTOR: *CHLORINATION; *DISINFECTION; *EQUIPMENT; INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *STUDY GUIDES; *TRAINING; *TESTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 32P.

ABSTRACT: PRESENTED IS A WORKBOOK WHICH CONTAINS QUESTIONS ABOUT MATERIAL PRESENTED IN AN INSTRUCTIONAL PROGRAM DESIGNED FOR OPERATORS OF CHLORINATION SYSTEMS IN WASTEWATER TREATMENT FACILITIES.

AVAILABILITY: GREEN RIVER COMMUNITY COLLEGE, WASHINGTON ENVIRONMENTAL TRAINING RESOURCE CENTER, 12401 SOUTHEAST 320TH STREET, AUBURN, WA 98002

IRIS ACCESSION NUMBER: EW006564

PUBLICATION DATE: AUG 80

TITLE: CHLORINATION SYSTEM COMPONENTS - INSTRUCTIONAL PROGRAM.

PERSONAL AUTHOR: HARTMANN, ED

DESCRIPTOR: ACCIDENT PREVENTION; *CHLORINATION; *DISINFECTION; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; MAINTENANCE; METERS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; SAFETY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 141P.

ABSTRACT: THIS INSTRUCTIONAL PROGRAM PRESENTS AN OVERALL DESCRIPTION OF A TYPICAL CHLORINATION SYSTEM. REVIEWED ARE THE COMPONENTS OF THE CHLORINE SYSTEM THAT INCLUDE SUPPLY SYSTEM, METERING SYSTEM, AND SOLUTION DELIVERY SYSTEM.

AVAILABILITY: GREEN RIVER COMMUNITY COLLEGE, WASHINGTON ENVIRONMENTAL TRAINING RESOURCE CENTER, 12401 SOUTHEAST 320TH STREET, AUBURN, WA 98002

IRIS ACCESSION NUMBER: EW006573

PUBLICATION DATE: 80

TITLE: HOW TO SELECT AND TRAIN NEW FIRST-LINE SUPERVISORS.

PERSONAL AUTHOR: KIRKPATRICK, DONALD L.; AND OTHERS

DESCRIPTOR: *EVALUATION; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *POST SECONDARY EDUCATION; *PERSONNEL; *PLACEMENT; *SUPERVISION; *TRAINING

DESCRIPTIVE NOTE: 350P. PRICE: $76.50 PLUS POSTAGE & HANDLING.

ABSTRACT: SUGGESTED ARE GUIDELINES TO BUILD A SUPERVISORY SELECTION AND TRAINING PROGRAM FOR ORGANIZATIONS REGARDLESS OF SIZE. THE MANAGEMENT TRAINING TECHNIQUES APPLY TO MANUFACTURING AS WELL AS OFFICE OPERATIONS IN ALL TYPES OF BUSINESS, INDUSTRY, AND GOVERNMENT. TOPICS DISCUSSED ARE: (1) DETERMINATION OF NEEDS; (2) SELECTION OF CANDIDATES; (3) PREPLACEMENT TRAINING; (4) PLACEMENT IN SUPERVISION; (5) POST PLACEMENT TRAINING; AND (6) EVALUATION OF THE PROGRAM.

AVAILABILITY: DARTNELL, 4660 RAVENSWOOD AVENUE, CHICAGO, IL 60640

IRIS ACCESSION NUMBER: EW006574

PUBLICATION DATE: DEC 79

TITLE: APPLIED ECOLOGY SEMINAR-TRAINING MANUAL.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BIOLOGY; *BIOASSAY; *ECOLOGY; *INSTRUCTIONAL MATERIALS; *LABORATORY PROCEDURES; POST SECONDARY EDUCATION; RESEARCH METHODOLOGY; *WATER QUALITY

DESCRIPTIVE NOTE: 200P.

ABSTRACT: DISCUSSED ARE METHODS TO PLAN, ADMINISTER, COLLECT, EVALUATE, INTERPRET, AND REPORT BIOLOGICAL DATA RELATED TO WATER QUALITY IN BOTH FRESH AND MARINE WATERS. TOPICS INCLUDE: (1) LAWS OF ECOLOGY; (2) SIGNIFICANCE OF

EUTROPHICATION; (3) SPECIAL APPLICATIONS AND PROCEDURES FOR BIOASSAY; (4) INTERPRETATION OF BIOLOGICAL DATA WITH REFERENCE TO WATER QUALITY; AND (5) CASE PREPARATION AND COURTROOM PROCEDURE.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD-3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006587

PUBLICATION DATE: JUN 81

TITLE: MANPOWER DEVELOPMENT FOR WATER AND SANITATION PROGRAMS IN AFRICA.

PERSONAL AUTHOR: MCGARRY, MICHAEL G.; SCHILLER, ERIC J.

DESCRIPTOR: *ADULT EDUCATION; *AFRICA; *DEVELOPING COUNTRIES; *EDUCATIONAL NEEDS; *MANAGEMENT; *PLANNING; *PUBLIC HEALTH; *POST SECONDARY EDUCATION; *TRAINING; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 282-287P.

ABSTRACT: THE DEVELOPMENT AND EXPANSION OF MANPOWER FOR WATER AND SANITATION PROGRAMS IN DEVELOPING COUNTRIES IS NEEDED. LONG-TERM TRAINING PROGRAMS NEED TO BE STIMULATED BY FINANCIAL ASSISTANCE FROM NATIONAL AND INTERNATIONAL SOURCES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N6

IRIS ACCESSION NUMBER: EW006588

PUBLICATION DATE: JUN 81

TITLE: A SUCCESSFUL TRAINING PROGRAM IN BRAZIL.

PERSONAL AUTHOR: COSTA, WALTER P.; MONTANARI, FRANCIS W.

DESCRIPTOR: *ADULT EDUCATION; *BRAZIL; EDUCATIONAL NEEDS; *JOB TRAINING; *MANAGEMENT; *MANPOWER NEEDS; *POST SECONDARY EDUCATION; *PROGRAM DEVELOPMENT; *SANITATION; *TRAINING; *WASTEWATER TREATMENT; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 288-293P.

ABSTRACT: PRESENTED IS A COMPREHENSIVE NATIONWIDE TRAINING PROGRAM FOR MANPOWER DEVELOPMENT IN THE WATER SUPPLY AND SEWAGE UTILITIES SERVICES FOR THE URBAN POPULATION IN BRAZIL. MANAGEMENT OF HUMAN RESOURCES IN AN INTEGRATED MANNER THROUGH INTERNATIONAL COOPERATION IS ENCOURAGED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N6

IRIS ACCESSION NUMBER: EW006589

PUBLICATION DATE: JUN 81

TITLE: STAFF TRAINING FOR WATER SUPPLY PROJECTS IN THE WEST INDIES.

PERSONAL AUTHOR: BATCHELOR, DALE; AND OTHERS

DESCRIPTOR: *EDUCATIONAL NEEDS; *INSTRUCTION; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *PLANNING; *TRAINING; *WATER DISTRIBUTION; *WATER SUPPLY; *WATER TREATMENT; *WEST INDIES

DESCRIPTIVE NOTE: 294-298P.

ABSTRACT: EXAMINED IS THE NEED FOR A STAFF TRAINING PROGRAM AND COMPREHENSIVE MAINTENANCE MANAGEMENT SYSTEM TO OPERATE WATER TREATMENT FACILITIES IN THE WEST INDIES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N6

IRIS ACCESSION NUMBER: EW006590

PUBLICATION DATE: JUN 81

TITLE: TRAINEE INVOLVEMENT IN THE TRAINING PROCESS.

PERSONAL AUTHOR: AUSTIN, JOHN H.; BATCHELOR, DALE

DESCRIPTOR: *EVALUATION; *INSTRUCTION; *INSTRUCTIONAL DESIGN; *JOB SKILLS; *MANAGEMENT; *OPERATIONS (WATER); *POST SECONDARY EDUCATION; *PROGRAM DEVELOPMENT; *PROGRAM DESCRIPTION; *TECHNICAL EDUCATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 299-303P.

ABSTRACT: EVALUATED IS A TRAINING PROCEDURE DESIGNED TO PREPARE PERSONNEL FOR OPERATION OF WATER TREATMENT PLANTS. INDIVIDUAL INPUT INTO SYSTEM EVALUATION AND IMPLEMENTATION, ON-THE-JOB EXPERIENCE AND FEEDBACK, AND TRAINEE DEVELOPMENT OF JOB AIDS AND INSTRUCTIONAL MATERIAL IS EMPHASIZED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N6

IRIS ACCESSION NUMBER: EW006603

PUBLICATION DATE: JUL 81

TITLE: LOW TECHNOLOGY RESOURCE RECOVERY AT THE COUNTY LEVEL.

PERSONAL AUTHOR: HARROLD, STANLEY C.

DESCRIPTOR: *COST EFFECTIVENESS; *DESIGN; *FACILITIES; *MANAGEMENT; *PLANNING; *PUBLIC PARTICIPATION; *RECYCLING; *SOLID WASTES; *WASTE DISPOSAL; *WASTE COLLECTION

DESCRIPTIVE NOTE: 73-75P.
ABSTRACT: REPORTED IS A STUDY OF A SOLID WASTE DISPOSAL PROGRAM WHICH USES A LOW TECHNOLOGY RECOVERY FACILITY AS AN ALTERNATIVE TO LAND FILL SITES. INCLUDED IS A MOBILE SATELLITE RECOVERY CENTER TO ENCOURAGE PUBLIC COOPERATION.

AVAILABILITY: PUBLIC WORKS, V112 N7

IRIS ACCESSION NUMBER: EW006604

PUBLICATION DATE: JUL 81

TITLE: ENVIRONMENTAL WASTES CONTROL DIGEST.

PERSONAL AUTHOR: JACOBSON, ALVIN R.

DESCRIPTOR: ANALYTICAL TECHNIQUES; *BIOLOGICAL MONITORING; *COST EFFECTIVENESS; *DESIGN; *EQUIPMENT; *HAZARDOUS WASTES; LANDFILLS; LEACHING; *MONITORING; *OPERATIONS (WASTEWATER); *PUBLIC HEALTH; *ROTATING CONTACTORS; *SLUDGE; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 88-94P.

ABSTRACT: REVIEWED IS THE IMPLEMENTATION OF NEW PROGRAMS AND PROCEDURES THAT IMPROVE THE QUALITY OF WASTE CONTROL PROCESSES. INCLUDED ARE: COMPUTERIZED BIOLOGICAL MONITORING OF WASTEWATER; UPGRADING WITH ROTATING BIOLOGICAL CONTACTOR FOR BOD REMOVAL; WASTEWATER TREATMENT WITH ANAEROBIC ATTACHED FILM EXPANDED BED PROCESS; AND COMPARATIVE ANALYSIS OF SLUDGE AND REFUSE LEACHATE.

AVAILABILITY: PUBLIC WORKS, V112 N7

IRIS ACCESSION NUMBER: EW006605

PUBLICATION DATE: JUL 81

TITLE: WATER WORKS DIGEST.

PERSONAL AUTHOR: JACOBSON, ALVIN R.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COST EFFECTIVENESS; *DRINKING WATER; *FILTRATION; *GROUNDWATER; *OPERATIONS (WATER); *PLANNING; *PUBLIC HEALTH; *RURAL AREAS; *SEDIMENTS; *TRIHALOMETHANES; *WATER TREATMENT; *WATER QUALITY; *WATER SUPPLY; *WASTES

DESCRIPTIVE NOTE: 105-112P.

ABSTRACT: DISCUSSED ARE THE DESIGN AND IMPLEMENTATION OF WATER QUALITY PROCESSES AND PROGRAMS. TOPICS INCLUDED ARE: (1) SELECTING POLYMERS FOR DIRECT FILTRATION; (2) FLUXES OF AS, PB, ZN, AND CD TO LAKE MICHIGAN SEDIMENTS; (3) PREPARATIVE ISOLATION OF AQUATIC HUMIC SUBSTANCES; (4) DEVELOPMENT OF A RURAL WATER DISTRICT; (5) ANAEROBIC DEGRADATION OF TRIHALOMETHANES; AND (7) GROUNDWATER CONTAMINATION.

AVAILABILITY: PUBLIC WORKS, V112 N7

IRIS ACCESSION NUMBER: EW006606

PUBLICATION DATE: JUL 81

TITLE: MODULAR COMBUSTION SYSTEM SOLVES REGIONAL SOLID WASTE PROBLEM.

PERSONAL AUTHOR: CHASE, MALCOLM J.; POND, THOMAS C.

DESCRIPTOR: *COST EFFECTIVENESS; *EQUIPMENT; ENGINEERING; *ENERGY CONSERVATION; ENERGY; *PLANNING; PUBLIC HEALTH; *PUBLIC PARTICIPATION; *SOLID WASTES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 48-50P.

ABSTRACT: PRESENTED IS AN ECONOMICAL PLAN TO MANAGE SOLID WASTES AND TO RECOVER ENERGY WITH THE USE OF A MODULAR COMBUSTION UNIT.

AVAILABILITY: PUBLIC WORKS, V112 N7

IRIS ACCESSION NUMBER: EW006607

PUBLICATION DATE: JUL 81

TITLE: WHY EPA'S I/I CONTROL PROGRAM FAILS.

PERSONAL AUTHOR: STEKETEE, CAMPBELL H.

DESCRIPTOR: *COST EFFECTIVENESS; *DESIGN; *ENGINEERING; EQUIPMENT; FLOW MEASUREMENTS; *GROUNDWATER; *GUIDELINES; *INFILTRATION; *INFLOW; *MAINTENANCE; *PLANNING; *PIPES; *REGULATIONS; *SANITATION; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 51-53P.

ABSTRACT: MORE EMPHASIS IS NEEDED ON REPAIR, RENOVATION, AND REPLACEMENT OF SEWER SYSTEMS TO ELIMINATE INFILTRATION AND INFLOW.

AVAILABILITY: PUBLIC WORKS, V112 N7

IRIS ACCESSION NUMBER: EW006608

PUBLICATION DATE: JUL 81

TITLE: COORDINATED EFFORT STEMS SEDIMENT AND EROSION.

PERSONAL AUTHOR: KAISER, DAN L.

DESCRIPTOR: *COST EFFECTIVENESS; CONSTRUCTION; *EROSION; *INSPECTION; *PLANNING; *REGULATIONS; *SEDIMENTS; *SOIL CONSERVATION; *WATER QUALITY

DESCRIPTIVE NOTE: 54-55P.

ABSTRACT: DISCUSSED IS THE ORGANIZATION OF COOPERATIVE EFFORT NEEDED TO IMPLEMENT A SEDIMENT AND EROSION CONTROL PROGRAM. A REVIEW PROCESS THAT FOLLOWS EACH PHASE OF THE PROJECT IS EMPHASIZED.

AVAILABILITY: PUBLIC WORKS, V112 N7

IRIS ACCESSION NUMBER: EW006609

PUBLICATION DATE: JUL 81

TITLE: MONITORING SYSTEM GUARDS COUNTY WATER SUPPLY.

DESCRIPTOR: *COST EFFECTIVENESS; *DESIGN; *EQUIPMENT; *MONITORING; *OPERATIONS (WATER); *PUMPS; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 58P.

ABSTRACT: DISCUSSED IS A COMMUNICATION ALARM DEVICE USED TO MONITOR A WATER SUPPLY AND DISTRIBUTION NETWORK. FEATURES ARE INCLUDED TO ASSURE UNINTERRUPTED OPERATIONS.

AVAILABILITY: PUBLIC WORKS, V112 N7

IRIS ACCESSION NUMBER: EW006610

PUBLICATION DATE: JUL 81

TITLE: UPDATE OF THE 11 1/2 HOUR WORKDAY.

PERSONAL AUTHOR: TAYLOR, MARY M.

DESCRIPTOR: *COST EFFECTIVENESS; *EFFICIENCY; *MANAGEMENT; *MAINTENANCE; *PERSONNEL; *PLANNING; *WORK SCHEDULES; *WORK ENVIRONMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 66-67P.

ABSTRACT: DISCUSSED IS THE IMPLEMENTATION OF A ROTATING WORK SCHEDULE WHICH INCLUDES LONGER WORK DAYS AND A SHORTER WORK WEEK. EXAMINED IS THE EFFECT OF THE PROGRAM ON THE ATTITUDES OF THE PERSONNEL AND THE PLANT OPERATIONS.

AVAILABILITY: PUBLIC WORKS, V112 N7

IRIS ACCESSION NUMBER: EW006611

PUBLICATION DATE: JUL 81

TITLE: OZONE TREATMENT OF POTABLE WATER - PART 2.

PERSONAL AUTHOR: NEBEL, CARL

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHLORINATION; COST EFFECTIVENESS; *DISINFECTION; *DRINKING WATER; *OPERATIONS (WATER); *OZONE; *PUBLIC HEALTH; *TRIHALOMETHANES; *WATER TREATMENT; WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 68-71P.

ABSTRACT: DISCUSSED IS THE USE OF OZONE IN THE OXIDATION OF DISSOLVED ORGANICS AND THE CONTROL OF TRIHALOMETHANE CONCENTRATIONS IN WATER TREATMENT PROCESSES. ALTERNATIVE DISINFECTANTS USED WITH AND WITHOUT OZONE ARE COMPARED.

AVAILABILITY: PUBLIC WORKS, V112 N7

IRIS ACCESSION NUMBER: EW006612

PUBLICATION DATE: JAN 81

TITLE: WATER RESOURCE SYSTEMS PLANNING AND ANALYSIS.

PERSONAL AUTHOR: LOUCKS, DANIEL P.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INSTRUCTIONAL MATERIALS; IRRIGATION; *MANAGEMENT; *POST SECONDARY EDUCATION; *PLANNING; RESERVOIRS; *SYSTEMS ANALYSIS; *WATER RESOURCES; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 576P. PRICE: $29.95

ABSTRACT: THIS REFERENCE BOOK PROVIDES METHODS FOR WATER RESOURCE ANALYSIS AND MORE EFFICIENT MANAGEMENT OF WATER SYSTEMS. INCLUDED IS INFORMATION ON ECONOMIC ANALYSES, MULTIOBJECTIVE PLANNING, RESERVOIR SYSTEM PLANNING AND DESIGN, SYNTHETIC STREAMFLOW GENERATION, IRRIGATION PLANNING, AND WATER QUALITY MODELING AND MANAGEMENT. THE BOOK CONTAINS OVER 100 ILLUSTRATIONS.

AVAILABILITY: PRENTICE-HALL, INC., BOOK DISTRIBUTION CENTER, ROUTE 59 AT BROOK HILL DRIVE, WEST NYACK, NY 10995

IRIS ACCESSION NUMBER: EW006613

TITLE: ACTIVATED SLUDGE: STOICHIOMETRY, KINETICS, AND MASS BALANCE.

DESCRIPTOR: *AUDIOVISUAL AIDS; *ACTIVATED SLUDGE; *BIOLOGICAL REACTORS; *FACILITIES; *INSTRUCTIONAL MATERIALS; *PLANNING; *POST SECONDARY EDUCATION; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: FIVE AUDIOTAPE CASSETTES (6.2 HOURS PLAYING TIME) AND A 127-PAGE MANUAL. PRICE: $275.00 ADDITIONAL MANUALS FOR GROUP USE, 1 TO 9 COPIES...$16.00 EACH; 10 OR MORE COPIES...$12.80 EACH. (CATALOG NO. Z-57.)

ABSTRACT: THESE INSTRUCTIONAL CASSETTES FOCUS ON THE DEVELOPMENT OF MASS BALANCE PRINCIPLES AND THEIR APPLICATION TO BIOLOGICAL REACTORS. THESE PRINCIPLES ARE THEN APPLIED TO STOICHIOMETRIC AND KINETIC RELATIONSHIPS TO SELECT APPROPRIATE SYSTEM SIZING, OXYGEN NEEDS, NUTRIENT LEVELS AND SLUDGE-DISPOSAL METHODS. ADVANCED CONCEPTS AND PROCEDURES REQUIRED TO ANALYZE MORE COMPLEX PROBLEMS ARE INTRODUCED.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, EDUCATION DEPARTMENT, 1155 SIXTEENTH STREET, N.W., WASHINGTON, DC

20036

IRIS ACCESSION NUMBER: EW006614

PUBLICATION DATE: APR 81

TITLE: APPROPRIATE SANITATION ALTERNATIVES: A TECHNICAL AND ECONOMIC APPRAISAL.

PERSONAL AUTHOR: KALBERMATTEN, JOHN M.; AND OTHERS

DESCRIPTOR: *COSTS; *DESIGN; HEALTH; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *PLANNING; *PUBLIC HEALTH; *SYSTEMS ANALYSIS; *SANITATION; *TECHNOLOGY; *WASTE DISPOSAL

ABSTRACT: THIS VOLUME SUMMARIZES THE TECHNICAL, ECONOMIC, ENVIRONMENTAL, HEALTH, AND SOCIOCULTURAL FINDINGS OF THE BANK'S RESEARCH PROGRAM AND THEN DISCUSSES THE ASPECTS OF PROGRAM PLANNING THAT ARE NECESSARY FOR IMPLEMENTING THE FINDINGS. SANITATION SEQUENCES ARE DESIGNED AND COSTED. IN ADDITION, A NEW AND PROMISING APPROACH IS PRESENTED FOR LINKING POTENTIAL BENEFITS TO HEALTH WITH IMPROVEMENTS IN ENVIRONMENTAL SANITATION

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006615

PUBLICATION DATE: MAY 81

TITLE: APPROPRIATE SANITATION ALTERNATIVES: A PLANNING AND DESIGN MANUAL.

PERSONAL AUTHOR: KALBERMATTEN, JOHN M.; AND OTHERS

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; FACILITIES; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *PLANNING; *SANITATION; *SOCIOECONOMIC INFLUENCES; TECHNOLOGY

ABSTRACT: THIS MANUAL PRESENTS THE LATEST FIELD RESULTS OF THE RESEARCH, SUMMARIZES PERTINENT INFORMATION FROM OTHER PUBLICATIONS ON SANITATION PROGRAM PLANNING, AND DESCRIBES THE ENGINEERING DETAILS OF ALTERNATIVE SANITATION TECHNOLOGIES AND HOW THEY CAN BE UPGRADED. THE MANUAL EXAMINES THREE CENTRAL TOPICS: (1) THE SOCIOECONOMIC ASPECTS OF SANITATION PROGRAM PLANNING, (2) THE PLANNING ITSELF, AND (3) THE TECHNOLOGICAL OPTIONS. THE BOOK IS EXTENSIVELY ILLUSTRATED WITH TECHNICAL DIAGRAMS OF RECOMMENDED SANITATION SYSTEMS AND THEIR COMPONENTS.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006616
PUBLICATION DATE: 81

TITLE: SANITATION AND DISEASE: HEALTH ASPECTS OF EXCRETA AND WASTEWATER MANAGEMENT.

PERSONAL AUTHOR: FEACHEM, RICHARD G.; AND OTHERS

DESCRIPTOR: DISEASE CONTROL; *EPIDEMIOLOGY; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *PATHOGENS; *POST SECONDARY EDUCATION; *PUBLIC HEALTH; *SOCIOECONOMIC INFLUENCES; *SANITATION; *WASTE DISPOSAL; *WASTEWATER TREATMENT

ABSTRACT: PART ONE OF THIS VOLUME PROVIDES (1) A SYNTHESIS AND ANALYSIS OF INFORMATION AND RESEARCH ON THE INTERACTION BETWEEN EXCRETA AND SULLAGE AND HEALTH; (2) CATEGORIES OF EXCRETA RELATED INFECTIONS AND THE RELATION OF INFECTIONS TO THE ENVIRONMENT; (3) THE USE OF INDICATORS OF PATHOGENIC CONTAMINATION AND THE ABILITY OF PATHOGENS TO SURVIVE WASTE TREATMENT, REUSE, AND EFFLUENT-DISCHARGE SYSTEMS; AND (4) THE BENEFITS AND SOCIOCULTURAL EFFECTS OF SANITARY PROGRAMS. PART TWO IS AN ENCYCLOPEDIC COMPILATION-BY PATHOGEN OR INSECT VECTOR-OF INFORMATION CONCERNING THE EPIDEMIOLOGY OF SANITATION-RELATED DISEASES AND THE WAYS IN WHICH PARTICULAR TECHNOLOGIES FOR WASTE DISPOSAL AND REUSE AFFECT THE SURVIVAL AND DISSEMINATION OF THE DISEASE AGENTS.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006617

PUBLICATION DATE: DEC 80

TITLE: TECHNICAL AND ECONOMIC OPTIONS.

PERSONAL AUTHOR: KALBERMATTEN, JOHN M.; AND OTHERS

DESCRIPTOR: COSTS; ECONOMICS; ENVIRONMENT; HEALTH; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; PLANNING; *SANITATION; *TECHNOLOGY; *WASTEWATER TREATMENT; *WATER TREATMENT; *WATER SUPPLY; *WASTE DISPOSAL

ABSTRACT: THIS PAPER REPORTS TECHNICAL, ECONOMIC, HEALTH, AND SOCIAL FINDINGS OF THE RESEARCH PROJECT "APPROPRIATE TECHNOLOGY FOR WATER SUPPLY AND SANITATION". THE REPORT DISCUSSES THE PROGRAM PLANNING NECESSARY TO IMPLEMENT TECHNOLOGIES AVAILABLE TO PROVIDE SOCIALLY AND ENVIRONMENTALLY ACCEPTABLE, LOW-COST WATER SUPPLY AND WASTE DISPOSAL.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006619

PUBLICATION DATE: DEC 80

TITLE: A PLANNER'S GUIDE.

PERSONAL AUTHOR: KALBERMATTEN, JOHN M.; AND OTHERS
DESCRIPTOR: *FACILITIES; *GUIDELINES; *INSTRUCTIONAL MATERIALS; *PLANNING; *POST SECONDARY EDUCATION; *SANITATION; *TECHNOLOGY; *WASTEWATER TREATMENT

ABSTRACT: THIS REPORT PROVIDES INFORMATION AND INSTRUCTION ON HOW TO DESIGN AND IMPLEMENT APPROPRIATE TECHNOLOGY PROJECTS BASED ON THE FINDINGS REPORTED IN "TECHNICAL AND ECONOMIC OPTIONS". IT PROVIDES GUIDELINES AND DESIGN TOOLS FOR THE ENGINEERS AND SANITARIANS RESPONSIBLE FOR PLANNING AND IMPLEMENTING SANITATION PROJECTS.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006620

PUBLICATION DATE: DEC 80

TITLE: HEALTH ASPECTS OF EXCRETA AND SULLAGE MANAGEMENT.

PERSONAL AUTHOR: FEACHEM, RICHARD G.; AND OTHERS

DESCRIPTOR: *DISEASE CONTROL; *EXCRETA; HEALTH; *INSTRUCTIONAL MATERIALS; *PATHOGENS; *POST SECONDARY EDUCATION; *PUBLIC HEALTH; *TECHNOLOGY; *WASTE DISPOSAL; *WASTE TREATMENT; *WASTEWATER TREATMENT

ABSTRACT: THIS REPORT SETS OUT TO PROVIDE INFORMATION ABOUT THE INTERACTION BETWEEN EXCRETA AND HEALTH. IT IS WRITTEN SO ENGINEERS AND PLANNERS MAY MAKE MORE INFORMED AND RATIONAL DECISIONS REGARDING THE EFFECTS OF IMPROVEMENTS IN EXCRETA DISPOSAL ON PATHOGEN SAND DISEASE.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006621

PUBLICATION DATE: 78

TITLE: LOW-COST TECHNOLOGY OPTIONS FOR SANITATION--A STATE-OF-THE-ART REVIEW AND ANNOTATED BIBLIOGRAPHY.

PERSONAL AUTHOR: RYBCZYNSKI, WITOLD; AND OTHERS

DESCRIPTOR: ALTERNATIVE TECHNOLOGIES; *BIBLIOGRAPHIES; *INSTRUCTIONAL MATERIALS; *POST SECONDARY EDUCATION; *RESEARCH REVIEWS; *SANITATION; TECHNOLOGY; *WASTE MANAGEMENT; *WASTE COLLECTION; *WASTE DISPOSAL

ABSTRACT: THIS COMPREHENSIVE TECHNOLOGY REVIEW AND BIBLOGRAPHY DESCRIBES ALTERNATIVE APPROACHES TO COLLECTION, TREATMENT, REUSE, AND DISPOSAL OF WASTES. IT IS DESIGNED TO DESCRIBE FOR THE POLICYMAKER, THE ADMINISTRATOR, AND THE ENGINEER THE BROAD RANGE OF SYSTEMS OF HUMAN WASTE MANAGEMENT AVAILABLE TODAY.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006622

PUBLICATION DATE: DEC 80

TITLE: SOCIOCULTURAL ASPECTS OF WATER SUPPLY AND EXCRETA DISPOSAL.

PERSONAL AUTHOR: ELMENDORF, MARY; BUCKLES, PATRICIA

DESCRIPTOR: ALTERNATIVE TECHNOLOGY; *ATTITUDES; *APPROPRIATE TECHNOLOGY; *CULTURAL ENVIRONMENT; *DEVELOPING NATIONS; QUESTIONNAIRES; *RESEARCH; *SANITATION; *SOCIAL FACTORS; *WATER SUPPLY; *WASTE DISPOSAL

ABSTRACT: THIS REPORT EXAMINES THE SOCIAL AND CULTURAL FACTORS INFLUENCING PEOPLE'S RESPONSES TO WATER SUPPLY AND EXCRETA DISPOSAL TECHNOLOGIES. IT DESCRIBES THE METHODOLOGY AND QUESTIONNAIRE USED TO INVESTIGATE HOW SANITATION AND WATER SUPPLY PROBLEMS ARE PERCEIVED AND TO WHAT EXTENT PEOPLE WOULD BE WILLING TO PARTICIPATE IN PROJECTS TO IMPROVE THEIR EXISTING SITUATION. IT SUGGESTS AN APPROACH THAT CAN BE USED BY PLANNERS TO INTEGRATE SOCIAL AND CULTURAL INFLUENCES INTO PROJECT DESIGN TO ASSURE THE INTRODUCTION OF WATER SUPPLY AND DISPOSAL TECHNOLOGIES THAT WILL BE ACCEPTED, PROPERLY USED, AND MAINTAINED.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALITMORE, MD 21218

IRIS ACCESSION NUMBER: EW006623

PUBLICATION DATE: DEC 80

TITLE: COUNTRY STUDIES IN SANITATION ALTERNATIVES.

PERSONAL AUTHOR: KUHLTHAU, RICHARD

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *APPROPRIATE TECHNOLOGY; *CASE STUDIES; *DEVELOPING NATIONS; *ECONOMIC FACTORS; *RESEARCH; *SANITATION; *WATER SUPPLY; *WASTE DISPOSAL

ABSTRACT: THE EMPIRICAL DATA BASE FOR THE RESEARCH PROJECT ON APPROPRIATE TECHNOLOGY FOR WATER SUPPLY AND SANITATION IN DEVELOPING COUNTRIES IS COMPOSED OF 34 CASE STUDIES CARRIED OUT IN COMMUNITIES OF 11 COUNTRIES DURING 1977-78. COUNTRIES AND COMMUNITIES WERE SELECTED TO OBTAIN A DIVERSE SAMPLE OF EXISTING SANITATION TECHNOLOGIES OPERATING UNDER A VARIETY OF PHYSICAL AND ECONOMIC CONDITIONS. THIS REPORT PRESENTS THE TECHNICAL AND ECONOMIC INFORMATION COLLECTED BY THE LOCAL FIELD CONSULTANTS AT EACH SITE.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006624

PUBLICATION DATE: DEC 80

TITLE: ALTERNATIVE SANITATION TECHNOLOGIES FOR URBAN AREAS IN AFRICA.

PERSONAL AUTHOR: FEACHEM, RICHARD G.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; APPROPRIATE TECHNOLOGY; *CASE STUDIES; *DEVELOPING COUNTRIES; ECONOMIC FACTORS; LATRINES; RESEARCH REPORTS; *SANITATION; TECHNOLOGY; TOILETS; URBAN PROBLEMS; *WASTE DISPOSAL

ABSTRACT: THIS REPORT SUMMARIZES THE RESULTS OF FIELD STUDIES CARRIED OUT IN FIVE AFRICAN COUNTRIES DURING 1977-78. IT DESCRIBES FOUR SANITATION TECHNOLOGIES AS THEY ARE CURRENTLY USED IN URBAN AREAS IN AFRICA -- PIT LATRINES, COMPOSTING TOILETS, BUCKET LATRINES, AND AQUAPRIVIES -- AND DISCUSSES THEIR TECHNICAL, ECONOMIC, INSTITUTIONAL, SOCIAL, AND HEALTH REQUIREMENTS AND CONSTRAINTS. METHODS FOR TECHNOLOGY COMPARISON AND SELECTION ARE SUGGESTED, AND AREAS FOR FUTURE RESEARCH ARE INDICATED.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006625

PUBLICATION DATE: DEC 80

TITLE: SEVEN CASE STUDIES OF RURAL AND URBAN FRINGE AREAS IN LATIN AMERICA.

PERSONAL AUTHOR: ELMENDORF, MARY

DESCRIPTOR: *ATTITUDES; *CASE STUDIES; *DEVELOPING COUNTRIES; RESEARCH REPORTS; *SANITATION; TECHNOLOGY; *WATER SUPPLY; *WASTE DISPOSAL

ABSTRACT: THIS REPORT IS A COLLECTION OF SEVEN CASE STUDIES OF RURAL AND URBAN FRINGE AREAS IN LATIN AMERICA. THE LONG RANGE OBJECTIVE OF THE RESEARCH IS TO PROVIDE PROJECT PLANNERS WITH AN UNDERSTANDING OF HUMAN AND BEHAVIORAL FACTORS THAT INFLUENCE WHETHER USERS WILL ACCEPT, PROPERLY USE, AND MAINTAIN WATER SUPPLY AND EXCRETA DISPOSAL FACILITIES INTRODUCED INTO THEIR COMMUNITIES.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006626

PUBLICATION DATE: DEC 80

TITLE: DESIGN OF LOW-COST WATER DISTRIBUTION SYSTEMS.

PERSONAL AUTHOR: LAURIA, DONALD T.; AND OTHERS

DESCRIPTOR: *COSTS; *DESIGN; *DEVELOPING COUNTRIES; *ENGINEERING; *PLANNING; *PIPES; *URBAN PROBLEMS; *WATER SUPPLY; *WATER DISTRIBUTION; *WATER USAGE

ABSTRACT: THIS REPORT IS A COLLECTION OF THREE PAPERS THAT PRESENT THE RESULTS OF RIGOROUS ANALYSES OF WATER SYSTEMS FOR SEVERAL URBAN AREAS IN DEVELOPING COUNTRIES. FROM THESE ANALYSES, SIMPLE MATHEMATICAL MODELS ARE DEVELOPED THAT PERMIT PREDICTION OF TOTAL PIPE LENGTH AND AVERAGE DIAMETER AND NETWORK COST, GIVING DECISIONS ON VARIABLES SUCH AS PER CAPITA WATER USAGE AND SPACING OF PUBLIC STANDPIPES OR HOUSE CONNECTIONS. EXAMPLES APPLY THESE EQUATIONS TO TYPICAL DESIGN PROBLEMS.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006627

PUBLICATION DATE: DEC 80

TITLE: NIGHT-SOIL COMPOSTING.

PERSONAL AUTHOR: SHUVAL, HILLEL; AND OTHERS

DESCRIPTOR: *AEROBIC TREATMENT; *COMPOSTING; COSTS; *DEVELOPING COUNTRIES; NIGHT SOIL; *SLUDGE; *WASTEWATER TREATMENT; *WASTE DISPOSAL

ABSTRACT: THIS PAPER REVIEWS THE PUBLIC HEALTH REQUIREMENTS FOR SUCCESSFUL COMPOSTING AND THE STATE-OF-THE-ART FOR THE TWO METHODS OF WINDROW OR PILE COMPOSTING THAT ARE PRESENTLY USED FOR SEWAGE SLUDGE IN THE UNITED STATES. THE PAPER CONCLUDES THAT AEROBIC COMPOSTING OF NIGHT SOIL IS SUITABLE FOR DEVELOPING COUNTRIES BECAUSE OF ITS SIMPLICITY IN OPERATION, LIMITED NEED FOR MECHANICAL EQUIPMENT, LOW COST, AND ITS EFFECTIVENESS IN INACTIVATING PATHOGENS (THUS ASSURING THAT THE COMPOST CAN BE USED WITHOUT CAUSING ANY PUBLIC HEALTH HAZARD).

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006628

PUBLICATION DATE: DEC 80

TITLE: A FIELD MANUAL.

PERSONAL AUTHOR: KALBERMATTEN, JOHN M.; AND OTHERS

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *FACILITIES; *INSTRUCTIONAL MATERIALS; *ON SITE SANITATION SYSTEMS; PLANNING; *SANITATION; *SANITATION SYSTEMS; *WASTEWATER TREATMENT; *WASTE DISPOSAL

ABSTRACT: THIS REPORT PROVIDES INFORMATION FOR THE COMMUNITY WORKER, SANITARIAN, EXTENSION WORKER, AND OTHERS WITHOUT BACKGROUND IN SANITARY ENGINEERING BUT WHO ARE RESPONSIBLE FOR THE IMPLEMENTATION OF SANITATION PROGRAMS-ABOUT THE SELECTION AND CONSTRUCTION OF ON-SITE SANITATION

SYSTEMS.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006629

PUBLICATION DATE: DEC 80

TITLE: LOW-COST WATER DISTRIBUTION--A FIELD MANUAL.

PERSONAL AUTHOR: SPANGLER, CHARLES

DESCRIPTOR: *COSTS; *DESIGN; *INSTRUCTIONAL MATERIALS; *MANUALS; *POST SECONDARY EDUCATION; *RURAL PROBLEMS; *WATER DISTRIBUTION; *WATER SUPPLY

ABSTRACT: THIS COMPANION VOLUME TO "A FIELD MANUAL" PROVIDES NON-ENGINEERS WITH THE INFORMATION NECESSARY TO DESIGN AND IMPLEMENT SIMPLE WATER DISTRIBUTION SYSTEMS FOR SMALL COMMUNITIES.

AVAILABILITY: THE JOHN HOPKINS UNIVERSITY PRESS, HOMEWOOD, BALTIMORE, MD 21218

IRIS ACCESSION NUMBER: EW006630

PUBLICATION DATE: DEC 79

TITLE: WATER CHEMISTRY AND PHYTOPLANKTON FIELD AND LABORATORY PROCEDURES.

PERSONAL AUTHOR: DAVIS, C. O.; SIMMONS, M. S.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BIOLOGY; *CHEMISTRY; *INSTRUCTIONAL MATERIALS; *LIMNOLOGY; *LABORATORY PROCEDURES; *PHYTOPLANKTON; *SAMPLING; *WATER QUALITY; *WATER ANALYSIS

DESCRIPTIVE NOTE: 82P. COO-2003-30

ABSTRACT: TECHNIQUES AND METHODS USED FOR WATER QUALITY STUDIES ARE EXAMINED. THE ANALYTICAL PROCEDURES USED ARE ADAPTABLE FOR LABORATORY CULTURE OR SMALL LAKE INVENTORIES.

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

IRIS ACCESSION NUMBER: EW006632

PUBLICATION DATE: MAY 80

TITLE: SPILL ASSESSMENT MODEL USER'S MANUAL.

PERSONAL AUTHOR: POTTS, R. G.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *HAZARDOUS MATERIALS; *INSTRUCTIONAL MATERIALS; *MATHEMATICAL MODELS; *MANAGEMENT; *PLANNING; *POST SECONDARY EDUCATION; *SPILLS; *TOXICITY; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 184P. AD-A091 803/7

ABSTRACT: PRESENTED IS A GUIDE TO THE SPILL ASSESSMENT MODEL WHICH IS A MATHEMATICAL MODEL FOR APPLICATION IN ASSESSING THE IMPACT OF CATASTROPHIC SPILLS IN WATERWAYS. THE MODEL IS DESIGNED AS A MANAGEMENT TOOL TO SUPPORT CLEAN-UP OPERATIONS IN THE EVENT OF A SPILL, TO PERMIT POST INCIDENT ANALYSES, AND TO SERVE AS A BASIS FOR CONTINGENCY PLANNING.

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

IRIS ACCESSION NUMBER: EW006633

PUBLICATION DATE: DEC 80

TITLE: WATER RATES AND COSTS. 1964-NOVEMBER, 1980. (CITATIONS FROM THE NTIS DATA BASE.)

PERSONAL AUTHOR: BROWN, ROBENA J.

DESCRIPTOR: *BIBLIOGRAPHIES; *COSTS; *MANAGEMENT; *PLANNING; *RATES; *WATER SUPPLY; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER RATES; *WASTEWATER RATES

DESCRIPTIVE NOTE: 175P. PB81-801417

ABSTRACT: DESCRIBED IS THE PRICING OF WATER FOR URBAN, RURAL, INDUSTRIAL, AND AGRICULTURAL USE. EXPENSES RELATED TO WATER TREATMENT AND SEWAGE FACILITIES AS IT AFFECTS THE COST OF WATER ARE REVIEWED. ECONOMIC MODELS FOR WATER USE AND SIMULATIONS FOR OPTIMAL PRICING OF WATER ARE INCLUDED. DIRECT COSTS TO HOMEOWNERS, INDUSTRIAL PLANTS, FARMS, AND BUSINESSES ARE CONSIDERED.

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

IRIS ACCESSION NUMBER: EW006634

PUBLICATION DATE: DEC 80

TITLE: BIOINDICATORS OF POLLUTION. NOVEMBER, 1977-NOVEMBER, 1980. (CITATIONS FROM THE NTIS DATA BASE).

PERSONAL AUTHOR: HARRISON, ELIZABETH A.

DESCRIPTOR: *ABSTRACTS; *AIR POLLUTION; *BIOLOGICAL ANALYSIS; *ANNOTATED BIBLIOGRAPHIES; *BIOLOGICAL INDICATORS; *POLLUTION; *RESEARCH; *WATER POLLUTION

DESCRIPTIVE NOTE: 175P. PB81-801045

ABSTRACT: CITED ARE ABSTRACTS RELATING TO THE USE OF MICROORGANISMS, ANIMALS, PLANTS, AND FISH TO DETECT AIR AND WATER POLLUTION. SOME OF THE ORGANISMS DISCUSSED ARE ALGAE,

BACTERIA, AQUATIC PLANTS, OYSTERS, SNAILS, CLAMS, INSECTS, AMPHIBIANS, BEAVER, AND FUNGI.

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

IRIS ACCESSION NUMBER: EW006635

PUBLICATION DATE: DEC 80

TITLE: OIL POLLUTION DETECTION AND SENSING. 1976-NOVEMBER, 1980. (CITATIONS FROM THE NTIS DATA BASE).

PERSONAL AUTHOR: CAVAGNARO, DIANE M.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *CHEMICAL ANALYSIS; *INDUSTRIAL WASTES; MONITORING; *OIL; *OIL SPILLS; *OCEANOGRAPHY; POLLUTION; REMOTE SENSING; *RESEARCH; *SAMPLING; *WATER QUALITY

DESCRIPTIVE NOTE: 187P. PB81-800997

ABSTRACT: CITATIONS OF RESEARCH ON SAMPLING, DETECTION, AND CHEMICAL ANALYSIS OF OIL IN WATER ARE PRESENTED. INCLUDED ARE STUDIES ON REMOTE SENSING USING RADAR, OCEAN WAVE DAMPING, AND INFRARED DETECTION. CITATIONS OF STUDIES ON OIL WASTES, INDUSTRIAL WASTES, AND BILGE WATER ARE ALSO PRESENTED.

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

IRIS ACCESSION NUMBER: EW006636

PUBLICATION DATE: DEC 80

TITLE: DRINKING WATER AND CANCER: REVIEW OF RECENT FINDINGS AND ASSESSMENT OF RISKS.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CARCINOGENS; CASE STUDIES; CHLORINATED HYDROCARBONS; *DRINKING WATER; *GROUNDWATER; MODELS; ORGANIC COMPOUNDS; *PUBLIC HEALTH; *STANDARDS; TRIHALOMETHANES; UTILITIES; *WATER QUALITY; *WATER WELLS; *WATER SUPPLY

DESCRIPTIVE NOTE: 106P. PB81-128167

ABSTRACT: ASSESSED IS THE CANCER RISK ASSOCIATED WITH ORGANIC CONTAMINATION IN DRINKING WATER. TOPICS INCLUDED ARE: REVIEW OF EPIDEMIOLOGICAL STUDIES; CARCINOGENIC POTENCY OF SYNTHETIC ORGANIC CHEMICALS PRESENT IN DRINKING WATER FROM GROUNDWATER SOURCES; AND ESTIMATES OF CANCER RISKS FROM CURRENT LEVELS OF ORGANIC CHEMICALS IN GROUNDWATER.

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

IRIS ACCESSION NUMBER: EW006637

PUBLICATION DATE: JUN 80

TITLE: PLANNING WORKSHOPS TO DEVELOP RECOMMENDATIONS FOR A GROUND WATER PROTECTION STRATEGY.

DESCRIPTOR: AGRICULTURAL WASTES; *CHEMICAL ANALYSIS; *DRINKING WATER; FEDERAL STATE ROLE; *GROUNDWATER; *INDUSTRIAL WASTES; *INSTRUCTIONAL MATERIALS; *POLLUTION; *PROGRAM DEVELOPMENT; *PUBLIC HEALTH; *POST SECONDARY EDUCATION; *REGULATIONS; STATE PROGRAMS; *WATER QUALITY; WATER SUPPLY; WATER WELLS; *WATER TREATMENT

DESCRIPTIVE NOTE: 81P. PB81-122624

ABSTRACT: DEFINED IS THE NATURE AND EXTENT OF GROUNDWATER PROBLEMS, IDENTIFICATION OF THE MAJOR POLICY CHOICES, ESTIMATION OF RELATED RESOURCES IMPLICATIONS, AND RECOMMENDATIONS FOR ACTION IN CERTAIN AREAS. CONTENTS INCLUDED ARE: (1) GROUNDWATER FUNDAMENTALS; (2) GROUNDWATER USE IN THE U.S.; (3) GROUNDWATER DAMAGE; (4) SYNTHETIC ORGANIC CONTAMINATION IN GROUNDWATER; (5) ANALYSIS OF STATE AND FEDERAL PROGRAMS BY POLLUTANT SOURCE; AND (6) GROUNDWATER RESEARCH STRATEGY.

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

IRIS ACCESSION NUMBER: EW006638

PUBLICATION DATE: JUN 80

TITLE: PLANNING WORKSHOPS TO DEVELOP RECOMMENDATIONS FOR A GROUND WATER PROTECTION.

DESCRIPTOR: *DRINKING WATER; *GROUNDWATER; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *MONITORING; *PLANNING; *POST SECONDARY EDUCATION; *PUBLIC HEALTH; *REGULATIONS; STANDARDS; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 194P. PB81-122616

ABSTRACT: THIS IS A STUDY GUIDE FOR WORKSHOP PARTICIPANTS WHICH OUTLINES GOALS AND OPTIONS AVAILABLE FOR MAINTAINING LEVELS OF GROUNDWATER PROTECTION. MANAGEMENT APPROACHES AND TECHNICAL REQUIREMENTS ARE ADDRESSED.

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

IRIS ACCESSION NUMBER: EW006639

PUBLICATION DATE: AUG 80

TITLE: PROGRESS REPORT: BENEFICIAL USES PROGRAM PERIOD ENDING MARCH 31, 1980.

DESCRIPTOR: AGRONOMY; *ANALYTICAL TECHNIQUES; *BIOLOGICAL EFFECTS; *IRRADIATION; *LABORATORY PROCEDURES; *OPERATIONS

(WASTEWATER); PATHOGENS; *RESEARCH REPORTS; *SLUDGE; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 72P. SAND-80-1466

ABSTRACT: MAJOR ACTIVITIES ASSOCIATED WITH THE SANDIA IRRADIATOR FOR THE DRIED SEWAGE SOLIDS FACILITY ARE DISCUSSED. REPORTS INCLUDE: (1) SIDSS-RELATED ACTIVITIES; (2) SLUDGE IRRADIATION TECHNOLOGY TRANSFER PROGRAM; (3) PATHOGEN REDUCTION STUDIES; (4) ANIMAL EXPERIMENTATIONS; AND (5) AGRONOMIC EXPERIMENTATION.

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

IRIS ACCESSION NUMBER: EW006640

PUBLICATION DATE: 80

TITLE: INTRODUCTION TO REFERENCE SOURCES IN THE HEALTH SCIENCES.

PERSONAL AUTHOR: ROPER, F. R.; BOORKMAN, J. A.

DESCRIPTOR: *BIBLIOGRAPHIES; DATABASES; *HEALTH OCCUPATIONS EDUCATION; *HEALTH SCIENCES; *INFORMATION SOURCES; *HEALTH EDUCATION; *MEDICINE; *MEDICAL EDUCATION; *POST SECONDARY EDUCATION; PERIODICALS; *REFERENCE MATERIALS; *RESEARCH REPORTS

DESCRIPTIVE NOTE: 252P. PRICE: $18.00

ABSTRACT: DISCUSSED ARE VARIOUS TYPES OF BIBLIOGRAPHIC AND INFORMATIONAL SOURCES AND THEIR USE IN REFERENCE WORK IN THE HEALTH SCIENCES. CONTENTS INCLUDED ARE: (1) ORGANIZATION AND MANAGEMENT OF THE REFERENCE MATERIAL; (2) BIBLIOGRAPHIC SOURCES FOR MONOGRAPHS; (3) BIBLIOGRAPHIC SOURCES FOR PERIODICALS; (4) INDEXING AND ABSTRACTING SERVICES; (5) COMPUTERIZED DATA BASES; (6) U.S. GOVERNMENT DOCUMENTS AND TECHNICAL REPORTS; (7) TERMINOLOGY; (8) DRUG INFORMATION SOURCES; (9) AUDIOVISUAL REFERENCE SOURCES; (10) MEDICAL AND HEALTH STATISTICS; AND (11) HISTORY.

AVAILABILITY: MAJORS SCIENTIFIC BOOKS, INC., 2221 WALNUT HILL LANE, P. O. BOX 2700, IRVING, TX 75061

IRIS ACCESSION NUMBER: EW006641

TITLE: WPCF WASTEWATER TREATMENT SKILL TRAINING PACKAGE - ACTIVATED SLUDGE PROCESS EQUIPMENT.

DESCRIPTOR: *ACTIVATED SLUDGE; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *TRAINING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 255P. PRICE: $10.00 PER SET. EW 006 642 IS OTHER VOLUME IN SET.

ABSTRACT: THIS IS A PROGRAM FOR THOSE ALREADY EMPLOYED AS ACTIVATED SLUDGE TREATMENT PLANT OPERATORS. TOPICS INCLUDE: (1) MECHANICAL AERATION; (2) DIFFUSED AERATION; (3) RECTANGULAR SECONDARY CLARIFIERS; AND (4) CIRCULAR SECONDARY CLARIFIERS.

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

IRIS ACCESSION NUMBER: EW006642

TITLE: WPCF WASTEWATER TREATMENT SKILL TRAINING PACKAGE - ACTIVATED SLUDGE PROCESS CONTROL.

DESCRIPTOR: *ACTIVATED SLUDGE; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; JOB SKILLS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *TRAINING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 170P. PRICE: $10.00 PER SET. EW 006 641 IS OTHER VOLUME IN SET.

ABSTRACT: OUTLINED IS A GUIDE TO HELP AN OPERATOR RECOGNIZE AND UNDERSTAND THE BASIC FUNCTIONS AND PROCESSES OF THE ACTIVATED SLUDGE TREATMENT OPERATION IN WASTEWATER TREATMENT FACILITIES. AREAS DISCUSSED ARE: (1) MECHANICAL AERATION OR DIFFUSED AERATION, (2) RECTANGULAR CLARIFIERS, AND (3) CIRCULAR CLARIFIERS.

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

IRIS ACCESSION NUMBER: EW006643

TITLE: WPCF WASTEWATER TREATMENT SKILL TRAINING PACKAGE - ACTIVATED SLUDGE ADMINISTRATOR HANDBOOK.

DESCRIPTOR: *ACTIVATED SLUDGE; *ADMINISTRATION; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *TRAINING; *TEACHER GUIDES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 55P. PRICE: $10.00

ABSTRACT: ADDRESSED ARE THE TRAINING NEEDS REQUIRED BY WASTEWATER TREATMENT PLANT OPERATORS. CONTENTS INCLUDE: (1) PROGRAM MATERIALS; (2) PROGRAM PREREQUISITES; (3) METRIC UNITS; (4) PROGRAM DESCRIPTION; (5) OBJECTIVES; AND (6) INSTRUCTIONS TO THE PROGRAM ADMINISTRATOR.

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

IRIS ACCESSION NUMBER: EW006644

PUBLICATION DATE: 80

TITLE: WATER FIT TO DRINK.

PERSONAL AUTHOR: KEOUGH, CAROL

DESCRIPTOR: *DRINKING WATER; *EQUIPMENT; *INSTRUCTIONAL MATERIALS; *MONITORING; *PLANNING; *POST SECONDARY EDUCATION; *PUBLIC HEALTH; *REGULATIONS; *SAFETY; *WATER SUPPLY; *WATER WELLS; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 280P. PRICE: $5.95

ABSTRACT: PRESENTED IS A GUIDE TO PROBLEMS OF DRINKING WATER AND WHAT THE PUBLIC CAN DO TO ENSURE A SAFE, GOOD-TASTING SUPPLY FOR THE HOME. TOPICS DISCUSSED ARE: (1) GOVERNMENT IN ACTION; (2) NATURE OF WATER; (3) ELUSIVE INGREDIENTS; (4) EQUIPMENT; AND (5) FINDING A NEW SOURCE.

AVAILABILITY: RODALE PRESS, BOOK DIVISION, 33 E. MINOR STREET, EMMAUS, PA 18049

IRIS ACCESSION NUMBER: EW006645

PUBLICATION DATE: 80

TITLE: THE HANDBOOK OF ENVIRONMENTAL CHEMISTRY, VOLUME 1 PART A.

PERSONAL AUTHOR: HUTZINGER, O.

DESCRIPTOR: ATMOSPHERE; *ANALYTICAL TECHNIQUES; *CHEMISTRY; *CHEMICAL REACTIONS; *ENVIRONMENT; EQUIPMENT; *GROUNDWATER; HYDROSPHERE; *INSTRUCTIONAL MATERIALS; METALS; OXYGEN; OCEANOGRAPHY; *POST SECONDARY EDUCATION; PHOSPHORUS; SOIL; SULFUR

DESCRIPTIVE NOTE: 258P. PRICE: $57.90

ABSTRACT: DISCUSSED ARE THE BASIC DISTRIBUTION AND CHEMICAL REACTION PROCESSES WHICH OCCUR IN THE ENVIRONMENT. SUBJECTS INCLUDED ARE: (1) THE ATMOSPHERE; (2) THE HYDROSPHERE; (3) CHEMICAL OCEANOGRAPHY; (4) CHEMICAL ASPECTS OF SOIL; (5) THE OXYGEN CYCLE; (6) THE SULFUR CYCLE; (7) THE PHOSPHOROUS CYCLE; (8) METAL CYCLES AND BIOLOGICAL METHYLATION; AND (9) NATURAL ORGANOHALOGEN COMPOUNDS.

AVAILABILITY: SPRINGER-VERLAG NEW YORK, INC., 175 FIFTH AVENUE, NEW YORK, NY 10010

IRIS ACCESSION NUMBER: EW006646

PUBLICATION DATE: JUN 80

TITLE: PROCEEDINGS: FIRST NATIONAL SYMPOSIUM/WORKSHOP ON ROTATING BIOLOGICAL CONTACTOR TECHNOLOGY HELD AT CHAMPION, PENNSYLVANIA ON FEBRUARY 4-6, 1980. VOLUME II.

DESCRIPTOR: *BIOLOGICAL CONTACTORS; *COST EFFECTIVENESS; *DESIGN; *ENGINEERING; *EQUIPMENT; FACILITIES; INDUSTRIAL WASTEWATER; *MUNICIPAL WASTEWATER; *OPERATIONS (WASTEWATER); *OXYGEN TRANSPORT SYSTEMS; *ROTATING BIOLOGICAL CONTACTORS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 1545P. PB81-124547

ABSTRACT: DISCUSSED IS THE RESEARCH AND IMPLEMENTATION OF ROTATING BIOLOGICAL CONTACTOR TECHNOLOGY. TOPICS REGARDING ROTATING BIOLOGICAL CONTACTOR TECHNOLOGY ARE: PERSPECTIVE, OVERVIEW, HISTORY; PROCESS VARIABLES AND BIOFILM PROPERTIES; MUNICIPAL WASTEWATER TREATMENT; BIOKINETIC STUDIES; AIR DRIVE AND SUPPLEMENTAL AERATION; INDUSTRIAL WASTEWATER TREATMENT; CONCEPTS AND MODELS; UPGRADING PRIMARY AND SECONDARY WASTE TREATMENT SYSTEMS WITH RBC'S; DESIGN AND OPERATION; NITRIFICATION AND DENITRIFICATION; AND SELECTION AND ECONOMICS.

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

IRIS ACCESSION NUMBER: EW006647

PUBLICATION DATE: DEC 80

TITLE: WASTEWATER ALTERNATIVES FOR SMALL COMMUNITIES.

PERSONAL AUTHOR: HATHAWAY, STEVEN W.

DESCRIPTOR: COST EFFECTIVENESS; DEWATERING; *DESIGN; ENGINEERING; *EQUIPMENT; *FACILITIES; INDIVIDUAL WASTEWATER TREATMENT FACILITIES; *MANAGEMENT; *MAINTENANCE; *OPERATIONS (WASTEWATER); PUMPS; *PLANNING; RURAL AREAS; SMALL COMMUNITIES; *STANDARDS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 385P. PB81-131658

ABSTRACT: DISCUSSED ARE WASTEWATER ALTERNATIVES TO ASSIST STATE AND REGIONAL OFFICIALS INVOLVED IN REVIEW AND APPROVAL OF FACILITY PLANS FOR SMALL COMMUNITY AND INDIVIDUAL WASTEWATER TREATMENT SYSTEMS. ALSO CONSIDERED ARE FUNDING AND MANAGEMENT OF ALTERNATIVE TECHNOLOGY.

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

IRIS ACCESSION NUMBER: EW006648

PUBLICATION DATE: NOV 80

TITLE: GC/MS METHODOLOGY FOR PRIORITY ORGANICS IN MUNICIPAL WASTEWATER TREATMENT.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *EFFLUENTS; *MONITORING; *OPERATIONS (WASTEWATER); *ORGANIC COMPOUNDS; STANDARDS; SAMPLING; *TOXIC SUBSTANCES; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 52P. PB81-127813

ABSTRACT: REVIEWED IS CURRENT GC/MS METHODOLOGY FOR THE ANALYSIS OF PRIORITY TOXIC ORGANICS IN MUNICIPAL WASTEWATER TREATMENT. CONTENTS INCLUDED ARE: BASIC METHODOLOGY; REDUCTION OF DETECTION LIMITS IN MUNICIPAL WASTEWATER; AND ANALYSIS OF AERATION SAMPLES.

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

IRIS ACCESSION NUMBER: EW006649

PUBLICATION DATE: AUG 80

TITLE: MONITORING SEPTAGE ADDITION TO WASTEWATER TREATMENT PLANTS. VOLUME II. VACUUM FILTRATION OF SEPTAGE.

DESCRIPTOR: COST EFFECTIVENESS; ACTIVATED SLUDGE; *EQUIPMENT; FACILITIES; FILTRATION (VACUUM); HEAVY METALS; *OPERATIONS (WASTEWATER); *SEPTIC TANKS; *SEPTAGE; *SLUDGE; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 159P. PB81-142663

ABSTRACT: ASSESSED IS THE FEASIBILITY OF DEWATERING SEPTIC TANK WASTES WITH CONVENTIONAL VACUUM FILTERS. A METHOD OF TREATING SEPTAGE IN COMBINATION WITH THICKENED WASTE ACTIVATED SLUDGE AT MUNICIPAL WASTEWATER TREATMENT PLANTS IS DISCUSSED.

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

IRIS ACCESSION NUMBER: EW006650

PUBLICATION DATE: JAN 81
TITLE: TEXTILE PROCESSING WASTES AND THEIR CONTROL 1970-1978. (CITATIONS FROM THE ENGINEERING INDEX DATA BASE.)

DESCRIPTOR: *AIR QUALITY; *ABSTRACTS; *ANNOTATED BIBLIOGRAPHIES; *CONTROL PROCESS; *DYES; *EQUIPMENT; INDUSTRY; *MANAGEMENT; *OPERATIONS (WASTEWATER); *RESEARCH REPORTS; *RECYCLING; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 69P. PB81-801805

ABSTRACT: PRESENTED ARE CITATIONS RELATED TO THE CONTROL OF WATER POLLUTION, AIR POLLUTION, AND SOLID WASTES OF TEXTILE INDUSTRIES. TOPICS INCLUDE WASTEWATER TREATMENT OF DYES, THE USE OF ACTIVATED CARBON IN THE PROCESSES, DESIGN CRITERIA OF THE CONTROL EQUIPMENT, AND REUSING MATERIALS THAT ARE RECOVERED IN THE CONTROL PROCESS.

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

IRIS ACCESSION NUMBER: EW006652

PUBLICATION DATE: JAN 81

TITLE: TEXTILE PROCESSING WASTES AND THEIR CONTROL 1964-1980. (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: AIR POLLUTION CONTROL; *BIBLIOGRAPHIES; *COSTS; *EQUIPMENT; FACILITIES; *INDUSTRIAL WASTES; INDUSTRY; *POLLUTANTS; *RESEARCH REPORTS; *TEXTILE INDUSTRY; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 210P. PB81-801813

ABSTRACT: INCLUDED ARE CITATIONS ON TEXTILE PROCESSING, AIR POLLUTION CONTROL, WATER POLLUTION CONTROL, AND SOLID WASTE DISPOSAL OF TEXTILE TECHNOLOGY. TOPICS INCLUDED ARE: (1) WASTEWATER TREATMENT STUDIES ON DYES; (2) BIOLOGICAL INDUSTRIAL WASTE TREATMENT; (3) USE OF MEMBRANES; (4) COST ESTIMATES OF THE CONTROL TECHNOLOGY; AND (5) DESIGN CRITERIA OF CONTROL EQUIPMENT.

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

IRIS ACCESSION NUMBER: EW006654

PUBLICATION DATE: DEC 80

TITLE: ACID MINE DRAINAGE. 1964-SEPTEMBER, 1978 (CITATIONS FROM THE NTIS DATA BASE.)

PERSONAL AUTHOR: BROWN, ROBENA J.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ACID MINE DRAINAGE; *BIBLIOGRAPHIES; *LAND USE; *LAND RECLAMATION; *MINING; *RESEARCH REPORTS; REGULATIONS; *TOXICITY; WASTE DISPOSAL; *WATER QUALITY; *WATER SUPPLY; *WASTEWATER TREATMENT
DESCRIPTIVE NOTE: 277P. PB81-801631

ABSTRACT: CITED ARE STUDIES PRIMARILY CONCERNED WITH CONTROL AND TREATMENT OF ACID MINE DRAINAGE. REPORTS ON HYDROGEOLOGY, ECOLOGY, FORMATION, AND SOURCES ARE INCLUDED.

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

IRIS ACCESSION NUMBER: EW006655

PUBLICATION DATE: DEC 80

TITLE: BERYLLIUM POLLUTION. 1964-NOVEMBER, 1980. (CITATIONS FROM THE NTIS DATA BASE.)

DESCRIPTOR: *AIR POLLUTION CONTROL; *BERYLLIUM; *BIBLIOGRAPHIES; *ENVIRONMENTAL INFLUENCES; MONITORING; *RESEARCH REPORTS; STANDARDS; *TOXIC SUBSTANCES; *WATER QUALITY; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 196P. PB81-801094

ABSTRACT: INCLUDED ARE CITATIONS TO RESEARCH ON AIR AND WATER POLLUTION BY BERYLLIUM. THIS INCLUDES: (1) SOURCES; (2) CONTROL; (3) DETECTION AND ANALYSIS; (4) TOXIC EFFECTS ON PLANTS, ANIMALS, HUMANS; AND (5) AIR AND WATER QUALITY EMISSIONS.

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

IRIS ACCESSION NUMBER: EW006656

PUBLICATION DATE: DEC 80

TITLE: SEWAGE TREATMENT COSTS AND ECONOMICS 1970-1978. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *BIBLIOGRAPHIES; *COST EFFECTIVENESS; *COSTS; *ECONOMICS; *FACILITIES; *FINANCING; *RATES; *RATE STRUCTURES; *RESEARCH; *SEWAGE; *SLUDGE; *WASTEWATER TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 192P. PB81-801979

ABSTRACT: PRESENTED ARE CITATIONS ON COSTS AND ECONOMICS OF SEWAGE TREATMENT SYSTEMS, SEWERS, TREATMENT TECHNOLOGY, EFFLUENT DISCHARGE, AND SLUDGE DISPOSAL. REVIEWED ARE OVERALL CONSTRUCTION AND OPERATION COSTS OF SEWAGE TREATMENT FACILITIES AND RATE STRUCTURES, FINANCING, USER CHARGES, AND BENEFITS OF REGIONALIZED PLANTS.

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

IRIS ACCESSION NUMBER: EW006657

PUBLICATION DATE: JUL 81

TITLE: APPLICATION OF RELIABILITY THEORY TO HYDRAULIC ENGINEERING DESIGN.

PERSONAL AUTHOR: DUCKSTEIN, LUCIEN; BOGARDI, ISTVAN

DESCRIPTOR: *CONSTRUCTION; *DESIGN; *ENGINEERING; FACILITIES; *HYDRAULICS; *MATHEMATICAL MODELS; *PLANNING; *SYSTEMS ANALYSIS; *SAFETY

DESCRIPTIVE NOTE: 799-815P.

ABSTRACT: INTRODUCED ARE RELIABLE MODELS FOR TWO HYDRAULIC ENGINEERING SYSTEMS THAT INCLUDE PROBABILISTIC CONSIDERATIONS IN PRESENT DESIGN CODES. THE SAFETY OF COMPLEX HYDRAULIC STRUCTURES BASED ON SUCH PROBABILISTIC GROUNDS IS EXAMINED.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N7

IRIS ACCESSION NUMBER: EW006658

PUBLICATION DATE: JUL 81

TITLE: RELIABILITY OF UNDERGROUND FLOOD CONTROL SYSTEM.

PERSONAL AUTHOR: DUCKSTEIN, LUCIEN; AND OTHERS

DESCRIPTOR: *DESIGN; *ENGINEERING; *FLOOD CONTROL; FACILITIES; FLOW MEASUREMENT; *HYDRAULICS; *HYDROLOGY; *MATHEMATICAL MODELS; *SYSTEMS ANALYSIS

DESCRIPTIVE NOTE: 817-827P.

ABSTRACT: PRESENTED IS A RELIABILITY MODEL OF AN UNDERGROUND HYDRAULIC ENGINEERING SYSTEM. AN ESTIMATE IS GIVEN FOR THE PROBABILITY THAT THE UNDERGROUND FLOOD CONTROL SYSTEM FULFILLS ITS TASK WITHIN A GIVEN TIME INTERVAL.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N7

IRIS ACCESSION NUMBER: EW006659

PUBLICATION DATE: JUL 81

TITLE: MODELING GRADUAL DAM BREACHES.

PERSONAL AUTHOR: PONCE, VICTOR MIGUEL; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *DAMS; *DESIGN; *ENGINEERING; *EARTH DAMS; *FLOW MEASUREMENT; HYDRAULICS; *MATHEMATICAL MODELS; *SYSTEMS ANALYSIS

DESCRIPTIVE NOTE: 829-838P.

ABSTRACT: PRESENTED IS A MATHEMATICAL MODEL OF THE GRADUAL FAILURE OF AN EARTH DAM. THIS APPROACH IS INTENDED TO PROVIDE A RATIONAL BASE FOR DETERMINING OUTFLOW HYDROGRAPHS FROM POSTULATED EARTH DAM BREACHES.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N7

IRIS ACCESSION NUMBER: EW006660

PUBLICATION DATE: JUL 81

TITLE: BOUNDARY SHEAR IN SMOOTH AND ROUGH CHANNELS.

PERSONAL AUTHOR: KNIGHT, DONALD W.

DESCRIPTOR: *DESIGN; *ENGINEERING; *FLOW MEASUREMENT; *HYDROLOGY; *MATHEMATICAL MODELS; *SYSTEMS ANALYSIS; *SEDIMENTATION; *SHEAR STRESS; WATER FLOW

DESCRIPTIVE NOTE: 839-851P.

ABSTRACT: IT IS IMPORTANT TO INCLUDE BOUNDARY SHEAR STRESS AS A PARAMETER IN OPEN CHANNEL FLOW. INTRODUCED IS A METHOD WHEREBY THE MEAN WALL OR BED SHEAR STRESS MAY BE CALCULATED FOR FLOWS IN A RECTANGULAR CHANNEL OVER A WIDE RANGE OF DIFFERENTIAL ROUGHNESS AND BREADTH TO DEPTH RATIOS.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N7

IRIS ACCESSION NUMBER: EW006661

PUBLICATION DATE: JUL 81

TITLE: IDENTIFICATION OF STREAMFLOW STOCHASTIC MODELS.

PERSONAL AUTHOR: SALAS, JOSE D.; AND OTHERS

DESCRIPTOR: *DESIGN; *ENGINEERING; *FLOW MEASUREMENTS; *HYDROLOGY; *MATHEMATICAL MODELS; *STREAMFLOW; *WATERSHEDS; *WATER STORAGE

DESCRIPTIVE NOTE: 853-866P.

ABSTRACT: ANALYZED IS A STOCHASTIC MODEL FOR ANNUAL STREAMFLOWS WHICH HAS BEEN BASED ON A CONCEPTUAL MODEL OF A WATERSHED. THE FORM OF THE MODEL IS BASED ON R-FUNCTIONS AND S-FUNCTIONS.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N7

IRIS ACCESSION NUMBER: EW006662

PUBLICATION DATE: JUL 81

TITLE: PREDICTING LAKE LEVELS BY EXPONENTIAL SMOOTHING.

PERSONAL AUTHOR: KOPPULA, SIVAJOGI D.; ASCE, A. M.

DESCRIPTOR: *DESIGN; *FLOOD PREVENTION; *FORECASTING; *HYDROLOGY; *LAKES; *MATHEMATICAL MODELS; *MANAGEMENT; WATER SUPPLY; *WATER RESOURCES

DESCRIPTIVE NOTE: 867-878P.

ABSTRACT: PRESENTED IS A FORECASTING METHOD WHICH PROVIDES HYDRAULIC AND PLANNING ENGINEERS WITH AN EASY, CONVENIENT AND INEXPENSIVE PROCEDURE TO ESTIMATE FUTURE LAKE LEVELS. MATHEMATICAL TECHNIQUES MAKE USE OF HISTORICAL DATA.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N7

IRIS ACCESSION NUMBER: EW006663

PUBLICATION DATE: JUL 81

TITLE: STANDARDS FOR COMPUTER-BASED DESIGN STUDIES.

PERSONAL AUTHOR: JAMES, WILLIAM; AND OTHERS

DESCRIPTOR: COMMUNICATIONS; *COMPUTER APPLICATIONS; *DESIGN STUDIES; *EQUIPMENT; *ENGINEERING; EVALUATION CRITERIA; MODEL CREDIBILITY; *MANAGEMENT; OPERATIONS; *PLANNING; QUALITY CONTROL; SYSTEMS ANALYSIS; *STANDARDS

DESCRIPTIVE NOTE: 919-930P.

ABSTRACT: SUGGESTED ARE THE CONTROLS THAT ENSURE THAT THE BEST MODEL AND PROGRAM REQUIREMENTS OF COMPUTER-BASED STUDIES FOR CIVIL ENGINEERING SYSTEMS ARE USED. STRESSED IS CREATION AND TRANSMISSION OF CREDIBILITY AND CONFIDENCE IN RESULTS FROM THE DESIGN OFFICE TO THE CLIENT.

AVAILABILITY: JOURNAL OF THE HYDRAULICS DIVISION, V107 N7

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

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

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

AVAILABILITY: ERIC, DOCUMENT REPRODUCTION SERVICE, PO BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW006665

PUBLICATION DATE: FEB 80

TITLE: A REGIONAL TRAINING COURSE IN NATURAL RESOURCES MANAGEMENT AND ENVIRONMENTAL MONITORING IN HUMID-TROPICAL ECOSYSTEMS.

PERSONAL AUTHOR: FOLLIOTT, PETER F.

DESCRIPTOR: CONSERVATION EDUCATION; *DEVELOPING NATIONS; ECOLOGY; ENVIRONMENTAL EDUCATION; HIGHER EDUCATION; INSTRUCTIONAL MATERIALS; *NATURAL RESOURCES; *PROFESSIONAL EDUCATION; SCIENCE EDUCATION; *WATER RESOURCES; *ENVIRONMENTAL MONITORING

DESCRIPTIVE NOTE: EDRS PRICE: MF01/PC10 PLUS POSTAGE

ABSTRACT: PRESENTED ARE THE BASIC CONCEPTS, METHODS, AND CONSIDERATIONS RELEVANT TO FORMULATING WATER SHED RESOURCES GOALS, POLICIES, AND MANAGEMENT PRACTICES. INTENDED PRIMARILY FOR RESOURCE MANAGERS AND LAND USE PLANNERS CONCERNED WITH WATER RESOURCES, THIS REGIONAL TRAINING COURSE MANUAL EMPHASIZES MATERIAL WHICH APPLIES TO HUMID AND TROPICAL ECOSYSTEMS. AMONG THE TOPICS COVERED ARE THE HYDROLOGIC CYCLE, INVENTORY METHODS, WATER QUALITY, ECONOMIC ISSUES, INSTITUTIONAL CONSIDERATIONS, MODELING AND

SIMULATION TECHNIQUES, ENVIRONMENTAL MONITORING, AND MULTIPLE USE.(ED 197 944)

AVAILABILITY: ERIC, DOCUMENT REPRODUCTION SERVICE, PO BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW006666

PUBLICATION DATE: 80

TITLE: MANPOWER POLICIES FOR THE USE OF SCIENCE AND TECHNOLOGY IN DEVELOPMENT. PERGAMON POLICY STUDIES ON SOCIO-ECONOMIC DEVELOPMENT.

PERSONAL AUTHOR: KIDD, CHARLES V.

DESCRIPTOR: *DEVELOPING NATIONS; *ECONOMIC DEVELOPMENT; HIGHER EDUCATION; LABOR FORCE; *LABOR FORCE DEVELOPMENT; POLICY FORMATION; *TECHNICAL ASSISTANCE; TECHNICAL EDUCATION; TECHNOLOGY; *TECHNOLOGY TRANSFER

DESCRIPTIVE NOTE: 183P. PRICE: $20.00

ABSTRACT: SINCE FACILITIES AND TECHNOLOGY ARE USELESS WITHOUT TRAINED PEOPLE, POLICIES THAT ADDRESS MANPOWER TRAINING MUST BE AN INTERGRAL PART OF A PLAN FOR THE USE OF SCIENCE AND TECHNOLOGY IN NATIONAL DEVELOPMENT. PRESENTED IS AN OVERVIEW OF LABOR FORCE REQUIREMENTS, EDUCATIONAL NEEDS, AND OTHER CONSIDERATIONS RELATED TO INDUSTRIAL AND AGRICULTURAL DEVELOPMENT AND ENHANCEMENT OF THE QUALITY OF LIFE IN DEVELOPING COUNTRIES. AMONG THE TOPICS COVERED ARE MANPOWER SUPPLY AND DEMAND, THE EFFECTIVENESS OF TRAINING INSTITUTIONS, THE ROLE OF MULTINATIONAL AGENCIES, AND THE "BRAIN DRAIN" TO DEVELOPED NATIONS. DESCRIPTIONS OF PROBLEMS AND PROCEDURES IN ASIA, AFRICA, AND LATIN AMERICA AUGMENT THE SUMMARY JUDGMENTS WHICH APPEAR. POLICY IMPLICATIONS, WITH EMPHASIS ON UNITED STATES DEVELOPMENT ASSISTANCE PROGRAMS, CONCLUDE THE REPORT.

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

IRIS ACCESSION NUMBER: EW006667

PUBLICATION DATE: 80

TITLE: THE FIVE-YEAR OUTLOOK: PROBLEMS, OPPORTUNITIES AND CONSTRAINTS IN SCIENCE AND TECHNOLOGY. VOLUME I.

DESCRIPTOR: AGRICULTURE; COLLEGE SCIENCE; ENERGY; *GOVERNMENT ROLE; INTERNATIONAL RELATIONS; *POLICY; SCIENCE EDUCATION; *SCIENCES; *SCIENTIFIC ENTERPRISE; *TECHNOLOGY

ABSTRACT: PRODUCED IN RESPONSE TO THE SCIENCE AND TECHNOLOGY POLICY ORGANIZATION AND PRIORITIES ACT OF 1976, THIS TWO-VOLUME PUBLICATION WAS WRITTEN TO PROVIDE A LOOK INTO THE FUTURE IN TERMS OF RELATING THE AGENDA OF SCIENCE AND TECHNOLOGY TO THE VISIBLE NEAR-TERM PROBLEMS OF AMERICAN SOCIETY AND ITS EXTERNAL RESPONSIBILITIES FOR STABLE PEACE AND THE IMPROVEMENT OF THE HUMAN CONDITION. VOLUME I IS COMPOSED OF THE NATIONAL SCIENCE FOUNDATION'S SYNTHESIS OF THE CONTRIBUTIONS TO THE PROJECT. SIX ISSUES ARE DISCUSSED AT LENGTH: (1) STIMULATING INNOVATION AND PRODUCTIVITY IN INDUSTRY AND AGRICULTURE; (2) ENSURING ADEQUATE SUPPLIES OF ENERGY AND NONRENEWABLE RESOURCES; (3) IMPROVING THE SCIENCE AND TECHNOLOGY BASE FOR RISK ASSESSMENT; (4) CONTRIBUTING TO IMPROVEMENTS IN HEALTH; (5) MAINTAINING INTERNATIONAL LEADERSHIP IN SCIENCE AND TECHNOLOGY; AND (6) ENSURING THE CONTINUED VITALITY OF THE NATION'S SCIENTIFIC AND TECHNOLOGICAL ENTERPRISE.

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

IRIS ACCESSION NUMBER: EW006668

PUBLICATION DATE: 80

TITLE: THE FIVE-YEAR OUTLOOK: PROBLEMS, OPPORTUNITIES AND CONSTRAINTS IN SCIENCE AND TECHNOLOGY. VOLUME II.

DESCRIPTOR: AGRICULTURE; COLLEGE SCIENCE; ENERGY; *GOVERNMENT ROLE; INTERNATIONAL RELATIONS; *POLICY; PUBLIC ADMINISTRATION; SCIENCE EDUCATION; *SCIENCES; SCIENTIFIC ENTERPRISE; *TECHNOLOGY

ABSTRACT: THIS IS THE SECOND VOLUME OF A TWO-VOLUME SERIES PRODUCED IN RESPONSE TO THE SCIENCE AND TECHNOLOGY POLICY ORGANIZATION AND PRIORITIES ACT OF 1976. THIS VOLUME CONSISTS OF SOURCE MATERIALS IN THREE SECTIONS: (1) A REPORT PREPARED BY THE NATIONAL ACADEMY OF SCIENCES WHICH FOCUSES ON CURRENT AND EMERGING OPPORTUNITIES AND PROBLEMS IN SELECTED AREAS OF SCIENCE AND TECHNOLOGY; (2) REPORTS PREPARED BY 21 SELECTED U.S. GOVERNMENT AGENCIES WHICH DISCUSS NEAR-TERM PROBLEMS AND OPPORTUNITIES RELATED TO SCIENCE, TECHNOLOGY, AND PUBLIC POLICY FROM THE PERSPECTIVE OF THEIR INDIVIDUAL MISSIONS; AND (3) PAPERS PREPARED BY INDIVIDUAL SPECIALISTS THAT PROVIDE THEIR VIEWS ON SOME NEAR-TERM RELATIONSHIPS BETWEEN SCIENCE AND TECHNOLOGY, PUBLIC ADMINISTRATION, INDIVIDUAL WELFARE, AND SERVICE ACTIVITIES.

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

IRIS ACCESSION NUMBER: EW006669

PUBLICATION DATE: OCT 80

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY AND WATER RESOURCES MATERIALS. SUPPLEMENT IV (1980).

DESCRIPTOR: *AUDIOVISUAL AIDS; ENVIRONMENTAL EDUCATION; *INFORMATION DISSEMINATION; *INSTRUCTIONAL MATERIALS; PESTICIDES; TECHNOLOGY; *WATER POLLUTION; WATER RESOURCES; *WASTE WATER TREATMENT; WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: SUBSCRIPTION: $12.00, $4.00 EACH; FOR RELATED DOCUMENTS, SEE ED 182 111 AND ED 195 448-450

ABSTRACT: PRESENTED ARE ABSTRACTS AND INDEXES TO SELECTED PRINT AND NON-PRINT MATERIALS RELATED TO WASTEWATER TREATMENT AND WATER QUALITY EDUCATION. 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.(ED 199 076)

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS RE., 3RD FLOOR, COLUMBUS, OH 43212

INSTITUTION NAME: ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C.; OHIO STATE UNIV., COLUMBUS, OHIO. INFORMATION REFERENCE CENTER FOR SCIENCE, MATHEMATICS, AND ENVIRONMENTAL EDUCATION.

IRIS ACCESSION NUMBER: EW006670

PUBLICATION DATE: 81

TITLE: REGISTER OF ENVIRONMENTAL ENGINEERING GRADUATE PROGRAMS, FOURTH EDITION.

PERSONAL AUTHOR: FESILIND, P. AARNE; MINEAR, ROGER A.

DESCRIPTOR: COLLEGES; *DIRECTORIES; *ENGINEERING; *ENVIRONMENT; *GUIDES; *GRADUATE STUDY; *HIGHER EDUCATION; *PROGRAM DESCRIPTIONS; *UNIVERSITIES

DESCRIPTIVE NOTE: 100P. PRICE: $49.95

ABSTRACT: PRESENTED IS A REGISTRY COMPILED FROM ENVIRONMENTAL ENGINEERING AND SCIENCE PROGRAMS THAT ARE ASSOCIATED PRINCIPALLY WITH ENGINEERING SCHOOLS OR COLLEGES. COMPREHENSIVE INFORMATION IS PROVIDED ABOUT GRADUATE PROGRAMS FOR PROSPECTIVE STUDENTS, PROSPECTIVE FACULTY, AND PROSPECTIVE EMPLOYERS OF GRADUATES.

AVAILABILITY: ANN ARBOR SCIENCE, INC., BUTTERWORTHS, 10 TOWER OFFICE PARK, WOBURN, MA 01801

IRIS ACCESSION NUMBER: EW006671

TITLE: BIOLOGICAL MONITORING OF TOXIC TRACE ELEMENTS.

PERSONAL AUTHOR: JENKINS, DALE W.

DESCRIPTOR: *AGRICULTURAL WASTES; *ANALYTICAL TECHNIQUES; BIOLOGICAL EFFECTS; BIOLOGICAL MONITORING; *INDUSTRIAL WASTES; LABORATORY PROCEDURES; *MONITORING; RESEARCH REPORTS; *TOXICITY; *TOXIC SUBSTANCES; *TRACE METALS; *WATER QUALITY

ABSTRACT: REVIEWED ARE THE PROBLEMS, NEEDS, SELECTION, AND USE OF LIVING ORGANISMS FOR MONITORING TOXIC TRACE ELEMENTS. THE BIOACCUMULATION AND BIOCONCENTRATION OF TRACE ELEMENTS IS DISCUSSED.

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

IRIS ACCESSION NUMBER: EW006672

PUBLICATION DATE: 81

TITLE: CONCENTRATION TECHNOLOGIES FOR HAZARDOUS AQUEOUS WASTE TREATMENT.

PERSONAL AUTHOR: SHUCKROW, ALAN J.; AND OTHERS

DESCRIPTOR: BIOLOGICAL TREATMENT; *BIOPHYSICAL TREATMENT; *GROUNDWATER; *HAZARDOUS WASTES; *INDUSTRIAL WASTES; *MONITORING; *OPERATIONS (WASTEWATER); *TOXIC SUBSTANCES; *WASTES TREATMENT

DESCRIPTIVE NOTE: PB81-150583

ABSTRACT: EVALUATED IS THE APPLICABILITY OF TECHNOLOGY FOR THE IDENTIFICATION OF GROUND AND SURFACE WATER CONTAMINATION PROBLEMS. PERFORMANCE OF UNIT PROCESSES FOR CONCENTRATING HAZARDOUS CONSTITUENTS OF AQUEOUS WASTE STREAMS IS ADDRESSED.

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

IRIS ACCESSION NUMBER: EW006673

PUBLICATION DATE: 81

TITLE: COST COMPARISONS OF TREATMENT AND DISPOSAL ALTERNATIVES FOR HAZARDOUS MATERIALS VOLUME I AND II.

PERSONAL AUTHOR: HANSEN, WARREN G.; RISHEL, HOWARD L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COST EFFECTIVENESS; *COSTS; *DISPOSAL; *HAZARDOUS MATERIALS; *MANAGEMENT; *TECHNOLOGY; *TOXIC SUBSTANCES; *WASTES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: PB81-125814 & PB81-128522

ABSTRACT: DISCUSSED ARE HAZARDOUS WASTE TREATMENT AND DISPOSAL TECHNOLOGIES AND COSTS. ALTERNATIVE PROCESSES ARE REVIEWED AND GUIDANCE FOR MAKING COST ESTIMATES IS PROVIDED.

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

IRIS ACCESSION NUMBER: EW006674

PUBLICATION DATE: 81

TITLE: THERMAL ANALYSIS OF THE MANNING S-4000 PORTABLE WASTEWATER SAMPLER.

PERSONAL AUTHOR: LIN, PHILIP C. L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DESIGN; *EQUIPMENT; *LABORATORY PROCEDURES; *MONITORING; *SAMPLING; *WASTEWATER

DESCRIPTIVE NOTE: PB81-111858

ABSTRACT: INVESTIGATED WAS THE FEASIBILITY OF DESIGNING A PORTABLE SAMPLER WITH AN ICE COMPARTMENT FOR PRESERVATION OF WASTEWATER SAMPLES.

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

IRIS ACCESSION NUMBER: EW006675

PUBLICATION DATE: 81

TITLE: FIELD TEST OF CORROSION CONTROL TO PROTECT ASBESTOS-CEMENT PIPE.

PERSONAL AUTHOR: LOGSDON, GARY S.

DESCRIPTOR: *ASBESTOS-CEMENT PIPES; *ASBESTOS; *CORROSION; *CORROSION CONTROL; *MAINTENANCE; *PIPES; *POTABLE WATER; *PUBLIC HEALTH; *WATER QUALITY; *WATER DISTRIBUTION; *ZINC

DESCRIPTIVE NOTE: PB81-152878

ABSTRACT: ADDING ZINC ORTHO PHOSPHATE TO POTABLE WATER TO COAT ASBESTOS CEMENT PIPE WITH ZINC TO PREVENT ASBESTOS FIBERS FROM ENTERING THE WATER IS CONSIDERED.

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

IRIS ACCESSION NUMBER: EW006695

PUBLICATION DATE: JUN 80

TITLE: PROCEEDINGS: FIRST NATIONAL SYMPOSIUM/WORKSHOP ON ROTATING BIOLOGICAL CONTACTOR TECHNOLOGY HELD AT CHAMPION, PENNSYLVANIA ON FEBRUARY 4-6, 1980. VOLUME I.

DESCRIPTOR: *BIOLOGICAL CONTACTORS; *COST EFFECTIVENESS; *DESIGN; *EQUIPMENT; *ENGINEERING; *OPERATIONS (WASTEWATER); *RESEARCH REPORTS; *ROTATING BIOLOGICAL CONTACTORS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 789P. PB81-124539

ABSTRACT: REPORTED IS RESEARCH REGARDING ROTATING BIOLOGICAL CONTACTOR TECHNOLOGY. TOPICS INCLUDE: (1) PROCESS VARIABLES AND BIOFILM PROPERTIES; (2) MUNICIPAL WASTEWATER TREATMENT; (3) BIOKINETIC STUDIES; (4) AIR DRIVE AND SUPPLEMENTAL AERATION; (5) INDUSTRIAL WASTEWATER TREATMENT; (6) CONCEPTS AND MODELS; (7) DESIGN AND OPERATION; (8) NITRIFICATION AND DENITRIFICATION; AND (9) SELECTION AND ECONOMICS.

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

IRIS ACCESSION NUMBER: EW006696

PUBLICATION DATE: JUL 81

TITLE: IS SLUDGE REALLY BENEFICIAL?

PERSONAL AUTHOR: GERARDI, MICHAEL H.

DESCRIPTOR: *COSTS; *DESIGN; *EQUIPMENT; *FARMING; *HEALTH; *LAND USE; *LAND APPLICATION; MANAGEMENT; *PATHOGENS; *PLANNING; *SLUDGE; *TOXICITY; *WASTEWATER TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 25-28P.

ABSTRACT: A SET OF PRECAUTIONS WHICH SHOULD ALLOW FOR SAFE AND PRODUCTIVE USE OF SLUDGE ON CROPLAND ARE PRESENTED. VARIOUS SLUDGE APPLICATORS AND INJECTORS ARE DESCRIBED.

AVAILABILITY: AMERICAN CITY & COUNTRY, V96 N7

IRIS ACCESSION NUMBER: EW006697

PUBLICATION DATE: JUL 81

TITLE: FERRIC CHLORIDE TAKES OVER.

PERSONAL AUTHOR: GUTER, KURT J.; AND OTHERS

DESCRIPTOR: ALUM; *COSTS; *COAGULANTS; *CLARIFIERS; *FERRIC CHLORIDE; MONITORING; *OPERATIONS (WASTEWATER); SECONDARY TREATMENT; SLUDGE; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 34, 39P.

ABSTRACT: THE INTRODUCTION OF FERRIC CHLORIDE AS A COAGULANT AND CLARIFIER IN WASTEWATER TREATMENT IS DISCUSSED. CHEMICAL ALTERNATIVES TO REPLACE ALUM ARE CONSIDERED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N7

IRIS ACCESSION NUMBER: EW006698

PUBLICATION DATE: JUL 81

TITLE: LOW TURBIDITY WATER FROM FAST PROCESSES.

PERSONAL AUTHOR: ATHERTON, THOMAS; GOSS, JOSEPH

DESCRIPTOR: *CLARIFICATION; *DRINKING WATER; *FILTRATION; *OPERATIONS (WATER); REGULATIONS; *TURBIDITY; *WATER TREATMENT; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 40-43P.

ABSTRACT: THE REDUCTION OF RAW WATER TURBIDITY BY WATER TREATMENT PROCESSES TO MEET PRIMARY DRINKING WATER REGULATIONS IS DISCUSSED. DESCRIBED IS THE POTENTIAL USE OF AN UPFLOW SOLIDS-CONTACT CLARIFIER AND HIGH RATE SAND

FILTERS TO EFFECTIVELY MEET GUIDELINES.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N7

IRIS ACCESSION NUMBER: EW006699

PUBLICATION DATE: JUL 81

TITLE: HOW TO CHECK LIFT STATION PERFORMANCE.

PERSONAL AUTHOR: MANAHAN, RICHARD R.

DESCRIPTOR: *EQUIPMENT; *FLOW MEASUREMENT; *LIFT STATIONS; *MATHEMATICAL MODELS; *OPERATIONS (WASTEWATER); *PUMPS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 44P.

ABSTRACT: A SIMPLE MATHEMATICAL PROCEDURE FOR CHECKING PUMP PERFORMANCE AND DETERMINING THE INFLOW-OUTFLOW CHARACTERISTICS OF SEWAGE LIFT STATIONS OF WASTEWATER TREATMENT FACILITIES IS PRESENTED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N7

IRIS ACCESSION NUMBER: EW006700

TITLE: AN ALTERNATIVE WASTEWATER DISINFECTANT.

PERSONAL AUTHOR: GREENE, DAVID J.

DESCRIPTOR: *BROMINE CHLORIDE; CHLORINATION; *COST EFFECTIVENESS; *DISINFECTION; *OPERATIONS (WASTEWATER); REGULATIONS; SAFETY; *TOXICITY; *WASTEWATER TREATMENT; *WATER QUALITY

ABSTRACT: DISCUSSED ARE THE ADVANTAGES OF BROMINE CHLORIDE AS A DISINFECTANT FOR PRODUCING ACCEPTABLE DISCHARGES FROM WASTEWATER TREATMENT FACILITIES. THE CONVERSION OF A SYSTEM FOR BROMINE CHLORIDE IS DESCRIBED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N7

IRIS ACCESSION NUMBER: EW006701

PUBLICATION DATE: JUL 81

TITLE: REMOVING TRIHALOMETHANES FROM DRINKING WATER.

PERSONAL AUTHOR: SYMONS, JAMES M.

DESCRIPTOR: CARCINOGENS; *COST EFFECTIVENESS; *DRINKING WATER; *DISINFECTION; *OPERATIONS (WATER); *TRIHALOMETHANES; *WATER TREATMENT; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 50, 56, 61-64P.

ABSTRACT: PRESENTED ARE COST EFFECTIVE TREATMENT PROCESSES THAT CAN BE CONSIDERED FOR REDUCING THE CONCENTRATION OF TRIHALOMETHANES IN DRINKING WATER WHILE MAINTAINING HIGH BACTERIOLOGICAL WATER QUALITY.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N7

IRIS ACCESSION NUMBER: EW006742

PUBLICATION DATE: JUL 81

TITLE: MULTICHANNEL, POSITIVE DISPLACEMENT TEFLON AND GLASS SAMPLER FOR TRACE ORGANICS IN WATER.

PERSONAL AUTHOR: TIGWELL, DAVID C.; AND OTHERS

DESCRIPTOR: AQUATIC ENVIRONMENT; *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; *CHEMISTRY; *CHEMICALS; *INSTRUMENTATION; *LABORATORY EQUIPMENT; *ORGANIC CHEMISTRY; *ORGANIC COMPOUNDS; *SAMPLING; *TOXICITY; *WASTEWATER EFFLUENTS; WATER QUALITY

DESCRIPTIVE NOTE: 1199-1202P.

ABSTRACT: A MULTICHANNEL POSITIVE DISPLACEMENT APPARATUS FOR COLLECTING COMPOSITE SAMPLES OF WATER-BORNE TRACE ORGANIC COMPOUNDS IS DESCRIBED. THE USE OF SAMPLING EQUIPMENT WHICH IS "STATE-OF-THE-ART" RELATIVE TO THE ANALYTICAL CHEMICAL TECHNIQUES ALREADY BEING USED FOR THESE STUDIES IS STRESSED.

AVAILABILITY: ANALYTICAL CHEMISTRY, V53 N8

IRIS ACCESSION NUMBER: EW006743

PUBLICATION DATE: 81

TITLE: HELMINTH AND HEAVY METALS TRANSMISSION FROM ANAEROBICALLY DIGESTED SEWAGE SLUDGE.

PERSONAL AUTHOR: FITZGERALD, PAUL R.

DESCRIPTOR: *CASE STUDIES; *DISEASES; *DISEASE TRANSMISSION; *HEAVY METALS; *HELMINTHS; *METALS; *PUBLIC HEALTH; *RESEARCH REPORTS; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB81-161846

ABSTRACT: DISCUSSED ARE THE EFFECTS OF DISPENSING DISEASE CAUSING MATERIALS INTO THE ENVIRONMENT BY WASTEWATER TREATMENT FACILITIES. THE TRANSMISSION OF THE NEMATODE WORM ASCARIS TO AN ANIMAL HOST IS DISCUSSED.

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

IRIS ACCESSION NUMBER: EW006744
PUBLICATION DATE: 81

TITLE: HEALTH RISKS OF HUMAN EXPOSURE TO WASTEWATER.

PERSONAL AUTHOR: CLARK, C. S.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BACTERIA; *DISEASES; *HEALTH; *MONITORING; *OCCUPATIONAL DISEASES; *PATHOGENS; *PLANT OPERATORS; *PUBLIC HEALTH; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: PB81-143406

ABSTRACT: EXAMINED ARE THE HEALTH EFFECTS ASSOCIATED WITH OCCUPATIONAL EXPOSUSURE TO BIOLOGICAL AGENTS PRESENT IN MUNICIPAL WASTEWATER. THE USE OF THE EPIDEMIOLOGICAL-SEROLOGICAL APPROACH FOR THE DETECTION OF WASTEWATER-RELATED HEALTH EFFECTS IS ADDRESSED.

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

IRIS ACCESSION NUMBER: EW006745

PUBLICATION DATE: 80

TITLE: PARTICULATES IN WATER.

PERSONAL AUTHOR: KAVANAUGH, MICHAEL C.; AND OTHERS

DESCRIPTOR: *CHEMISTRY; *CHEMICAL REACTIONS; *DESIGN; *ENGINEERING; FACILITIES; *INSTRUCTIONAL MATERIALS; METALS; *MATHEMATICAL MODELS; *PARTICULATES; *POST SECONDARY EDUCATION; *WATER TREATMENT; *WATER SUPPLY; *WATER QUALITY; *WATER CHARACTERISTICS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 401P. PRICE: $59.50

ABSTRACT: PRESENTED IS RESEARCH ON IMPROVED MODELING TOOLS FOR WATER QUALITY MANAGERS AND DESIGNERS OF POLLUTION CONTROL AND WATER TREATMENT FACILITIES. TOPICS INCLUDE: (1) THE CHARACTERIZATION OF SURFACE CHEMICAL PROPERTIES OF OXIDES IN NATURAL WATERS; (2) A MATHEMATICAL MODEL FOR SIMULATION OF THE FATE OF COPPER IN A MARINE ENVIRONMENT; (3) PREDICTIONS OF OCEANIC PARTICLE SIZE DISTRIBUTIONS FROM COAGULATION AND SEDIMENTATION MECHANISMS; (4) CHARACTERIZATION OF PARTICLES IN DIGESTED SEWAGE SLUDGE; AND (5) AN INTEGRAL WATER TREATMENT PLANT DESIGN.

AVAILABILITY: AMERICAN CHEMICAL SOCIETY, SPECIAL ISSUES SALES, 1155 SIXTEENTH ST., N.W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW006746

PUBLICATION DATE: AUG 81

TITLE: HAZARDOUS WASTE REGULATIONS: AN INTERPRETIVE GUIDE.

PERSONAL AUTHOR: MALLOW, ALEX
DESCRIPTOR: *COMPLIANCE; *HAZARDOUS WASTES; *LEGISLATION; *REGULATIONS; *STANDARDS; *STORAGE; *SAFETY; *TOXIC SUBSTANCES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 416P. PRICE: $40.00

ABSTRACT: THIS PUBLICATION ANALYZES AND REORGANIZES THE ENVIRONMENTAL PROTECTION AGENCY REGULATIONS FOR COMPLIANCE WITH HAZARDOUS WASTE LAWS. THE BOOK HAS A NUMBER OF AIDS TO HELP DIFFERENT GROUPS OF PEOPLE FIND THEIR CONCERNS. GENERATORS, TRANSPORTERS, AND OTHERS INVOLVED IN HANDLING HAZARDOUS WASTES WILL FIND USEFUL INFORMATION. THOSE INVOLVED IN STORAGE AND DISPOSAL WILL ALSO FIND INFORMATION THAT WILL ASSIST THEM.

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

IRIS ACCESSION NUMBER: EW006747

PUBLICATION DATE: DEC 80

TITLE: WASTEWATER MANAGEMENT FOR SMALL COMMUNITIES AND RURAL AREAS IN APPALACHIA: AN INSTITUTIONAL AND TECHNICAL ASSESSMENT.

PERSONAL AUTHOR: BETCHART, W. B.; AND OTHERS

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *COMMUNITY PROBLEMS; CONSTRUCTION; *FEDERAL PROGRAMS; FACILITIES; *FUNDS; *MANAGEMENT; *PLANNING; *REGULATIONS; *STATE FEDERAL RELATIONSHIPS; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 150P. PB81-187346

ABSTRACT: DESCRIBED IS A PROGRAM TO IMPROVE THE DELIVERY OF FEDERAL GRANTS IN PLANNING, DESIGN, AND CONSTRUCTION OF WASTEWATER FACILITIES IN SMALL COMMUNITIES AND RURAL AREAS. FEDERAL AGENCY PROGRAMS, STATE LAWS AND INSTITUTIONS AND LOCAL DIFFICULTIES INVOLVED IN OBTAINING GRANT FUNDS ARE ADDRESSED. AVAILABLE WASTEWATER TECHNOLOGY IS REVIEWED.

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

IRIS ACCESSION NUMBER: EW006748

PUBLICATION DATE: DEC 80

TITLE: MUNICIPAL WASTEWATER CONTROL TECHNOLOGY RESEARCH STRATEGY, 1980-1984.

DESCRIPTOR: *ENVIRONMENTAL PROTECTION AGENCY; FEDERAL FUNDS; *FEDERAL ROLE; *LEGISLATION; *MANAGEMENT; *PLANNING; *RESEARCH; *RESEARCH NEEDS; *RESEARCH PROJECTS; *WASTEWATER TREATMENT; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 149P. PB81-189342

ABSTRACT: ANALYZED ARE THE RESEARCH REQUIREMENTS OF HEADQUARTERS AND REGIONAL OFFICES DIRECTED TOWARDS WASTEWATER POLLUTION CONTROL AS MATCHED AGAINST THE TECHNOLOGICAL AREAS OF THE EPA'S RESEARCH PROGRAM. INCLUDED IS A DESCRIPTION OF THE PROGRAM DEVELOPED BY THE OFFICE OF RESEARCH AND DEVELOPMENT TO IDENTIFY GAPS AND TO REPROGRAM FUNDS.

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

IRIS ACCESSION NUMBER: EW006749

PUBLICATION DATE: JAN 81

TITLE: ADVANCED WASTE TREATMENT OF INDUSTRIAL WASTEWATERS FOR NON-POTABLE REUSE USING MOBILE TREATMENT UNITS.

PERSONAL AUTHOR: OSANTOWSKI, RICHARD; AND OTHERS

DESCRIPTOR: *ADVANCED WASTEWATER TREATMENT; *EQUIPMENT; *FACILITIES; *MOBILE FACILITIES; *INDUSTRIAL WASTES; *OPERATIONS (WASTEWATER); *RESEARCH REPORTS; *RECYCLING; *SECONDARY TREATMENT; *WATER QUALITY; *WASTEWATER TREATMENT; *WATER SUPPLY; *WATER REUSE

DESCRIPTIVE NOTE: 470P. PB81-189805

ABSTRACT: EVALUATED ARE THE ADVANCED WASTE TREATMENT METHODS FOR UPGRADING SECONDARY EFFLUENT FOR NON-POTABLE INDUSTRIAL REUSE. METHODS USED TO REMOVE RESIDUAL CONTAMINANTS SUCH AS DISSOLVED AND SUSPENDED SOLIDS, BOD-5, TOD, COD, AND COLOR ARE DESCRIBED.

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

IRIS ACCESSION NUMBER: EW006750

PUBLICATION DATE: FEB 81

TITLE: NEEDS SURVEY (1980): COST ESTIMATES FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITY.

DESCRIPTOR: *COSTS; *COST PROJECTIONS; *CONSTRUCTION; *FACILITIES; *LEGISLATION; *OPERATIONS (WASTEWATER); *REGULATIONS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 99P. PB81-193625

ABSTRACT: THIS REPORT IS A DETAILED ESTIMATE OF THE COST OF CONSTRUCTION OF ALL NEEDED PUBLICLY-OWNED TREATMENT WORKS IN ALL OF THE STATES, TO MEET THE 1983 GOALS OF THE ACT. TOTAL CURRENT AND PROJECTED EXPENDITURES FOR MUNICIPAL WASTE TREATMENT ARE REPORTED.

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

IRIS ACCESSION NUMBER: EW006751

PUBLICATION DATE: 78

TITLE: MATHEMATICAL MODELS IN WATER POLLUTION CONTROL.

PERSONAL AUTHOR: JAMES, A.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DESIGN; *ENGINEERING; *FACILITIES; *INSTRUCTIONAL MATERIALS; LAKES; *MANAGEMENT; *MATHEMATICAL MODELS; POLLUTION; *POST SECONDARY EDUCATION; RIVERS; SEAS; *WATER POLLUTION CONTROL; *WATER TREATMENT; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER SUPPLY

DESCRIPTIVE NOTE: 420P. PRICE: $61.00

ABSTRACT: SUMMARIZED ARE THE USES OF MATHEMATICAL MODELS IN THE CONTROL OF WATER POLLUTION, COVERING BOTH THE MODELLING OF POLLUTED ENVIRONMENTS AND WATER TREATMENT UNITS. THE APPLICATION OF MATHEMATICAL TECHNIQUES IN THE DESIGN AND OPERATION OF WASTE TREATMENT PLANTS AND THE MANAGEMENT OF LAKES, RIVERS, AND THE SEA ARE DISCUSSED.

AVAILABILITY: WILEY-INTERSCIENCE, A DIVISION OF JOHN WILEY & SONS, INC., 1 WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW006752

PUBLICATION DATE: 79

TITLE: GEOCHEMICAL PROCESSES: WATER AND SEDIMENT ENVIRONMENTS.

PERSONAL AUTHOR: LERMAN, A.

DESCRIPTOR: *CHEMISTRY; CHEMICAL REACTIONS; *EARTH SCIENCE; *GEOCHEMISTRY; INDUSTRIAL WASTES; *INSTRUCTIONAL MATERIALS; MODELS; *POST SECONDARY EDUCATION; RAIN; *SEDIMENTATION; *WATER RESOURCES; WEATHERING

DESCRIPTIVE NOTE: 481P. PRICE: $38.00

ABSTRACT: DESCRIBED ARE THE EFFECTS AND INTERACTIONS OF GLOBAL GEOCHEMICAL CYCLES. TOPICS INCLUDE: (1) USE OF MODELS FOR SHORT AND LONG TIME SCALES; (2) THE ESSENTIALS OF TRANSPORT PROCESSES; (3) PREHUMAN AND HUMAN INDUSTRIAL EFFECTS ON THE CHEMICAL COMPOSITION OF RAIN; (4) THE WEATHERING OF THE EARTH'S CRUST; AND (5) OBSERVATIONAL DATA AND THEORETICAL MODELS ON THE REACTIONS BETWEEN SOLID PHASES IN SEDIMENTS AND PORE WATERS.

AVAILABILITY: WILEY-INTERSCIENCE, A DIVISION OF JOHN WILEY & SONS, INC., 1 WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW006753

PUBLICATION DATE: JUN 81

TITLE: BIOLOGICAL TREATMENT OF WASTEWATER.

PERSONAL AUTHOR: WINKLER, MICHAEL
DESCRIPTOR: ANAEROBIC DIGESTION; *BIOLOGICAL TREATMENT; COST EFFECTIVENESS; *DESIGN; *ENGINEERING; EQUIPMENT; *FACILITIES; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; NITROGEN; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; PHOSPHORUS; *SLUDGE; *WASTEWATER TREATMENT; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 280P.

ABSTRACT: DESCRIBED ARE VARIOUS METHODOLOGIES OF THE BIOLOGICAL TREATMENT OF WASTEWATER. THE DEVELOPMENT OF TREATMENT SYSTEMS FOR LARGE-SCALE PURIFICATION OF INDUSTRIAL AND DOMESTIC WASTEWATERS AND THE PROCESSES OF NATURAL WASTEWATER PURIFICATION ARE DISCUSSED. EMPHASIZED IS THE APPLICATION OF QUANTITATIVE MODELING, AND COST EFFECTIVE METHODS FOR NITROGEN AND PHOSPHORUS REMOVAL, SLUDGE TREATMENT, AND ANAEROBIC DIGESTION.

AVAILABILITY: WILEY-INTERSCIENCE, A DIVISION OF JOHN WILEY & SONS, INC., 1 WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW006754

PUBLICATION DATE: DEC 81

TITLE: ENVIRONMENTAL ENGINEERING AND SANITATION, 3RD ED.

PERSONAL AUTHOR: SALVATO, JOSEPH A.

DESCRIPTOR: *DRINKING WATER; *DESIGN; *ENGINEERING; EQUIPMENT; *FACILITIES; *GROUNDWATER; HAZARDOUS WASTES; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *MANAGEMENT; ON SITE WASTEWATER TREATMENT; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *RECYCLING; *SANITATION; *STANDARDS; *WATER REUSE; *WATER QUALITY; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 1023P.

ABSTRACT: PRESENTED IS A GUIDE TO SANITARY AND ENVIRONMENTAL ENGINEERING PRINCIPLES AND THEIR PRACTICAL APPLICATIONS. CONTENTS INCLUDE: (1) ALTERNATE ON-SITE SEWAGE DISPOSAL; (2) WATER RECLAMATION AND RE-USE; (3) PROTECTION OF GROUNDWATER QUALITY; (4) MANAGEMENT OF HAZARDOUS WASTES; (5) RESOURCE RECOVERY AND ENERGY CONSERVATION; (6) INTEGRATED PEST MANAGEMENT; AND (7) THE IDENTIFICATION, TREATMENT, AND REMOVAL OF ORGANIC AND INORGANIC COMPOUNDS FROM DRINKING WATER.

AVAILABILITY: WILEY-INTERSCIENCE, A DIVISION OF JOHN WILEY & SONS, INC., 1 WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW006755

PUBLICATION DATE: JUL 81

TITLE: MODELING WASTEWATER RENOVATION: LAND TREATMENT.

PERSONAL AUTHOR: ISKANDAR, I. K.
DESCRIPTOR: *COST EFFECTIVENESS; *DESIGN; *INSTRUCTIONAL MATERIALS; *LAND APPLICATION; *LAND TREATMENT; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PLANNING; *POST SECONDARY EDUCATION; *SITE SELECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 896P.

ABSTRACT: DESCRIBED ARE MODELING TOOLS FOR LAND TREATMENT PLANNING, SITE SELECTION, DESIGN, OPERATION, AND MANAGEMENT OF WASTEWATER RENOVATION. COST EFFECTIVE MODELS OF SLOW INFILTRATION LAND TREATMENT SYSTEMS, WITH APPLICATIONS TO RAPID INFILTRATION AND OVERLAND FLOW SYSTEMS ARE INCLUDED.

AVAILABILITY: WILEY INTERSCIENCE, A DIVISION OF JOHN WILEY & SONS, INC., 1 WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW006757

PUBLICATION DATE: 76

TITLE: WASTEWATER TREATMENT IN COLD CLIMATES.

PERSONAL AUTHOR: SLETTEN, ROBERT S.; AND OTHERS

DESCRIPTOR: *CLIMATE; *DESIGN; *EQUIPMENT; *FACILITIES; *MANAGEMENT; *OPERATIONS (WASTEWATER); REGULATIONS; *SECONDARY TREATMENT; *STANDARDS; *TEMPERATURE; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 15P. AD/A-026 156

ABSTRACT: DISCUSSED ARE WASTEWATER TREATMENT SYSTEMS PRESENTLY IN USE AND TECHNIQUES THAT CAN BE USED TO UPGRADE TREATMENT IN CIVILIAN COMMUNITIES IN COLD REGIONS.

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

IRIS ACCESSION NUMBER: EW006759

PUBLICATION DATE: 78

TITLE: APPLIED PRACTICAL HYDRAULICS.

DESCRIPTOR: DESIGN; *EQUIPMENT; *FLOW MEASUREMENT; *HYDRAULICS; *INSTRUCTIONAL MATERIALS; *MAINTENANCE; *MANAGEMENT; MATHEMATICAL MODELS; *OPERATIONS (WASTEWATER); *POST SECONDARY EDUCATION; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: STUDENT TEXT: $6.00; INSTRUCTOR GUIDE: $8.00

ABSTRACT: PRESENTED IS A GUIDE TO DEVELOP AN UNDERSTANDING OF THE EVERYDAY PROBLEMS OF OPERATION AND MAINTENANCE OF WATER AND WASTEWATER SYSTEMS. CONTENTS INCLUDE: LIQUIDS AT REST; FORCE EXERTED BY LIQUIDS; FLOW IN CLOSED CONDUITS; CALCULATIONS OF HEAD LOSS; LOSSES DUE TO FRICTION IN VALVES,

FITTINGS, AND OTHER DEVICES; SYSTEMS ANALYSIS; PUMPS; AND FLOW IN OPEN CHANNELS.

AVAILABILITY: LINN BENTON COMMUNITY COLLEGE, 6500 SW PACIFIC BLVD., ALBANY, OR 97321

IRIS ACCESSION NUMBER: EW006760

PUBLICATION DATE: DEC 80

TITLE: SEWAGE TREATMENT COSTS AND ECONOMICS. 1979-NOVEMBER, 1980.

DESCRIPTOR: *BIBLIOGRAPHIES; *COST EFFECTIVENESS; *COST BENEFIT ANALYSIS; *DESIGN; *ECONOMICS; *FACILITIES; *FINANCING; *MANAGEMENT; *OPERATIONS (WASTEWATER); *RESEARCH REPORTS; *RATES; *USER CHARGES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 126P. PB81-801987

ABSTRACT: THE COSTS AND ECONOMICS OF SEWAGE TREATMENT SYSTEMS, SEWERS, TREATMENT TECHNOLOGY, EFFLUENT DISCHARGE, AND SLUDGE DISPOSAL ARE ADDRESSED. OVERALL CONSTRUCTION AND OPERATION COSTS OF SEWAGE TREATMENT PLANTS, INCLUDING RATE STRUCTURES, FINANCING, USER CHARGES, AND BENEFITS OF REGIONALIZED PLANTS ARE DISCUSSED.

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

IRIS ACCESSION NUMBER: EW006761

PUBLICATION DATE: JAN 81

TITLE: URBAN SEWAGE TREATMENT PLANNING OCTOBER, 1978 - DECEMBER, 1980. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *BIBLIOGRAPHIES; COST EFFECTIVENESS; COSTS; LAND USE; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PLANNING; *RESEARCH REPORTS; *RATES; SEWAGE; *URBAN AREAS *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 94P. PB81-802191

ABSTRACT: CITATIONS RELATED TO THE COST, PLANNING, OPERATIONS, ALTERNATIVES, AND RATES OF SEWAGE TREATMENT UNDER URBAN MANAGEMENT ARE INCLUDED. CURRENT AND NEW PROCESSES ARE EVALUATED IN TERMS OF APPLICABILITY FOR TREATMENT SYSTEMS.

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

IRIS ACCESSION NUMBER: EW006762

PUBLICATION DATE: JAN 81

TITLE: ASBESTOS AND SILICATE POLLUTION 1970-JANUARY, 1981. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *AIR POLLUTION; AIR QUALITY; *ASBESTOS; *BIBLIOGRAPHIES; *CHEMICAL ANALYSIS; *ENGINEERING; *HEALTH; *MONITORING; *POLLUTANTS; *RESEARCH REPORTS; *SILICATES; *SOILS; *TOXICITY; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 199P. PB81-802795

ABSTRACT: ABSTRACTS OF REPORTS ON THE DETECTION, CONTROL, SAMPLING, AND CHEMICAL ANALYSIS OF SILICATE AND ASBESTOS POLLUTION IN WATER, AIR, AND SOIL ARE INCLUDED.

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

IRIS ACCESSION NUMBER: EW006763

PUBLICATION DATE: JAN 81

TITLE: ASBESTOS AND SILICATE POLLUTION 1977 - NOVEMBER, 1979. (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *AIR POLLUTION CONTROL; *ASBESTOS; BIBLIOGRAPHIES; *CHEMICALS; *CARCINOGENS; *HEALTH; *LABORATORY ANALYSIS; *MONITORING; *POLLUTANTS; *RESEARCH REPORTS; *SILICA; *WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 219P. PB81-802803

ABSTRACT: INCLUDED ARE CITATIONS RELATED TO AIR AND WATER POLLUTION CAUSED BY THE INFLUENCES OF SILICA, ASBESTOS, SILICATES, AND SILICON DIOXIDE. SOURCES, CONTROL, DETECTION, AND EFFECTS ON PLANTS, ANIMALS, AND HUMANS BY THESE SUBSTANCES ARE INCLUDED.

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

IRIS ACCESSION NUMBER: EW006765

PUBLICATION DATE: MAY 81

TITLE: MILLIONS OF DOLLARS COULD BE SAVED BY IMPLEMENTING GAO RECOMMENDATIONS ON ENVIRONMENTAL PROTECTION AGENCY PROGRAMS.

DESCRIPTOR: COST EFFECTIVENESS; *COSTS; *CODISPOSAL; *FEDERAL STATE PROGRAMS; *HAZARDOUS MATERIALS; HEALTH; *LEGISLATION; *MANAGEMENT; *REGULATIONS; *SOLID WASTES; *WATER SUPPLY; *WATER QUALITY; *WASTEWATER TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 19P.

ABSTRACT: THE POTENTIAL FOR SAVING SUBSTANTIAL AMOUNTS OF MONEY IN WATER POLLUTION AND HAZARDOUS AND SOLID WASTE PROGRAMS ARE CONSIDERED. THE USE OF SECONDARY OR ADVANCED TREATMENT TECHNIQUES AND THE USE OF CODISPOSAL ARE

EMPHASIZED.
AVAILABILITY: US GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW006766

PUBLICATION DATE: MAY 81

TITLE: RIVER BASIN COMMISSIONS HAVE BEEN HELPFUL, BUT CHANGES ARE NEEDED.

DESCRIPTOR: *ADMINISTRATIVE AGENCIES; *AGENCY ROLE; COST EFFECTIVENESS; FEDERAL STATE FUNDING; FEDERAL ROLE; *LEGISLATION; *MANAGEMENT; *PLANNING; *RIVERS; *RIVER BASIN COMMISSIONS; STATE ROLE; *WATER SUPPLY; *WATER RESOURCES

DESCRIPTIVE NOTE: 53P.

ABSTRACT: DISCUSSED IS THE SUCCESS OF RIVER BASIN COMMISSIONS, ESTABLISHED BY THE WATER RESOURCES PLANNING ACT OF 1965, RELATED TO THEIR LEGISLATIVE OBJECTIVES OF PLANNING AND COORDINATING WATER RESOURCE DEVELOPMENT. RECOMMENDATIONS TO ENCOURAGE WATER RESOURCE PLANNING THROUGH A RIVER BASIN COMMISSION TYPE OF ARRANGEMENT WITH CONTINUED STATE PARTICIPATION ARE SUGGESTED.

AVAILABILITY: US GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW006767

PUBLICATION DATE: APR 81

TITLE: BETTER MONITORING TECHNIQUES ARE NEEDED TO ASSESS THE QUALITY OF RIVERS AND STREAMS, VOLUME I.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; CASE STUDIES; COST EFFECTIVENESS; *EFFLUENTS; *ENVIRONMENTAL IMPACT STATEMENTS; *LABORATORY PROCEDURES; LAND USE; *MANAGEMENT; *MONITORING; REGULATIONS; RIVERS; *SAMPLING; *STANDARDS; STREAMS; WATER SUPPLY; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 121P.

ABSTRACT: THIS IS THE FIRST VOLUME OF A TWO-PART SERIES. PROBLEMS ASSOCIATED WITH NATIONAL WATER QUALITY MONITORING NETWORKS ARE DISCUSSED. ALTERNATIVES FOR SOUND ENVIRONMENTAL PLANNING AND MANAGEMENT SHOULD INCLUDE BETTER PROCEDURES FOR SAMPLING AND ELIMINATION OF INCONSISTENCIES AND ERRORS IN FIELD AND LABORATORY PERFORMANCE.

AVAILABILITY: US GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW006768
PUBLICATION DATE: APR 81

TITLE: BETTER MONITORING TECHNIQUES ARE NEEDED TO ASSESS THE QUALITY OF RIVERS AND STREAMS, VOLUME II.

DESCRIPTOR: *CASE STUDIES; EVALUATION; *ENVIRONMENTAL PROTECTION AGENCY STATEMENTS; *ENGINEERING; *MONITORING; *QUALITY CONTROL; *REGULATIONS; SAMPLING; *WATER QUALITY; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 205P.

ABSTRACT: THE SECOND VOLUME OF A TWO-PART SERIES CONTAINS THE AGENCIES' COMMENTS AND THE RESPONSES OF THE GENERAL ACCOUNTING OFFICE WHICH ADDRESS THE RECOMMENDATION BY THE GENERAL ACCOUNTING OFFICE TO DISCONTINUE THE NATIONAL FIXED STATION WATER QUALITY CENTERS BY REPLACEMENT OF LOCALIZED SURVEYS.

AVAILABILITY: US GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW006769

PUBLICATION DATE: MAY 81

TITLE: BILLIONS COULD BE SAVED THROUGH WAIVERS FOR COASTAL WASTEWATER TREATMENT PLANTS.
PERSONAL AUTHOR: US GENERAL ACCOUNTING OFFICE

DESCRIPTOR: *COST EFFECTIVENESS; *COSTS; *ECONOMICS; *FACILITIES; *MARINE ENVIRONMENT; *OPERATIONS (WASTEWATER); *PRIMARY TREATMENT; *PLANNING; *REGULATIONS; *STANDARDS; SECONDARY TREATMENT; *WATER QUALITY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 55P.

ABSTRACT: REQUIRING SECONDARY WASTEWATER TREATMENT FACILITIES FOR MANY COASTAL COMMUNITIES WHO DISCHARGE PRIMARY MUNICIPAL WASTES INTO THE MARINE ENVIRONMENT COULD BE WAIVED. ACCORDING TO THIS REPORT THIS ACTION WOULD SAVE SUBSTANTIAL SUMS OF MONEY.

AVAILABILITY: US GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P. O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW006770

PUBLICATION DATE: SUM 81

TITLE: PROTECTING THE QUALITY OF OUR GROUND WATER: WHAT CAN WE DO?

PERSONAL AUTHOR: BOUWER, HERMAN

DESCRIPTOR: AQUIFIERS; CHEMICAL TREATMENT; FILTRATION; *GROUNDWATER; MONITORING; *MANAGEMENT; OPERATIONS (WASTEWATER); ORGANIC COMPOUNDS; *PLANNING; *WATER SUPPLY; *WATER TREATMENT; *WATER QUALITY; WATER WELLS; WATER REUSE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 22-26P.

ABSTRACT: THE METHODS 'IN WHICH DIFFERENT FORMS OF GROUNDWATER POLLUTION CAN BE HALTED ARE DISCUSSED. THE DEGREE TO WHICH GROUNDWATER SHOULD BE PROTECTED OR TREATED IS ADDRESSED.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N2

IRIS ACCESSION NUMBER: EW006771

PUBLICATION DATE: SUM 81

TITLE: A METHODOLOGY FOR MONITORING GROUND WATER QUALITY DEGRADATION.

PERSONAL AUTHOR: TINLIN, RICHARD M.

DESCRIPTOR: COST EFFECTIVENESS; FEDERAL PROGRAMS; *GROUNDWATER; *MONITORING; *MANAGEMENT; *OPERATIONS (WATER); *PLANNING; REGULATIONS; *WASTE DISPOSAL; *WATER QUALITY

DESCRIPTIVE NOTE: 27-32P.

ABSTRACT: DESCRIBED IS A LOGICAL, SOURCE-ORIENTED APPROACH TO GROUNDWATER COLLECTION THAT CONCENTRATES ON THE IDENTIFICATION OF PRIORITY SOURCES AND AREAS. OUTLINED ARE THREE PHASES OF TASKS NECESSARY TO DEVELOP AN EFFECTIVE MONITORING PROGRAM.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N2

IRIS ACCESSION NUMBER: EW006772

PUBLICATION DATE: SUM 81

TITLE: A POSITIVE DISPLACEMENT GROUND WATER SAMPLING DEVICE.

PERSONAL AUTHOR: GILLHAM, R. W.; JOHNSON, P. E.

DESCRIPTOR: *DESIGN; *EQUIPMENT; *GROUNDWATER; HYDROLOGY; *MONITORING; *SAMPLING; *WATER SUPPLY

DESCRIPTIVE NOTE: 33-35P.

ABSTRACT: DESCRIBED IS A METHOD WHICH ALLOWS THE COLLECTION OF WATER SAMPLES IN SITUATIONS WHERE THE WATER TABLE IS AT A SUBSTANTIAL DEPTH. THE COLLECTION OF WATER THROUGH USE OF POSITIVE PRESSURE IS STRESSED.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N2

IRIS ACCESSION NUMBER: EW006773

PUBLICATION DATE: SUM 81

TITLE: SIGNIFICANCE TESTING FOR IMPACT EVALUATION.

PERSONAL AUTHOR: ROVERS, FRANK A.; MCBEAN, EDWARD A.

DESCRIPTOR: *CASE STUDIES; *ENGINEERING; *GROUNDWATER; *MONITORING; MATHEMATICAL MODELS; MATHEMATICAL CONCEPTS; *MEASUREMENT; *STUDENT'S T-TEST; *STATISTICS

DESCRIPTIVE NOTE: 39-43P.

ABSTRACT: DISCUSSED IS THE USE OF THE STUDENTS T-TEST FOR THE INTERPRETATION OF GROUNDWATER MONITORING DATA. SIGNIFICANCE TESTING IS DEFINED AND A CASE STUDY TO INDICATE DATA TRANSFORMATION TO INCREASE THIS TEST'S ACCURACY IS DEMONSTRATED.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N2

IRIS ACCESSION NUMBER: EW006774

PUBLICATION DATE: SUM 81

TITLE: MONITORING IN THE VADOSE ZONE.

PERSONAL AUTHOR: EVERETT, L. G.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; FLOW MEASUREMENT; *GROUNDWATER; HYDROLOGY; *MONITORING; MEASUREMENT; *SAMPLING; *WATER ANALYSIS; *WATER QUALITY

DESCRIPTIVE NOTE: 44-51P.

ABSTRACT: THIS ARTICLE, THE SECOND OF A SERIES ADDRESSING BASIC METHODS OF GROUNDWATER MONITORING, PRESENTS AN OVERVIEW OF TOPSOIL AND VADOSE ZONE MONITORING TECHNIQUES FOR OBSERVING STORAGE CHANGES, MONITORING WATER MOVEMENT, AND SAMPLING BOTH SOIL AND WATER.

AVAILABILITY: GROUND WATER MONITORING REVIEW, V1 N2

IRIS ACCESSION NUMBER: EW006775

PUBLICATION DATE: JUL 81

TITLE: REDUCED ENERGY USAGE WITH BIOLOGICAL PHOSPHORUS REMOVAL.

PERSONAL AUTHOR: DEDYO, JOHN; DOAN, ROLAND, JR.

DESCRIPTOR: *ACTIVATED SLUDGE; *BIOLOGICAL TREATMENT; *COSTS; *EQUIPMENT; *ENERGY CONSERVATION; *MANAGEMENT; *OPERATIONS (WASTEWATER); *PHOSPHORUS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1166-1171P.

ABSTRACT: THE REPLACEMENT OF A CONVENTIONAL LIME

PRECIPITATION PHOSPHORUS REMOVAL SYSTEM WITH A BIOLOGICAL PHOSPHORUS REMOVAL SYSTEM IS DESCRIBED. THE REDUCTION OF ENERGY AND CHEMICAL USE AND RESULTING OPERATING COST REDUCTION ARE STRESSED. THE PHOSPHORUS REMOVAL SYSTEM WAS PART OF AN ACTIVATED SLUDGE TREATMENT PROCESS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N7

IRIS ACCESSION NUMBER: EW006776

PUBLICATION DATE: JUL 81

TITLE: ENERGY REQUIREMENT FOR SMALL WASTEWATER TREATMENT SYSTEMS.

PERSONAL AUTHOR: MIDDLEBROOKS, E. JOE; AND OTHERS

DESCRIPTOR: ACTIVATED SLUDGE PROCESS; *COST EFFECTIVENESS; *DESIGN; *ENERGY; *EFFICIENCY; *ECONOMICS; *EQUIPMENT; *EVALUATION; *EFFLUENT; *LAND APPLICATION; *OPERATIONS (WASTEWATER); *PLANNING; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 1172-1197P.

ABSTRACT: SUMMARIZED ARE THE ENERGY REQUIREMENTS FOR SMALL WASTEWATER TREATMENT SYSTEMS. VARIOUS TREATMENT COMBINATIONS ARE COMPARED AND THE ENERGY REQUIREMENTS OF UNIT OPERATIONS AND PROCESSES ARE PRESENTED IN TABULAR FORM. LAND APPLICATION TREATMENT SYSTEMS ARE CONSIDERED THE MOST ENERGY EFFICIENT AND PRODUCE THE HIGHEST EFFLUENT QUALITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N7

IRIS ACCESSION NUMBER: EW006777

PUBLICATION DATE: JUL 81

TITLE: ALTERATIONS IN THE BOD PROCEDURE FOR THE 15TH EDITION OF "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER".

PERSONAL AUTHOR: YOUNG, JAMES C.; AND OTHERS

DESCRIPTOR: ANALYTICAL TECHNIQUES; *BIOCHEMICAL OXYGEN DEMAND; *BOD; *DISSOLVED OXYGEN; *LABORATORY PROCEDURES; *OPERATIONS (WATER); *SAMPLING; *STANDARD METHODS; *STANDARDS; *WATER QUALITY; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1253-1259P.

ABSTRACT: EXPLAINED ARE THE CHANGES IN THE BIOCHEMICAL OXYGEN DEMAND TEST PROCEDURE. INCLUDED ARE DISCUSSIONS OF IMMEDIATE DISSOLVED OXYGEN DEMAND, SAMPLE STORAGE, DILUTION WATER QUALITY CHECK, NITRIFICATION INHIBITION, SEEDING, AND USE OF STANDARDS SUCH AS GLUCOSE-GLUTAMIC ACID AS A CHECK ON TECHNIQUE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N7

IRIS ACCESSION NUMBER: EW006778

PUBLICATION DATE: SEP 80

TITLE: SELLING ENERGY MANAGEMENT TO A UNIVERSITY.

PERSONAL AUTHOR: BRASWELL, CHARLES C.

DESCRIPTOR: *ADMINISTRATION; *CONSERVATION; *COLLEGES; *ENERGY CONSERVATION; *EDUCATIONAL FACILITIES; *HIGHER EDUCATION; *MANAGEMENT; *PLANNING; *PROGRAM DEVELOPMENT; *REGULATIONS

DESCRIPTIVE NOTE: 47-54P.

ABSTRACT: PRESENTED ARE TECHNIQUES USED TO EFFECTIVELY SELL COMPREHENSIVE ENERGY MANAGEMENT PROGRAMS TO THE UNIVERSITY ADMINISTRATIONS. TOPICS ADDRESSED INCLUDE: COMMUNICATION; BASICS OF SALES; RULES AND GUIDES; CAMPUS ADMINISTRATORS; INVOLVEMENT; AND PROGRAM IMPLEMENTATION.

AVAILABILITY: HEATING/PIPING/AIR CONDITIONING, V52 N9

IRIS ACCESSION NUMBER: EW006779

PUBLICATION DATE: AUG 81

TITLE: RESOLVING AN UNUSUAL FLOC FORMATION PROBLEM.

PERSONAL AUTHOR: GERARDI, MICHAEL H.; GERARDI, MARILEE B.

DESCRIPTOR: *ACTIVATED CARBON; *FLOC; *FLOCCULATION; FILTRATION; *WATER TREATMENT; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 46-48P.

ABSTRACT: THE DETECTION OF A FLOC FORMATION PROBLEM EXPERIENCED BY A SOFT DRINK BOTTLING COMPANY IS DESCRIBED. EMPHASIZED IS THE INFLUENCE OF GRANULAR ACTIVATED CARBON ON BACTERIAL GROWTH AND THE METHODS SUGGESTED TO CONTROL FLOC FORMATION.

AVAILABILITY: PUBLIC WORKS, V112 N8

IRIS ACCESSION NUMBER: EW006780

PUBLICATION DATE: AUG 81

TITLE: LOW COST DIGESTER RENOVATION.

PERSONAL AUTHOR: SEARLES, ROBERT C.; CHENETTE, BERNARD X.

DESCRIPTOR: *ANAEROBIC DIGESTERS; COST EFFECTIVENESS; *DESIGN; *DIGESTERS; *EQUIPMENT; *FACILITIES; *MAINTENANCE; *OPERATIONS (WASTEWATER); *REPAIR; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 62-63P.
ABSTRACT: THE PROCEDURES UNDERTAKEN TO REPAIR AND IMPROVE THE PRIMARY AND SECONDARY ANAEROBIC DIGESTORS OF A WASTEWATER TREATMENT FACILITY ARE DESCRIBED. THE RENOVATION PROJECT WAS RELATIVELY LOW COST.

AVAILABILITY: PUBLIC WORKS, V112 N8

IRIS ACCESSION NUMBER: EW006786

PUBLICATION DATE: AUG 81

TITLE: MOVES TOWARD REGULATORY RELIEF.

PERSONAL AUTHOR: JOSEPHSON, JULIAN

DESCRIPTOR: *ENVIRONMENTAL IMPACTS; *INDUSTRY; *LEGISLATION; *PUBLIC HEALTH; *REGULATIONS; *SAFETY

DESCRIPTIVE NOTE: 859-863P.

ABSTRACT: THE CHANGES AND QUESTIONED COST BENEFIT REQUIREMENTS OF EASING THE REGULATORY BURDEN ON BUSINESS AND INDUSTRY ARE DISCUSSED. MAINTAINING REGULATIONS IN ENVIRONMENTAL AREAS, HEALTH, AND SAFETY ARE STRESSED.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY, V15 N8

IRIS ACCESSION NUMBER: EW006788

PUBLICATION DATE: AUG 81

TITLE: CONCENTRATING ORGANICS IN WATER FOR BIOLOGICAL TESTING.

PERSONAL AUTHOR: JOLLEY, ROBERT L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DRINKING WATER; *INSTRUMENTATION; *LABORATORY PROCEDURES; *ORGANIC COMPOUNDS; *SAMPLING; TOXICITY; *WATER ANALYSIS; *WATER SUPPLY

DESCRIPTIVE NOTE: 874-878P.

ABSTRACT: COMPARED ARE METHODS EMPLOYED FOR CONCENTRATING ORGANICS IN WATER SAMPLES. PROCEDURES FOR SELECTING THE CONCENTRATION METHOD ARE DISCUSSED.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY, V15 N8

IRIS ACCESSION NUMBER: EW006789

PUBLICATION DATE: AUG 81

TITLE: INCREASE IN DIETARY CADMIUM AS A RESULT OF APPLICATION TO SEWAGE SLUDGE AGRICULTRUAL LAND.

PERSONAL AUTHOR: NAYLOR, LEWIS M.; LOEHR, RAYMOND C.
DESCRIPTOR: *AGRICULTURAL PRODUCTION; *CADMIUM; *DIET; *EFFLUENT; *LAND USE; *LAND APPLICATION; *PUBLIC HEALTH; *REGULATIONS; *SLUDGE; *TOXICITY; WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 881-886P.

ABSTRACT: THE EPA GUIDELINES FOR APPLICATION OF SOLID WASTE AND SLUDGE TO LAND HAVE RESULTED FROM AN EXTENSIVE REVIEW AND EVALUATION OF MANY STUDIES. THESE STUDIES HAVE RELATED INFORMATION REGARDING (1) CADMIUM IN SOIL WITH CROP UPTAKE AND (2) DIETARY CADMIUM INTAKE WITH HEALTH EFFECTS.

AVAILABILITY: ENVIRONMENTAL SCIENCE & TECHNOLOGY, V15 N8

IRIS ACCESSION NUMBER: EW006790

PUBLICATION DATE: JUL 81

TITLE: URBAN WATER SUPPLY: WATER RESOURCES' CINDERELLA.

PERSONAL AUTHOR: WOLMAN, ABAL

DESCRIPTOR: *CONSTRUCTION; *FACILITIES; *FEDERAL STATE PROGRAMS; *FUNDING; *LEGISLATION; *MANAGEMENT; *OPERATIONS (WATER); *PLANNING; REGULATIONS; *REMODELING; *URBAN AREAS; *WATER SUPPLY; *WATER RESOURCES; *WATER TREATMENT

DESCRIPTIVE NOTE: 28, 55P.

ABSTRACT: MANY URBAN WATER SUPPLY SYSTEMS ARE DEPENDENT ON FEDERAL GRANTS FOR MODIFYING FACILITIES. THIS MAY RESULT IN DEBILITATION RATHER THAN REVITALIZATION OF THE SYSTEMS DEVELOPMENT AND MANAGEMENT.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N7

IRIS ACCESSION NUMBER: EW006791

PUBLICATION DATE: JUL 81

TITLE: WATER QUALITY MONITORING IN A LIMITED-USE WATERSHED.

PERSONAL AUTHOR: SHULTERS, MICHAEL V.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *INSTRUMENTATION; *LAND USE; *MONITORING; POTABLE WATER; *SAMPLING; SEDIMENTATION; *WATERSHEDS; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 334-339P.

ABSTRACT: DESCRIBED ARE THE MONITORING TECHNIQUES USED TO IDENTIFY THE HYDROLOGIC CHARACTERISTICS AND EFFECTS OF HUMAN ACTIVITY ON WATER QUALITY IN A MUNICIPAL WATER SUPPLY. DATA COLLECTED INCLUDE: (1) SEDIMENTATION; (2) PERIPHYTON PRODUCTION; (3) PRECIPITATION; AND (4) SELECTED PHYSICAL PROPERTIES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N7

IRIS ACCESSION NUMBER: EW006792

PUBLICATION DATE: JUL 81

TITLE: COMPUTER MODELING OF LOS ANGELES WATER RESOURCES.

PERSONAL AUTHOR: KUEBLER, BRUCE W.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *COMPUTERS; *FLOW MEASUREMENT; *GROUNDWATER; *MANAGEMENT; *MONITORING; *OPERATIONS (WATER); *PLANNING; *SURFACE RUNOFF; *WATER SUPPLY; *WATER WELLS

DESCRIPTIVE NOTE: 341-345P.

ABSTRACT: THE USE OF COMPUTER MODELS TO ASSIST SCHEDULE OPERATIONS AND LONG-TERM PLANNING OF THE WATER SUPPLY ARE DISCUSSED. THE PERFORMANCE OF COMPUTER MODELS OF WATER RESOURCES IN BOTH PHYSICAL AND POLICY ISSUES IS EVALUATED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION, V73 N7

IRIS ACCESSION NUMBER: EW006793

PUBLICATION DATE: JUL 81

TITLE: INTERSTATE HIGHWAYS VERSUS WATERSHED PROTECTION IN NEW ENGLAND.

PERSONAL AUTHOR: ADAMS, WILLIAM R., JR.

DESCRIPTOR: *COMMUNITY PROBLEMS; *CONSTRUCTION; *CASE STUDIES; *DRINKING WATER; *HIGHWAYS; *PUBLIC HEALTH; *POLLUTANTS; *STORMWATER; *TRANSPORTATION; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 346-349P.

ABSTRACT: STRESSED IS THE PREVENTION OF THE FURTHER DECLINE IN THE QUALITY OF WATER SUPPLIES BY MAINTAINING THE QUALITY OF WATER SOURCES. THE IMPACTS OF INTERSTATE HIGHWAYS ON WATER QUALITY ARE ADDRESSED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N7

IRIS ACCESSION NUMBER: EW006794

PUBLICATION DATE: JUL 81

TITLE: FIELD MANAGEMENT OF HAZARDOUS SPILLS.

PERSONAL AUTHOR: WESTGARTH, WARREN C.

DESCRIPTOR: *ACCIDENT PREVENTION; *HAZARDOUS MATERIALS; *MANAGEMENT; OPERATIONS (WATER); *PLANNING; *PUBLIC HEALTH; *SAFETY; *SPILLS; *TOXIC SUBSTANCES; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: 350-354P.

ABSTRACT: THE CONTICENCY PLANNING IS NEEDED AS AN INTEGRAL PART OF THE MANAGEMENT SCHEME OF A WATER SYSTEM TO PROTECT AGAINST HAZARDOUS MATERIAL SPILLS. INFORMATION SOURCES THAT CAN AID WATER PURVEYORS IN CONTINGENCY PLANNING ARE CONSIDERED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N7

IRIS ACCESSION NUMBER: EW006795

PUBLICATION DATE: JUL 81

TITLE: INSERTING PLASTIC LINERS IN DISTRIBUTION MAINS.

PERSONAL AUTHOR: PHILLIPS, STEVEN H.

DESCRIPTOR: *COST EFFECTIVENESS; *DESIGN; *MAINTENANCE; *OPERATIONS (WATER); *PIPES; *PLASTIC PIPE LINERS; STANDARDS; *WATER MAINS; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 355-359P.

ABSTRACT: THE USE OF PLASTIC INSERTIONS IN WATER MAINS IS EVALUATED. DESCRIBED ARE THE CONSTRUCTION TECHNIQUES AND TOOLS USED TO INSTALL POLYETHLENE PIPE INTO A WATER SYSTEM.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N7

IRIS ACCESSION NUMBER: EW006796

PUBLICATION DATE: JUL 81

TITLE: OUTBREAKS OF WATERBORNE DISEASE IN THE UNITED STATES: 1971-1978.

PERSONAL AUTHOR: CRAUN, GUNTHER F.

DESCRIPTOR: BACK SIPHONAGE; *COMMUNITY PROBLEMS; *CONTAMINATION; CROSS CONNECTIONS; *DISEASE CONTROL; *DRINKING WATER; *GROUNDWATER; *OPERATIONS (WATER); *PUBLIC HEALTH; RESEARCH REPORTS; *SURVEYS; *WATER SUPPLY; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 360-369P.

ABSTRACT: THE MAJOR OUTBREAKS OF WATERBORNE DISEASE IN MUNICIPAL AND COMMUNITY SYSTEMS ARE DISCUSSED. CONTAMINATION AS A RESULT OF CROSS CONNECTIONS, BACK SIPHONAGE, CONTAMINATED GROUNDWATER, AND TREATMENT DEFICIENCIES IS ADDRESSED.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73

N7

IRIS ACCESSION NUMBER: EW006797

PUBLICATION DATE: JUL 81

TITLE: CARCINOGENESIS OF SYNTHETIC ORGANIC CHEMICALS IN DRINKING WATER.

PERSONAL AUTHOR: KRAYBILL, HERMAN F.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIOLOGICAL STUDIES; *CARCINOGENS; *CHEMICAL TREATMENT; *DRINKING WATER; *EPIDEMIOLOGY; MONITORING; *PUBLIC HEALTH; *RESEARCH METHODOLOGY; *SAMPLING; *WATER SUPPLY; *WATER TREATMENT; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 370-372P.

ABSTRACT: DISCUSSED ARE THE EXPERIMENTAL APPROACHES TO ASSESS THE PRESENCE OF INORGANIC AND ORGANIC CONTAMINATION IN THE TREATED WATER OF DEVELOPED COUNTRIES. STRESSED ARE EXPERIMENTAL METHODS THAT CAN BUTTRESS THE EPIDEMIOLOGICAL STUDIES OR PROVIDE BETTER LEADS FOR POPULATION STUDIES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N7

IRIS ACCESSION NUMBER: EW006798

PUBLICATION DATE: JUL 81

TITLE: DISCUSSION--THE COSTS OF COMPLIANCE: AN EPA ESTIMATE FOR ORGANICS CONTROL.

PERSONAL AUTHOR: ARI, METIN; CRITTENDEN, JOHN C.

DESCRIPTOR: *ACTIVATED CARBON; *ADSORBERS; *COST EFFECTIVENESS; *DRINKING WATER; *EQUIPMENT; *FILTERS; *OPERATIONS (WATER); *WATER TREATMENT

DESCRIPTIVE NOTE: 389-390P.

ABSTRACT: DISCUSSED IS THE USE OF VARIOUS CONFIGURATIONS OF MULTISTAGE ABSORBERS TO LOWER THE COST OF GRANULAR ACTIVATED CARBON TREATMENT IN WATER OPERATIONS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL, V73 N7

IRIS ACCESSION NUMBER: EW006800

PUBLICATION DATE: AUG 81

TITLE: A REDEDICATION TO "BETTER WATER FOR PEOPLE".

PERSONAL AUTHOR: POPE, THEODORE C., JR.

DESCRIPTOR: AMERICAN WATER WORKS ASSOCIATION; *COST EFFECTIVENESS; INDUSTRY; *MANAGEMENT; *PUBLIC HEALTH; *PLANNING; *RESEARCH; *UTILITIES; *WATER SUPPLY; *WATER QUALITY; WATER RATES; *WATER TREATMENT

DESCRIPTIVE NOTE: 18P.

ABSTRACT: DISCUSSED ARE THE POSSIBLE IMPROVEMENTS IN WATER UTILITIES MANAGEMENT THROUGH INDUSTRY-ORIENTED RESEARCH PROGRAMS FINANCIALLY SUPPORTED BY THE AWWA RESEARCH FOUNDATION.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N8

IRIS ACCESSION NUMBER: EW006801

PUBLICATION DATE: AUG 81

TITLE: THE CONSERVATION ETHIC--PART 2.

PERSONAL AUTHOR: GRAESER, HENRY J.

DESCRIPTOR: *CONSERVATION; *COST EFFECTIVENESS; *CITIZEN PARTICIPATION; *MANAGEMENT; NATURAL RESOURCES; *OPERATIONS (WASTEWATER); *PLANNING; *UTILITIES; *WATER SUPPLY; *WATER RESOURCES; *WATER USE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 20P.

ABSTRACT: METHODS TO CONSERVE WATER USE ARE COMPARED. STRESSED ARE THE CONSERVATION OF ENERGY AND MONEY BY CHANGING OPERATING METHODS OF WASTEWATER FACILITIES RATHER THAN INVOKING UNNECESSARY CONSERVATION EFFORTS IN CITIZENS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N8

IRIS ACCESSION NUMBER: EW006802

PUBLICATION DATE: AUG 81

TITLE: CHICAGO: SECOND TO NONE FOR ITS WATER UTILITY.

PERSONAL AUTHOR: HERSCH, PAUL

DESCRIPTOR: BUDGETING; *CHICAGO (ILLINOIS); *EQUIPMENT; FACILITIES; *MANAGEMENT; *OPERATIONS (WATER); PERSONNEL; *PLANNING; *UTILITIES; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 24P.

ABSTRACT: THE VARIOUS TECHNIQUES EMPLOYED BY THE MANAGEMENT SYSTEM OF WATER UTILITY ARE DESCRIBED. AN ATTITUDE AND ATMOSPHERE OF PROFESSIONALISM ARE SUPPORTED WITH EQUIPMENT NEEDED TO IMPROVE PRODUCTION.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N8

IRIS ACCESSION NUMBER: EW006803

PUBLICATION DATE: AUG 81

TITLE: ADVANCED WASTEWATER PLANT IN ENERGY SAVER.

PERSONAL AUTHOR: BEAUPRE, RICHARD T.; AND OTHERS

DESCRIPTOR: *COST EFFECTIVENESS; *ENERGY CONSERVATION; *EQUIPMENT; FILTERS; FLOW MEASUREMENT; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PLANNING; PUMPS; SLUDGE; *TERTIARY TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 30-33P.

ABSTRACT: THE OPERATIONS OF A TERTIARY WASTEWATER TREATMENT PLANT DESIGNED WITH ENERGY CONSERVATION AS A PRIME OBJECTIVE ARE DISCUSSED. FEATURES INCLUDE: (1) A PUMPING STATION WITH VARIABLE FREQUENCY/VARIABLE DRIVE; (2) ROTATING BIOLOGICAL DISCS; (3) GRAVITY FILTERS; AND (4) A RAW SEWAGE FLOWMETER.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N8

IRIS ACCESSION NUMBER: EW006804

PUBLICATION DATE: AUG 81

TITLE: ON WATER TARIFF EQUALIZATION POLICIES.

PERSONAL AUTHOR: HANKE, STEVE H.

DESCRIPTOR: *COST BENEFIT ANALYSIS; *ECONOMICS; *INDUSTRY; *MANAGEMENT; *PLANNING; *TARIFFS; *TARIFF EQUALIZATION; *UTILITIES; *WATER SUPPLY; *WATER RATES; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 33-34P.

ABSTRACT: THE EFFECTS OF INTERSYSTEM WATER TARIFF EQUALIZATION POLICIES ARE DISCUSSED. COMPARED ARE THE CONSEQUENCES FOR BOTH WATER CONSUMERS AND SUPPLIERS AND THE CHANGE OF THE STRUCTURE OF THE WATER SUPPLY INDUSTRIES SUBJECTED TO THESE POLICIES.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N8

IRIS ACCESSION NUMBER: EW006805

PUBLICATION DATE: AUG 81

TITLE: PROTECTING A PIPING NETWORK FROM ITSELF.

PERSONAL AUTHOR: HASTBACKA, MILDRED

DESCRIPTOR: *INSTALLATION; *MAINTENANCE; *PIPES; *PIPE TENSION; *PIPE JOINTS; RUBBER EXPANSION JOINTS; *WATER PIPES; WATER DISTRIBUTION

DESCRIPTIVE NOTE: 35-36, 41P.

ABSTRACT: THE USE OF RUBBER EXPANSION JOINTS AS A METHOD TO EASE PIPELINE TENSION IN PIPING NETWORK SYSTEMS IS DISCUSSED. THE BASIC TYPES OF RUBBER EXPANSION JOINTS ARE DESCRIBED. INSTALLATION AND MAINTENANCE ARE CONSIDERED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N8

IRIS ACCESSION NUMBER: EW006806

PUBLICATION DATE: AUG 81

TITLE: WATER AND ENERGY: LINKED RESOURCES.

PERSONAL AUTHOR: BERRY, R. STEPHEN

DESCRIPTOR: DRINKING WATER; *ENERGY CONSERVATION; FUTURE (OF SOCIETY); INDUSTRY; *MANAGEMENT; NATURAL RESOURCES; *OPERATIONS (WASTEWATER); *OPERATIONS (WATER); *PLANNING; *WATER SUPPLY; *WATER USE; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 42, 44P.

ABSTRACT: DISCUSSED IS WHETHER OR NOT THE GROWTH RATES IN THE AMOUNT OF ENERGY REQUIRED TO PROCESS WATER FOR MUNICIPAL WATER SUPPLY AND SEWAGE TREATMENT WILL EXCEED THE PROJECTED RATE OF INCREASE IN ENERGY CONSUMPTION FOR THE NATION AS A WHOLE.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N8

IRIS ACCESSION NUMBER: EW006807

PUBLICATION DATE: AUG 81

TITLE: A SUCCESSFUL LOW TECHNOLOGY WASTEWATER PROCESS.

PERSONAL AUTHOR: STECKER, PHILLIP P.

DESCRIPTOR: *COST EFFECTIVENESS; *DESIGN; *EFFLUENT; *EQUIPMENT; *FACILITIES; *FILTERS; *MANAGEMENT; *OPERATIONS (WASTEWATER); *SAND FILTERS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 46-47, 49P.

ABSTRACT: DESCRIBED IS THE USE OF THE RECIRCULATORY SAND FILTER IN THE TREATMENT OF SMALL WASTEWATER FLOWS FOR A COMMUNITY WASTEWATER TREATMENT FACILITY. STRESSED IS THE OPERATIONAL SIMPLICITY AND THE PRODUCTION OF HIGH QUALITY EFFLUENT WITH USE OF THIS PROCESS.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N8

IRIS ACCESSION NUMBER: EW006808

PUBLICATION DATE: AUG 81

TITLE: EFFLUENTS AND ENERGY ECONOMICS.

PERSONAL AUTHOR: NIESES, R. C.
DESCRIPTOR: *COST EFFECTIVENESS; *ENGINEERING; *EQUIPMENT; *ENERGY CONSERVATION; *ENERGY; *HEATING; NATURAL RESOURCES; *OPERATIONS (WASTEWATER); *RESOURCE RECOVERY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 52, 54-58P.

ABSTRACT: DISCUSSED IS THE DESIGN OF WASTE HEAT PUMPING HEATING SYSTEMS OF WASTEWATER TREATMENT FACILITIES. THE USE OF PLANT SYSTEMS FOR HEAT RECOVERY AND TO AUGMENT HEATING PROCESS STREAMS AND BUILDING HEAT ARE DESCRIBED.

AVAILABILITY: WATER ENGINEERING & MANAGEMENT, V128 N8

IRIS ACCESSION NUMBER: EW006810

PUBLICATION DATE: MAR 81

TITLE: GOVERNMENT DEPOSITORY LIBRARIES: THE PRESENT LAW GOVERNING DESIGNATED DEPOSITORY LIBRARIES.

DESCRIPTOR: *DIRECTORIES; *DEPOSITORY LIBRARIES; *INFORMATION RESOURCES; *LAWS; *LIBRARIES; *REGULATIONS

DESCRIPTIVE NOTE: 128P.

ABSTRACT: THE ROLE OF GOVENMENT DEPOSITORY LIBRARIES IS DISCUSSED. OUTLINED ARE THE LAWS RELATING TO GOVERNMENT DESIGNATED DEPOSITORY LIBRARIES. THESE LIBRARIES ARE LISTED BY STATE AND CITY AS OF MARCH 1981 TO SERVE AS A REFERENCE SOURCE.

AVAILABILITY: CONGRESSIONAL INFORMATION SERVICE, INC., 4520 EAST-WEST HIGHWAY, WASHINGTON, DC 20014.

IRIS ACCESSION NUMBER: EW006811

PUBLICATION DATE: 81

TITLE: THE DIRECTORY AMERICAN PERIODICAL PUBLISHING (MAGAZINE INDUSTRY MARKET PLACE, MIMP 1981).

DESCRIPTOR: *DIRECTORIES; DEALERS; *EDITORIAL SERVICES; *INFORMATION SOURCES; *MAILING SERVICES; *MAGAZINE INDUSTRY; *MAGAZINES; *MARKET RESEARCH; *PHOTOGRAPHERS; *PUBLICATIONS; *PUBLISHERS

DESCRIPTIVE NOTE: 713P. $35.00 PLUS SHIPPING AND HANDLING.

ABSTRACT: THIS IS A REFERENCE SOURCE FOR INFORMATION ON THE ENTIRE MULTIFACETED MAGAZINE INDUSTRY AND THE ALLIED INDUSTRIES WITH WHICH IT INTERACTS. CONTENTS INCLUDE PUBLICATIONS; PUBLISHERS; NATIONAL ASSOCIATIONS; ADVERTISING AGENCIES; CONSULTANTS; MARKET RESEARCH SERVICES; PHOTOGRAPHERS; ART SERVICES; EDITORIAL SERVICES; LETTERSHOPS, DUPLICATING, AND MAILING SERVICES; MAILING LISTS; PUBLICATION PRINTERS; AND BACK-DATE PERIODICAL DEALERS.

AVAILABILITY: R. R. BOWKER CO., 1180 AVENUE OF T AMERICAS, NEW YORK, NY 10036

IRIS ACCESSION NUMBER: EW006817

PUBLICATION DATE: AUG 81

TITLE: WHAT'S WRONG WITH THE GLOBAL 2000 REPORT.

PERSONAL AUTHOR: SCHNEIDER, ERNEST

DESCRIPTOR: *ENVIRONMENTAL INFLUENCES; *ENVIRONMENTAL QUALITY; *FUTURE (OF SOCIETY); *MANAGEMENT; *PLANNING; *POLICY; *RESEARCH REPORTS; TRENDS; *TECHNOLOGY; *WORLD PROBLEMS

DESCRIPTIVE NOTE: 71-76P.

ABSTRACT: DISCUSSED IS THE CRITERIA USED TO MEASURE THE PROJECTED OUTLOOKS FOR THE WORLD'S POPULATION, NATURAL RESOURCES, AND ENVIRONMENT THROUGH THE END OF THE CENTURY. THE NEED FOR A REALISTIC, ACCURATE, AND OBJECTIVE PORTRAYAL OF WORLD CONDITIONS FOR POLICY PLANNING IS STRESSED.

AVAILABILITY: CONSULTING ENGINEER, V57 N2

IRIS ACCESSION NUMBER: EW006818

PUBLICATION DATE: AUG 81

TITLE: WPCF ROUNDTABLE DISCUSSION--CONGRESSIONAL STAFFERS TAKE A RETROSPECTIVE LOOK AT PL 92-500.

DESCRIPTOR: *COST EFFECTIVENESS; *LEGISLATION; *MANAGEMENT; *PLANNING; *REGULATIONS; *STANDARDS; *WATER POLLUTION CONTROL ACT; WATER SUPPLY; *WATER QUALITY; *WATER POLLUTION CONTROL; *WATER TREATMENT

DESCRIPTIVE NOTE: 1264-1270P.

ABSTRACT: PRESENTED ARE REVIEWS OF PAST DISCUSSIONS OF SEVERAL OF THE SENATE AND HOUSE STAFF MEMBERS WHO PARTICIPATED IN THE DEVELOPMENT OF THE FEDERAL WATER POLLUTION CONTROL ACT OF 1972. THE RELATIONSHIP BETWEEN PAST ACTIONS AND THOSE OF THE PRESENT ARE CONSIDERED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N8

IRIS ACCESSION NUMBER: EW006819

PUBLICATION DATE: AUG 81

TITLE: SURVEY OF TREATMENT PLANT DESIGN AND OPERATION DEFICIENCIES.

PERSONAL AUTHOR: SMITH, DONALD L.; DAIGH, ROBERT V.

DESCRIPTOR: *COST EFFECTIVENESS; *DESIGN; *FACILITIES; *MANAGEMENT; *NONCOMPLIANCE; *OPERATIONS (WASTEWATER); *REGULATIONS; SURVEYS; *START-UP; *TRAINING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1272-1282P.

ABSTRACT: EXAMINED ARE REASONS FOR NONCOMPLIANCE OF WASTEWATER TREATMENT FACILITIES IN MEETING DISCHARGE REQUIREMENTS. IDENTIFIED ARE DESIGN PROBLEMS, START-UP AND TRAINING PROGRAMS, AND OPERATIONAL DEFICIENCIES IN ORDER TO DEVELOP SOLUTIONS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N8

IRIS ACCESSION NUMBER: EW006820

PUBLICATION DATE: AUG 81

TITLE: OPERATIONAL PROBLEMS WITH ROTATING BIOLOGICAL CONTACTORS.

PERSONAL AUTHOR: HITDELBAUTH, JOHN A.; MILLER, ROY D.

DESCRIPTOR: *BIOLOGICAL CONTACTORS; *DESIGN; *EQUIPMENT; FACILITIES; *MAINTENANCE; *MANAGEMENT; NITRIFICATION; *OPERATIONS (WASTEWATER); *ROTATING BIOLOGICAL CONTACTORS; *WASTEWATER TREATMENT; *WATER QUALITY
DESCRIPTIVE NOTE: 1283-1293P.

ABSTRACT: THE FULL-SCALE ROTATING BIOLOGICAL CONTACTOR SYSTEM PERFORMANCE IN WASTEWATER TREATMENT FACILITIES IS DISCUSSED. THE BIOLOGICAL ACTIVITY AS ADVERSELY AFFECTED BY DISSOLVED OXYGEN LEVELS AND LOW PH LEVELS IN ROTATING BIOLOGICAL CONTACTOR STAGES IS EXAMINED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N8

IRIS ACCESSION NUMBER: EW006821

PUBLICATION DATE: AUG 81

TITLE: DESIGN AND COST COMPARISON OF BIOLOGICAL NITROGEN REMOVAL PROCESSES.

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

DESCRIPTOR: *COST EFFECTIVENESS; *DESIGN; *DENITRIFICATION; *EQUIPMENT; *NITROGEN; *OPERATIONS (WASTEWATER); *TEMPERATURE; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 1294-1302P.

ABSTRACT: THE USE OF BIOLOGICAL NITRIFICATION/DENITRIFICATION PROCESSES IN WASTEWATER TREATMENT FACILITIES DESIGNED TO OPERATE IN LOW TEMPERATURE ENVIRONMENTS IS DISCUSSED. EMPHASIZED ARE THE REDUCTIONS IN METHANOL AND POWER REQUIREMENTS FOR SINGLE STAGE PRE-DENITRIFICATION PROCESS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N8

IRIS ACCESSION NUMBER: EW006822

PUBLICATION DATE: AUG 81

TITLE: PIPELINE FRICTION LOSSES FOR WASTEWATER SLUDGES.

PERSONAL AUTHOR: MULBARGER, MICHAEL C.; AND OTHERS

DESCRIPTOR: *DESIGN; *ENGINEERING; *EQUIPMENT; *FRICTIONAL HEAD LOSS; *LITERATURE REVIEWS; MATHEMATICAL MODELS; *MEASUREMENT TECHNIQUES; *OPERATIONS (WASTEWATER); *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1303-1313P.

ABSTRACT: EXAMINED IS A REVIEW OF LITERATURE DEALING WITH THE FRICTIONAL HEAD LOSSES ASSOCIATED WITH TRANSPORT OF WASTEWATER SLUDGES IN WASTEWATER TREATMENT FACILITIES. PRESENTED IS A DESIGN AND PLANNING METHODOLOGY FOR FRICTIONAL HEAD LOSS COMPUTATION.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N8

IRIS ACCESSION NUMBER: EW006823

PUBLICATION DATE: AUG 81

TITLE: ACTIVATED SLUDGE NICKEL TOXICITY STUDIES.

PERSONAL AUTHOR: SUJARITTANONTA, SUTHIRAK; SHERRARD, JOSEPH H.

DESCRIPTOR: *ACTIVATED SLUDGE; ANALYTICAL TECHNIQUES; *BIOLOGICAL TREATMENT; *HEAVY METALS; *NICKEL; *OPERATIONS (WASTEWATER); *TOXICITY; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 1314-1322P.

ABSTRACT: THE EFFECTS OF NICKEL ON THE COMPLETELY MIXED ACTIVATED SLUDGE PROCESS IS DISCUSSED. ALSO DISCUSSED ARE: (1) THE TYPE OF HEAVY METAL; (2) METAL CONCENTRATION; (3) ORGANIC LOADING; (4) OPERATING MEAN CELL RESIDENCE TIME; AND (5) SPECIES OF MICROORGANISMS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N8

IRIS ACCESSION NUMBER: EW006824

PUBLICATION DATE: AUG 81

TITLE: FACTORS AFFECTING THE FATE OF HEAVY METALS IN THE ACTIVATED SLUDGE PROCESS.

PERSONAL AUTHOR: NELSON, PETER O.; AND OTHERS

DESCRIPTOR: *ACTIVATED SLUDGE; *CHEMICAL REACTIONS; *HEAVY METALS; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1323-1333P.

ABSTRACT: SOLIDS RETENTION TIME AND PH USED TO CONTROL METAL UPTAKE BY BACTERIAL SOLIDS IN WASTEWATER TREATMENT PROCESSES ARE DISCUSSED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N8

IRIS ACCESSION NUMBER: EW006825

PUBLICATION DATE: AUG 81

TITLE: PARASITE OVA IN ANAEROBICALLY DIGESTED SLUDGE.

PERSONAL AUTHOR: ARTHER, R. G.; AND OTHERS

DESCRIPTOR: *ANAEROBIC DIGESTION; *LAND APPLICATION; *LAND USE; *OPERATIONS (WASTEWATER); *PUBLIC HEALTH; *PATHOGENS; *SLUDGE; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 1334-1338P.

ABSTRACT: THE VIABILITY OF PARASITE OVA FOR PROLONGED PERIODS AFTER ANAEROBIC DIGESTION AND LAGOONING OF WASTEWATER SLUDGE IS DISCUSSED. THE SPREAD OF PATHOGENS BY LAND APPLICATION OF WASTEWATER SLUDGE IS CONSIDERED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N8

IRIS ACCESSION NUMBER: EW006827

PUBLICATION DATE: AUG 81

TITLE: CLAY-SOILS PERMEABILITY AND HAZARDOUS WASTE STORAGE.

PERSONAL AUTHOR: GREEN, WILLIAM J.; AND OTHERS

DESCRIPTOR: *CLAY SOILS; *FLOW MEASUREMENT; *HAZARDOUS WASTES; *INDUSTRIAL WASTES; *MEASUREMENT TECHNIQUES; MONITORING; *ORGANIC SOLVENTS; *PERMEABILITY; *SOILS; *WASTE STORAGE

DESCRIPTIVE NOTE: 1347-1354P.

ABSTRACT: STRESSED IS THE HYDROPHOBIC OR HYDROPHILIC NATURE OF A LOW MOLECULAR WEIGHT ORGANIC SOLVENT AS THE IMPORTANT VARIABLE IN PREDICTING THE SOLVENT'S RATE OF FLOW THROUGH CLAY SOILS. THE RELATIONSHIP BETWEEN PACK BULK CLAY DENSITY AND PERMEABILITY IS ADDRESSED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION, V53 N8

IRIS ACCESSION NUMBER: EW006828

PUBLICATION DATE: AUG 81

TITLE: TEAMING UP TO RESPOND TO HAZARDOUS PROBLEMS.

PERSONAL AUTHOR: SHERIFF, ROBERT E.

DESCRIPTOR: *HAZARDOUS MATERIALS; *INDUSTRIAL WASTES; *LAND USE; *MANAGEMENT; *PLANNING; *TECHNICAL TRAINING; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 19-20P.

ABSTRACT: DISCUSSED IS THE CREATION OF A RESPONSE TEAM TO GATHER INFORMATION AND POSSIBLE SOLUTIONS TO SPECIFIC HAZARDOUS WASTE MANAGEMENT PROBLEMS. MAJOR EMPHASIS IS ON THOSE THAT HAVE A MAJOR IMPACT ON FUTURE BUSINESS OPERATIONS. INTERNAL CONTROL AND DISPOSAL ALTERNATIVES ARE INCLUDED.

AVAILABILITY: POLLUTION ENGINEERING, V13 N8

IRIS ACCESSION NUMBER: EW006829

PUBLICATION DATE: AUG 81

TITLE: INCINERATION OF HAZARDOUS AND LOW LEVEL RADIOACTIVE WASTE.

PERSONAL AUTHOR: PARKER, GARRIS D., JR.

DESCRIPTOR: *CHEMICALS; *HAZARDOUS WASTES; *INDUSTRIAL WASTES; *INCINERATION; *RADIOACTIVE WASTES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 22-23P.

ABSTRACT: DESCRIBED ARE THE PROCEDURES TAKEN TO PROPERLY DISPOSE OF HAZARDOUS AND RADIOACTIVE WASTES BY HIGH TEMPERATURE INCINERATION. STRESSED IS THE USE OF PROPER OPERATING METHODS FOR THE WASTE TO BE DISPOSED.

AVAILABILITY: POLLUTION ENGINEERING, V13 N8

IRIS ACCESSION NUMBER: EW006830

PUBLICATION DATE: AUG 81

TITLE: PROCEED WITH CAUTION--WASTE DISPOSAL SITE AHEAD.

PERSONAL AUTHOR: MASLANSKY, STEVEN

DESCRIPTOR: *ACCIDENT PREVENTION; EQUIPMENT; EVALUATION; *HAZARDOUS MATERIALS; *LANDFILLS; *LAND USE; SAMPLING; *SAFETY; *SITE EVALUATION; *TOXIC SUBSTANCES; *TRAINING PROGRAMS; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 25-26P.

ABSTRACT: DESCRIBED ARE THE PLANNING AND PROPER TRAINING PROCEDURES REQUIRED TO EVALUATE A SITE CONTAINING KNOWN OR SUSPECTED HAZARDOUS MATERIALS. THE PROGRAM ADDRESSES (1) CLASSIFICATION OF INVESTIGATIONS; (2) PERSONNEL; (3) PROTECTIVE EQUIPMENT; (4) OPERATIONAL CONSIDERATIONS; AND (5) PROBLEM IDENTIFICATION.

AVAILABILITY: POLLUTION ENGINEERING, V13 N8

IRIS ACCESSION NUMBER: EW006831

PUBLICATION DATE: AUG 81

TITLE: NEW HAZARDS FOR HAZARDOUS WASTE MANAGERS.

PERSONAL AUTHOR: CROSS, FRANK L., JR.

DESCRIPTOR: *HAZARDOUS MATERIALS; *LIABILITY INSURANCE; *LEGISLATION; *MANAGEMENT; *REGULATIONS; STANDARDS; *TAXES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 28-29P.

ABSTRACT: DISCUSSED ARE THE STANDARDS OF FINANCIAL RESPONSIBILITY FOR OPERATORS OF HAZARDOUS WASTE MANAGEMENT FACILITIES. THE LIMITS AND POSSIBILE EFFECTS OF LIABILITY AND TAXATION PROVISIONS OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT OF 1980 ARE DISCUSSED.

AVAILABILITY: POLLUTION ENGINEERING, V13 N8

IRIS ACCESSION NUMBER: EW006832

PUBLICATION DATE: AUG 81

TITLE: ESTIMATING HAZARDOUS AIR EMISSIONS FROM DISPOSAL SITES.

PERSONAL AUTHOR: SHEN, THOMAS T.

DESCRIPTOR: *AIR POLLUTION; *HAZARDOUS MATERIALS; *LANDFILLS; MATHEMATICAL MODELS; *MONITORING; *NONPOINT POLLUTION; TOXIC SUBSTANCES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 31-34P.

ABSTRACT: THE TECHNICAL AND ECONOMIC PROBLEMS OF MONITORING NONPOINT AND FUGITIVE TYPE SOURCES OF HAZARDOUS WASTE LANDFILL EMISSIONS ARE ADDRESSED. DESCRIBED ARE MATHEMATICAL EQUATIONS APPLICABLE FOR THE MEASUREMENT OF GAS EMISSIONS FROM WASTE VOLATILIZATION FROM BURNED AND OPEN DUMPS.

AVAILABILITY: POLLUTION ENGINEERING, V13 N8

IRIS ACCESSION NUMBER: EW006849

PUBLICATION DATE: 80

TITLE: INDIVIDUAL ONSITE WASTEWATER SYSTEMS - VOLUME 7 - PROCEEDINGS OF THE SEVENTH NATIONAL CONFERENCE 1980.

PERSONAL AUTHOR: MCCLELLAND, NINA I.; EVANS, JOE L.

DESCRIPTOR: *DESIGN; *FACILITIES; *ONSITE DISPOSAL; *ONSITE WASTEWATER SYSTEMS; *OPERATIONS (WASTEWATER); SEPTIC TANKS; WATER REUSE; *WASTEWATER TREATMENT; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 525P. PRICE: $30.00

ABSTRACT: PRESENTED IS A GUIDE THAT ADDRESSES PROPER APPLICATIONS OF ALTERNATIVES AND INNOVATIVE TECHNOLOGIES THAT CAN BE USED TO RESOLVE ONSITE WASTEWATER TREATMENT AND DISPOSAL PROBLEMS. CONTENTS INCLUDE REPORTS OF USE OF A BROAD RANGE OF ALTERNATIVES, FROM TRADITIONAL SEPTIC TANK - SOIL ADSORPTION SYSTEMS TO WATER CONSERVATION-RECYCLE/REUSE SYSTEMS AND ALTERNATIVE OFF-SITE TRANSPORT/DISPOSAL SYSTEMS.

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

IRIS ACCESSION NUMBER: EW006850

PUBLICATION DATE: MAR 81

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY AND WATER RESOURCES MATERIALS. SUPPLEMENT V (1981).

DESCRIPTOR: AUDIOVISUAL AIDS; ENVIRONMENTAL EDUCATION; *INFORMATION DISSEMINATION; *INSTRUCTIONAL MATERIALS; PESTICIDES; TECHNOLOGY; *WATER POLLUTION; WATER RESOURCES; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: SUBSCRIPTION $12.00, $4.00 EACH

ABSTRACT: PRESENTED ARE 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.

AVAILABILITY: EPA INFORMATION DISSEMINATION PROJECT, 1200 CHAMBERS RD., 3RD FLOOR, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW006861

PUBLICATION DATE: 77

TITLE: SELF-PACED BASIC MATHEMATICS FOR WATER AND WASTEWATER OPERATORS.

PERSONAL AUTHOR: FELDMAN, GARY

DESCRIPTOR: ALGEBRA; *ARITHMETIC; *ENVIRONMENTAL TECHNICIANS; GEOMETRY; *INDEPENDENT STUDY; *INSTRUCTIONAL MATERIALS; *MATHEMATICS EDUCATION; METRIC SYSTEM; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); POST SECONDARY EDUCATION; UTILITIES; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 273P. EDRS PRICE: MF01/PC11 PLUS POSTAGE.

ABSTRACT: THIS BASIC MATHEMATICS COURSE IS COMPOSED OF EIGHT LESSONS. EACH LESSON CONTAINS A PRE-TEST AND POST-TEST, PROBLEMS AND EXAMPLES ORIENTED TOWARD WATER AND WASTEWATER OPERATIONS, SUGGESTED SUPPLEMENTAL READINGS, AND ESTIMATED TIME FOR COMPLETION. THE TOPICS OF THE LESSONS ARE: (1) NUMERATION; (2) WHOLE NUMBERS; (3) FRACTIONS; (4) DECIMALS; (5) PERCENTAGES; (6) RATIO AND PROPORTION; (7) SQUARES AND SQUARE ROOTS; (8) EXPONENTS; (9) SCIENTIFIC NOTATION; (10) BASIC ALGEBRA; (11) FORMULAS; (12) ROMAN NUMERALS; (13) THE METRIC SYSTEM; (14) CALCULATOR USE; (15) GEOMETRY; (16) GRAPHS AND CHARTS; AND (17) BASIC STATISTICS. THE ENTIRE COURSE CAN BE COMPLETED IN ABOUT 40 HOURS. THE PREREQUISITES VARY AND ARE SPECIFIED FOR EACH LESSON. (ED 168 859)

AVAILABILITY: ERIC, DOCUMENT REPRODUCTION SERVICE, PO BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW006862

PUBLICATION DATE: AUG 76

TITLE: PHYSICS FOR WATER AND WASTEWATER OPERATORS.

PERSONAL AUTHOR: KOUNDAKJIAN, PHILIP

DESCRIPTOR: ELECTRICITY; *ENVIRONMENTAL TECHNICIANS; *INSTRUCTIONAL MATERIALS; MATHEMATICS; *PHYSICS; POST SECONDARY EDUCATION; *PRESSURE; *TEMPERATURE; UTILITIES; *WASTE DISPOSAL; *WASTEWATER TREATMENT; *WATER TREATMENT; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER)

DESCRIPTIVE NOTE: 66P. EDRS PRICE: MF01/PC03 PLUS POSTAGE

ABSTRACT: THIS PHYSICS COURSE COVERS THE FOLLOWING MAIN SUBJECT AREAS: (1) LIQUIDS; (2) PRESSURE; (3) LIQUID FLOW; (4) TEMPERATURE AND HEAT; AND (5) ELECTRIC CURRENTS. THE PREREQUISITES FOR UNDERSTANDING THIS MATERIAL ARE BASIC ALGEBRA AND GEOMETRY. THE LESSONS ARE COMPOSED MOSTLY OF SAMPLE PROBLEMS AND CALCULATIONS THAT WATER AND WASTEWATER OPERATORS HAVE TO MAKE. THE EXAMPLES ARE FOLLOWED BY PRACTICE PROBLEMS. EACH LESSON CONCLUDES WITH AN ADDITIONAL READING LIST. (ED 168 860)

AVAILABILITY: ERIC, DOCUMENT REPRODUCTION SERVICE, PO BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW006863

PUBLICATION DATE: 75

TITLE: WATERSHED MANAGEMENT IN ARID ZONES: A PROTOTYPE SHORT COURSE.

PERSONAL AUTHOR: THAMES, JOHN L, ED.; FISCHER, JOHN N., ED.

DESCRIPTOR: *AGRICULTURE; AGRONOMY; *CONSERVATION (ENVIRONMENT); CURRICULUM GUIDES; *DEVELOPING NATIONS; EARTH SCIENCE; *ENVIRONMENT; HARVESTING; HIGHER EDUCATION; METEROLOGY; NATURAL RESOURCES; *POST SECONDARY EDUCATION; SCIENCES; SOIL SCIENCE; *WATER RESOURCES; *ARID ZONES

DESCRIPTIVE NOTE: 322P. EDRS PRICE: MF01/PC13 PLUS POSTAGE.

ABSTRACT: PRESENTED IS INFORMATION RECOMMENDED FOR INCLUSION IN A SHORT COURSE TO HELP EXTEND KNOWLEDGE OF WATER RESOURCE DEVELOPMENT AND RESEARCH TECHNIQUES IN ARID AND SEMI-ARID REGIONS. INFORMATION IS PARTICULARLY INTENDED FOR APPLICABILITY IN DEVELOPING NATIONS. INCLUDED ARE CONSIDERATIONS OF LIVESTOCK GRAZING, USE OF HYDROLOGIC DATA, VEGETATION MANIPULATION, WATERSHED REHABILITATION, WATER CONSERVATION PRACTICES IN ARID REGIONS, AND CONTROL OF EROSION. (ED 179 389)

AVAILABILITY: ERIC, DOCUMENT REPRODUCTION SERVICE, PO BOX 190, ARLINGTON, VA 22210

IRIS ACCESSION NUMBER: EW006869

PUBLICATION DATE: JUL 81

TITLE: AN ALTERNATIVE FOR MEETING THE NITRATE STANDARD FOR PUBLIC WATER SUPPLIES.

PERSONAL AUTHOR: CRAUN, GUNTHER F.

DESCRIPTOR: *DISEASES; ENVIRONMENTAL STANDARDS; HEALTH EDUCATION; *INFANTS; *PUBLIC HEALTH; STATE GOVERNMENT; *STATE REGULATION; SURVEYS; *WATER POLLUTION; WATER RESOURCES

DESCRIPTIVE NOTE: 20-24P.

ABSTRACT: SINCE THE NITRATE STANDARD FOR PUBLIC WATER SUPPLIES IS INTENDED TO PREVENT ACUTE INFANT DISEASE, ENFORCEMENT SHOULD BE DIRECTED WITH REGARD TO THE SUSCEPTIBLE POPULATION. THE PROPOSED PROCEDURE INVOLVES PROVIDING LOW-NITRATE WATER FOR INFANT FEEDING, AND A HEALTH EDUCATION PROGRAM.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH, V44 N1

IRIS ACCESSION NUMBER: EW006870
PUBLICATION DATE: JUL 81

TITLE: VIRGINIA LABORATORY USES ADVANCED EQUIPMENT.

DESCRIPTOR: ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; COMPUTER ORIENTED PROGRAMS; *LABORATORY EQUIPMENT; LABORATORY PROCEDURES; *MEASUREMENT EQUIPMENT; POLLUTION; *SPECTROSCOPY; TOXIC SUBSTANCES; *WATER POLLUTION; WATER RESOURCES

DESCRIPTIVE NOTE: 44, 46-47P.

ABSTRACT: DESCRIBES THE EQUIPMENT AND TECHNIQUES USED BY THE VIRGINIA ENVIRONMENTAL SCIENCE LABORATORIES TO TEST WATER SAMPLES. AN ATOMIC ABSORPTION SPECTROPHOTOMETER CONTROLLED BY A MICROCOMPUTER, AND A HEATED GRAPHITE ATOMIZER ARE AMONG THE PIECES OF ADVANCED EQUIPMENT EMPLOYED.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH, V44 N1

IRIS ACCESSION NUMBER: EW006886

PUBLICATION DATE: NOV 80

TITLE: AT THE CROSSROADS.

PERSONAL AUTHOR: STURM, HERMAN

DESCRIPTOR: *ENVIRONMENT; ENVIRONMENTAL STANDARDS; EVALUATION; *HEALTH PROGRAMS; HEALTH SERVICES; PLANNING; *PUBLIC AGENCIES; *PUBLIC HEALTH LEGISLATION; STATE OF THE ART REVIEW

DESCRIPTIVE NOTE: 126-129P.

ABSTRACT: THIS ARTICLE EXAMINES THE LEGISLATIVE HISTORY AND FUTURE OF THE HEALTH SYSTEM AGENCIES AND STATE HEALTH PLANNING AGENCIES CREATED UNDER THE NATIONAL HEALTH PLANNING AND RESOURCE DEVELOPMENT ACT OF 1975.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH, V43 N3

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ATMOSPHERE	(1)	EW006645						
*ATTITUDES	(5)	EW006358	EW006450	EW006552	EW006622	EW006625		
*AUDIOVISUAL AIDS	(18)	EW003273	EW003820	EW003906	EW005896	EW005897	EW005898	EW005920
		EW005923	EW006157	EW006160	EW006161	EW006162	EW006163	EW006466	EW006467
		EW006468	EW006613	EW006669				
AUDIOVISUAL AIDS	(8)	EW003904	EW003905	EW003907	EW003908	EW006158	EW006159	EW006433
		EW006850						
*AUTOMATED CONTROLS	(1)	EW006354						
*AUTOMATED SYSTEMS	(2)	EW006349	EW006352					
*AUTOMATIC CONTROL SYSTEMS	(1)	EW006536						
*AUTOMATION	(1)	EW006531						
BACK SIPHONAGE	(1)	EW006796						
*BACTERIA	(2)	EW006548	EW006744					
BACTERIA	(1)	EW006491						
*BELT PRESSES	(1)	EW006545						

*BERYLLIUM	(1)	EW006655						
*BEST MANAGEMENT PRACTICES	(1)	EW006454						
*BIBLIOGRAPHIES	(14)	EW004482	EW006331	EW006388	EW006389	EW006621	EW006633	EW006640
	EW006652	EW006654	EW006655	EW006656	EW006760	EW006761	EW006762	
BIBLIOGRAPHIES	(1)	EW006763						
*BIOASSAY	(1)	EW006574						
*BIOCHEMICAL OXYGEN DEMAND	(1)	EW006777						
*BIODEGRATION	(1)	EW006546						
*BIOLOGICAL ANALYSIS	(3)	EW005896	EW006500	EW006634				
*BIOLOGICAL CONTACTORS	(4)	EW006407	EW006646	EW006695	EW006820			
*BIOLOGICAL EFFECTS	(1)	EW006639						
BIOLOGICAL EFFECTS	(1)	EW006671						
*BIOLOGICAL INDICATORS	(1)	EW006634						
*BIOLOGICAL MONITORING	(1)	EW006604						
BIOLOGICAL MONITORING	(1)	EW006671						
*BIOLOGICAL REACTORS	(1)	EW006613						
BIOLOGICAL SCIENCES	(1)	EW006189						
*BIOLOGICAL STUDIES	(1)	EW006797						
*BIOLOGICAL TREATMENT	(7)	EW006361	EW006497	EW006500	EW006546	EW006753	EW006775	EW006823
BIOLOGICAL TREATMENT	(1)	EW006672						
*BIOLOGY	(2)	EW006148	EW006230					
BIOLOGY	(4)	EW006082	EW006456	EW006574	EW006630			
*BIOMASS CONVERSION	(1)	EW006101						
*BIOMONITORING	(1)	EW006411						
*BIOPHYSICAL TREATMENT	(1)	EW006672						
*BOD	(2)	EW006407	EW006777					
BOOKS	(1)	EW003366						
*BRAZIL	(1)	EW006588						
*BROMINE CHLORIDE	(1)	EW006700						
BUDGETING	(2)	EW006235	EW006802					
*BUILDINGS	(1)	EW006276						
BUSINESS	(1)	EW006427						
*BUSINESS ADMINISTRATION	(1)	EW006427						

BUSINESS ADMINISTRATION	(3)	EW006428	EW006430	EW006432				
*CADMIUM	(2)	EW006514	EW006789					
*CALCULATOR PROGRAMS	(1)	EW006502						
*CALCULATORS	(1)	EW006502						
*CALIFORNIA	(1)	EW006025						
*CARCINOGENS	(7)	EW005896	EW006504	EW006526	EW006554	EW006636	EW006763	EW006797
CARCINOGENS	(3)	EW006182	EW006425	EW006701				
*CARDIOVASCULAR DISEASE	(2)	EW005940	EW006301					
*CAREER DEVELOPMENT	(2)	EW006428	EW006430					
CAREER EDUCATION	(1)	EW006428						
*CAREER EXPLORATION	(1)	EW006397						
*CAREER INFORMATION	(1)	EW006181						
*CAREER OPPORTUNITIES	(1)	EW006397						
CAREER OPPORTUNITIES	(1)	EW006367						
*CAREER PLANNING	(2)	EW006293	EW006428					
*CAREERS	(1)	EW006293						
*CASE STUDIES	(26)	EW006030	EW006031	EW006160	EW006161	EW006162	EW006188	EW006316
	EW006362	EW006363	EW006364	EW006451	EW006495	EW006517	EW006535	EW006552
	EW006557	EW006560	EW006561	EW006623	EW006624	EW006625	EW006659	EW006743
	EW006768	EW006773	EW006793					
CASE STUDIES	(15)	EW005939	EW006028	EW006029	EW006156	EW006301	EW006303	EW006305
	EW006360	EW006375	EW006430	EW006457	EW006460	EW006531	EW006636	EW006767
*CENTRIFUGAL PUMPS	(1)	EW006501						
CENTRIFUGAL PUMPS	(1)	EW006381						
*CHEMICAL ANALYSIS	(7)	EW006312	EW006379	EW006635	EW006637	EW006742	EW006762	EW006870
CHEMICAL ANALYSIS	(3)	EW005561	EW006415	EW006418				
*CHEMICAL CLEANING	(1)	EW006373						
*CHEMICAL INDUSTRY	(1)	EW006532						
*CHEMICAL OXYGEN DEMAND	(1)	EW006365						
*CHEMICAL REACTIONS	(4)	EW006226	EW006645	EW006745	EW006824			
CHEMICAL REACTIONS	(1)	EW006752						
*CHEMICALS	(14)	EW005896	EW005897	EW005898	EW006166	EW006226	EW006274	EW006456
	EW006500	EW006554	EW006555	EW006556	EW006742	EW006763	EW006829	
CHEMICALS	(4)	EW006157	EW006258	EW006538	EW006560			

*CHEMICAL TREATMENT	(2)	EW006392	EW006797					
CHEMICAL TREATMENT	(2)	EW006426	EW006770					
*CHEMISTRY	(10)	EW005561	EW006229	EW006301	EW006389	EW006400	EW006630	EW006645
	EW006742	EW006745	EW006752					
CHEMISTRY	(2)	EW006082	EW006504					
*CHICAGO (ILLINOIS)	(1)	EW006802						
*CHLORAMINES	(2)	EW006029	EW006030					
CHLORINATED HYDROCARBONS	(1)	EW006636						
*CHLORINATION	(6)	EW005920	EW006029	EW006426	EW006562	EW006564	EW006611	
CHLORINATION	(5)	EW006027	EW006028	EW006392	EW006404	EW006700		
*CHLORINATORS	(1)	EW005920						
*CHLORINE	(1)	EW005923						
CHLORINE	(1)	EW006528						
*CHLORINE DIOXIDE	(2)	EW006028	EW006029					
CHLORINE DIOXIDE	(1)	EW006027						
*CITIZEN INVOLVEMENT	(1)	EW006436						
*CITIZEN PARTICIPATION	(4)	EW006450	EW006525	EW006560	EW006801			
CITIZEN PARTICIPATION	(2)	EW006304	EW006557					
*CLARIFICATION	(5)	EW006448	EW006484	EW006512	EW006513	EW006698		
*CLARIFIERS	(1)	EW006697						
*CLAY SOILS	(1)	EW006827						
*CLEANING	(3)	EW006372	EW006373	EW006442				
*CLEAN WATER ACT	(1)	EW006254						
CLEAN WATER ACT	(1)	EW006252						
*CLIMATE	(1)	EW006757						
CLIMATE	(1)	EW006059						
*COAGULANTS	(1)	EW006697						
COAGULATION	(3)	EW006377	EW006472	EW006473				
*CODISPOSAL	(1)	EW006765						
*COGNITIVE STYLE	(1)	EW006429						
*COGNITIVE STYLE MAPPING	(1)	EW006429						
COLIFORM BACTERIA	(1)	EW005939						
*COLLECTION SYSTEMS	(3)	EW006360	EW006482	EW006510				

*COLLEGES	(1)	EW006778						
COLLEGES	(1)	EW006670						
COLLEGE SCIENCE	(2)	EW006667	EW006668					
COLORADO	(1)	EW005939						
*COLORIMETRY	(1)	EW006439						
*COMBUSTION	(3)	EW005562	EW005563	EW005564				
*COMMUNICATIONS	(3)	EW006158	EW006304	EW006462				
COMMUNICATIONS	(1)	EW006663						
*COMMUNICATION SKILLS	(1)	EW005955						
*COMMUNITY HEALTH	(1)	EW006188						
COMMUNITY HEALTH	(1)	EW006425						
*COMMUNITY INVOLVEMENT	(2)	EW003851	EW006435					
*COMMUNITY PARTICIPATION	(1)	EW006526						
*COMMUNITY PLANNING	(1)	EW006455						
COMMUNITY PLANNING	(1)	EW006304						
*COMMUNITY PROBLEMS	(4)	EW006165	EW006747	EW006793	EW006796			
*COMMUNITY PROGRAMS	(2)	EW006525	EW006526					
*COMMUNITY ROLE	(1)	EW006304						
COMMUNITY SERVICES	(1)	EW003851						
*COMPARATIVE ANALYSIS	(1)	EW006027						
*COMPLIANCE	(1)	EW006746						
*COMPOSTING	(1)	EW006627						
*COMPUTER APPLICATIONS	(4)	EW006307	EW006531	EW006536	EW006663			
COMPUTER APPLICATIONS	(1)	EW006543						
*COMPUTER ASSISTED INSTRUCTION	(2)	EW006128	EW006433					
COMPUTER ORIENTED PROGRAMS	(3)	EW006429	EW006433	EW006870				
*COMPUTER PROGRAMS	(4)	EW005961	EW006128	EW006317	EW006394			
COMPUTER PROGRAMS	(1)	EW006073						
*COMPUTERS	(8)	EW005961	EW006128	EW006352	EW006354	EW006536	EW006540	EW006543
	EW006792							
COMPUTERS	(1)	EW006307						
COMPUTER SOFTWARE	(1)	EW006543						
*CONFERENCE PROCEEDINGS	(3)	EW006294	EW006295	EW006460				

*CONFERENCE REPORTS	(2)	EW006537	EW006559					
*CONSERVATION	(11)	EW003820	EW006025	EW006057	EW006303	EW006345	EW006460	EW006463
	EW006508	EW006509	EW006778	EW006801				
CONSERVATION	(1)	EW006347						
*CONSERVATION EDUCATION	(2)	EW003672	EW006395					
CONSERVATION EDUCATION	(1)	EW006665						
*CONSERVATION (ENVIRONMENT)	(2)	EW003366	EW006863					
CONSERVATION (ENVIRONMENT)	(1)	EW003851						
*CONSERVATION PRACTICES	(1)	EW006057						
*CONSTRUCTION	(22)	EW005546	EW006225	EW006276	EW006277	EW006281	EW006356	EW006383
	EW006416	EW006423	EW006444	EW006454	EW006459	EW006471	EW006479	EW006499
	EW006519	EW006524	EW006628	EW006657	EW006750	EW006790	EW006793	
CONSTRUCTION	(6)	EW006394	EW006458	EW006511	EW006521	EW006608	EW006747	
*CONSTRUCTION COSTS	(1)	EW006383						
CONSTRUCTION COSTS	(1)	EW006184						
*CONSTRUCTION GRANT PROJECTS	(1)	EW006459						
*CONSTRUCTION GRANTS PROGRAM	(2)	EW006396	EW006458					
CONSUMER ATTITUDES	(1)	EW006303						
*CONSUMER EDUCATION	(2)	EW005961	EW006395					
CONSUMER EDUCATION	(1)	EW006303						
*CONTAMINANTS	(2)	EW006032	EW006394					
CONTAMINANTS	(1)	EW005940						
*CONTAMINATION	(3)	EW005939	EW006376	EW006796				
*CONTROL PROCESS	(1)	EW006650						
*CONTROL SYSTEMS	(2)	EW006349	EW006352					
*COOPERATIVE PLANNING	(3)	EW006435	EW006519	EW006547				
*CORROSION	(3)	EW006370	EW006425	EW006675				
*CORROSION CONTROL	(1)	EW006675						
*COST ANALYSIS	(1)	EW006432						
*COST BENEFIT ANALYSIS	(3)	EW006509	EW006760	EW006804				
*COST EFFECTIVENESS	(55)	EW006027	EW006184	EW006225	EW006322	EW006350	EW006351	EW006353
	EW006354	EW006356	EW006357	EW006359	EW006363	EW006371	EW006375	EW006410
	EW006411	EW006412	EW006413	EW006418	EW006434	EW006446	EW006540	EW006541
	EW006542	EW006544	EW006546	EW006549	EW006603	EW006604	EW006605	EW006606
	EW006607	EW006608	EW006609	EW006610	EW006646	EW006656	EW006673	EW006695
	EW006700	EW006701	EW006755	EW006760	EW006769	EW006776	EW006795	EW006798
	EW006800	EW006801	EW006803	EW006807	EW006808	EW006818	EW006819	EW006821

COST EFFECTIVENESS	(24)	EW003208	EW006028	EW006188	EW006279	EW006355	EW006377	EW006402
	EW006417	EW006426	EW006432	EW006441	EW006523	EW006543	EW006545	EW006611
	EW006647	EW006649	EW006753	EW006761	EW006765	EW006766	EW006767	EW006771
	EW006780							
*COST PROJECTIONS	(1)	EW006750						
*COSTS	(27)	EW006101	EW006276	EW006277	EW006316	EW006362	EW006383	EW006394
	EW006396	EW006450	EW006464	EW006501	EW006511	EW006523	EW006524	EW006614
	EW006626	EW006629	EW006633	EW006652	EW006656	EW006673	EW006696	EW006697
	EW006750	EW006765	EW006769	EW006775				
COSTS	(9)	EW006025	EW006029	EW006031	EW006071	EW006371	EW006508	EW006617
	EW006627	EW006761						
*COURSE DESCRIPTIONS	(1)	EW005954						
CRITICAL THINKING	(1)	EW006367						
CROSS CONNECTIONS	(1)	EW006796						
*CULTURAL ENVIRONMENT	(1)	EW006622						
*CURRICULUM	(1)	EW006228						
CURRICULUM	(1)	EW006238						
*CURRICULUM DESIGN	(1)	EW006297						
*CURRICULUM DEVELOPMENT	(1)	EW006367						
*CURRICULUM GUIDES	(10)	EW006229	EW006230	EW006231	EW006232	EW006233	EW006234	EW006235
	EW006236	EW006237	EW006379					
CURRICULUM GUIDES	(1)	EW006863						
*CURRICULUM PLANNING	(1)	EW006379						
CURRICULUM PLANNING	(1)	EW006228						
CYANIDES	(1)	EW006368						
*DAMS	(1)	EW006659						
*DATA	(1)	EW001255						
*DATA ANALYSIS	(2)	EW006032	EW006536					
DATA ANALYSIS	(1)	EW006302						
*DATA BASES	(2)	EW006073	EW006307					
DATABASES	(1)	EW006640						
*DATA COLLECTION	(4)	EW006302	EW006324	EW006377	EW006402			
DATA COLLECTION	(2)	EW001255	EW006536					
DATA PROCESSING	(1)	EW006059						
*DAZOMET	(1)	EW006258						
DEALERS	(1)	EW006811						

*DECISION MAKING	(1)	EW006307						
*DENITRIFICATION	(1)	EW006821						
DENITRIFICATION	(1)	EW006424						
*DEPOSITORY LIBRARIES	(1)	EW006810						
*DESALINATION	(1)	EW006071						
DESALINATION	(1)	EW006474						
*DESIGN	(78)	EW005546	EW005962	EW006031	EW006058	EW006184	EW006225	EW006227
	EW006234	EW006281	EW006308	EW006312	EW006322	EW006335	EW006351	EW006354
	EW006355	EW006357	EW006362	EW006363	EW006381	EW006403	EW006404	EW006407
	EW006408	EW006410	EW006412	EW006414	EW006416	EW006417	EW006423	EW006442
	EW006448	EW006459	EW006496	EW006519	EW006521	EW006523	EW006534	EW006539
	EW006544	EW006545	EW006546	EW006603	EW006604	EW006607	EW006609	EW006614
	EW006626	EW006628	EW006629	EW006646	EW006647	EW006657	EW006658	EW006659
	EW006660	EW006661	EW006662	EW006674	EW006695	EW006696	EW006745	EW006751
	EW006753	EW006754	EW006755	EW006757	EW006760	EW006772	EW006776	EW006780
	EW006795	EW006807	EW006819	EW006820	EW006821	EW006822	EW006849	
DESIGN	(7)	EW006071	EW006305	EW006317	EW006352	EW006499	EW006505	EW006759
*DESIGN STUDIES	(1)	EW006663						
*DETOXIFICATION	(1)	EW006515						
*DEVELOPING COUNTRIES	(5)	EW006587	EW006624	EW006625	EW006626	EW006627		
*DEVELOPING NATIONS	(5)	EW006622	EW006623	EW006665	EW006666	EW006863		
DEVELOPING NATIONS	(1)	EW006101						
*DEVELOPMENT	(1)	EW006292						
*DEWATERING	(1)	EW006545						
DEWATERING	(1)	EW006647						
*DIAGNOSTIC TEACHING	(1)	EW006429						
*DIET	(1)	EW006789						
*DIGESTERS	(1)	EW006780						
*DIRECTORIES	(4)	EW006456	EW006670	EW006810	EW006811			
*DISEASE CONTROL	(2)	EW006620	EW006796					
DISEASE CONTROL	(2)	EW006518	EW006616					
*DISEASES	(3)	EW006743	EW006744	EW006869				
DISEASES	(1)	EW006340						
*DISEASE TRANSMISSION	(1)	EW006743						
*DISINFECTANTS	(1)	EW006027						
*DISINFECTION	(17)	EW005920	EW005923	EW006028	EW006029	EW006030	EW006032	EW006146
	EW006392	EW006475	EW006488	EW006505	EW006518	EW006562	EW006564	EW006611
	EW006700	EW006701						

DISINFECTION	(1)	EW006385						
DISPLACEMENT PUMPS	(1)	EW006381						
*DISPOSAL	(2)	EW006413	EW006673					
*DISPOSAL SITES	(1)	EW006366						
DISPOSAL SITES	(1)	EW006413						
*DISSOLVED OXYGEN	(1)	EW006777						
*DISTRIBUTION SYSTEMS	(4)	EW006026	EW006477	EW006509	EW006511			
DISTRIBUTION SYSTEMS	(1)	EW006025						
DOMESTIC WASTES	(1)	EW006391						
*DRINKING WATER	(36)	EW001255	EW005939	EW005940	EW006027	EW006028	EW006029	EW006030
	EW006188	EW006301	EW006358	EW006359	EW006394	EW006425	EW006426	EW006438
	EW006444	EW006492	EW006505	EW006518	EW006526	EW006548	EW006552	EW006605
	EW006611	EW006636	EW006637	EW006638	EW006644	EW006698	EW006701	EW006754
	EW006788	EW006793	EW006796	EW006797	EW006798			
DRINKING WATER	(3)	EW006031	EW006032	EW006806				
*DROUGHT	(1)	EW006345						
*DUCTILE IRON PIPES	(1)	EW006541						
*DYES	(1)	EW006650						
*EARTH DAMS	(1)	EW006659						
*EARTH SCIENCE	(1)	EW006752						
EARTH SCIENCE	(2)	EW006470	EW006863					
ECOLOGICAL FACTORS	(1)	EW006664						
*ECOLOGY	(4)	EW003366	EW006168	EW006232	EW006574			
ECOLOGY	(3)	EW004482	EW006230	EW006665				
*ECONOMIC DEVELOPMENT	(1)	EW006666						
ECONOMIC DEVELOPMENT	(1)	EW003851						
*ECONOMIC FACTORS	(5)	EW006025	EW006155	EW006184	EW006394	EW006623		
ECONOMIC FACTORS	(3)	EW006393	EW006624	EW006664				
*ECONOMICS	(8)	EW006181	EW006457	EW006523	EW006656	EW006760	EW006769	EW006776
	EW006804							
ECONOMICS	(3)	EW006101	EW006345	EW006617				
*ECOSYSTEMS	(1)	EW004482						
*EDITORIAL SERVICES	(1)	EW006811						
EDUCATION	(2)	EW005961	EW006345					
*EDUCATIONAL FACILITIES	(1)	EW006778						

*EDUCATIONAL MEDIA	(1)	EW006433						
EDUCATIONAL MEDIA	(1)	EW006431						
*EDUCATIONAL NEEDS	(3)	EW006367	EW006587	EW006589				
EDUCATIONAL NEEDS	(1)	EW006588						
*EDUCATIONAL PROGRAMS	(3)	EW005956	EW006367	EW006436				
EDUCATIONAL PROGRAMS	(2)	EW005957	EW006228					
*EDUCATIONAL RESEARCH	(1)	EW006292						
*EDUCATIONAL TECHNOLOGY	(2)	EW006429	EW006433					
*EFFICIENCY	(3)	EW006184	EW006610	EW006776				
EFFICIENCY	(1)	EW006345						
*EFFLUENT	(4)	EW006352	EW006776	EW006789	EW006807			
*EFFLUENTS	(14)	EW006184	EW006252	EW006254	EW006320	EW006361	EW006368	EW006406
	EW006488	EW006514	EW006522	EW006538	EW006558	EW006648	EW006767	
EFFLUENTS	(1)	EW006405						
*ELECTRICAL SYSTEMS	(1)	EW005900						
*ELECTRICITY	(1)	EW006400						
ELECTRICITY	(1)	EW006862						
*ELEMENTARY SECONDARY EDUCATION	(1)	EW003820						
*ELEVATED TANKS	(1)	EW005962						
EMERGENCIES	(1)	EW006385						
*EMERGENCY PLANNING	(1)	EW006555						
*EMERGENCY PROGRAMS	(1)	EW006435						
EMERGENCY PROGRAMS	(1)	EW006390						
EMPLOYEE ORGANIZATION RELATIONSHIP	(1)	EW006428						
*EMPLOYEE RELATIONS	(2)	EW005957	EW006462					
*EMPLOYER - EMPLOYEE RELATIONSHIPS	(1)	EW006181						
*EMPLOYMENT	(2)	EW006181	EW006532					
*EMPLOYMENT OPPORTUNITIES	(1)	EW006397						
EMPLOYMENT OPPORTUNITIES	(1)	EW003851						
*ENERGY	(4)	EW006101	EW006186	EW006776	EW006808			
ENERGY	(6)	EW003672	EW003851	EW006394	EW006606	EW006667	EW006668	
*ENERGY CONSERVATION	(9)	EW003672	EW006375	EW006521	EW006606	EW006775	EW006778	EW006803
	EW006806	EW006808						

*ENERGY EDUCATION	(1)	EW003672						
*ENFORCEMENT	(1)	EW006126						
*ENGINEERING	(34)	EW005962	EW006058	EW006189	EW006225	EW006356	EW006402	EW006404
	EW006405	EW006417	EW006440	EW006459	EW006462	EW006534	EW006539	EW006607
	EW006626	EW006646	EW006657	EW006658	EW006659	EW006660	EW006661	EW006663
	EW006670	EW006695	EW006745	EW006751	EW006753	EW006754	EW006762	EW006768
	EW006773	EW006808	EW006822					
ENGINEERING	(5)	EW006401	EW006444	EW006448	EW006606	EW006647		
*ENGINEERING EDUCATION	(7)	EW006228	EW006229	EW006230	EW006231	EW006233	EW006235	EW006238
ENGINEERING EDUCATION	(3)	EW006148	EW006232	EW006234				
*ENIRONMENTAL IMPACT	(1)	EW006166						
*ENVIRONMENT	(18)	EW001277	EW005560	EW005562	EW005563	EW005564	EW005565	EW005566
	EW005567	EW006057	EW006165	EW006168	EW006366	EW006379	EW006397	EW006645
	EW006670	EW006863	EW006886					
ENVIRONMENT	(4)	EW003366	EW003851	EW006279	EW006617			
*ENVIRONMENTAL ASSESSMENT	(1)	EW006189						
*ENVIRONMENTAL ASSESSMENT DATA SYSTEMS	(1)	EW006073						
*ENVIRONMENTAL BIOLOGY	(1)	EW006189						
*ENVIRONMENTAL CONTROL	(2)	EW006232	EW006235					
*ENVIRONMENTAL EDUCATION	(4)	EW003672	EW003820	EW005859	EW006367			
ENVIRONMENTAL EDUCATION	(12)	EW005562	EW005563	EW005564	EW005565	EW005566	EW005567	EW006466
	EW006467	EW006468	EW006665	EW006669	EW006850			
*ENVIRONMENTAL FACTORS	(1)	EW006340						
*ENVIRONMENTAL IMPACT	(4)	EW006165	EW006279	EW006454	EW006455			
*ENVIRONMENTAL IMPACTS	(2)	EW006382	EW006786					
ENVIRONMENTAL IMPACTS	(2)	EW006252	EW006254					
*ENVIRONMENTAL IMPACT STATEMENTS	(2)	EW006346	EW006767					
*ENVIRONMENTAL INFLUENCES	(5)	EW005565	EW005566	EW006346	EW006655	EW006817		
ENVIRONMENTAL INFLUENCES	(7)	EW003820	EW005560	EW005562	EW005563	EW005564	EW005567	EW006149
*ENVIRONMENTAL MANAGEMENT	(1)	EW006304						
*ENVIRONMENTAL MONITORING	(1)	EW006665						
*ENVIRONMENTAL PROTECTION	(1)	EW006155						
*ENVIRONMENTAL PROTECTION AGENCY	(3)	EW006286	EW006519	EW006748				
*ENVIRONMENTAL PROTECTION AGENCY STATEMENTS	(1)	EW006768						
*ENVIRONMENTAL QUALITY	(2)	EW006304	EW006817					
ENVIRONMENTAL STANDARDS	(3)	EW006469	EW006869	EW006886				

*ENVIRONMENTAL TECHNICIANS	(2)	EW006861	EW006862					
*EPIDEMIOLOGY	(2)	EW006616	EW006797					
*EQUIPMENT	(85)	EW003273	EW005546	EW005920	EW005923	EW006031	EW006101	EW006227
	EW006277	EW006278	EW006281	EW006285	EW006331	EW006349	EW006355	EW006357
	EW006369	EW006385	EW006386	EW006391	EW006401	EW006404	EW006407	EW006408
	EW006417	EW006423	EW006437	EW006441	EW006442	EW006443	EW006444	EW006446
	EW006471	EW006472	EW006473	EW006476	EW006477	EW006478	EW006479	EW006480
	EW006481	EW006482	EW006483	EW006484	EW006487	EW006489	EW006499	EW006501
	EW006516	EW006544	EW006545	EW006550	EW006562	EW006564	EW006604	EW006606
	EW006609	EW006641	EW006642	EW006643	EW006644	EW006646	EW006647	EW006649
	EW006650	EW006652	EW006663	EW006674	EW006695	EW006696	EW006699	EW006749
	EW006757	EW006759	EW006772	EW006775	EW006776	EW006780	EW006798	EW006802
	EW006803	EW006807	EW006808	EW006820	EW006821	EW006822		
EQUIPMENT	(18)	EW006146	EW006226	EW006363	EW006398	EW006399	EW006460	EW006474
	EW006475	EW006486	EW006490	EW006531	EW006534	EW006539	EW006607	EW006645
	EW006753	EW006754	EW006830					
*EQUIPMENT EVALUATION	(1)	EW006160						
*EROSION	(2)	EW006453	EW006608					
*EROSION CONTROL	(1)	EW006058						
ESTIMATED COSTS	(2)	EW006276	EW006277					
EUTROPHICATION	(3)	EW006082	EW006126	EW006491				
*EVALUATION	(8)	EW005961	EW006286	EW006294	EW006314	EW006437	EW006573	EW006590
	EW006776							
EVALUATION	(12)	EW006155	EW006184	EW006295	EW006306	EW006382	EW006391	EW006395
	EW006427	EW006448	EW006768	EW006830	EW006886			
EVALUATION CRITERIA	(1)	EW006663						
*EXCRETA	(1)	EW006620						
*EXPERIENTIAL LEARNING	(1)	EW003672						
*FACILITIES	(71)	EW005923	EW006031	EW006133	EW006134	EW006184	EW006227	EW006234
	EW006272	EW006278	EW006281	EW006285	EW006316	EW006317	EW006351	EW006352
	EW006355	EW006357	EW006362	EW006363	EW006369	EW006383	EW006385	EW006391
	EW006396	EW006401	EW006404	EW006407	EW006409	EW006410	EW006414	EW006423
	EW006443	EW006444	EW006445	EW006446	EW006451	EW006458	EW006459	EW006464
	EW006479	EW006484	EW006486	EW006496	EW006499	EW006505	EW006516	EW006519
	EW006521	EW006523	EW006524	EW006531	EW006551	EW006603	EW006613	EW006619
	EW006628	EW006647	EW006656	EW006749	EW006750	EW006751	EW006753	EW006754
	EW006757	EW006760	EW006769	EW006780	EW006790	EW006807	EW006819	EW006849
FACILITIES	(22)	EW003851	EW006026	EW006101	EW006132	EW006233	EW006375	EW006487
	EW006490	EW006534	EW006549	EW006550	EW006558	EW006615	EW006646	EW006649
	EW006652	EW006657	EW006658	EW006745	EW006747	EW006802	EW006820	
*FARMING	(1)	EW006696						
FEDERAL FUNDS	(1)	EW006748						
*FEDERAL LEGISLATION	(1)	EW001277						
FEDERAL LEGISLATION	(1)	EW003851						

*FEDERAL PROGRAMS	(4)	EW003851	EW006396	EW006458	EW006747			
FEDERAL PROGRAMS	(3)	EW006366	EW006465	EW006771				
FEDERAL REGULATIONS	(1)	EW006414						
*FEDERAL ROLE	(3)	EW006155	EW006286	EW006748				
FEDERAL ROLE	(2)	EW006560	EW006766					
FEDERAL STATE FUNDING	(1)	EW006766						
*FEDERAL STATE PROGRAMS	(2)	EW006765	EW006790					
*FEDERAL STATE RELATIONSHIPS	(1)	EW005894						
FEDERAL STATE ROLE	(1)	EW006637						
FEEDWATER PRETREATMENT	(1)	EW006071						
*FEES	(1)	EW003208						
*FERRIC CHLORIDE	(1)	EW006697						
FERTILIZERS	(1)	EW006081						
*FILAMENTOUS BULKING	(1)	EW006520						
*FILTERS	(2)	EW006798	EW006807					
FILTERS	(1)	EW006803						
*FILTRATION	(3)	EW006473	EW006605	EW006698				
FILTRATION	(4)	EW006377	EW006472	EW006770	EW006779			
FILTRATION (VACUUM)	(1)	EW006649						
*FINANCING	(2)	EW006656	EW006760					
*FIRE PREVENTION	(1)	EW006378						
*FIRES	(2)	EW006378	EW006378					
FIRES	(1)	EW006157						
*FIRST AID	(2)	EW006378	EW006447					
FISH	(1)	EW006057						
*FLOC	(1)	EW006779						
*FLOCCULATION	(1)	EW006779						
*FLOOD CONTROL	(1)	EW006658						
*FLOOD PREVENTION	(1)	EW006662						
*FLOW MEASUREMENT	(11)	EW006353	EW006409	EW006412	EW006440	EW006540	EW006659	EW006660
	EW006699	EW006759	EW006792	EW006827				
FLOW MEASUREMENT	(5)	EW006363	EW006460	EW006658	EW006774	EW006803		

*FLOW MEASUREMENTS	(2)	EW006410	EW006661		
FLOW MEASUREMENTS	(1)	EW006607			
*FLOW METERS	(1)	EW006353			
FLOW REDUCTION	(1)	EW006460			
*FLOW REGULATORS	(1)	EW006308			
FLUID FLOW	(1)	EW006308			
*FOAM	(1)	EW006357			
FOAM	(1)	EW006544			
*FOAM CONTROL	(2)	EW006357	EW006544		
*FOOD INDUSTRY	(1)	EW006279			
FOOD PROCESSING	(1)	EW006279			
*FORECASTING	(1)	EW006662			
*FORESTRY	(2)	EW006382	EW006453		
FORESTRY	(1)	EW006463			
*FORMULAS	(1)	EW006440			
*FREEZING	(1)	EW006507			
*FRICTIONAL HEAD LOSS	(1)	EW006822			
*FUEL CONSUMPTION	(3)	EW005562	EW005563	EW005564	
*FUELS	(4)	EW005562	EW005563	EW005564	EW006101
*FUNDING	(2)	EW006366	EW006790		
FUNDING	(1)	EW005894			
*FUNDING SOURCES	(1)	EW006235			
*FUNDS	(1)	EW006747			
*FUTURE (OF SOCIETY)	(1)	EW006817			
FUTURE (OF SOCIETY)	(1)	EW006806			
*GAS CHLORINATION	(1)	EW005923			
*GEOCHEMISTRY	(2)	EW006301	EW006752		
GEOMETRY	(1)	EW006861			
*GOVERNMENT ROLE	(3)	EW006235	EW006667	EW006668	
GOVERNMENT ROLE	(2)	EW006181	EW006436		
*GRADUATE STUDY	(1)	EW006670			
*GRANTS	(2)	EW006396	EW006458		

GRANTS	(1)	EW006519						
GREAT LAKES	(1)	EW006156						
*GROUNDWATER	(34)	EW006149	EW006351	EW006359	EW006361	EW006376	EW006412	EW006413
	EW006414	EW006415	EW006416	EW006417	EW006418	EW006457	EW006470	EW006472
	EW006474	EW006494	EW006506	EW006540	EW006605	EW006607	EW006636	EW006637
	EW006638	EW006645	EW006672	EW006754	EW006770	EW006771	EW006772	EW006773
	EW006774	EW006792	EW006796					
GROUNDWATER	(2)	EW006473	EW006479					
*GROUTING	(1)	EW006511						
*GUIDELINES	(8)	EW006026	EW006156	EW006298	EW006340	EW006413	EW006414	EW006607
	EW006619							
GUIDELINES	(4)	EW006163	EW006252	EW006254	EW006382			
*GUIDES	(8)	EW005956	EW005961	EW006276	EW006277	EW006293	EW006298	EW006378
	EW006670							
GUIDES	(2)	EW006165	EW006297					
*HANDBOOKS	(1)	EW006382						
HANDBOOKS	(2)	EW006346	EW006498					
*HARDNESS	(1)	EW005940						
HARVESTING	(1)	EW006863						
*HAZARDOUS MATERIALS	(12)	EW005896	EW005897	EW006555	EW006556	EW006632	EW006673	EW006765
	EW006794	EW006828	EW006830	EW006831	EW006832			
HAZARDOUS MATERIALS	(1)	EW006378						
HAZARDOUS POLLUTANTS	(1)	EW006188						
*HAZARDOUS SUBSTANCES	(1)	EW006421						
HAZARDOUS SUBSTANCES	(1)	EW006491						
*HAZARDOUS WASTES	(16)	EW006166	EW006251	EW006366	EW006390	EW006414	EW006443	EW006445
	EW006495	EW006537	EW006549	EW006561	EW006604	EW006672	EW006746	EW006827
	EW006829							
HAZARDOUS WASTES	(2)	EW006526	EW006754					
*HAZARDS	(1)	EW006340						
*HAZEN UNITS	(1)	EW006439						
*HEALTH	(14)	EW005896	EW005897	EW005898	EW006165	EW006251	EW006301	EW006340
	EW006366	EW006445	EW006525	EW006696	EW006744	EW006762	EW006763	
HEALTH	(8)	EW003851	EW006188	EW006299	EW006526	EW006614	EW006617	EW006620
	EW006765							
*HEALTH EDUCATION	(1)	EW006640						
HEALTH EDUCATION	(1)	EW006869						

*HEALTH NEEDS	(1)	EW006299						
HEALTH NEEDS	(1)	EW006340						
*HEALTH OCCUPATIONS EDUCATION	(1)	EW006640						
*HEALTH PROGRAMS	(1)	EW006886						
*HEALTH SCIENCES	(1)	EW006640						
HEALTH SERVICES	(1)	EW006886						
*HEATING	(1)	EW006808						
*HEAVY METALS	(7)	EW006364	EW006514	EW006515	EW006517	EW006743	EW006823	EW006824
HEAVY METALS	(2)	EW006320	EW006649					
*HELMINTHS	(1)	EW006743						
*HIGHER EDUCATION	(3)	EW006189	EW006670	EW006778				
HIGHER EDUCATION	(3)	EW006665	EW006666	EW006863				
*HIGHWAYS	(1)	EW006793						
*HOME MANAGEMENT	(1)	EW006186						
*HUBBARD BROOK	(1)	EW004482						
*HUMAN RELATIONS	(1)	EW006462						
HUMAN RELATIONS	(1)	EW006295						
*HUMAN RESOURCE DEVELOPMENT	(2)	EW006427	EW006428					
HUMAN RESOURCES	(1)	EW006462						
*HYACINTH	(1)	EW006546						
*HYDRANTS	(1)	EW006478						
*HYDRAULICS	(8) EW006759	EW006231	EW006308	EW006400	EW006440	EW006502	EW006657	EW006658
HYDRAULICS	(5)	EW005962	EW006448	EW006478	EW006506	EW006659		
*HYDROLOGY	(6)	EW006059	EW006149	EW006658	EW006660	EW006661	EW006662	
HYDROLOGY	(7)	EW006082	EW006398	EW006399	EW006415	EW006664	EW006772	EW006774
HYDROSPHERE	(1)	EW006645						
IDENTIFICATION	(1)	EW006390						
IMPROVEMENT	(1)	EW003851						
*INCINERATION	(2)	EW006549	EW006829					
*INDEPENDENT STUDY	(1)	EW006861						
*INDEXES	(4)	EW005900	EW006276	EW006277	EW006302			
*INDIVIDUALIZED INSTRUCTION	(1)	EW006336						

INDIVIDUAL WASTEWATER TREATMENT FACILITIES	(1)	EW006647						
INDUSTIRAL SAFETY	(1)	EW006447						
*INDUSTRIAL CHEMICALS	(1)	EW006456						
INDUSTRIAL PERSONNEL	(1)	EW006532						
*INDUSTRIAL TECHNOLOGY	(1)	EW006101						
INDUSTRIAL WASTE	(1)	EW006233						
*INDUSTRIAL WASTES	(28)	EW006073	EW006078	EW006131	EW006146	EW006182	EW006252	EW006254
	EW006258	EW006274	EW006279	EW006320	EW006361	EW006393	EW006411	EW006443
	EW006520	EW006537	EW006538	EW006549	EW006635	EW006637	EW006652	EW006671
	EW006672	EW006749	EW006827	EW006828	EW006829			
INDUSTRIAL WASTES	(4)	EW006165	EW006405	EW006412	EW006752			
INDUSTRIAL WASTEWATER	(1)	EW006646						
INDUSTRIAL WATER	(1)	EW006494						
*INDUSTRIES	(3)	EW005896	EW006166	EW006526				
INDUSTRIES	(1)	EW005897						
*INDUSTRY	(6)	EW006252	EW006254	EW006350	EW006538	EW006786	EW006804	
INDUSTRY	(7)	EW006347	EW006492	EW006532	EW006650	EW006652	EW006800	EW006806
*INFANTS	(1)	EW006869						
*INFILTRATION	(2)	EW006351	EW006607					
*INFLOW	(3)	EW006351	EW006409	EW006607				
*INFORMATION DISSEMINATION	(6)	EW006395	EW006466	EW006467	EW006468	EW006669	EW006850	
INFORMATION DISSEMINATION	(1)	EW005565						
*INFORMATION RESOURCES	(1)	EW006810						
*INFORMATION RETRIEVAL	(2)	EW006302	EW006307					
*INFORMATION SOURCES	(2)	EW006640	EW006811					
*INFORMATION SYSTEMS	(3)	EW006073	EW006302	EW006307				
*INORGANIC CHEMISTRY	(1)	EW006274						
*INSPECTION	(3)	EW005546	EW006443	EW006608				
*INSTALLATION	(3)	EW003273	EW006550	EW006805				
*INSTRUCTION	(4)	EW006297	EW006298	EW006589	EW006590			
INSTRUCTION	(2)	EW003905	EW006314					
*INSTRUCTIONAL DESIGN	(1)	EW006590						
*INSTRUCTIONAL FILMS	(1)	EW003820						
*INSTRUCTIONAL MATERIALS	(122)	EW003273	EW003366	EW003820	EW003904	EW003905	EW003906	EW003907

	EW003908	EW005896	EW005897	EW005898	EW005900	EW005920	EW005923	EW005954
	EW005956	EW006058	EW006059	EW006126	EW006128	EW006131	EW006132	EW006133
	EW006134	EW006148	EW006149	EW006157	EW006158	EW006159	EW006160	EW006161
	EW006162	EW006163	EW006189	EW006226	EW006228	EW006229	EW006230	EW006231
	EW006232	EW006233	EW006234	EW006235	EW006236	EW006237	EW006238	EW006292
	EW006293	EW006297	EW006301	EW006322	EW006325	EW006336	EW006348	EW006369
	EW006385	EW006386	EW006391	EW006392	EW006398	EW006399	EW006400	EW006403
	EW006421	EW006423	EW006424	EW006431	EW006447	EW006448	EW006450	EW006453
	EW006454	EW006466	EW006467	EW006468	EW006525	EW006526	EW006527	EW006528
	EW006529	EW006530	EW006533	EW006534	EW006535	EW006536	EW006553	EW006554
	EW006556	EW006564	EW006573	EW006574	EW006612	EW006613	EW006614	EW006615
	EW006616	EW006617	EW006619	EW006620	EW006621	EW006628	EW006629	EW006630
	EW006632	EW006637	EW006638	EW006641	EW006642	EW006643	EW006644	EW006645
	EW006669	EW006745	EW006751	EW006752	EW006753	EW006754	EW006755	EW006759
	EW006850	EW006861	EW006862					
INSTRUCTIONAL MATERIALS	(6)	EW005957	EW006314	EW006469	EW006562	EW006664	EW006665	
*INSTRUMENTATION	(8)	EW006352	EW006401	EW006402	EW006416	EW006516	EW006742	EW006788
	EW006791							
INTERDISCIPLINARY APPROACH	(1)	EW003672						
INTERNATIONAL RELATIONS	(2)	EW006667	EW006668					
*IRON	(1)	EW006474						
*IRRADIATION	(1)	EW006639						
*IRRIGATION	(1)	EW006539						
IRRIGATION	(3)	EW006306	EW006494	EW006612				
*JAR TESTS	(1)	EW006377						
*JET PUMPS	(1)	EW006372						
JET PUMPS	(1)	EW006381						
JOB ANALYSIS	(1)	EW006532						
*JOB SECURITY	(1)	EW006181						
*JOB SKILLS	(5)	EW006132	EW006133	EW006295	EW006379	EW006590		
JOB SKILLS	(8)	EW003904	EW003905	EW003906	EW003907	EW003908	EW006134	EW006397
	EW006642							
*JOB STRESS	(1)	EW006299						
*JOB TRAINING	(1)	EW006588						
JOB TRAINING	(4)	EW006132	EW006133	EW006134	EW006295			
*JOURNAL ARTICLES	(1)	EW006345						
*LABOR	(1)	EW006277						
*LABORATORY ANALYSIS	(1)	EW006763						
*LABORATORY EQUIPMENT	(3)	EW006377	EW006742	EW006870				
*LABORATORY MANUALS	(1)	EW006533						

*LABORATORY PROCEDURES	(25)	EW005561	EW005567	EW006032	EW006133	EW006183	EW006325	EW006331
	EW006377	EW006388	EW006389	EW006415	EW006423	EW006434	EW006439	EW006456
	EW006489	EW006529	EW006553	EW006574	EW006630	EW006639	EW006674	EW006767
	EW006777	EW006788						
LABORATORY PROCEDURES	(4)	EW006368	EW006421	EW006671	EW006870			
*LABORATORY SAFETY	(2)	EW006421	EW006553					
*LABORATORY TECHNIQUES	(2)	EW006529	EW006533					
LABORATORY TECHNIQUES	(3)	EW006325	EW006405	EW006530				
LABORATORY TESTING	(1)	EW006360						
*LABORATORY TESTS	(1)	EW006308						
*LABORATORY TRAINING	(1)	EW006232						
LABORATORY TRAINING	(2)	EW006229	EW006230					
LABOR FORCE	(1)	EW006666						
*LABOR FORCE DEVELOPMENT	(1)	EW006666						
*LACOONS	(1)	EW006360						
*LAKES	(1)	EW006662						
LAKES	(1)	EW006751						
*LAND APPLICATION	(13)	EW006335	EW006464	EW006493	EW006514	EW006517	EW006539	EW006547
	EW006558	EW006696	EW006755	EW006776	EW006789	EW006825		
LAND APPLICATION	(2)	EW006393	EW006441					
*LAND DISPOSAL	(1)	EW006537						
*LANDFILLS	(3)	EW006445	EW006830	EW006832				
LANDFILLS	(1)	EW006604						
*LAND MANAGEMENT	(1)	EW006156						
LAND MANAGEMENT	(1)	EW006463						
*LAND RECLAMATION	(1)	EW006654						
*LAND TREATMENT	(3)	EW006225	EW006335	EW006755				
*LAND USE	(16)	EW006058	EW006402	EW006454	EW006455	EW006463	EW006539	EW006547
	EW006558	EW006654	EW006664	EW006696	EW006789	EW006791	EW006825	EW006828
	EW006830							
LAND USE	(6)	EW003851	EW006225	EW006457	EW006464	EW006761	EW006767	
LANGUAGE SKILLS	(1)	EW006431						
LATRINES	(1)	EW006624						
*LAWS	(3)	EW006251	EW006495	EW006810				

LAWS	(4)	EW006155	EW006305	EW006376	EW006560			
*LEACHATE CONTROL	(1)	EW006445						
LEACHING	(1)	EW006604						
LEADERSHIP	(2)	EW003851	EW006462					
*LEAKAGE	(3)	EW006508	EW006509	EW006511				
*LEAK DETECTION	(1)	EW006371						
LEARNING MODALITIES	(1)	EW006429						
*LEARNING PROBLEMS	(1)	EW006429						
LEARNING PROCESSES	(1)	EW006429						
LEARNING THEORIES	(1)	EW006429						
LEGAL PROBLEMS	(1)	EW006376						
*LEGAL PROOF	(1)	EW006495						
*LEGAL RESPONSIBILITIES	(1)	EW006376						
*LEGAL RESPONSIBILITY	(1)	EW001277						
*LEGISLATION	(14)	EW005894	EW006126	EW006251	EW006366	EW006495	EW006746	EW006748
	EW006750	EW006765	EW006766	EW006786	EW006790	EW006818	EW006831	
LEGISLATION	(4)	EW005897	EW005898	EW006165	EW006189			
LESSON PLANS	(1)	EW003672						
*LIABILITY INSURANCE	(1)	EW006831						
*LIBRARIES	(1)	EW006810						
*LIFT STATIONS	(2)	EW006483	EW006699					
*LIMNOLOGY	(2)	EW006148	EW006630					
*LITERATURE REVIEWS	(4)	EW006388	EW006389	EW006395	EW006822			
LITERATURE REVIEWS	(1)	EW004482						
LIVESTOCK	(1)	EW006081						
*LOCATION	(1)	EW006026						
*MAGAZINE INDUSTRY	(1)	EW006811						
*MAGAZINES	(1)	EW006811						
*MAILING SERVICES	(1)	EW006811						
*MAINTENANCE	(43)	EW003273	EW005900	EW005920	EW006134	EW006184	EW006227	EW006280
	EW006281	EW006285	EW006355	EW006369	EW006370	EW006371	EW006372	EW006373
	EW006381	EW006385	EW006386	EW006401	EW006404	EW006409	EW006442	EW006446
	EW006481	EW006490	EW006507	EW006508	EW006509	EW006511	EW006542	EW006544
	EW006589	EW006607	EW006610	EW006647	EW006675	EW006754	EW006759	EW006780
	EW006795	EW006803	EW006805	EW006820				

MAINTENANCE	(8)	EW006031	EW006133	EW006354	EW006394	EW006443	EW006478	EW006551
	EW006564							
*MANAGEMENT	(110)	EW005894	EW005896	EW005897	EW005898	EW005954	EW005956	EW006026
	EW006057	EW006058	EW006126	EW006131	EW006133	EW006134	EW006156	EW006166
	EW006168	EW006181	EW006226	EW006251	EW006272	EW006279	EW006294	EW006295
	EW006305	EW006306	EW006314	EW006322	EW006345	EW006348	EW006354	EW006355
	EW006356	EW006366	EW006375	EW006385	EW006386	EW006390	EW006393	EW006427
	EW006435	EW006436	EW006443	EW006444	EW006446	EW006451	EW006453	EW006454
	EW006455	EW006457	EW006460	EW006462	EW006463	EW006464	EW006495	EW006499
	EW006535	EW006539	EW006540	EW006543	EW006547	EW006573	EW006587	EW006588
	EW006589	EW006590	EW006603	EW006610	EW006612	EW006616	EW006632	EW006633
	EW006638	EW006643	EW006647	EW006650	EW006662	EW006663	EW006673	EW006747
	EW006748	EW006751	EW006753	EW006754	EW006755	EW006757	EW006759	EW006760
	EW006761	EW006765	EW006766	EW006767	EW006770	EW006771	EW006775	EW006778
	EW006790	EW006792	EW006794	EW006800	EW006801	EW006802	EW006804	EW006806
	EW006807	EW006817	EW006818	EW006819	EW006820	EW006828	EW006831	
MANAGEMENT	(14)	EW003820	EW005955	EW005957	EW006025	EW006149	EW006237	EW006285
	EW006307	EW006413	EW006448	EW006450	EW006531	EW006548	EW006696	
*MANAGEMENT ACTIVITIES	(1)	EW006382						
*MANAGEMENT EDUCATION	(2)	EW005955	EW005957					
*MANAGEMENT MODELS	(1)	EW006165						
MANAGEMENT SYSTEMS	(1)	EW006294						
*MANGANESE	(1)	EW006474						
*MANPOWER DEVELOPMENT	(8)	EW003904	EW003905	EW003906	EW003907	EW003908	EW005955	EW006286
	EW006294							
MANPOWER DEVELOPMENT	(2)	EW003851	EW006228					
*MANPOWER NEEDS	(2)	EW006286	EW006588					
MANPOWER NEEDS	(1)	EW006462						
*MANPOWER TRAINING	(2)	EW006238	EW006295					
MANPOWER TRAINING	(9)	EW006229	EW006230	EW006231	EW006232	EW006233	EW006234	EW006235
	EW006236	EW006237						
*MANUALS	(9)	EW006071	EW006317	EW006325	EW006396	EW006447	EW006458	EW006534
	EW006556	EW006629						
MANUALS	(1)	EW006477						
*MARINE BIOLOGY	(1)	EW006279						
*MARINE ENVIRONMENT	(1)	EW006769						
MARINE SAFETY	(1)	EW006157						
*MARKETING	(1)	EW006025						
*MARKET RESEARCH	(1)	EW006811						

*MATERIAL DEVELOPMENT	(1)	EW006431						
*MATHEMATICAL APPLICATIONS	(1)	EW006440						
MATHEMATICAL APPLICATIONS	(1)	EW006306						
MATHEMATICAL CONCEPTS	(1)	EW006773						
*MATHEMATICAL MODELS	(13)	EW006312	EW006418	EW006440	EW006632	EW006657	EW006658	EW006659
	EW006660	EW006661	EW006662	EW006699	EW006745	EW006751		
MATHEMATICAL MODELS	(8)	EW006032	EW006308	EW006365	EW006405	EW006759	EW006773	EW006822
	EW006832							
*MATHEMATICS	(2)	EW005560	EW006400					
MATHEMATICS	(2)	EW006237	EW006862					
*MATHEMATICS EDUCATION	(1)	EW006861						
*MATHEMATICS INSTRUCTION	(1)	EW005560						
MATHEMATICS MATERIALS	(1)	EW005560						
*MEASUREMENT	(6)	EW006324	EW006331	EW006406	EW006409	EW006489	EW006773	
MEASUREMENT	(1)	EW006774						
*MEASUREMENT EQUIPMENT	(1)	EW006870						
*MEASUREMENT INSTRUMENTS	(2)	EW006183	EW006437					
*MEASUREMENT TECHNIQUES	(6)	EW006168	EW006346	EW006402	EW006439	EW006822	EW006827	
*MECHANICAL EQUIPMENT	(1)	EW005900						
*MEDICAL EDUCATION	(1)	EW006640						
*MEDICINE	(1)	EW006640						
*MEETINGS	(1)	EW006432						
*MEMBRANE PROCESSES	(1)	EW006075						
*MEMBRANES	(1)	EW006075						
*MEMBRANE SYSTEMS	(1)	EW006071						
*METALS	(3)	EW006312	EW006456	EW006743				
METALS	(5)	EW006368	EW006389	EW006538	EW006645	EW006745		
METEROLOGY	(1)	EW006863						
METERS	(1)	EW006564						
METRIC SYSTEM	(1)	EW006861						
*MICHIGAN	(1)	EW006375						
MICHIGAN	(1)	EW006031						
*MICROBIOLOGY	(3)	EW006498	EW006530	EW006553				

*MICROCOMPUTERS	(1)	EW006128						
*MICROPROCESSORS	(2)	EW006349	EW006433					
MILITARY TRAINING	(1)	EW006433						
*MINERALS	(1)	EW006474						
*MINING	(1)	EW006654						
*MOBILE FACILITIES	(1)	EW006749						
MODEL CREDIBILITY	(1)	EW006663						
MODELING	(2)	EW006149	EW006297					
*MODELS	(4)	EW006082	EW006168	EW006312	EW006491			
MODELS	(5)	EW006317	EW006427	EW006509	EW006636	EW006752		
*MONEY MANAGEMENT	(1)	EW006432						
*MONITORING	(54)	EW006032	EW006183	EW006188	EW006272	EW006324	EW006351	EW006352
	EW006353	EW006354	EW006388	EW006401	EW006402	EW006403	EW006406	EW006411
	EW006412	EW006413	EW006415	EW006416	EW006417	EW006418	EW006434	EW006438
	EW006456	EW006480	EW006489	EW006498	EW006500	EW006510	EW006528	EW006531
	EW006540	EW006543	EW006561	EW006604	EW006609	EW006638	EW006644	EW006648
	EW006671	EW006672	EW006674	EW006744	EW006762	EW006763	EW006767	EW006768
	EW006771	EW006772	EW006773	EW006774	EW006791	EW006792	EW006832	
MONITORING	(11)	EW006325	EW006368	EW006390	EW006393	EW006529	EW006635	EW006655
	EW006697	EW006770	EW006797	EW006827				
*MONITORING SYSTEMS	(1)	EW006412						
*MOTIVATION	(1)	EW003908						
*MOTORS	(1)	EW006477						
MUNICIPALITIES	(3)	EW003208	EW006347	EW006375				
MUNICIPAL WASTES	(2)	EW006396	EW006458					
*MUNICIPAL WASTEWATER	(1)	EW006646						
MUTAGENS	(1)	EW006182						
NATIONAL EDUCATION ASSOCIATION	(1)	EW003672						
*NATURAL RESOURCES	(3)	EW006057	EW006186	EW006665				
NATURAL RESOURCES	(12)	EW003672	EW003820	EW005562	EW005563	EW005564	EW006156	EW006397
	EW006664	EW006801	EW006806	EW006808	EW006863			
*NATURAL RESOURCES MANAGEMENT	(1)	EW006664						
NEVADA	(1)	EW006028						
*NEWS MEDIA	(1)	EW006158						
*NICKEL	(1)	EW006823						
NIGHT SOIL	(1)	EW006627						

NITRATES	(1)	EW005939						
NITRIFICATION	(2)	EW006424	EW006820					
*NITROGEN	(1)	EW006821						
NITROGEN	(1)	EW006753						
NOISE	(1)	EW006397						
NOISE POLLUTION CONTROL	(1)	EW001277						
*NON-CHEMICAL DISINFECTION	(1)	EW006392						
*NONCOMPLIANCE	(1)	EW006819						
*NONPOINT POLLUTION	(1)	EW006832						
NONPOINT POLLUTION	(1)	EW006491						
NUTRIENT REMOVAL	(1)	EW006082						
*NUTRIENTS	(1)	EW006517						
NUTRIENTS	(2)	EW006134	EW006279					
OBJECTIVES	(5)	EW003904	EW003905	EW003906	EW003907	EW003908		
*OCCUPATIONAL DISEASES	(1)	EW006744						
OCCUPATIONAL HEALTH	(1)	EW006181						
*OCCUPATIONAL INFORMATION	(1)	EW006397						
OCCUPATIONAL MOBILITY	(1)	EW006430						
*OCCUPATIONAL PROMOTION	(1)	EW006430						
OCCUPATIONAL SAFETY	(3)	EW006421	EW006553	EW006556				
*OCEANOGRAPHY	(2)	EW006279	EW006635					
OCEANOGRAPHY	(1)	EW006645						
*OCEANS	(1)	EW006559						
*ODORS	(4)	EW006360	EW006475	EW006488	EW006548			
ODORS	(1)	EW006518						
*OFF-SITE MEETINGS	(1)	EW006432						
*OIL	(1)	EW006635						
*OIL POLLUTION	(1)	EW006331						
*OIL SPILLS	(8)	EW006157	EW006158	EW006159	EW006160	EW006161	EW006162	EW006163
	EW006635							
*ONSITE DISPOSAL	(2)	EW005939	EW006849					
*ON SITE SANITATION SYSTEMS	(1)	EW006628						

*ONSITE WASTEWATER SYSTEMS	(1)	EW006849						
ON SITE WASTEWATER TREATMENT	(1)	EW006754						
ON THE JOB TRAINING	(2)	EW006428	EW006430					
*OPERATIONS (WASTEWATER)	(121)	EW005546	EW005923	EW006075	EW006133	EW006134	EW006184	EW006226
	EW006232	EW006233	EW006236	EW006237	EW006238	EW006258	EW006274	EW006278
	EW006279	EW006281	EW006285	EW006317	EW006335	EW006351	EW006352	EW006353
	EW006355	EW006357	EW006358	EW006359	EW006360	EW006362	EW006363	EW006364
	EW006369	EW006375	EW006377	EW006386	EW006391	EW006401	EW006403	EW006404
	EW006405	EW006406	EW006407	EW006408	EW006409	EW006410	EW006411	EW006423
	EW006424	EW006441	EW006442	EW006443	EW006445	EW006446	EW006464	EW006484
	EW006485	EW006486	EW006497	EW006498	EW006499	EW006512	EW006513	EW006515
	EW006516	EW006517	EW006524	EW006531	EW006533	EW006539	EW006543	EW006544
	EW006545	EW006546	EW006549	EW006550	EW006551	EW006562	EW006564	EW006604
	EW006639	EW006641	EW006642	EW006643	EW006646	EW006647	EW006648	EW006649
	EW006650	EW006672	EW006695	EW006697	EW006699	EW006700	EW006749	EW006750
	EW006753	EW006754	EW006755	EW006757	EW006759	EW006760	EW006761	EW006769
	EW006775	EW006776	EW006780	EW006801	EW006803	EW006806	EW006807	EW006808
	EW006819	EW006820	EW006821	EW006822	EW006823	EW006824	EW006825	EW006849
	EW006861	EW006862						
OPERATIONS (WASTEWATER)	(5)	EW005560	EW005561	EW006280	EW006370	EW006770		
*OPERATIONS (WATER)	(50)	EW006026	EW006029	EW006031	EW006071	EW006272	EW006316	EW006349
	EW006350	EW006358	EW006359	EW006371	EW006377	EW006385	EW006394	EW006398
	EW006399	EW006400	EW006412	EW006434	EW006435	EW006438	EW006448	EW006472
	EW006473	EW006474	EW006475	EW006481	EW006505	EW006508	EW006509	EW006528
	EW006533	EW006589	EW006590	EW006605	EW006609	EW006611	EW006698	EW006701
	EW006771	EW006777	EW006790	EW006792	EW006795	EW006796	EW006798	EW006802
	EW006806	EW006861	EW006862					
OPERATIONS (WATER)	(4)	EW005560	EW005561	EW006548	EW006794			
*ORGANIC CARBON	(1)	EW006365						
*ORGANIC CHEMISTRY	(1)	EW006742						
*ORGANIC COMPOUNDS	(6)	EW006389	EW006456	EW006504	EW006648	EW006742	EW006788	
ORGANIC COMPOUNDS	(4)	EW006368	EW006520	EW006636	EW006770			
*ORGANIC SOLVENTS	(1)	EW006827						
*ORGANIZATIONAL EFFECTIVENESS	(1)	EW006462						
ORGANIZATIONAL EFFECTIVENESS	(2)	EW006294	EW006432					
*ORGANIZATIONAL THEORY	(1)	EW006462						
*ORGANIZATIONS	(1)	EW006299						
ORGANIZATIONS	(1)	EW006367						
*ORGANIZATIONS (GROUPS)	(1)	EW006131						
*OSMOSIS	(2)	EW006078	EW006349					

OUTFALLS	(1)	EW006126						
*OVERLAND FLOW	(1)	EW006335						
*OXIDATION DITCHES	(1)	EW006403						
OXYGEN	(2)	EW006491	EW006645					
*OXYGEN TRANSPORT SYSTEMS	(1)	EW006646						
*OZONE	(5)	EW006031	EW006146	EW006505	EW006518	EW006611		
OZONE	(2)	EW006027	EW006392					
*PACKAGE PLANTS	(1)	EW006316						
PACKAGE PLANTS	(1)	EW006132						
*PAINT MANUFACTURING	(1)	EW006252						
*PAPER	(1)	EW006254						
PAPER	(1)	EW006538						
*PARTICULATES	(1)	EW006745						
PARTICULATE WASTES	(1)	EW006183						
*PATHOGENS	(5)	EW006616	EW006620	EW006696	EW006744	EW006825		
PATHOGENS	(1)	EW006639						
PENNSYLVANIA	(1)	EW006030						
*PERFORMANCE CRITERIA	(1)	EW006295						
PERFORMANCE DATA	(1)	EW006316						
*PERFORMANCE EVALUATION	(1)	EW006184						
*PERFORMANCE MEASURES	(1)	EW006356						
PERFORMANCE SPECIFICATIONS	(1)	EW006395						
PERIODICALS	(1)	EW006640						
*PERMEABILITY	(1)	EW006827						
*PERSONNEL	(2)	EW006573	EW006610					
PERSONNEL	(2)	EW006356	EW006802					
*PERSONNEL DEVELOPMENT	(3)	EW006427	EW006428	EW006430				
PERSONNEL MANAGEMENT	(3)	EW005957	EW006428	EW006430				
*PESTCIDES POLLUTION CONTROL	(1)	EW006258						
*PEST CONTROL	(1)	EW006336						
*PESTICIDES	(4)	EW006336	EW006378	EW006388	EW006456			
PESTICIDES	(9)	EW001277	EW006368	EW006466	EW006467	EW006468	EW006526	EW006538
	EW006669	EW006850						

PETROLEUM	(1)	EW006538						
*PH	(2)	EW006497	EW006548					
*PHOSPHORUS	(1)	EW006775						
PHOSPHORUS	(2)	EW006645	EW006753					
*PHOTOGRAPHERS	(1)	EW006811						
*PHOTOGRAPHY	(1)	EW006402						
*PHYSICAL ANALYSIS	(1)	EW006489						
*PHYSICAL-CHEMICAL TREATMENT	(1)	EW006362						
PHYSICAL PROCESSES	(1)	EW006082						
*PHYSICS	(1)	EW006862						
PHYSICS	(1)	EW005565						
*PHYTOPLANKTON	(1)	EW006630						
*PILOT PROJECTS	(1)	EW003851						
*PIPE DESIGN	(1)	EW006502						
*PIPE JOINTS	(1)	EW006805						
*PIPES	(20)	EW006280	EW006370	EW006371	EW006372	EW006373	EW006425	EW006440
	EW006471	EW006476	EW006502	EW006507	EW006508	EW006511	EW006534	EW006541
	EW006607	EW006626	EW006675	EW006795	EW006805			
PIPES	(6)	EW006231	EW006308	EW006381	EW006412	EW006501	EW006516	
*PIPE TENSION	(1)	EW006805						
*PLACEMENT	(1)	EW006573						
*PLANNING	(90)	EW005894	EW005898	EW005900	EW006026	EW006058	EW006126	EW006131
	EW006159	EW006160	EW006163	EW006165	EW006166	EW006168	EW006181	EW006227
	EW006272	EW006298	EW006322	EW006346	EW006348	EW006355	EW006356	EW006367
	EW006369	EW006385	EW006401	EW006413	EW006414	EW006435	EW006436	EW006450
	EW006451	EW006453	EW006454	EW006455	EW006459	EW006464	EW006496	EW006519
	EW006524	EW006535	EW006540	EW006547	EW006557	EW006560	EW006561	EW006587
	EW006589	EW006603	EW006605	EW006606	EW006607	EW006608	EW006610	EW006612
	EW006613	EW006614	EW006615	EW006619	EW006626	EW006632	EW006633	EW006638
	EW006644	EW006647	EW006657	EW006663	EW006696	EW006747	EW006748	EW006755
	EW006761	EW006766	EW006769	EW006770	EW006771	EW006776	EW006778	EW006790
	EW006792	EW006794	EW006800	EW006801	EW006802	EW006803	EW006804	EW006806
	EW006817	EW006818	EW006828					
PLANNING	(15)	EW005096	EW006156	EW006189	EW006297	EW006304	EW006305	EW006306
	EW006324	EW006378	EW006427	EW006443	EW006491	EW006617	EW006628	EW006886
*PLANT OPERATORS	(1)	EW006744						
*PLASTIC PIPE LINERS	(1)	EW006795						
PLASTIC PIPES	(1)	EW006541						
PLUMBING	(1)	EW005940						

*POINT SOURCE POISONS	(2)	EW006252	EW006254					
	(1)	EW006447						
*POLICY	(5)	EW003366	EW006181	EW006667	EW006668	EW006817		
POLICY	(1)	EW006345						
*POLICY ANALYSIS	(1)	EW006168						
POLICY FORMATION	(1)	EW006666						
*POLLUTANTS	(9)	EW006082	EW006166	EW006182	EW006390	EW006560	EW006652	EW006762
	EW006763	EW006793						
POLLUTANTS	(3)	EW005897	EW006165	EW006331				
*POLLUTION	(18)	EW003366	EW005561	EW005562	EW005563	EW005564	EW005565	EW005566
	EW005567	EW006081	EW006258	EW006331	EW006340	EW006402	EW006454	EW006457
	EW006559	EW006634	EW006637					
POLLUTION	(13)	EW003820	EW005859	EW006057	EW006126	EW006232	EW006320	EW006368
	EW006389	EW006396	EW006397	EW006635	EW006751	EW006870		
*POLLUTION CONTROL	(4)	EW006073	EW006155	EW006286	EW006320			
POLLUTION CONTROL	(7)	EW006161	EW006162	EW006163	EW006184	EW006376	EW006382	EW006393
POLYPROPYLENE PIPES	(1)	EW006370						
*POST SECONDARY EDUCATION	(91)	EW003366	EW005896	EW005897	EW005898	EW005900	EW005923	EW006132
	EW006133	EW006134	EW006157	EW006159	EW006160	EW006161	EW006162	EW006163
	EW006189	EW006226	EW006228	EW006229	EW006230	EW006231	EW006232	EW006233
	EW006234	EW006235	EW006236	EW006237	EW006238	EW006292	EW006293	EW006301
	EW006314	EW006322	EW006348	EW006367	EW006379	EW006385	EW006397	EW006398
	EW006399	EW006421	EW006447	EW006450	EW006453	EW006454	EW006525	EW006527
	EW006528	EW006529	EW006530	EW006533	EW006535	EW006536	EW006553	EW006554
	EW006556	EW006562	EW006564	EW006573	EW006587	EW006588	EW006589	EW006590
	EW006612	EW006613	EW006614	EW006615	EW006616	EW006617	EW006619	EW006620
	EW006621	EW006629	EW006632	EW006637	EW006638	EW006640	EW006641	EW006642
	EW006643	EW006644	EW006645	EW006664	EW006745	EW006751	EW006752	EW006753
	EW006754	EW006755	EW006759	EW006863				
POST SECONDARY EDUCATION	(22)	EW003273	EW003904	EW003905	EW003906	EW003907	EW003908	EW006059
	EW006158	EW006336	EW006386	EW006423	EW006424	EW006429	EW006431	EW006433
	EW006465	EW006469	EW006470	EW006534	EW006574	EW006861	EW006862	
*POTABLE WATER	(5)	EW006504	EW006505	EW006518	EW006552	EW006675		
POTABLE WATER	(5)	EW006146	EW006359	EW006492	EW006494	EW006791		
PRECIPITATION	(1)	EW006059						
*PRESSURE	(1)	EW006862						
*PRESSURE SEWERS	(1)	EW006550						
*PRESSURE SEWER SYSTEMS	(1)	EW006550						
*PRETREATMENT	(2)	EW006252	EW006254					
PRETREATMENT	(3)	EW006071	EW006361	EW006377				

*PREVENTIVE MAINTENANCE	(3)	EW006281	EW006285	EW006369				
*PRIMARY TREATMENT	(3)	EW006484	EW006551	EW006769				
PRIMARY TREATMENT	(1)	EW006234						
*PROBLEM IDENTIFICATION	(1)	EW006401						
*PROBLEMS	(1)	EW006401						
PROBLEMS	(1)	EW006184						
PROBLEM SOLVING	(2)	EW003851	EW006462					
PROCESS CONTROL	(1)	EW006522						
*PROFESSIONAL EDUCATION	(1)	EW006665						
*PROGRAM DESCRIPTION	(2)	EW005957	EW006590					
*PROGRAM DESCRIPTIONS	(6)	EW006228	EW006238	EW006396	EW006436	EW006465	EW006670	
PROGRAM DESCRIPTIONS	(2)	EW006430	EW006458					
*PROGRAM DESIGN	(5)	EW005954	EW005956	EW006292	EW006293	EW006348		
*PROGRAM DEVELOPMENT	(14)	EW006131	EW006251	EW006292	EW006293	EW006297	EW006314	EW006403
	EW006443	EW006444	EW006525	EW006588	EW006590	EW006637	EW006778	
PROGRAM DEVELOPMENT	(2)	EW005859	EW006163					
*PROGRAMED INSTRUCTION	(5)	EW003904	EW003905	EW003906	EW003907	EW003908		
*PROGRAM EVALUATION	(2)	EW006160	EW006465					
*PROGRAM MEMORANDA	(2)	EW006396	EW006458					
*PROGRAM PLANNING	(1)	EW006298						
*PROJECT CONTROL	(1)	EW006356						
*PROJECT PLANNING	(2)	EW006306	EW006525					
PROJECT PLANNING	(1)	EW006404						
PUBLIC ADMINISTRATION	(1)	EW006668						
*PUBLIC AGENCIES	(1)	EW006886						
*PUBLICATIONS	(1)	EW006811						
PUBLICATIONS	(1)	EW006431						
*PUBLIC HEALTH	(35)	EW005560	EW005565	EW005566	EW005567	EW006358	EW006359	EW006376
	EW006388	EW006389	EW006438	EW006514	EW006561	EW006587	EW006604	EW006605
	EW006611	EW006614	EW006616	EW006620	EW006636	EW006637	EW006638	EW006644
	EW006675	EW006743	EW006744	EW006786	EW006789	EW006793	EW006794	EW006796
	EW006797	EW006800	EW006825	EW006869				
PUBLIC HEALTH	(7)	EW003820	EW005940	EW006030	EW006425	EW006470	EW006547	EW006606
*PUBLIC HEALTH LEGISLATION	(1)	EW006886						
*PUBLIC PARTCIPATION	(1)	EW006557						

*PUBLIC PARTICIPATION	(11)	EW006131	EW006156	EW006304	EW006348	EW006436	EW006450	EW006455
	EW006525	EW006548	EW006603	EW006606				
PUBLIC PARTICIPATION	(1)	EW006444						
PUBLIC POLICY	(1)	EW003366						
*PUBLIC RELATIONS	(1)	EW006158						
PUBLIC RELATIONS	(1)	EW006285						
*PUBLIC SERVICE OCCUPATIONS	(1)	EW006470						
PUBLIC SUPPORT	(1)	EW006304						
*PUBLISHERS	(1)	EW006811						
PUERTO RICO	(1)	EW003851						
*PULP	(1)	EW006254						
*PUMPING STATIONS	(1)	EW006534						
*PUMPS	(8)	EW003273	EW006381	EW006444	EW006477	EW006483	EW006501	EW006609
	EW006699							
PUMPS	(5)	EW006231	EW006404	EW006550	EW006647	EW006803		
*PUMP STATIONS	(2)	EW006483	EW006542					
PUMP STATIONS	(1)	EW006285						
*QUALITY ASSURANCE	(1)	EW006368						
*QUALITY CONTROL	(8)	EW001277	EW005859	EW006165	EW006480	EW006489	EW006504	EW006522
	EW006768							
QUALITY CONTROL	(1)	EW006663						
QUESTIONNAIRES	(2)	EW006450	EW006622					
RADIATION	(2)	EW001277	EW006397					
*RADIOACTIVE WASTES	(1)	EW006829						
RAIN	(1)	EW006752						
*RATES	(5)	EW006437	EW006633	EW006656	EW006760	EW006761		
*RATE STRUCTURES	(1)	EW006656						
*RECOMMENDATIONS	(1)	EW006184						
RECOMMENDATIONS	(1)	EW006376						
*RECORD KEEPING	(2)	EW001255	EW006356					
*RECORDS	(1)	EW006356						
RECORDS	(1)	EW001255						
*RECREATION	(2)	EW006165	EW006552					

RECREATION	(2)	EW003851	EW006057					
*RECREATIONAL WATER	(1)	EW006552						
*RECYCLING	(10)	EW006101	EW006166	EW006347	EW006350	EW006358	EW006538	EW006603
	EW006650	EW006749	EW006754					
RECYCLING	(3)	EW003820	EW006025	EW006320				
REFERENCE BOOKS	(2)	EW006447	EW006536					
*REFERENCE MATERIALS	(8)	EW006073	EW006317	EW006381	EW006421	EW006456	EW006529	EW006537
	EW006640							
REFERENCE MATERIALS	(2)	EW006530	EW006553					
*REGIONAL PLANNING	(2)	EW005894	EW006305					
*REGULATIONS	(32)	EW006057	EW006155	EW006188	EW006251	EW006272	EW006274	EW006366
	EW006406	EW006410	EW006411	EW006413	EW006414	EW006458	EW006561	EW006607
	EW006608	EW006637	EW006638	EW006644	EW006746	EW006747	EW006750	EW006765
	EW006768	EW006769	EW006778	EW006786	EW006789	EW006810	EW006818	EW006819
	EW006831							
REGULATIONS	(21)	EW005894	EW006030	EW006166	EW006232	EW006235	EW006336	EW006359
	EW006393	EW006443	EW006445	EW006460	EW006525	EW006526	EW006537	EW006654
	EW006698	EW006700	EW006757	EW006767	EW006771	EW006790		
*REHABILITATION	(1)	EW006490						
*RELIABILITY	(1)	EW006418						
*REMODELING	(1)	EW006790						
*REMOTE SENSING	(2)	EW006324	EW006402					
REMOTE SENSING	(1)	EW006635						
*REPAIR	(1)	EW006780						
*REPAIRS	(1)	EW006370						
*REPORTS	(2)	EW006394	EW006491					
*RESEARCH	(14)	EW004482	EW006059	EW006165	EW006301	EW006365	EW006391	EW006537
	EW006622	EW006623	EW006634	EW006635	EW006656	EW006748	EW006800	
RESEARCH	(8)	EW005939	EW006028	EW006029	EW006032	EW006292	EW006347	EW006364
	EW006388							
*RESEARCH METHODOLOGY	(3)	EW006292	EW006450	EW006797				
RESEARCH METHODOLOGY	(1)	EW006574						
*RESEARCH NEEDS	(2)	EW005940	EW006748					
*RESEARCH PROJECTS	(1)	EW006748						
*RESEARCH REPORTS	(24)	EW006316	EW006390	EW006395	EW006426	EW006451	EW006457	EW006522
	EW006552	EW006557	EW006558	EW006639	EW006640	EW006650	EW006652	EW006654
	EW006655	EW006695	EW006743	EW006749	EW006760	EW006761	EW006762	EW006763
	EW006817							
RESEARCH REPORTS	(9)	EW006188	EW006294	EW006295	EW006377	EW006538	EW006624	EW006625

*RESEARCH REVIEWS	EW006671 (5)	EW006796 EW005940	EW006292	EW006320	EW006331	EW006621		
*RESERVOIRS	(2)	EW006479	EW006552					
RESERVOIRS	(2)	EW006306	EW006612					
RESIDENTIAL PATTERNS	(1)	EW006303						
RESOURCE MATERIALS	(2)	EW006276	EW006277					
*RESOURCE RECOVERY	(3)	EW006279	EW006535	EW006808				
*RESOURCES	(1)	EW006535						
RESOURCES	(1)	EW006165						
*REUSE	(2)	EW006025	EW006347					
*REVERSE OSMOSIS	(3)	EW006071	EW006075	EW006078				
*RISK	(1)	EW006306						
*RISK ASSESSMENT	(1)	EW005897						
*RIVER BASIN COMMISSIONS	(1)	EW006766						
*RIVER BASINS	(1)	EW005894						
*RIVERS	(1)	EW006766						
RIVERS	(4)	EW005894	EW006160	EW006751	EW006767			
*ROTAMETERS	(1)	EW005920						
*ROTATING BIOLOGICAL CONTACTORS	(4)	EW006407	EW006646	EW006695	EW006820			
*ROTATING CONTACTORS	(1)	EW006604						
*ROUGHNESS	(1)	EW006440						
RUBBER EXPANSION JOINTS	(1)	EW006805						
RUNOFF	(1)	EW006059						
*RUNOFF WATERS	(2)	EW006451	EW006510					
RUNOFF WATERS	(1)	EW006082						
*RURAL AREAS	(3)	EW006272	EW006444	EW006605				
RURAL AREAS	(1)	EW006647						
*RURAL DEVELOPMENT	(1)	EW003851						
*RURAL DEVELOPMENT ACT 1972	(1)	EW003851						
*RURAL PROBLEMS	(1)	EW006629						
*SAFE DRINKING WATER ACT	(1)	EW006394						
*SAFETY	(24) EW006421	EW005896 EW006447	EW005897 EW006503	EW005898 EW006525	EW006226 EW006549	EW006336 EW006553	EW006386 EW006554	EW006411 EW006555

	EW006556	EW006560	EW006561	EW006644	EW006657	EW006746	EW006786	EW006794
	EW006830							
SAFETY	(10)	EW006031	EW006157	EW006165	EW006285	EW006378	EW006385	EW006401
	EW006445	EW006564	EW006700					
*SAFETY EDUCATION	(2)	EW005897	EW006157					
SAFETY EDUCATION	(1)	EW006503						
*SAFETY EQUIPMENT	(1)	EW006503						
*SAFETY RULES	(1)	EW006503						
SALINITY	(1)	EW006491						
*SAMPLING	(21)	EW006182	EW006324	EW006325	EW006331	EW006388	EW006389	EW006418
	EW006434	EW006489	EW006528	EW006630	EW006635	EW006674	EW006742	EW006767
	EW006772	EW006774	EW006777	EW006788	EW006791	EW006797		
SAMPLING	(6)	EW006450	EW006480	EW006529	EW006648	EW006768	EW006830	
*SAMPLING TECHNIQUES	(5)	EW006182	EW006413	EW006415	EW006416	EW006417		
*SAND FILTERS	(1)	EW006807						
*SANITATION	(15)	EW006469	EW006588	EW006607	EW006614	EW006615	EW006616	EW006617
	EW006619	EW006621	EW006622	EW006623	EW006624	EW006625	EW006628	EW006754
SANITATION	(2)	EW003208	EW003851					
*SANITATION SYSTEMS	(1)	EW006628						
*SCIENCE ACTIVITIES	(1)	EW003672						
SCIENCE EDUCATION	(17)	EW005565	EW005566	EW005567	EW006148	EW006189	EW006229	EW006230
	EW006232	EW006233	EW006234	EW006235	EW006236	EW006400	EW006470	EW006665
	EW006667	EW006668						
*SCIENCES	(2)	EW006667	EW006668					
SCIENCES	(2)	EW006237	EW006863					
*SCIENTIFIC ENTERPRISE	(1)	EW006667						
SCIENTIFIC ENTERPRISE	(1)	EW006668						
*SCOURING	(1)	EW006361						
*SEAFOODS	(1)	EW006279						
*SEALS	(1)	EW006280						
SEAS	(1)	EW006751						
*SECONDARY TREATMENT	(4)	EW006485	EW006551	EW006749	EW006757			
SECONDARY TREATMENT	(5)	EW006234	EW006359	EW006407	EW006697	EW006769		
*SEDIMENTATION	(2)	EW006660	EW006752					
SEDIMENTATION	(2)	EW006472	EW006791					
*SEDIMENT CONTROL	(1)	EW006058						

*SEDIMENTS	(2)	EW006605	EW006608					
*SEMINARS	(1)	EW006297						
SEMI-PERMEABLE MEMBRANES	(1)	EW006071						
*SEPTAGE	(1)	EW006649						
*SEPTIC SYSTEMS	(1)	EW005546						
*SEPTIC TANKS	(3)	EW005546	EW006186	EW006649				
SEPTIC TANKS	(2)	EW006550	EW006849					
*SERVICE CHARGES	(1)	EW003208						
*SEWAGE	(4)	EW006075	EW006078	EW006559	EW006656			
SEWAGE	(2)	EW006146	EW006761					
*SEWAGE TREATMENT	(1)	EW006148						
*SEWER OVERFLOW	(1)	EW006410						
*SEWERS	(13)	EW006280	EW006351	EW006353	EW006370	EW006372	EW006373	EW006442
	EW006471	EW006482	EW006490	EW006510	EW006542	EW006607		
SEWERS	(4)	EW003208	EW006356	EW006363	EW006550			
*SHEAR STRESS	(1)	EW006660						
*SILICA	(1)	EW006763						
*SILICATES	(1)	EW006762						
*SILVICULTURE	(2)	EW006382	EW006453					
SIMULATION	(1)	EW003672						
SIMULATIONS	(1)	EW006491						
*SITE EVALUATION	(1)	EW006830						
*SITE SELECTION	(3)	EW005546	EW005939	EW006755				
*SKILL DEVELOPMENT	(1)	EW006379						
SKILL DEVELOPMENT	(2)	EW005955	EW005957					
*SLEEVE VALVES	(1)	EW006308						
*SLIP LINING	(1)	EW006370						
*SLUDGE	(27)	EW006227	EW006278	EW006312	EW006360	EW006408	EW006424	EW006441
	EW006445	EW006487	EW006493	EW006512	EW006513	EW006520	EW006539	EW006547
	EW006604	EW006613	EW006627	EW006639	EW006649	EW006656	EW006696	EW006743
	EW006753	EW006789	EW006822	EW006825				
SLUDGE	(14)	EW006226	EW006320	EW006364	EW006386	EW006393	EW006401	EW006498
	EW006514	EW006515	EW006516	EW006517	EW006523	EW006697	EW006803	
*SLUDGE CHARACTERISTICS	(1)	EW006498						
*SLUDGE COLLECTORS	(1)	EW006369						

SLUDGE DEWATERING	(1)	EW006493						
*SLUDGE DIGESTION	(1)	EW006487						
*SLUDGE DISPOSAL	(7)	EW006393	EW006441	EW006487	EW006493	EW006514	EW006523	EW006559
SLUDGE DISPOSAL	(3)	EW006317	EW006424	EW006517				
*SLUDGE TREATMENT	(5)	EW006512	EW006515	EW006516	EW006517	EW006520		
SLUDGE TREATMENT	(1)	EW006317						
SMALL COMMUNITIES	(1)	EW006647						
*SOCIAL FACTORS	(1)	EW006622						
*SOCIOECONOMIC INFLUENCES	(2)	EW006615	EW006616					
*SODIUM	(1)	EW006438						
SODIUM NITRATE	(1)	EW006360						
*SODIUM REMOVAL	(1)	EW006438						
*SOFTWARE	(1)	EW005961						
*SOIL	(2)	EW006057	EW006058					
SOIL	(1)	EW006645						
*SOIL CONSERVATION	(1)	EW006608						
*SOILS	(3)	EW006463	EW006762	EW006827				
SOILS	(2)	EW006059	EW006506					
SOIL SCIENCE	(1)	EW006863						
SOLIDS	(1)	EW006134						
*SOLID WASTES	(6)	EW006101	EW006513	EW006535	EW006603	EW006606	EW006765	
SOLID WASTES	(2)	EW006397	EW006512					
*SOUTHERN STATES	(1)	EW003851						
*SPECTROPHOTOMETRY	(1)	EW006439						
*SPECTROSCOPY	(1)	EW006870						
*SPILL PREVENTION	(1)	EW006555						
*SPILLS	(2)	EW006632	EW006794					
SPILLS	(1)	EW006555						
*SPRAY IRRIGATION	(1)	EW006558						
STAFF DEVELOPMENT	(1)	EW006428						
*STAFF MEETINGS	(1)	EW006432						
STAFF RELATIONS	(1)	EW006462						

*STANDARD METHODS	(1)	EW006777						
*STANDARDS	(26)	EW005898	EW006057	EW006126	EW006252	EW006254	EW006301	EW006336
	EW006385	EW006406	EW006413	EW006414	EW006418	EW006438	EW006440	FW006453
	EW006456	EW006636	EW006647	EW006663	EW006746	EW006754	EW006757	Ew006767
	EW006769	EW006777	EW006818					
STANDARDS	(14)	EW003273	EW005894	EW005896	EW006058	EW006155	EW006188	EW006274
	EW006295	EW006389	EW006638	EW006648	EW006655	EW006795	EW006831	
STARDARDS	(1)	EW006272						
*START-UP	(3)	EW006403	EW006404	EW006819				
START-UP	(1)	EW006499						
*STATE FEDERAL RELATIONSHIPS	(1)	EW006747						
STATE GOVERNMENT	(1)	EW006869						
*STATE LAWS	(1)	EW006366						
STATE OF THE ART REVIEWS	(1)	EW001277						
*STATE PLANNING	(1)	EW005894						
STATE PROGRAMS	(2)	EW006465	EW006637					
*STATE REGULATION	(1)	EW006869						
STATE ROLE	(1)	EW006766						
STATISTICAL DATA	(1)	EW006532						
*STATISTICAL PROOF	(1)	EW006495						
*STATISTICS	(2)	EW006405	EW006773					
STATISTICS	(1)	EW001255						
*ST. LAWRENCE RIVER	(1)	EW006161						
*STORAGE	(1)	EW006746						
STORAGE CAPACITY	(1)	EW005962						
*STORMWATER	(5)	EW006350	EW006409	EW006451	EW006510	EW006793		
*STREAMFLOW	(1)	EW006661						
STREAMS	(2)	EW006082	EW006767					
*STRESS	(1)	EW006299						
*STRESS MANAGEMENT	(1)	EW006299						
*STUDENT'S T-TEST	(1)	EW006773						
*STUDY GUIDES	(1)	EW006562						
*SUCCESSION PLANNING	(1)	EW006430						

SULFUR	(1)	EW006645						
*SUPERVISION	(3)	EW005955	EW006299	EW006573				
SUPERVISION	(1)	EW005954						
*SUPERVISORY TRAINING	(1)	EW005954						
*SURCHARGE CONDITIONS	(1)	EW006409						
*SURFACE RUNOFF	(5)	EW006081	EW006409	EW006454	EW006510	EW006792		
SURFACE RUNOFF	(1)	EW006527						
*SURVEYS	(6)	EW006358	EW006437	EW006450	EW006541	EW006552	EW006796	
SURVEYS	(3)	EW006025	EW006819	EW006869				
*SUSPENDED SOLIDS	(1)	EW006183						
SUSPENDED SOLIDS	(1)	EW006278						
*SYMPOSIA	(1)	EW006495						
*SYNTHESIS	(1)	EW003851						
*SYSTEMS ANALYSIS	(7)	EW006427	EW006612	EW006614	EW006657	EW006658	EW006659	EW006660
SYSTEMS ANALYSIS	(2)	EW006317	EW006663					
*SYSTEMS APPROACH	(1)	EW006427						
SYSTEMS APPROACH	(1)	EW006428						
*TANKS	(1)	EW005962						
*TARIFF EQUALIZATION	(1)	EW006804						
*TARIFFS	(1)	EW006804						
*TASTES	(1)	EW006475						
TASTES	(1)	EW006518						
*TAXES	(1)	EW006831						
*TEACHING GUIDES	(13)	EW003904	EW003905	EW003906	EW003907	EW003908	EW005900	EW006132
	EW006133	EW006134	EW006293	EW006379	EW006399	EW006527		
TEACHING GUIDES	(1)	EW006528						
*TECHNICAL ASSISTANCE	(1)	EW006666						
*TECHNICAL EDUCATION	(14)	EW005560	EW005562	EW005563	EW005564	EW005565	EW005566	EW005567
	EW006236	EW006237	EW006238	EW006469	EW006470	EW006590	EW006664	
TECHNICAL EDUCATION	(5)	EW006379	EW006429	EW006433	EW006465	EW006666		
TECHNICAL INSTITUTES	(6)	EW005562	EW005563	EW005564	EW005565	EW005566	EW005567	
TECHNICAL OCCUPATIONS	(1)	EW006470						

*TECHNICAL REPORTS	(5)	EW006335	EW006356	EW006378	EW006383	EW006459		
*TECHNICAL TRAINING	(1)	EW006828						
*TECHNOLOGICAL ADVANCEMENTS	(4)	EW006032	EW006347	EW006392	EW006460			
TECHNOLOGICAL ADVANCEMENTS	(2)	EW006390	EW006391					
*TECHNOLOGY	(12)	EW006168	EW006457	EW006614	EW006617	EW006619	EW006620	EW006639
	EW006667	EW006668	EW006673	EW006747	EW006817			
TECHNOLOGY	(17)	EW005561	EW005565	EW005566	EW005567	EW006075	EW006274	EW006466
	EW006467	EW006468	EW006469	EW006615	EW006621	EW006624	EW006625	EW006666
	EW006669	EW006850						
*TECHNOLOGY TRANSFER	(1)	EW006666						
*TEMPERATURE	(4)	EW006548	EW006757	EW006821	EW006862			
TEMPERATURE	(1)	EW006491						
*TERMINOLOGY	(1)	EW006073						
TERRESTRIAL ENVIRONMENTS	(1)	EW006346						
*TERTIARY TREATMENT	(6)	EW006352	EW006464	EW006486	EW006543	EW006551	EW006803	
*TESTING	(1)	EW006562						
TESTING	(1)	EW006381						
*TEXAS	(1)	EW006026						
*TEXTBOOKS	(12)	EW006148	EW006149	EW006189	EW006391	EW006392	EW006393	EW006398
	EW006400	EW006424	EW006447	EW006448	EW006530			
TEXTBOOKS	(1)	EW006528						
*TEXTILE INDUSTRY	(1)	EW006652						
TEXTILES	(1)	EW006538						
*THAWING	(1)	EW006507						
*THERMAL CONVERSION	(1)	EW006101						
THERMAL POLLUTION	(1)	EW006126						
TOILETS	(1)	EW006624						
TOOLS	(1)	EW006032						
*TOXICITY	(12)	EW006366	EW006368	EW006438	EW006632	EW006654	EW006671	EW006696
	EW006700	EW006742	EW006762	EW006789	EW006823			
TOXICITY	(2)	EW006556	EW006788					
TOXICOLOGY	(1)	EW006393						
*TOXIC SUBSTANCE CONTROL ACT	(1)	EW005898						
*TOXIC SUBSTANCES	(24)	EW005896	EW005898	EW006166	EW006182	EW006336	EW006378	EW006390

	EW006411	EW006447	EW006456	EW006515	EW006525	EW006526	EW006556	EW006559
	EW006560	EW006648	EW006655	EW006671	EW006672	EW006673	EW006746	EW006794
	EW006830							
TOXIC SUBSTANCES	(5)	EW005897	EW006397	EW006555	EW006832	EW006870		
*TOXIC WASTES	(1)	EW006500						
*TRACE METALS	(2)	EW006312	EW006671					
TRACE METALS	(1)	EW005940						
*TRAINING	(17)	EW005955	EW006286	EW006292	EW006294	EW006295	EW006314	EW006401
	EW006403	EW006562	EW006573	EW006587	EW006588	EW006589	EW006641	EW006642
	EW006643	EW006819						
TRAINING	(4)	EW005859	EW005954	EW006367	EW006557			
TRAINING COSTS	(1)	EW006432						
*TRAINING GUIDES	(1)	EW006314						
*TRAINING MATERIALS	(1)	EW006431						
*TRAINING PROGRAMS	(17)	EW005900	EW005956	EW005957	EW006157	EW006158	EW006159	EW006160
	EW006161	EW006162	EW006163	EW006228	EW006230	EW006231	EW006297	EW006298
	EW006557	EW006830						
TRAINING PROGRAMS	(7)	EW006229	EW006232	EW006233	EW006234	EW006235	EW006398	EW006399
*TRAINING TECHNIQUES	(1)	EW006314						
*TRANSPORTATION	(1)	EW006793						
TRANSPORTATION	(2)	EW003851	EW005897					
TRAVEL	(1)	EW006432						
TRENDS	(1)	EW006817						
*TRICKLING FILTERS	(1)	EW006391						
*TRIHALOMETHANE	(1)	EW006028						
TRIHALOMETHANE	(2)	EW006027	EW006029					
*TRIHALOMETHANES	(7)	EW006188	EW006426	EW006434	EW006504	EW006605	EW006611	EW006701
TRIHALOMETHANES	(1)	EW006636						
*TROUBLE SHOOTING	(3)	EW006278	EW006281	EW006385				
*TURBIDITY	(2)	EW006183	EW006698					
*UNIT PROCESSES	(2)	EW006363	EW006394					
UNIT PROCESSES	(1)	EW006317						
*UNIVERSITIES	(1)	EW006670						

*URBAN AREAS	(1)	EW006790						
URBAN AREAS	(1)	EW006510						
*URBAN PLANNING	(1)	EW006303						
*URBAN PROBLEMS	(3)	EW006345	EW006451	EW006626				
URBAN PROBLEMS	(1)	EW006624						
*USER CHARGES	(1)	EW006760						
*UTILITIES	(12)	EW003208	EW006026	EW006305	EW006354	EW006375	EW006446	EW006469
	EW006470	EW006800	EW006801	EW006802	EW006804			
UTILITIES	(7)	EW005859	EW005961	EW006426	EW006437	EW006636	EW006861	EW006862
*VALUE ENGINEERING	(1)	EW006459						
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*VALVES	(4)	EW003273	EW006308	EW006478	EW006483			
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*VIDEODISCS	(1)	EW006433						
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*VOCABULARY	(1)	EW006073						
*WAGES	(1)	EW006532						
*WASHINGTON	(1)	EW006305						
*WASTE COLLECTION	(3)	EW006535	EW006603	EW006621				
*WASTE DISPOSAL	(61)	EW003208	EW006081	EW006101	EW006225	EW006251	EW006252	EW006254
	EW006274	EW006279	EW006366	EW006372	EW006390	EW006412	EW006413	EW006414
	EW006415	EW006441	EW006469	EW006482	EW006487	EW006493	EW006513	EW006514
	EW006526	EW006535	EW006537	EW006539	EW006547	EW006549	EW006558	EW006559
	EW006561	EW006603	EW006606	EW006613	EW006614	EW006616	EW006617	EW006620
	EW006621	EW006622	EW006623	EW006624	EW006625	EW006627	EW006628	EW006649
	EW006656	EW006673	EW006696	EW006746	EW006765	EW006771	EW006828	EW006829
	EW006830	EW006831	EW006832	EW006849	EW006861	EW006862		
WASTE DISPOSAL	(11)	EW005546	EW005560	EW005561	EW005859	EW006057	EW006232	EW006373
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*WASTE TREATMENT	(2)	EW006500	EW006620					
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*WASTEWATER TREATMENT PLANTS	(1)	EW006531						
*WATER ANALYSIS	(8)	EW006325	EW006389	EW006413	EW006425	EW006439	EW006630	EW006774
	EW006788							
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*WATER COLLECTION	(1)	EW006506						
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*WATER MAINS	(7)	EW006371	EW006385	EW006440	EW006476	EW006507	EW006541	EW006795
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*WATER POLLUTION CONTROL ACT	(1)	EW006818						
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	EW006251	EW006254	EW006278	EW006279	EW006286	EW006301	EW006307	EW006312
	EW006324	EW006325	EW006350	EW006352	EW006355	EW006358	EW006359	EW006385
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	EW006439	EW006445	EW006453	EW006454	EW006455	EW006464	EW006480	EW006491
	EW006527	EW006528	EW006548	EW006561	EW006574	EW006587	EW006604	EW006605
	EW006608	EW006611	EW006612	EW006630	EW006632	EW006635	EW006636	EW006637
	EW006638	EW006644	EW006646	EW006647	EW006648	EW006649	EW006650	EW006652
	EW006654	EW006655	EW006671	EW006675	EW006697	EW006698	EW006700	EW006701
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*WATER STANDARDS	(1)	EW006438						
*WATER STORAGE	(7)	EW005962	EW006476	EW006479	EW006481	EW006506	EW006527	EW006661
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