ENVIRO - TEXT

PHOTOCOPY
PRESERVATION

ARARS
Appropriate +

Applicaliab Appropriate + Relevant Regulations

Carol Browner 93?
Define what people need to

Reah Cohen EPA (Superfund used to be w/ Army Corp of Illinois
Jerry Decarbo DOE)

decided to develop computerized program

Northern // Knew about existing data base at University of Illinois

Construction Engineering Research Laboratory — Part of the Army Corp of Illinois
located at Univ of Illinois

CRI provides technical support on Superfund

(1) CRI did majority of work locate, obtain & put in text environmental regulations

10 year process

Funding ran out in May
Tom Scheckles - in the Superfund informed Hank that there have

been funding cuts for Superfund
given w/o funding to Army
Corp of Engineers — Cal Gordon
Shaeffer

Postal Service
DOJ
Energy
Army Defense
Others
} inter agency cooperative agreement

database available to any govt agency

(1) continue to update state, local & federal portions of the data base

(2) Native Americans do not have access
Federal Agencies can use (pilot phase)
will then go to a user fee

even w/ user fee Native Americans & industry will not be able to use

$300,000 to complete database
additional funding would be needed for maintenance

spoke w/ Shelly Metzenbaum — very interested in project, going to set up committee to look at systems
& spoke w/ small disadvantaged business association

PHOTOCOPY
PRESERVATION

and is evaluated 6 months) NO specific funding available

EPA agreed to treat Indian Tribes the same as States - but Tribes don't get same funding

Robin Cleve used to be w/ EPA
Meeting w/ Chuck Kent
Waterfront Station Env Protection Agency

fax Jeff in Galston's off 6216

=

EPA FY 1994 only paying user fee

New lead on Enviro Text Jerry DeCerbo 202-586-5047 DOE

Jan - Mar - open database to public on internet

Recognized by NPR as part of reg not

Tribal Codes are seperate (not codes have been gathered
18th or 20th

There are more - EPA is requiring Indians

Tom Sheckler

* Division Director Program Mgmt of Superfund

Martha Perthro - Indian Affairs Committee

prioritize issues

funding =

$400,000 earmarked now

Completing state regulations
completing OSHA Requirement
tribal codes

Clinton Presidential Records

This is not a presidential record. This is used as an administrative marker by the William J. Clinton Presidential Library Staff.

This marker identifies the former location of a 3.5 floppy diskette.

NOTICE: The files from this diskette are not available because the disk is damaged, or the files are in an un-recognizable format.

Collection: 2013-1074-S

Diskette Title: Enviro-text Demo

Rhea Cohen
(703) 603-8878

United States
Environmental Protection
Agency
Washington, DC 20460

Official Business
Penalty for Private Use
$300

EnviroText
Retrieval
System

PHOTOCOPY
PRESERVATION

Anna Raymond
260-0421
260-2159 (fax)

Rhea Cohen
(703) 603-8878

CRI Consulting Resources, Inc.
1317 Vincent Place • McLean, Virginia 22101
Phone: (703) 761-6160
FAX: (703) 761-4303

MEMORANDUM

March 29, 1994

To: Sue Lundgarten
Office of the Vice President

From: Mr. Hank Porterfield
Consulting Resources, Inc.

Subj: Indian Tribal Environmental Law Database Project

1. Robin Grove informed me you would like a brief summary of the subject Project.

2. Consulting Resources, Inc. (CRI) has been working under contract to US EPA, Headquarters, Superfund Program for about 2 1/2 years on a project entitled "Indian Tribal Environmental Law Database." This project has been to locate, obtain and develop into a database Native American/American Indian Tribal Environmental laws, codes, regulations, etc. This database is to be a part of a larger environmental information system known as EnviroText Retrieval System, or simple EnviroText. EnviroText is to be an on- line, dial-up from a PC with modem to a mainframe at the University of Illinois', Environmental Requirements Library. Eventually, all environmental laws, regulations, etc., will be contained in EnviroText. It is literally a desk-top Environmental Law Library. In September 1993, Carol Browner of EPA stated:

> "We all know the environmental law -- and therefore environmental regulations -- is growing more and more complicated. It's even complicated to find out what the rules are. Local officials have pointed out that the right information has been very difficult to find, and then when they do find it, it's very confusing. As a result, one of the first things EPA needs to do it let everyone know just what they are responsible for in a way that they can understand..."

EnviroText is a multi-agency program which does this.

3. The EPA is continuing the development and implementation of EnviroText. They are not continuing the development and implementation of the Indian Tribal Environmental Database portion of EnviroText. Currently the Indian Tribal Environmental Database contains 127 Codes from Tribes in 17 States. There are approximately 243 additional Codes which

should be included in this database. Funding for the development of this database terminated as of March 26, 1994.

4. EPA claims this subject is not a Superfund priority and they don't have the money. $300,000.00 is not much in comparison to EPA's total budget of $900 million. Besides, the remainder of EnviroText is being funding by some five (5) separate Federal agencies. It seems that for whatever reason the EPA Superfund Office wants to renege on what they have started regarding the Native Americans/Indian Americans.

5. This compilation of Indian Tribal Environmental Laws which CRI has produced does not exist anywhere else. There is no other project to do this. Tribal Councils and indeed individual members of these Tribes are reluctant to discuss their governing actions, therein laws, regulations, etc., with Federal regulatory agencies. Before we could locate, let along obtain, Tribal codes, we had to first get their trust and cooperation. We now have a database of some 1700 plus individual who have been designated some significant environmental responsibilities. These may be project managers, coordinators and/or lawyers workings on the production of environmental codes. This 1700 represents some 600 plus Tribes. We are now actually sharing documents and information with many of the Tribes.

6. If this work is not continued the following, as a minimum, consequences will occur:

a. The EPA database will not be completed.
b. The EPA incomplete database will not be updated.
c. The EPA incomplete database will be obsolete in four (4) months.
d. The mechanism now in place to obtain this data and complete this most important database will fall apart.
e. EPA will have broken another promise to the Native Americans/American Indians.

7. In December 1993, after discussing these issues with the Office of Technology Assessment (OTA), I was invited to testify before Senator Lieberman's Subcommittee. We demonstrated the EnviroText system by placing computer monitors in the hearing chamber and by means of a portable computer dialing the mainframe and answering, on line, the Senator's questions. We were told that was the first live computer demonstration to have been presented in a U.S. Senate Hearing Chamber. I don't know if this is the time but Senator Lieberman was favorably impressed to see a Federal Program that works. He has been in contact with EPA about this project.

8. If you wish to further discuss these issues, please call me at 703-761-6160.

Copy to:
Robin Grove

PUEBLO OF ACOMA
"THE SKY CITY"
P.O. BOX 309
ACOMA, NEW MEXICO 87034

OFFICE OF THE GOVERNOR

TELEPHONE 505/552-6604
FAX 505/552-6600

April 8, 1994

The Honorable Bill Richardson, Chairman
Native American Affairs Subcommittee
1522 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Richardson:

The purpose of this letter is to request your assistance in correcting what appears to be yet another attempt on the part of a Federal agency to ignore the interests of Native Americans.

The U.S. Environmental Protection Agency (EPA) has been working for over three (3) years on a project which is multi-agency funded, to put Federal, State, and Indian Tribal Environmental laws on a major computerized information system. This information management system is known as EnviroText Retrieval System, or simply EnviroText. EnviroText is to be an on-line, dial-up from a PC with a modem to a mainframe at the University of Illinois' Environmental Requirements Library. The plans were that all environmental laws, regulations, etc., would be contained in EnviroText. It would literally be a desk top Environmental Law Library. In September 1993, Carol Browner of EPA stated:

"We all know the environmental law--and therefore environmental regulations--is growing more and more complicated. It's even complicated to find out what the rules are. Local officials have pointed out that the right information has been very difficult to find, and then when they do find it, it's very confusing. As a result, one of the first things EPA needs to do is let everyone know just what they are responsible for in a way that they can understand..."

EnviroText is a multi-agency program with the objective of doing just this.

The EPA is continuing to develop and implement the Federal and State portion of EnviroText but is discontinuing the development and implementation of the Indian Tribal portion of EnviroText.

Over the past two and one-half years, the EPA has collected and developed an Indian Tribal Environmental Law database. This database is to be the Native American portion of EnviroText. This Indian Tribal Environmental database now contains environmental

It is hard to understand why the EPA is continuing the Federal and State portion of EnviroText and not developing the Indian portion. I respectfully ask you to obtain the answer of this question. Most tribal environment codes are oral while a few tribes have established written codes. EnviroText would be beneficial to tribes, state, and federal agencies, especially if it contained federal Indian law regarding environmental quality. At the very least we think EnviroText should contain federal statutory law on Indians, such as Title 25 United States Code Annotated and 25 Code of Federal Regulations, and include EPA's Tribal Environmental Law database. Federal treaties, Executive Orders, and other federal agreements with tribes, could all be eventually included.

Any assistance you can provide relative to this matter will be greatly appreciated.

Sincerely,

for/ Reginald T. Pasqual
Governor

SP:RTP:gg

CRI Consulting Resources, Inc.
1317 Vincent Place • McLean, Virginia 22101
Phone: (703) 761-6160
FAX: (703) 761-4303

FAX TRANSMISSION SHEET

Date: 5/18/94
To: Nancy Fox
Fax Number: 456-2710
From: Robin Grove Phone: 202-234-8487
RE: Envirotext; May a letter from Linda to EPA
Number of pages, including this page: 5

****

Nancy - Following is a copy of my earlier memo to Sue (actually from Hank Porterfield, President of CRI) and a letter of support from the Pueblo of Acoma to Congressman Richardson concerning this project. The total amount involved, $300,000, to complete this project is only 1/50 of 1% of EPA's Superfund budget! Even if we could spread out the completion over 2 years, i.e. $150,000/year - it would be better than letting it die altogether and waste the investment to date. EPA contact is Martha Prothro at

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

(May 30, 1994)

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Honorable John McCain
United States Senate
Washington, D.C. 20510

Dear Senator McCain:

Thank you for your letter of May 23, 1994, to Administrator Carol Browner regarding the Indian Tribal Environmental Law Database Project. Your letter was referred to me for response. I appreciate your concern regarding the continued development of this database as part of the interagency system, EnviroText, and would like to assure you that our commitment to the Indian tribal database has not terminated.

At the end of 1994, the EnviroText system will move from a pilot system to full access. The U.S. Army Construction Engineering Research Laboratory (CERL) is responsible for technical management of the full access system, including expanding and updating datasets. The federal agency sponsors of the system will form a configuration management board to provide direction to CERL regarding the priorities for expansion, updating and funding. Funding will be provided to CERL from the sponsoring federal agencies based on the board's direction.

EPA considers all elements of its environmental protection programs related to Indian tribal matters to be of the highest agency priority. We will continue to present the expansion and maintenance of the Indian Tribal Environmental Law Database to the EnviroText configuration management board as an Agency priority. We are also examining the availability of additional funding to augment that already provided in Fiscal Year 1994 for this database. I am confident that the objectives for the Indian tribal database will be met and that your concerns will be addressed by these actions.

Sincerely,

Stephen Luftig

for Henry L. Longest II
Director
Office of Emergency and Remedial Response

JOHN McCAIN
ARIZONA

COMMITTEE ON ARMED SERVICES
COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION
COMMITTEE ON GOVERNMENTAL AFFAIRS
COMMITTEE ON INDIAN AFFAIRS
SPECIAL COMMITTEE ON AGING

United States Senate

111 RUSSELL SENATE OFFICE BUILDING
WASHINGTON, DC 20510-0303
(202) 224-2235

1839 SOUTH ALMA SCHOOL ROAD
SUITE 375
MESA, AZ 85210
(602) 491-4300

2400 EAST ARIZONA
BILTMORE CIRCLE
SUITE 1150
PHOENIX, AZ 85016
(602) 952-2410

450 WEST PASEO REDONDO
SUITE 200
TUCSON, AZ 85701
(602) 670-6334

TELEPHONE FOR HEARING IMPAIRED
(202) 224-7132
(602) 952-0170

May 23, 1994

The Honorable Carol M. Browner
Administrator
Environmental Protection Agency
401 M. Street SW
Washington, D.C. 20460

Dear Administrator Browner:

I am writing to you regarding the Indian Tribal Environmental Database Project.

It is my understanding that the Indian Tribal Environmental Database Project was intended to compile Native American tribal environmental laws, codes and regulations and that this data would be included in a larger environmental information system known as the EnviroText Retrieval System. I have been informed that the database program has been terminated, though the project is not yet complete. Supporters of the project contend that there are additional codes that may merit inclusion in the database.

As the Vice Chairman of the Senate Committee on Indian Affairs I'm vitally interested in programs affecting Tribal communities. Please inform me the reasons for the cancellation of the database project. In addition, I would like to know if the Environmental Protection Agency will seek another manner in which the remaining codes can be included in the EnviroText Retrieval System.

I appreciate your assistance and look forward to hearing from you.

Sincerely,

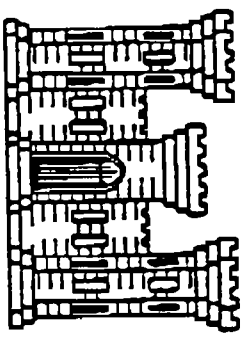
John McCain
United States Senator

JM/mcj

Reply: 111 Russell Bldg.
Washington, D.C.
Attn: Paul Feeney

The two letters (to Porterfield & Sen. Cain) were written by my branch chief, who never showed me the incoming or outgoing letters. Expediency at the expense of truth.

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
WASHINGTON, D.C. 20314-1000



FAX TO: HENRIETTA DEGROOT **OFFICE:** Domestic Policy
FAX PHONE: 6202 456-7028 **DATE:** 7-12-94
SUBJECT: [redacted] Enviro Text **PAGE 1 OF** 7

INTERAGENCY ENVIRONMENTAL
SUPPORT BRANCH
ENVIRONMENTAL RESTORATION DIV.
DIRECTORATE OF MILITARY PROGRAMS
FAX: (202) 272-0615
PHONE: (202) 504-5145

I'd like that they owe me.

Two things, upon reflection: ① Henry Longest is Director of the Superfund Program & reports to Elliott Laws, Director of Office of Solid Waste & Emergency Response. I think Elliott is the one to contact, instead of Sheckells. ② I expect retaliation in the half-year performance

The EnviroText Retrieval System, Summer 1994

EnviroText, a full-text retrieval knowledge base, is being developed by the U.S. Environmental Protection Agency with matching funds and data from the Departments of the Army, Defense, Energy, the Interior/Bureau of Mines, and Justice. In August 1993, users in the sponsor agencies began a one-year pilot test of the system, while the U.S. Army Construction Engineering Research Laboratories (CERL) completes the data acquisition, software development, and establishment of the EnviroText Support Center at the University of Illinois. Resident on the UNIX mainframe of the University, EnviroText will be opened to the public in early 1995 as a not-for-profit national resource.

This shared Federal/State system provides a one-stop library for government staffs, Environmental Justice proponents, citizen groups, site managers, project reviewers, environmental media specialists, planners, students and other researchers, and lawyers.

- o Topics include: ecosystem protection, natural resource trusteeship, pollution prevention, site restoration, occupational safety and health protection, RCRA compliance, and identification of potential Federal and State ARARs (Applicable or Relevant and Appropriate Requirements) under CERCLA.

- o Environmental datasets include: U. S. and States' laws and regulations (full texts and abstracts), U. S. Executive Orders, U. S. Indian policies and Indian tribal codes, international treaties and agreements, pending Congressional legislation, Federal Register, and policies of Federal agencies.

Designed to provide easy public access to environmental requirements, EnviroText--even in its pilot phase--promotes interagency and intergovernmental cooperation, as well as faster, more thorough research, and economical use of public funds for information collection and distribution. To realize the advantages of this system, the headquarters Superfund Office (or OERR) has provided copies of the EnviroText Self-Study Guide to the 10 Regional technical assistants (see attached list) to promote the use of this system as a means of saving research and decision-making time in the CERCLA remedy selection process. To accomplish that end, OERR is providing CERL funding to support the online costs for Superfund-related EPA staff to use the system during FY 1995.

EnviroText has now been recognized by the Vice President's National Performance Review office, as part of the proposed RegNet, which is a national reinvention laboratory for data systems to support regulatory reform. This designation will provide new funding options and more widespread publicity.

EPA Contact: Jim Cliatt (703) 603-8877
Superfund Office of Program Management, Mail Code 5201G,
U. S. Environmental Protection Agency,
401 M Street, S. W., Washington, DC 20460

The EnviroText Retrieval System

AN INTERAGENCY DEVELOPMENT PROJECT

of the

U. S. Environmental Protection Agency
and
U. S. Army Construction Engineering Research Laboratories

with
The University of Illinois

With Matching Grants From :

U. S. Army

U. S. Department of Defense

U. S. Department of Energy

Bureau of Mines, U. S. Department of the Interior

and

U. S. Department of Justice

Contact: Gerald DiCerbo, Chairman of Federal Sponsors Group
U. S. Department of Energy, (202) 586-5047

The EnviroText Retrieval System

EnviroText, a full-text retrieval knowledge base, is being developed by the Departments of the Army, Defense, Energy, the Interior/Bureau of Mines, and Justice and the U.S. Environmental Protection Agency. In August 1993; users in the sponsor agencies began a one-year pilot test of the system, while the U.S. Army Construction Engineering Research Laboratories (CERL) completes the data acquisition, software development, and establishment of the **EnviroText** Support Center at the University of Illinois. Resident on the UNIX mainframe of the University, **EnviroText** will be opened to the public in early 1995 as a not-for-profit national resource.

Advantages for EnviroText Users

o **Comprehensive knowledge base** for **State/local/Federal agency staffs**; Environmental Justice proponents; citizen groups; environmental **site managers and project reviewers**; environmental media specialists and planners; and, environmental researchers and lawyers. Extensive collection of requirements for:

--Ecosystem protection--Natural resource trusteeship--pollution prevention--
--Site restoration--Environmental health protection--
--Occupational safety and health protection--

o **Easy-to-use library** of potential Federal and State ARARs (Applicable or Relevant and Appropriate Requirements, under CERCLA, The Comprehensive Environmental Response, Compensation, and Liability Act).

o **Rapid cursory review of abstracts of US and State regulations and statutes,** and **easy retrieval of full texts** of US and State regulations and statutes, US international treaties, US Native American policies, Indian tribal law codes, EPA Superfund publications and datasets, other Federal agencies' guidance. and much other environmental/OSHA information.

o **Savings of development costs** of less comprehensive, duplicative text retrieval systems. **Savings of multiple subscription costs** for vendors' printed and automated services of partial data sets. **Savings of natural resources** associated with production of paper for the reference materials now contained on EnviroText in electronic format.

o **Economical capture of prior investments** in the hardware and institutional arrangements of the Army Construction Engineering Research Laboratories (CERL) and the University of Illinois, originally designed to support the management and O & M of CELDS, the Army Corps of Engineers' online system of abstracts of State and Federal regulations.

o **Enhanced interagency and intergovernmental cooperation** in environmental programs through quick, full-text retrieval of numerous datasets, including the following:

Contents of the EnviroText Retrieval System

Statutory Datasets

- Full texts, United States Code (USC)
- Full texts, Federal Facilities Compliance Act of 1992 (PL 102-386) with Memorandum for Environmental Law Specialists
- Abstracts, 75 Federal environmental statutes
- * Abstracts, 50 additional Federal environmental statutes
- * Full texts, State environmental and occupational safety and health statutes and regulations
- Abstracts, State environmental criminal statutes
- Public Laws, 101st, 102nd, & first session of 103rd Congresses

Regulatory Datasets

- Codified Federal Regulations (CFR)
- Full texts of all Federal environmental and occupational safety and health regulations
- Abstracts, all Federal and State environmental regulations
- Unified Agenda of Fed. Regs. (4933 regulations proposed or in progress)
- * Federal Register
- * Full texts, State environmental and occupational health and safety regs

Congressional Datasets

- * Legislative Histories (Bills, debates, hearings, public laws, reports): Public Lands, CERCLA/SARA, National Forests, Trans-Alaska Pipeline
- * Congressional Update (pending environmental legislation)
- * Congressional Record

Native American Datasets

- U. S. Indian policies (treaties, proclamations, memoranda, Exec. Orders)
- * Indian Tribal environmental law codes (will be online week of July 18)

International Agreements Datasets

- * International agreements and treaties
- * Unpublished Department of Defense international agreements

Agency/Executive Datasets

Council on Environmental Quality: Forty Questions About NEPA

Department of Justice, Environment & Natural Resources Div. (ENRD)

- * Briefs and Monographs
- * Consent Decrees
- * Legislative histories (see Congressional Datasets, above)

[(*) indicates dataset to be added during FY 1994]

/more

Contents of the EnviroText Retrieval System, continued:

Department of the Interior

- Matrix of 50 States--contacts on river protection
- National Register of Historic Places, State Historic Preservation Officers
- National Wetlands Inventory Fact Sheets and Information
- Outstanding Rivers List
- River Conservation Directory
- River Mileage Classifications for Components of the National Wild and Scenic Rivers System
- Status of Wild and Scenic Rivers Studies
- Treatment of Special Aquatic Sites in Environmental Evaluations
- Wetlands and 401 Certification

Environmental Protection Agency

- Compendium of Superfund Program Publications
- * EDRS (Enforcement Document Retrieval System) database
- General Counsel Opinions
- Introduction to ARARs
- National Oil and Hazardous Substance Pollution Contingency Plan (NCP), plus preambles of 1988 and 1990
- RODS (Superfund Records of Decision System) database
- * Superfund site assessment guidance
- * Technical Impracticability of Ground-Water Restoration, guidance for RCRA Corrective Action and Superfund Programs
- Water Quality Standards for Wetlands

Executive Office of The President

- Executive Orders and Presidential Proclamations
- Report of the National Performance Review: Creating a Government that Works Better and Costs Less, by Vice President Gore
- Revision of OMB Circular No. A-130, on Federal information policy

Help Menu Datasets

- * Introduction to EnviroText (demonstration available online and on diskette)
- System tutorial for using abstracts/full texts of datasets
- User Manual (available online and in hard copy)

Customer Features

- Customer service by 800-number telephone line
- Electronic Mail, Meetings notices, News (about newly-added datasets)
- * Guest login service

[(*) indicates dataset to be added during FY 1994]

EnviroText and Osiris
The University of Illinois Host Computer

The EnviroText Retrieval System runs on what is commonly called a mainframe, but which is more appropriately called a *mini-computer.* Named Osiris, the mini-computer that hosts EnviroText is maintained under a contract with the United States Construction Engineering Laboratories (USACERL) by the University of Illinois' Computing and Communication Services Offices (CCSO).

EnviroText is one of several R&D applications that reside on Osiris, which is intended for use as a research and development platform for USACERL projects. Other applications are the Army's Environmental Technical Information System (ETIS) and the Defense Enviromental Network & Information eXchange (DENIX).

Osiris is a Sequent Symmetry S81 machine, running a POSIX-compliant (Federal government standard) UNIX operating system called DYNIX/ptx V2.0.3. It is configured with six 386 CPU's running at 16MIIz and has 128MB of main memory. It has virtually unlimited disk space potential. There are fourteen (14) 9600 band WATS lines (to be expanded to twenty-two (22) shortly) and four (4) local lines connected to it.

Costs attibutable to usage on Osiris include connect time, CPU time,and disk use (data storage). Because data storage is fast becoming a major cost due to the enormous volumes of data being fielded in EnviroText, the less expensive alternative of storing the data in-house at CERL is being studied. Other costs involve hardware/software maintenance, communications, and indirect costs. EnviroText users incur a proportionate percentage of these costs based on their connect time, as well as any other costs associated with access to one of the value-added applications within EnviroText known as EREGS, containing abstracts of State and Federal environmental regulations.

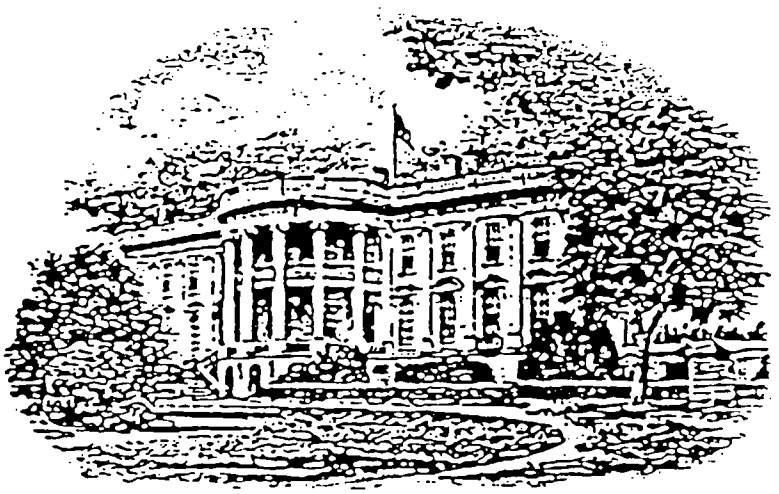
During Fiscal Year 1994, while the development project is being completed, some users in the sponsor agencies (EPA, DOD, DOE, DOI/Bureau of Mines, DOJ) were issued passwords and are trying out the system. For this pilot test year, connect time is being billed at the rate of $25.00 per hour. EnviroText is scheduled to be opened to the public in 1995 and run at cost (not for profit), with user fees set as low as possible. Since the University of Illinois mini-computer is accessible through the InterNet system, CERL and the sponsor agencies are investigating the potential for access via the InterNet and other gateways to the EnviroText Retrieval System at no cost to users.

CUSTOMER SERVICE HELP LINE: 1-800-NET-ETRS

DATE: _____
TIME: _____

THE WHITE HOUSE

WASHINGTON



FAX COVER SHEET

TO: Anna Raymond

PHONE: ( ) 260-2159

FAX: ( )

FROM: Henrietta DeGroot

PHONE: (202) 456-5572

Thanks for your help on this

PAGES FOLLOWING COVER SHEET: _____

SEARCH MODIFICATION COMMANDS

domain Allows the user to pre-select the data fields to be examined during a search. If used alone, the command prompts the user to choose the fields to be examined.

domain
domain <field abbrev>_<field abbrev>
domain all

prompt Allows the user to choose the fields to be examined for each search term in a search statement

prompt on or **prompt off**

status Displays the current settings of domain, prompt, and verbose. If the user wants to use ETRS's default settings, use "status default"

status domain
status prompt
status verbose
status default

verbose Turns on an automatic display of the intermediate results of a search

verbose on or **verbose off**

COMMANDS FOR SAVING AND REUSING SEARCH STATEMENTS

delete Deletes a file(s) from your home directory on OSIRIS that contains previously saved search statements

delete <file name>

history Displays all search statement numbers and their accompanying search statements executed during the current ETRS session

history

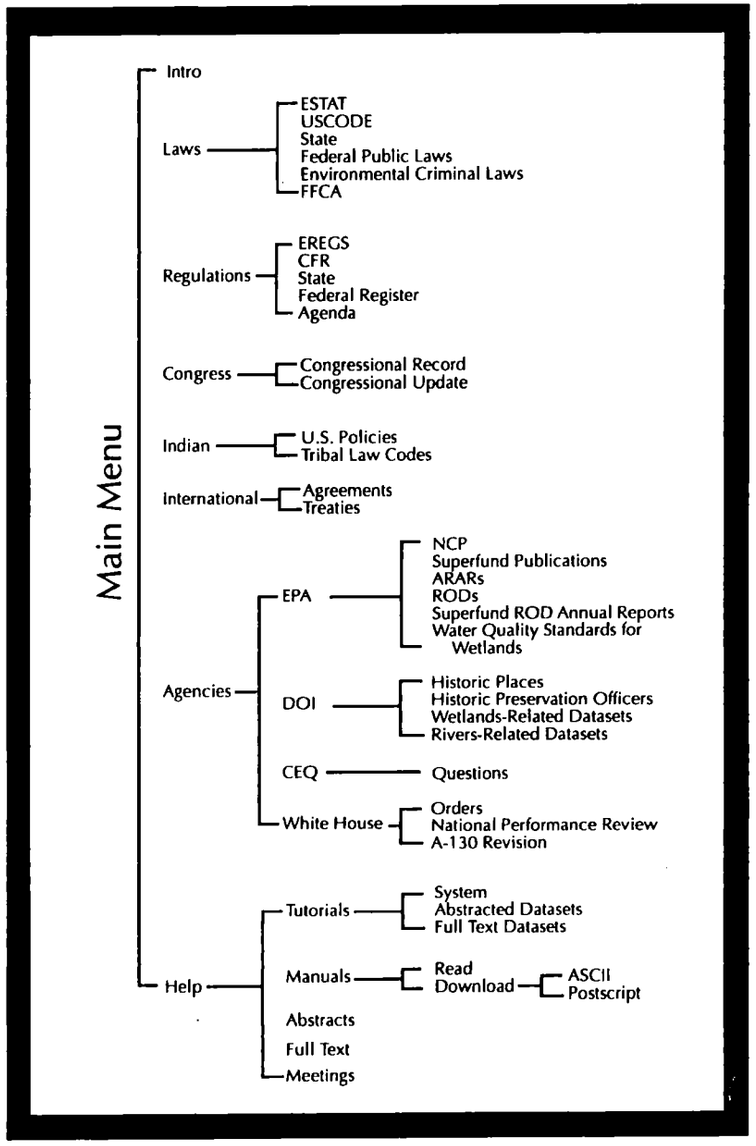
restore Retrieves from the user's home directory on the OSIRIS mainframe a file that contains a previously saved search statement(s) and re-executes the saved search(es)

restore <file name>

save Allows users to save a search statement(s) to their home directory on the OSIRIS mainframe; statement(s) can later be accessed while using ETRS

save_search statement #_<file name>

ETRS MENU STRUCTURE*



* **NOTE:** Some datasets are not available at this time. The datasets that are available will be highlighted on their respective ETRS menus. Other datasets not shown here will be added during Fiscal Year 1994.

March, 1994

EnviroText at a glance

The *EnviroText* Retrieval System (ETRS)

DEFINITIONS OF TERMS USED TO ILLUSTRATE ETRS COMMANDS

field abbrev	Three-letter abbreviation for a field name
argument	Additional data, either numeric or text, required for execution of an ETRS command
command name	Full name of an ETRS command
file name	Name of a file
keyterm	A group of search terms on topics of environmental concern
n	A number
search term	Any string that is valid to use in a search
search statement #	The chronological number of a previously executed search statement
string	A string of alphanumeric characters
< >	Denotes that the enclosed item is a variable specified by the user
_	Denotes that a space should be entered between arguments if choosing more than one

For assistance with any aspect of using ETRS, please contact the *EnviroText* Support Center (ESC) between 8:00 AM and 5:00 PM (Central Time) Monday through Friday

1-800-NET-ETRS
(1-800-638-3877)

COMMANDS FOR FINDING RELEVANT TERMS

expand Provides additional information on keyterms that are included only in the abstracted datasets

expand <keyterm>

locate Displays an alphabetical listing of valid search terms in a dataset index that begin with a user-specified character string

locate <string>

search Displays an alphabetical listing of valid search terms in a dataset index that partially contain or fully match a user-specified character string

search <string>

BOOLEAN OPERATORS AND OTHER TERMS USED TO CONDUCT A MORE SPECIFIC SEARCH

and Combines the results of two search terms, narrowing the search set by retrieving only those records that meet the criteria of both search statements

<search term> **and** <search term>

except Combines the results of two search terms, narrowing the search set by excluding those records that meet the criteria of the "excepted" search statement

<search term> **except** <search term>

or Combines the results of two search terms, broadening the search set by retrieving records that meet either or both criteria of the two search statements

<search term> **or** <search term>

w@<n> Combines the results of two search terms, narrowing the search set by retrieving only those records that contain the search terms physically located within a specified number (<n>) of words of each other

<search term> **w@<n>** <search term>

! Re-executes a search statement already performed during the current dataset session

! <search statement number>

***** Broadens a search by retrieving records with partial matching of search terms

<partial search term string>*****

INFORMATIVE/HELP COMMANDS

control D Enables the user to break out of an activated search by simultaneously typing "control" and "D"

help Provides information about dataset fields and commands used in ETRS. Command can be used alone or with a designated command or field name

help
help <command name>
help <field name>

news Provides information about recent program developments, meetings, and additions of new keyterms to the ETRS abstracted datasets

news

m Enables the user to access the electronic mail system (Elm) while working within ETRS. Information on how to use Elm is provided in the *ETRS New User Information Guide.*

SPECIAL KEYS TO BE USED WHEN VIEWING RECORDS

f	Page forward
b	Page backward
Enter	Line down (forward)
u	Line up (backward)
t	Top of text
e	End of text
/	String search forward
?	String search backward
n	Next occurrence of a string
h	Help screen (displays this list of "special keys")
i	Case sensitive/insensitive search
k	Next occurrence of a search term
x	Download text to your computer
s	Save text to a file located on the OSIRIS mainframe
r	Return to the previous screen where you can begin another search or travel to another menu

OUTPUT COMMANDS

list Lists onscreen some or all of the fields of the records retrieved by the most recent search. The records continuously scroll from beginning to end without an option to browse through the records. See **view** for a description of the browse command

list
list <field abbrev>
list all

show Displays all record numbers retrieved by a search
show

show fields Displays datafield names, their description, and their abbreviations
show fields

show files Displays all files in the current dataset that have been saved using the save command
show files

show key Displays all keyterms that are available to use in a search. This command can only be executed in an abstracted dataset.

show key

view Displays on screen, in a paginated format, some or all of the fields of the records retrieved from the most recent search. When choosing to view a particular field, use the field's three letter abbreviation. If you do not know the abbreviation, use **view** by itself and it will prompt you for the fields you want to view.

view
view <field abbrev>
view all

COMMANDS FOR EXITING THE DATASET

quit Exits an ETRS dataset and returns to the previous ETRS menu. Alias commands: bye; exit; and leave

quit

INDIAN TRIBAL ENVIRONMENTAL CODES In EnviroText Retrieval System

EnviroText, a full-text environmental online library, is being developed by the U.S. Environmental Protection Agency's Superfund Office with co-sponsors, the Departments of Army, Defense, Energy, Interior/Bureau of Mines, and Justice. In August 1993, users in those agencies began a one-year pilot test of the system, while the U.S. Army Construction Engineering Research Laboratories (CERL) completes the database and establishes the EnviroText Support Center at the University of Illinois. Resident on the University's UNIX mainframe EnviroText will open to the public in late 1994 for access by 800-number or via InterNet, as a non-profit national resource.

Advantages for Native American Users

- Tribal codes to serve as (a) models for other tribes wanting to write their own codes, and (b) means of educating a tribe's members, State and Federal agencies, and the general public about preventing pollution and preserving and protecting natural resources on the tribe's properties. [Online ~~4/94.~~ July]

- List of tribal contacts related to codes, to promote communication. [4/94.]

- U.S. Indian Policies (treaties, agreements, proclamations, executive orders) for use in legal and historical research. [Now online.]

- State/Federal laws, rules, and guidance, concerning grants for environmental education, site restoration, compliance-related matters; ecosystem/health protection; Federal/Tribal partnership projects; and, environmental justice issues. [Abstracts/full texts now online, but States' texts still to be acquired.]

- Rapid cursory review of State/Federal abstracts.

- Fast and easy retrieval of all materials for saving, copying, and printing.

- Free use of EnviroText pilot system for all participating tribes. (If subsidized, all tribes' future use of public system would be free.)

Resource Needs

1. More Tribal Codes--171 codes collected so far (map attached) but only 127 codes (and relevant tribal contacts) will be put on EnviroText in April 1994.

2. Funding shortfall of $300,000--To computerize 44 codes already acquired, acquire/computerize about 200 more already identified, add entries related to those codes into the tribal contacts database. [Est.: 5,900 hrs. thru 3/95]

3. Funding shortfall of $50,000 for all tribes' free use of the public system--FY 1995 funding to EnviroText Support Center, to pay for tribal users' time on the system.

Contact: Rhea Cohen, ~~(703) 603-8878~~ (202) 504-5150 USACE

EnviroText

RETRIEVAL SYSTEM

(Pilot Version)

SELF-STUDY GUIDE

March 1994

Preface
Self-Study Guide for Users of the EnviroText Pilot System

This Self-Study Guide provides hands-on experience in accessing the database of the **EnviroText** Retrieval System and helps the new user to execute searches for environmental and occupational safety and health requirements and to save or print the needed information. It is expected that **EnviroText** will be particularly useful for Regional personnel who are responsible for managing, enforcing, or otherwise supporting Superfund Program activities.

The Office of Emergency and Remedial Response (OERR) has been collaborating with the U.S. Army Construction Engineering Research Laboratories (CERL) in a large-scale interagency project to develop the **EnviroText** Retrieval System as a major public resource. With the development project nearly complete, this knowledge base contains on-line, searchable, and retrievable text of Federal and State statutes and regulations, and much other related information. At this time, EPA, CERL, and the other sponsoring agencies--the Departments of the Army, Defense, Energy, Interior/Bureau of Mines, and Justice--are conducting a pilot test of **EnviroText.**

The OERR Office of Program Management initiated this project as a means of assisting Superfund personnel to identify potential Applicable or Relevant and Appropriate Requirements (ARARs) in accordance with CERCLA/SARA. Currently, in the OERR divisions, **EnviroText** provides rapid responses for queries and studies. This experience suggests that the system will become a highly valued resource for remedial project managers, on-scene coordinators, site assessment managers, and other personnel working on hazardous waste matters. Accordingly, all EPA Superfund-related employees are invited to use **EnviroText**, at no cost to their offices through FY 1995; that is, during that time period, the normal online costs will be covered through the OERR interagency agreement with CERL.

A word to the user of the Self-Study Guide: Please take the time to respond to the course evaluation questionnaire, which is included at the end of this training package. To discuss questions or comments, please call Jim Cliatt in the Office of Program Management, at (703) 603-8877.

Before you start...

- Get user login and password. See page I-6 of this self-study guide.
- Ensure that your computer can dial out through a modem set at 8-N-1 and between 1200 and 9600 baud, or that your computer is connected to Internet. You may need to show the instructions in the *New User Information Guide* and on page II-2 of this guide to your computer advisor.

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SELF-STUDY GUIDE

INTRODUCTION

Purpose. This guide is designed to train you to become proficient in using The ***EnviroText*** Retrieval System. Its modular, self-instructional format allows you to work through the material at your own pace. You will learn to use the system by acquiring hands-on experience in accessing the databases and in executing searches for regulatory information, such as Applicable or Relevant and Appropriate Requirements (ARARs). Whereas mastery of the system will come only after many hours of actual use, this guide will enable you to learn and practice the skills necessary to make the ***EnviroText*** databases an effective resource for gathering regulatory information during the remedial process.

Target Audience. The primary audience for which this training has been developed will include the following groups:

- Remedial Project Managers and On-Scene Coordinators
- Federal Facilities staff within the Superfund Branch
- Superfund Enforcement attorneys

The following assumptions have been made by the instructional designer about the knowledge and skills base of the potential audience for the guide:

- Basic understanding of the potential benefits of an electronic database for gathering information
- Knowledge of the remedial process
- No prior experience in using ***EnviroText***, although they may have knowledge of it
- No prior experience in using other online databases
- Unfamiliar with technical terms (*i.e.*, "jargon") or concepts related to database design (*i.e.*, system components or functions)
- Basic familiarity with computers

Instructional Approach. A combination of demonstration with practice is the best method to train the new user of ***EnviroText***. This method enables the user to observe the correct performance of the system commands and search techniques before being required to execute them himself or herself. With this in mind, each module has been designed to first present information necessary for understanding the module, such as the definition of terms and

concepts related to databases in general and ***EnviroText*** specifically. Detailed guidance is provided on how to use the system commands (not only **when** to use them but **why**). By "walking" you through the correct procedure to follow in using an ***EnviroText*** command, we hope to enable you to progress more quickly. Sample searches are demonstrated to reinforce and review the use of the commands needed to execute the searches. At the end of each module, you are given an opportunity to practice using the commands just taught.

Examples of complex searches are demonstrated and practiced only after all the commands included in an example have been taught. It is important to practice complex search strategies only after the simpler strategies have been mastered because the more complex search statements often combine several simpler techniques. After you have practiced the search strategy presented in the modules, you should be ready to develop your own strategies using the same techniques and principles. Each module is designed to take about three quarters of an hour to one and a half hours to complete; the time will vary according to individual capabilities and familiarity with the type of skills being taught.

Guide Materials. The following materials are included with this guide:

- ***EnviroText*** Reference Card
- Sample Partial Printout of Search Results
- ***EnviroText*** *Retrieval System User Manual*
- ***EnviroText*** *Retrieval System New User Information Guide*
- Application for a User Login and Password
- ***EnviroText*** Demonstration Disk

MODULE ONE

INTRODUCTION TO *ENVIROTEXT*

OBJECTIVES

The ***EnviroText*** Retrieval System, called ETRS or ***EnviroText***, is a database containing Federal and State statutes, regulations, and other legal texts of interest to the environmental community, including U.S. EPA Superfund personnel. This module will introduce you to the ***EnviroText*** system. After completing it, you should be able to:

1.1 List some of the benefits and capabilities of using ***EnviroText*** to search for regulatory information.

1.2 Describe the basic structure and organization of ***EnviroText***.

1.3 Describe the process for accessing the ***EnviroText*** System.

BENEFITS AND CAPABILITIES OF *ENVIROTEXT*

BENEFITS

Using ***EnviroText*** can simplify the process of finding current environmental information. For Federal and State Superfund staff who must ensure that all legal requirements are fulfilled during the remedial process, the use of ***EnviroText*** simplifies a thorough search for regulatory information. Using this powerful database not only saves time compared to that of a paper search, but also allows convenient and quick access to documents when immediate reference is important.

EnviroText is particularly useful to U.S. EPA Superfund personnel who must determine Applicable or Relevant and Appropriate Requirements (ARARs) for a site. This group includes:

- Remedial Project Managers
- On-Scene Coordinators
- Site Assessment Managers

- Superfund Enforcement Attorneys
- Federal facilities staff involved in Superfund cleanup and compliance activities

CAPABILITIES

EnviroText is a powerful tool for the search and retrieval of environmental data. Its features include:

- Flexible search capabilities that enable the user to search more precisely by narrowing or enlarging the search domain. Capabilities include full-text searching, use of "Boolean operators" to combine multiple search concepts, and word proximity searching;

- Several options for receiving output of data, which include viewing, downloading, and printing;

- Access to an electronic mail utility for communicating to system operators and other ***EnviroText*** users; and

- Several methods for obtaining help in using the system including online help, telephone (voice) support, and the ***EnviroText*** *Retrieval System User Manual.*

GENERAL BACKGROUND

WHY *ENVIROTEXT* IS NEEDED

New environmental laws and regulations are being enacted daily, which makes it difficult to obtain the most current information available. A system is needed to collect and organize this new information within a centralized repository for easy search and retrieval. This is precisely what ***EnviroText*** does: provides ready access to the most current and thorough information pertaining to environmental regulations, including compliance and cleanup requirements. While there are a number of other online systems available with regulatory and legal information, ***EnviroText*** offers a unique combination of State, Federal, Indian (Native American), and international databases that are unavailable elsewhere.

DATABASE HISTORY

EnviroText is being developed by the U.S. Army Corps of Engineers (USACE) Construction Engineering Research Laboratory, otherwise known as CERL. Development has been underway for approximately 4 years. The original database on which ***EnviroText*** is based was

called CELDS, the "Computer-aided Environmental Legislative Database System." Today, CELDS is just a small part of ***EnviroText***.

Several Federal agencies are cooperating in this effort by providing information and resources for the system. The participating agencies are the:

- Environmental Protection Agency
- Department of Energy
- Department of Justice
- Department of Defense
- Department of the Army
- U.S. Army Corps of Engineers
- U.S. Department of the Interior/Bureau of Mines

EnviroText resides within OSIRIS, a mainframe computer located on the campus of the University of Illinois in Champaign, Illinois. When you access or **login** to ***EnviroText***, you will be connecting to this mainframe computer. The Corps of Engineers maintains a contract with the University to manage, update, and provide user support for the ***EnviroText*** database.

CURRENT STATUS OF *ENVIROTEXT*

EnviroText is still under development and not yet available for general public use. However, Fiscal Year 1994 has been designated a "pilot" period during which the system is available to Federal agencies that have participated in its development. Personnel from these agencies are encouraged to use the ***EnviroText*** system and to report any problems they find by contacting the ***EnviroText*** Support Center or by leaving an electronic mail message for the system operator before logging out of the system. The Support Center's staff also welcomes any suggestions that might make the system more user-friendly. These comments will be used to upgrade and improve the system before it is opened to the public.

It is anticipated that by 1995 ***EnviroText*** will be ready for public use. It will offer the environmental community a convenient method to gather the pertinent legal information it needs. Throughout the pilot year, there is no charge for the cooperating Federal agencies to use the system. However, when ***EnviroText*** becomes available to the public, there will be a charge for connection and use.

ENVIROTEXT ORGANIZATION AND STRUCTURE

DATABASE ORGANIZATION

Let's begin this section on ***EnviroText*** by defining a **database**. According to Webster:

> A database is "a collection of data organized especially for rapid search and retrieval (as by a computer)."

From this definition, you can see that the key points in defining a database are that it is a **collection** of some type of data and that it is **organized** for easy use. ***EnviroText*** illustrates these features.

EnviroText is a collection of documents and other text from various sources stored in computer form. ***EnviroText*** contains documents, texts, and summaries with regulatory, legislative, and other legal information that can be used as a resource for supporting environmental cleanup and enforcement efforts.

EnviroText is organized or structured into collections called **datasets**. The two terms, dataset and database, are interchangeable. A typical dataset consists of information from a large document or set of documents, such as the *Code of Federal Regulations* (CFR) or the *United States Code* (USC).

Some of the datasets are **full-text** and some are **abstracts** of original texts. The full-text datasets contain the complete text of the original documents. Abstracted datasets do not contain the original text but are summaries of the key content of the document, law, regulation, statute, or treaty.

All datasets are broken down into individual units called **records**. For example, within the *United States Code* dataset, a record is an individual Section of the Code.

Each record within a particular dataset is organized into **fields** for searching. Each field contains specific information germane to the records of that dataset. All records of a particular dataset have identical field names, but the content of the fields are different for each record.

Using the example from the *United States Code* dataset, a record (which contains one Section of the Code) consists of several fields of information such as the section title, section number, citation, the text of the statute, and the source of the statute. However, the fields in another dataset may be different, depending on the type of information found in that dataset. For example, there may be no need for a field entitled "section number" because the records of this particular dataset do not contain section numbers as an organizing feature.

ENVIROTEXT STRUCTURE

The ***EnviroText*** Reference Card contains a diagram of the current and future datasets on its back panel. (The Reference Card is included in the accompanying packet of ***EnviroText*** materials.) All of the currently available datasets are full-text except for the EREGS and ESTAT Datasets, which contain only abstracts.

The datasets currently available to ***EnviroText*** users include:

- Abstracted Regulatory—EREGS Dataset (State and Federal regulations)
- Unified Agenda of Federal Regulations
- Abstracted Statutory—ESTAT Dataset (State and Federal statutes)
- Federal Facilities Compliance Act
- Compendium of Superfund Program Publications (CSPP)
- United States Code (USC)
- Code of Federal Regulations (CFR)
- National Oil and Hazardous Substance Pollution Contingency Plan (NCP)
- National Register of Historic Places (NRHP)
- State Historic Preservation Officers (SHPO)
- Executive Orders and Presidential Proclamations
- Superfund Records of Decision (RODs)
- U.S. Indian Policies
- National Guidance: Water Quality Standards for Wetlands
- Federal Public Laws
- Federal and State Environmental Criminal Statutes

The following datasets will be added during the current fiscal year:

- Indian Tribal Law Codes
- Congressional Record and Congressional Update
- International Agreements and Treaties
- State Laws (full-text)
- Federal Agency Information:
  - —Departments of Energy, Interior, and Defense
  - —EPA
  - —The Council on Environmental Quality

PROCESS FOR ACCESSING *ENVIROTEXT*

GENERAL INFORMATION

Before you can access ***EnviroText***, you must be assigned a user account and a password, which are assigned by the ***EnviroText*** Support Center. During the pilot year, accounts are available only to the agencies participating in the pilot. After the pilot year, accounts will be available to anyone, but account holders will have to pay for online charges. With your account name and password in hand, you will be able to connect or **login** to OSIRIS, the mainframe computer where ***EnviroText*** is located.

You have an application for an account and password in the packet of ***EnviroText*** materials that accompany this guide. Because each computer system setup is unique, you will need to confer with your computer personnel to determine the exact procedures you will need to follow in order to complete a successful connection.

You can access the OSIRIS computer in two ways: by dialing in using a computer, modem, and communications software; or through the Internet, using the **telnet** command (if you already have an Internet account with **telnet** access). During the pilot year, dial-in users can access OSIRIS through a toll-free number (see below).

GETTING HELP

EnviroText users have access to two types of help while searching the database: online help and a toll-free phone number for contacting the ***EnviroText*** Support Center. The online **help** command allows the user to get guidance at any time. The online help system provides explanations of how to use the ***EnviroText*** commands most effectively, how to use special function keys to control the display of data onscreen, and when to use special format or "syntax" (for example, using abbreviations) to enter commands. Online help is being upgraded during the pilot year in order to make it more context-sensitive; it will offer more specific feedback for users in addition to the general comments now offered.

The Corps of Engineers maintains and staffs the ***EnviroText*** User Support Center in Champaign, Illinois. Phone calls are accepted Monday through Friday between the hours of 8 am and 5 pm Central Time. The toll-free number is 1-800-638-3877. The staff can assist users who are having problems logging into the OSIRIS mainframe computer, and they can answer specific questions about using the system. More complete information about how to obtain help is provided in the packet of ***EnviroText*** materials that you have received.

SUMMARY

We hope that with this brief overview of ***EnviroText*** you will be motivated to learn more about the system and to use it when you search for regulatory information. The *User Manual* and other materials you have been given will provide you with a full description of the ***EnviroText*** system commands, search strategies, and datasets available.

A complete explanation of the search capabilities of the ***EnviroText*** system can be found in Chapters III through IX and Appendixes A, B, and F of the *User Manual.*

We think you will discover that the time-saving benefits of using ***EnviroText*** will more than compensate for the time you will spend in learning how to use it. Anyone who has used the system will be able to give you examples of how ***EnviroText*** has simplified their search for ARARs and other environmental regulatory data.

To see a preview of the ***EnviroText*** system at work, review the Demonstration Disk that is included in the materials accompanying this guide.

For information on the components of ***EnviroText***, see Chapters I and II and Appendix C in the *User Manual.*

Remember that login procedures will differ according to your local computer network configuration. To learn about login procedures, see the *New User Information Guide* and the application materials you received in the ***EnviroText*** packet. Remember also that you may call the ***EnviroText*** Support Center for help in accessing and using ***EnviroText***.

MODULE TWO

GETTING STARTED IN *ENVIROTEXT*:

BASIC PRINCIPLES

OBJECTIVES

In this module, you will become acquainted with a variety of features of ***EnviroText***. First, you will learn the basics of logging in and out of the system. Although the actual login procedures may vary from region to region depending on the LAN requirements, a commonly used procedure will be demonstrated. Then you will be given the opportunity for hands-on practice.

This module also is designed to familiarize the new user with the screen displays and other basic principles that must be taken into consideration when working within the databases. Such principles include the distinction between viewing records and giving the system commands to perform searches, how to navigate the system, and how to access online help.

After completing this module, you will be able to:

2.1 List and perform the steps necessary to login to ***EnviroText***.

2.2 Explain how the viewing mode of ***EnviroText*** differs from the command mode.

2.3 Describe some of the features and menu screens you will encounter when using ***EnviroText***: for example, the main menu, the command prompt, and navigation procedures.

2.4 Describe the three types of online help.

2.5 List and perform the steps necessary to logout of ***EnviroText***.

LOGIN PROCEDURE

It is possible to login to ***EnviroText*** either by dialing in or by using the Internet **telnet** command. A successful login means that you are connected to OSIRIS, the mainframe computer in which the ***EnviroText*** system is located. You will need to check with your computer personnel to determine the method you should use for accessing ***EnviroText***.

DIAL-IN ACCESS

1. ***EnviroText*** is accessed from your personal computer or LAN system, but you must first access a communications software package such as SmartCom®, Procomm Plus®, or CrossTalk®. The first step is to access the communications software that you will use to dial into ***EnviroText***.

2. The communications software establishes a mechanism for you to "dial into" OSIRIS. On most software systems, you can add the ***EnviroText*** phone number and settings to a menu of systems for dialing purposes. Generally, once you add a system to the menu, you can begin the dialing process by highlighting the name of the system or choosing its number from the menu.

   The procedure for entering a system into your communications software menu is not covered in this course. Each procedure is unique to a particular software, but the same function is likely to be possible using any communications software. However, if it is not possible to store the settings and number in a directory, you can always change the settings, and then dial in manually.

   Whether storing the settings for a menu or entering the settings manually for each call, the following settings should be used:

   - Phone number: 1-800-637-0958
   - Baud rate: 1200, 2400, 9600 baud
     (Select the one appropriate for your modem.)
   - Parity: none (or even)
   - Data Bits: 8 (or 7)
   - Stop Bits: 1
   - Duplex: full

- Terminal Emulation: VT100
  (It is mandatory that you use this setting because it supports all of the highlighting capabilities of ***EnviroText***. Highlighting is used to show those datasets that are currently available. It also is used to identify special search terms.)

Check your communications software manual or computer personnel for further instructions on the type of setup you will need for accessing ***EnviroText***. Once you have configured your software, initiate a call to connect to the ***EnviroText*** computer.

3. Once you are "connected," you will see the following login prompt:

   OSIRIS (wats) login:

   In order to access ***EnviroText***, you must be assigned a login account name. The ***EnviroText*** Support Center assigns account names and passwords. (You will be assigned a login account name and password after you send in the application enclosed with this guide.)

   Type in your "login account name" at the OSIRIS login prompt, using **lower-case characters** only. Then hit **<Enter>**.

   OSIRIS (wats) login: **<login account name> <Enter>**

4. This will take you to the password prompt as shown below:

   OSIRIS (wats) login: <login account name>
   Password:

   4.1 Enter the password assigned to you by the ***EnviroText*** Support Center. Passwords can contain upper- and lower-case characters. They must be between six and eight characters long and include at least one number. Be sure to enter your password exactly as it was given to you, using upper- and lower-case characters as required. (You may use upper- or lower-case characters at all other prompts in the database.)

For security reasons, the password is not displayed on the screen as you type it. Every 75 days, the system will automatically prompt you to change your password.

4.2 The first screen you will see after entering your password will be the system news screen. This news pertains to the entire OSIRIS system, not specifically to ***EnviroText***.

4.3 Next, you will be prompted to enter the type of terminal you are using. Since we set the terminal emulation to VT100 in Step 2, you can hit **<Enter>** and proceed to the next screen.

4.4 The next screen lists the user names of all users who are connected to the system at the time you login.

5. Following these initial login screens, the main OSIRIS system prompt is displayed:

"login account name" osiris/home/epa/"login account name" # >

At this OSIRIS prompt, type **etrs** (in lower case letters) and press **<Enter>** to get into the ***EnviroText*** databases:

"login account name" osiris/home/epa/"login account name" 1> **etrs**

6. Once you are in ***EnviroText***, you will be at the ***EnviroText*** Welcome and News screen. This screen gives a brief explanation of ***EnviroText*** and may contain news items specific to ***EnviroText***. It is illustrated on page II-6. From the news screen, in order to get to the Main Menu Screen, you must hit **r** for return. Then you can select from the datasets listed on the menu to begin your searching. As you enter each dataset, there will be a Dataset Welcome Screen that describes the dataset and displays the command line prompt. (See the example of the EREGS Dataset Welcome Screen on page II-7.)

INTERNET ACCESS

It is also possible to connect to ***EnviroText*** through Internet. If you have an account on a computer connected to Internet, you can connect to ***EnviroText*** using the **telnet** command.

1. From the system prompt of a machine connected to Internet, type:

   telnet osiris.cso.uiuc.edu

   The exact prompts you will see depend on the machine from which you login. Also, you may be dialing into the Internet machine, or your workstation may be directly connected. These instructions assume that you are already logged onto a machine that is connected to Internet.

2. Once you're connected, you'll see the login prompt:

   OSIRIS login:

   From this point, you can follow the same procedures used for dial-in access to ***EnviroText*** beginning with step 3, on page II-3 of this module.

DATABASE MODES

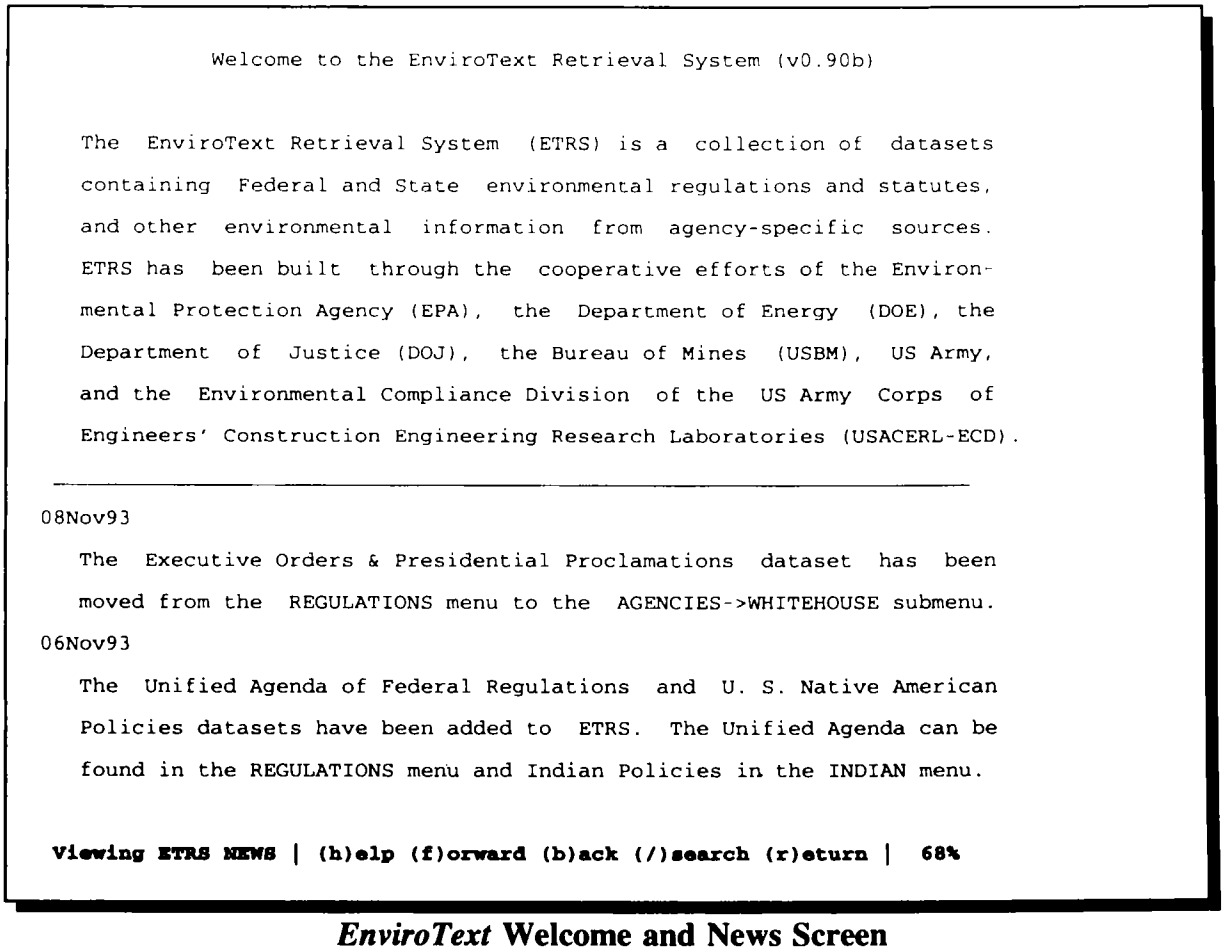
There are two basic "modes" or ways to function within ***EnviroText***:

- Viewing mode
- Command mode

Each of these modes has commands for operating within that mode. The viewing commands help you maneuver through onscreen text by controlling the display of the information as you view it. The system commands function by directing the system to search for or retrieve information from the database that can then be browsed through in the viewing mode, using the viewing commands. The two modes are illustrated in the displays on pages II-6 and II-7.

VIEWING MODE

The viewing mode is used in ***EnviroText*** whenever the system is displaying menus, records, news, or help screens. See the ***EnviroText*** Welcome and News Screen shown on this page. Notice the bottom left-hand corner, on the status line that says, "Viewing ETRS news...68%." This message indicates that you are viewing news and have seen 68% of it. If you wish to read all of the news, you can hit **f** to scroll forward until "100%" is displayed at the bottom right-hand corner of the screen. This denotes that you have reached the end of the news.



EnviroText **Welcome and News Screen**
(Viewing Mode)

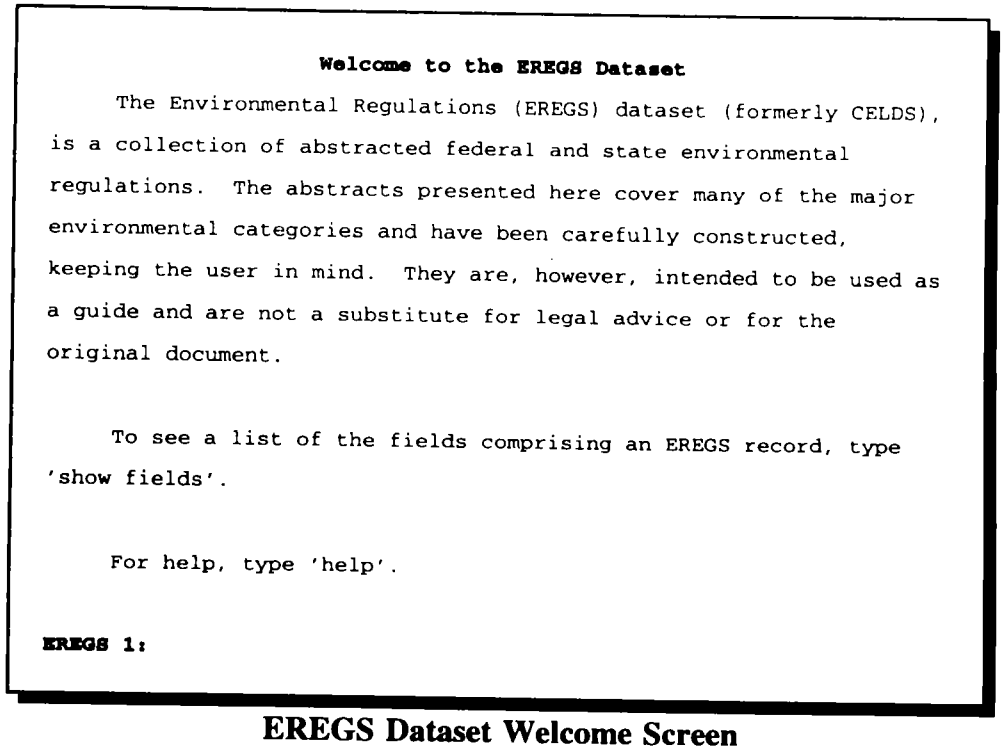
The status line also lists several options available to you while in the viewing mode of ***EnviroText***. A more complete list of viewing command options can be retrieved onscreen by selecting the **h** for help option from the list. These commands can be used only when you are in the viewing mode; they are not functional if you enter them at the command line prompt.

COMMAND MODE

The command mode is ***EnviroText's*** normal or default mode that allows you to enter commands or to search the datasets. Look at the sample EREGS Dataset Welcome Screen on this page. The final line of text, the command line prompt, reads "EREGS 1:"—this line includes the following items:

- Name of the dataset you are currently using
- Number, called the statement number
- Colon, after which commands or search terms are entered

At the command line, you may type in search terms or system commands (such as **help, locate, search, expand**), which will be executed when entered.



EREGS Dataset Welcome Screen (Command Mode)

ONLINE HELP SYSTEM

Online help is available from anywhere within ***EnviroText***. The help screens vary, depending on the type of help requested and on your particular location within the system. Let's look at the **help** command in terms of the three types of help screens:

- Dataset help (see the screen display illustrated on page II-9)
- Viewer help (see the screen display illustrated on page II-10)
- Command help (see the screen display illustrated on page II-11)

DATASET HELP FILES

Each dataset has a set of help files that list and define the ***EnviroText*** system commands and the data fields available in that dataset. The system commands are the same across all datasets, but the fields available for searching vary from one dataset to another. To see a list of the commands and fields for the current dataset, type **help** at the command prompt. The screen shown below is a Dataset Help Screen, which describes several types of available help.

At the bottom of the Dataset Help Screen, there is a list of options for you to use to browse through a **help** file. For example, when you are ready to exit the **help** screen, you must type **r** to return to the previous screen where you were located before you accessed **help**. The Dataset Help Screen only provides descriptive information; you cannot use it as a menu to access the specific types of help described there. In order to do that, you must return to the command prompt by typing **r**. Then you can enter the appropriate command and subcommand to learn more. (See the section entitled "Command Help Files" on page II-11.)

From the dataset help screen, you can select various options once you have returned to the command prompt by typing **r** for return. These options include:

- ***Option 1***. To learn how a system command works, from the command line prompt, type:

  help <command name>

  e.g., **help print**

- ***Option 2***. To see a description of a data field, from the command line, type:

  help <field name>

  e.g., **help title**

- ***Option 3***. To receive assistance in retrieving data records, enter:

  help find

```
The HELP command used with another system command, field name, Boolean operator or
value-added keyterm will give a definition of that concept.

 System Commands HELP:
 ---------------------
 help and        help help       help print       help search    help wildcard
 help delete     help history    help prompt      help show      help ?
 help domain     help list       help proximity   help status    help !
 help except     help locate     help quit        help stoplist
 help expand     help news       help restore     help verbose
 help find       help or         help save        help view

 Search Fields HELP:
 -------------------
 help abstract   help date       help record     help table
 help agency     help keyterm    help reference  help title
 help cfr        help mec        help state      help usc

 For retrieval of data records see "help find".

 Help  | (h)elp (f)orward (b)ack (/)search (r)eturn | 100%
```

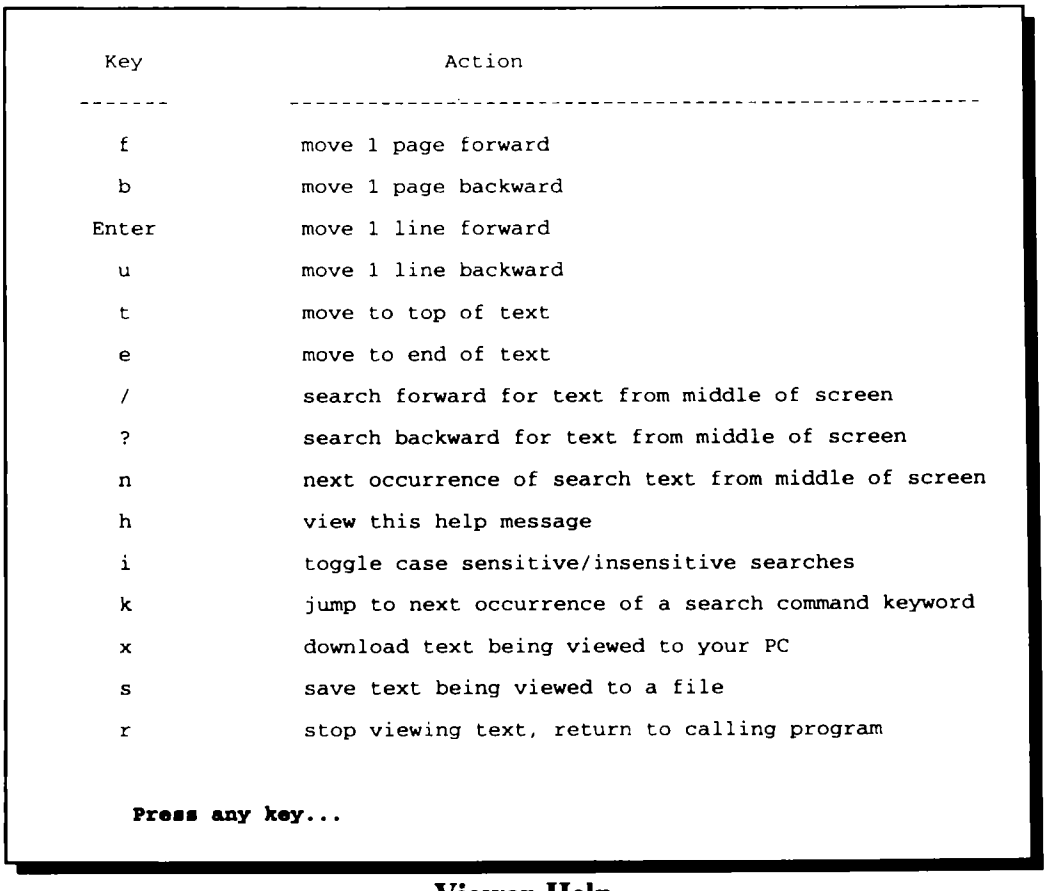
Dataset Help Screen

In all of these examples another term is required in addition to the basic command **help**. These terms are called "subcommands" or "arguments." (You will find them referred to as arguments in the ***EnviroText*** materials from CERL.) There are many terms that can be used as subcommands by ***EnviroText*** users. Throughout this course, whenever we want to

designate that you can use a subcommand as an addition to a command, we will include a description of the type of subcommand (enclosed in the symbols <>) that can be substituted. In our examples above, "field name" and "command name" are descriptive of the type of subcommands that can be used in conjunction with the **help** command.

VIEWER HELP

We first introduced the idea of "viewing commands" on page II-6 in the discussion of the viewing mode of ***EnviroText***. Any time you have accessed a **help** file or are viewing output as a result of a search, you will see in reverse video at the bottom of the screen a list of options that you may access while in the viewer mode. One of these options is **h** for help, which displays a more complete list of keystroke commands for browsing (shown below). The list of options always appears at the bottom of the screen whenever you are viewing output or a **help** file. The ***EnviroText*** Reference Card lists these keystroke commands in the section entitled *Special Keys To Be Used When Viewing Records.*



Key	Action
f	move 1 page forward
b	move 1 page backward
Enter	move 1 line forward
u	move 1 line backward
t	move to top of text
e	move to end of text
/	search forward for text from middle of screen
?	search backward for text from middle of screen
n	next occurrence of search text from middle of screen
h	view this help message
i	toggle case sensitive/insensitive searches
k	jump to next occurrence of a search command keyword
x	download text being viewed to your PC
s	save text being viewed to a file
r	stop viewing text, return to calling program

Press any key...

Viewer Help

COMMAND HELP FILES

There is a **help** file for every ***EnviroText*** command. These command **help** files can be accessed from the command line prompt. The example below is the help file for the **locate** command.

```
EREGS 1: help locate

 L O C A T E   HELP FILE.

 LOCATE used with a search term will give an alphabetical listing
 of terms in relation to the specified term.  LOCATE displays a range
 5 terms up and 5 terms down of the valid search terms that are
 adjacent to the requested search term.  Any value-added keyterms
 will be shown highlighted.  For example,

 1: locate sulfur dioxide
 substrates
 sulfates
 sulfides
 sulfite pulp mills
 sulfur
 ==>sulfur dioxide
 sulfur recovery plants
 sulfuric acid
 sulfuric acid mist
 sulfuric acid plants
 sulfuric acid production units

 Help locate | (h)elp (f)orward (b)ack (/)search (r)eturn | 100%
```

Command Help File: The Locate Command

When you want to exit a **help** file and return to the screen where you were located before you accessed **help**, type **r** for return. (Notice this command as one of the choices listed on the line at the bottom of the screen.)

MENU SYSTEM CONCEPT

NAVIGATING WITHIN *ENVIROTEXT*

The various datasets in ***EnviroText*** are organized into a "menu tree" structure. The main menu is the entry point to the ***EnviroText*** menu system and is referred to as the "parent" menu; from it, you can be routed to all the other menus. Any other menu that also contains submenus is considered the parent of its submenu options.

If you examine the diagram of the menu structure on the back of the ***EnviroText*** Reference Card, you will notice that each level of the diagram represents a separate level of menus, with some submenus branching further into other submenus.

You must understand the organization of this menu system so you will be able to move or navigate effectively from menus to the various datasets. In order to maneuver within ***EnviroText***, you must move forward and backward through the series of parent menus and their submenus in order to get to the dataset you want to use. As you navigate through ***EnviroText*** from the main menu, to submenus, to datasets, the selection of topics becomes more specific because the type of information contained within the datasets covers a narrower subject matter or area of interest than that described by the menu selections.

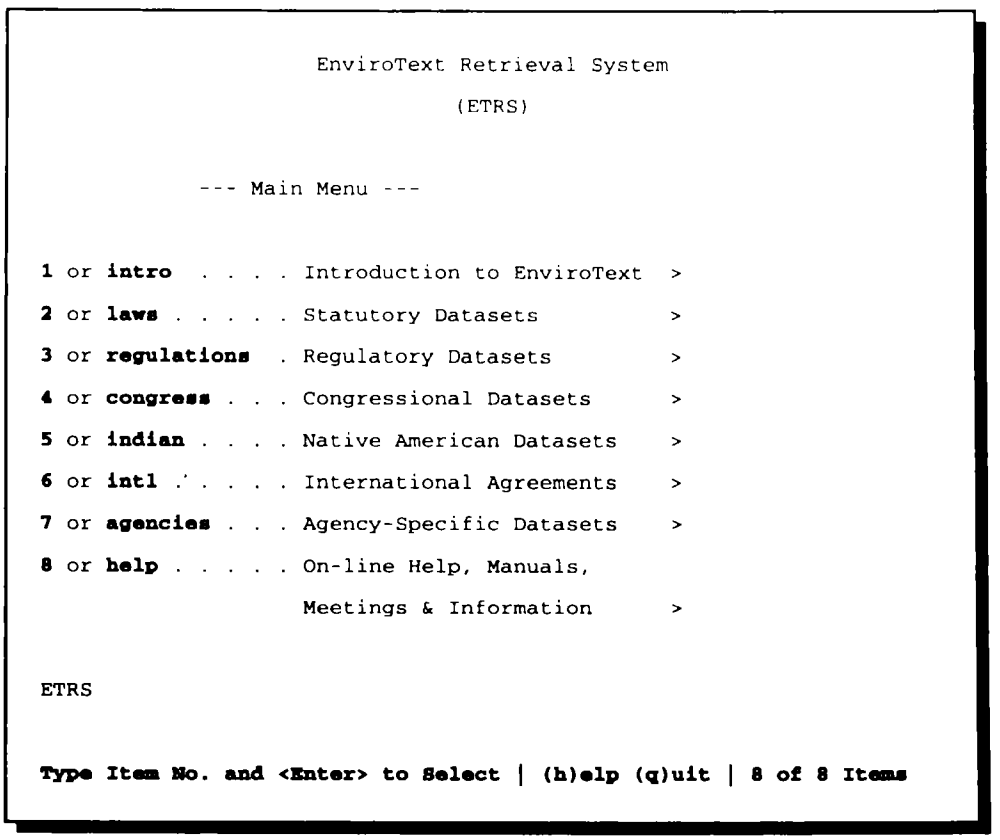
When you work your way through the menu structure, you will ultimately end up choosing a dataset. When you enter a dataset, you are introduced by a welcome screen that describes the scope of the dataset, makes some suggestions on how to proceed, and displays what is called the command line prompt. (See the EREGS Dataset Welcome Screen on page II-7.)

Once you are at the dataset level, you cannot get to a different dataset without first returning to the current dataset's parent menu: that is, you must "back out" of the dataset by returning through the same series of submenus and parent menus in reverse order. Once you reach the parent menu that contains the dataset you wish to search next, you can enter that dataset by typing the number listed on the menu for that dataset.

MENU SCREENS

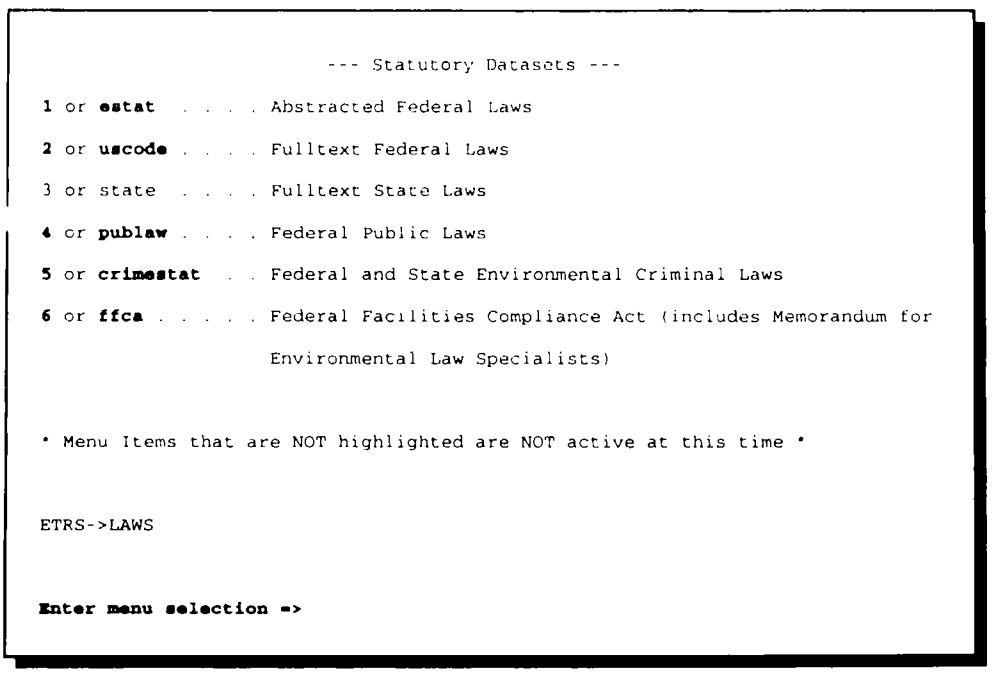
All menu screens in ***EnviroText*** have a similar layout for ease of use (see Main Menu illustration below), and they display the following information:

- Menu title
- Numbered list of choices; if the choice is a submenu, there will be an arrow (>) beside it at the far right of the screen



The *EnviroText* Main Menu

Since ***EnviroText*** is still under development, some of the options on the various menus are not yet available for access. The datasets that are currently available for searching are highlighted online in reverse video. As an example of what the submenu screen displays look like, the Statutory Datasets submenu is illustrated below.



Statutory Datasets Submenu

LOGOUT PROCEDURE

Disconnecting from ***EnviroText*** is done in a series of steps similar to the login procedure:

1. Exit from your current dataset and return to the dataset menu screen. Do this by typing **bye** from the command line.

2. Exit from ***EnviroText*** by typing **q**.

   You will be asked by the system whether you really want to exit ETRS. Type **y** for yes. You will then be asked if you want to leave a message for the ETRS system operator. If so, type **y** for yes. If not, type **n** for no.

3. Exit from the OSIRIS mainframe by typing **logout** and then hitting **<Enter>**.

APPLICATION AND PRACTICE

You should now be able to login and logout of the ***EnviroText*** Retrieval System. Once you get logged in, practice navigating through the menus, reading some of the dataset Welcome Screens, and using the Online Help system. Then logout of the system. (You may want to copy your local login/logout procedure in the space provided below.)

YOUR LOCAL LOGIN/LOGOUT PROCEDURE:

MODULE THREE

FORMULATING A SEARCH STRATEGY

OBJECTIVES

In this module, an emphasis will be given to the thought processes that you might use to search ***EnviroText*** for regulatory information relating to Superfund. As a result of this preparatory work, the time spent actually accessing the databases will be shortened, saving time and money in the long run. The module attempts to teach how to conceptualize a search and how to go about developing an effective search strategy.

Formulating a search strategy consists of (1) identifying the type of information you need to obtain, *i.e.*, answering the question: "What is the goal of your search?" and (2) generating search terms or statements that might be likely to retrieve the pertinent records containing this information.

After completing this module, you should be able to complete the following objectives:

3.1 Identify your search goal by identifying the type of information you need to obtain from your search.

3.2 Use the **show fields** command to get information about datasets.

3.3 Use the following commands to identify relevant search terms on a particular topic:
- 3.3a **locate**
- 3.3b **search**
- 3.3c **expand**
- 3.3d **show key**
- 3.3e **show stoplist**

For purposes of illustration, we will formulate a search strategy that typically might be used by someone in an EPA regional office—a search for regulations and other relevant policies that would govern the cleanup of a Superfund site where groundwater is contaminated with PCBs. In the next two modules, we will continue the search process by executing, modifying, and saving the search, and then printing the results.

IDENTIFYING SEARCH GOALS

Before accessing ***EnviroText***, you should spend some time thinking of the best approach or search strategy for finding the relevant information. Draw upon your knowledge of how you would set about conducting a typical paper search for this information. In order to identify the type of information that you need to obtain, *e.g.*, a State statute on use of wetlands, Federal regulations on a particular topic, or State regulations developed in response to a law or statute, you might answer the following questions:

- What is the nature of the project you are investigating?
- Whom would you identify as a key person to call?
- What agencies or offices would you contact—within and outside of EPA?
- What resources (*e.g.*, non-government publications, government documents and publications) would you use to search for the pertinent regulations or laws?
- What cases can you cite that are similar in nature and therefore can provide you with some leads on the type of regulatory information you may need to obtain?

CHOOSING A DATASET

ENVIROTEXT DATASETS

Depending on the type of information needed, you will next choose the dataset in which you wish to begin your search. ***EnviroText*** datasets cover topics as varied as regulations, statutes, Federal and State legislation, international treaties, tribal laws and policies, as well as datasets from single agencies such as EPA. EPA's datasets include the Superfund Records of Decision and the Catalog of Superfund Program Publications.

You may need to search more than one dataset before you find all the information you need. Searching one dataset often gives you leads to information found in other datasets. At present, ***EnviroText*** is designed to search only the dataset in which the user is located, but future improvements will allow users to perform "global" searches of all the datasets by executing a single search statement.

EnviroText datasets each have a different focus. Before you can decide on search terms, it is a good idea to think about which dataset is likely to contain the information you seek. You can find more information about the scope of each dataset in Appendix C of the *User Manual*. In addition, ***EnviroText*** will display a description of useful information about each dataset when you use the **show** command.

USING SHOW COMMAND TO PREVIEW DATASET ORGANIZATION

The **show** command has a variety of uses depending on the subcommand used with it. It is used mainly to display information about your current search or about the dataset in which you are located. One of its various forms, **show fields**, displays the names of the fields available in the current dataset, their description, and their abbreviations. It is a good idea to use this command when you enter a new dataset so you will see how the dataset is organized.

It is likely that the Environmental Regulations (EREGS) dataset will contain relevant information for the topic chosen as our case study—groundwater contaminated with PCBs. In the following example, we will use the **show fields** command to display the fields of this dataset. To get to the EREGS dataset from the Main Menu, select "Regulations," which will take you to the EREGS dataset. There, at the command line, type:

show fields

Example: The "show fields" Command

```
EREGS 1:  show fields

 EREGS Data Field Names:

 Field Names   Values Displayed                        Abbrev.

 -----------   -------------------------------------   -------

 record        record number in dataset               rec
 title         title of a regulation                   ttl
 date          last date regulation was reviewed       dat
 reference     legal reference                         ref
 cfr           Code of Federal Regulations citation    cfr
 usc           United States Code citation             usc
 state         State                                   sta
 agency        agency address                          agy
 abstract      abstract                                abs
 table         table                                   tbl
 mec           major environmental category            mec
 keyterm       value-added keyterm(s)                  key

 Show fields | (h)elp (f)orward (b)ack (/)search (r)eturn | 100%
```

"EREGS" on the command line indicates you are in the EREGS dataset.

Notice that there are separate fields for the CFR and USC citations and for the State originating the regulation.

IDENTIFYING SEARCH TERMS

THE SEARCH TERM OR STATEMENT

EnviroText is designed to search the datasets for words ("search terms"), special terms called keyterms (see discussion on page III-9 under the section "The Expand Command"), and combinations of search terms (discussed in Module 4). Once you identify the goal of your search and choose a dataset, you must generate appropriate search terms you think will retrieve records that are relevant to your topic of interest. Ask yourself, for example: What words appear frequently in literature pertaining to the subject? What States or Federal agencies are responsible for the creation and enforcement of policies relevant to the issue, and how are these policies described (*i.e.*, what language is used)? It is useful to break your search topic into distinct concepts and then to try to identify search terms for each concept separately.

For instance, in our example—Superfund sites where groundwater has been contaminated with PCBs—we can identify three separate concepts: PCB contamination, groundwater, and Superfund sites. It is important to include only those concepts that are essential to the search. Although Superfund sites are of interest, you probably should not limit your search to regulations for Superfund sites because the search is likely to be too narrow. You can therefore eliminate this as a concept for your search.

Each concept may be represented by more than one search term in the dataset. It is a good idea to think of as many synonyms and variant forms of a term as possible. These might consist of plurals, alternate spellings, or different terms with similar meanings. For instance, for the concept of groundwater, you should use alternate spellings, including "groundwater," "ground-water," and "ground water" to retrieve all forms of the word.

EnviroText has several commands that can help you identify potential search terms by providing you with synonyms and alternate forms of a term you have chosen as a search term. These commands will help broaden or narrow your search by leading you to different search words that may provide you with information you otherwise might not have found, thus making your search more thorough as well as more productive.

Keyterms are special subject terms for the abstracted datasets assigned by the people who write the abstracts. These terms are highlighted onscreen when commands to identify terms are used. (We will show the terms in boldface type to distinguish them.)

You will learn various commands (listed below) as a means of improving the potential results of your search. The last two commands—**expand** and **show key**—are only available for use in the abstracted datasets. The commands to be presented in this module include:

- **Locate**, page III-5
- **Search**, page III-6

- **Show stoplist**, III-8
- **Expand**, page III-9
- **Show key**, III-12

COMMANDS AVAILABLE IN ALL DATASETS

The Locate Command

The **locate** command is used with a string of characters (such as "ground") to give you an alphabetical list of valid search terms in the dataset that begin with that string, plus five terms alphabetically preceding it and five terms following it. A string can be a word, a partial word, or a keyterm (if you are in an abstracted dataset). If the exact string provided by the user is not found, the system will display the terms that would precede and follow it in the list and would indicate that the string is not found in the dataset. If keyterms are displayed, they will be highlighted in reverse video to inform the user of their special status (in these modules they are highlighted in bold type).

From the EREGS dataset command line, type:

locate ground

Example: The "locate" Command

```
EREGS 1: locate ground
gross
grosseserratus
grossly
groton
grotto
==>ground
==>ground water
==>ground-cherry
==>ground-dove
==>ground-fault
==>ground-fir
==>ground-level
==>ground-plum
==>ground-rose
==>ground-water
==>groundcover
```

The first terms shown without an arrow (==>) next to them are the 5 terms in the dataset that precede the search term.

Terms shown in bold (*e.g.*, **ground water**) are keyterms. In this example, keyterms appear because the search is in an abstracted dataset; if it were in a full-text dataset, there would be no key-terms. On ETRS screens, the keyterms are shown in reverse video to inform the user of their special status.

```
==>grounded
==>grounding
==>groundnut
==>grounds
==>groundsel
==>groundwater
==>groundwater-monitoring
==>ground-plum
==>ground-rosed
==>ground-water
==>groundcover
==>grounded
==>grounding
==>groundnut
==>grounds
==>groundsel
==>groundwater
==>groundwater-monitoring
==>groundwatering
==>groundwaters
==>groundwood
==>groundwood-chemical-mechanical
==>groundwood-cmn
==>groundwood-fine
==>groundwood-thermo-mechanical
group
group--fecal
group--total
grouped
grouping

Locate "ground" | (h)elp (f)orward (b)ack (/)search (r)eturn | 100%
```

The Search Command

The **search** command, followed by a string of characters, displays all those search words that contain the particular string—regardless of where the string occurs in the word. The **search** command is useful if you do not know the exact spelling or form of a word but know some of the characters contained within the word.

We will again be using the string "ground" in our example. At the command line, type:

search ground

Example: The "search" Command

```
EREGS 1: search ground
above-ground
aboveground
aboveground storage tanks
aground
background
backgrounds
below-ground
below-ground-level
belowground
campground
campgrounds
fairground
fairgrounds
ground
ground water
ground-cherry
ground-dove
ground-fault
ground-fir
ground-level
ground-plum
ground-rose
ground-water
groundcover
grounded
grounding
groundnut
grounds
groundsel
groundwater
groundwater-monitoring
groundwatering
groundwaters
groundwood
groundwood-chemical-mechanical
```

By using this command, you discover some useful terms and keyterms for the search. However, you also see some terms, such as "fairgrounds" and "playgrounds," that are irrelevant to this search.

```
groundwood-cmn
groundwood-fine
groundwood-thermo-mechanical
in-ground
on-the-ground
open-ground
playgrounds
sg1--ground
sg2--ground
status--groundwater
underground
underground injection wells
underground storage tanks
upground

 Search "ground" | (h)elp (f)orward (b)ack (/)search (r)eturn | 100%
```

The "Show Stoplist" Command

Besides being able to identify valid search terms, it is useful to know which terms are invalid as ***EnviroText*** search terms. Using the command **show stoplist** will display all the words in the current dataset that are not accepted as valid search terms, and therefore are ignored by ***EnviroText*** as it searches. Invalid terms include many common words such as the verb **be**, prepositions such as **about** and **after**, and conjunctions such as **and** and **although**.

State Codes as Search Terms

State codes do not function as commands but as search terms and can be used in many of the datasets. Your search may very well require you to search for data from a particular State. Several ***EnviroText*** datasets have a special field for the State that the data comes from. ***EnviroText*** has designated, for search purposes, State codes identical to the two-character codes used by the U.S. postal system. The only code that differs is the code for the State of Oregon; instead of OR, ***EnviroText*** uses OG to prevent confusion with the logical operator **or**.

COMMANDS AVAILABLE ONLY IN ABSTRACTED DATASETS

Two commands may be used only in an abstracted dataset: **expand** and **show key**. When used together, they can help you generate numerous search terms pertinent to your search topic's concepts.

The Expand Command

The **expand** command is available only in the EREGS and ESTAT abstracted datasets where it can be very useful in helping to locate search terms. The **expand** command accesses an abstracted dataset's thesaurus of keyterms and, therefore, cannot be used in the full-text datasets. Keyterms are special subject terms assigned by the abstractors who write the text for the abstracted datasets. (Keyterms are sometimes referred to as **value-added keyterms** in CERL materials.) They are used to indicate the subject or topic of a record, or to represent a key concept that the record describes or discusses. The keyterms make up a hierarchical thesaurus of terms that are displayed online by the **expand** command. Each keyterm in the thesaurus contains a brief definition and shows the relationship of that keyterm to other keyterms covering similar or related topics.

Keyterms allow the user to search for concepts that lack exact matching terms within the text of a record. For instance, one of the keyterms for the EREGS dataset is "water quality standards." It is assigned to all regulations that establish water quality standards even if the record does not contain the phrase "water quality standards." Keyterms can be used alone as the search statement or can be combined with other search terms. They make it easier to locate records pertaining to a particular topic of environmental concern.

Before you use the **expand** command, you should first identify keyterms from among the list of terms displayed with the **locate** and **search** commands. Then use **expand** to display hierarchically the relationship of a keyterm to other keyterms in that dataset's thesaurus. The correct syntax would be:

expand <keyterm>

e.g., **expand water quality standards**

Some or all of the following six categories of information are displayed when **expand** is used:

- **Scope note (SN).** Defines a keyterm and the range of the subject covered by the term in the context of the dataset. Be careful to use the keyterm only if the meaning indicated by the scope note is in the context you want.

- **Broader term (BT)**. Related keyterms that are more general than the keyterm.
- **Narrower term (NT)**. Related keyterms that are more specific than the keyterm.
- **Related term (RT)**. Other keyterms covering concepts that are related to the keyterm.
- **Use for (UF)**. Indicates that this keyterm is used in place of the listed terms (see the example on page III-11: "**expand pcb**").
- **Use instead (USE)**. Refers the user to the preferred keyterm that should be used when searching on this topic.

While reading the thesaurus display for your term, you may notice other keyterms that are more appropriate for your search. We have learned from using the **search** command that "ground water" is a valid keyterm in the EREGS dataset.

For our example, from the EREGS command line we will type:

expand ground water

Example: The "expand" Command

```
EREGS 1: expand ground water

GROUND WATER

 SN: WATER BELOW THE LAND SURFACE IN A ZONE OF SATURATION.
 RT: CWA
     HAZARDOUS WASTE LANDFILLS
     INTERSTATE COMPACTS
     LAND TREATMENT FACILITIES
     PCB
     POTABLE WATER
     SANITARY LANDFILLS
     SURFACE IMPOUNDMENTS
     SURFACE WATER
     UNDERGROUND INJECTION WELLS
     WATER QUALITY CLASSIFICATION

Expand "groundwater" | (h)elp (f)orward (b)ack (/)search (r)eturn | 100%
```

The scope note indicates that this term is used in the same context that we mean for our search. Note that "PCB" is a related term.

EREGS 1: **expand pcb**

Next, we can **expand** "PCB" to get more information on that term.

PCB
 UF: POLYCHLORINATED BIPHENYL COMPOUNDS
 BT: TOXIC EFFLUENTS
     TSCA SUBSTANCES

 RT: COMPRESSORS
     DISPOSAL
     ELECTRICAL EQUIPMENT
     EXPORT RESTRICTIONS
     FOOD CROPS LANDS
     HEAT TRANSFER SYSTEMS
     HYDRAULIC SYSTEMS
     IMPORT RESTRICTIONS
     INORGANIC PIGMENTS
     LAND TREATMENT FACILITIES
     PCB INCINERATORS
     SOLID WASTE DISPOSAL FACILITIES
     TRANSFORMERS
     TSCA SUBSTANCES

 Expand "pcb" | (h)elp (f)orward (b)ack (/)search (r)eturn | 100%

EREGS 1: **expand TSCA substances**

Let's also **expand** "TSCA Substances," a valid keyterm broader in scope than PCB.

TSCA SUBSTANCES

 SN: Substances regulated under the Toxic Substances Control Act.

 NT: ASBESTOS
     PCB
 RT: CHEMICAL TESTING FACILITIES
     CHEMICAL PLANTS
     PERSONAL PROTECTIVE EQUIPMENT

 Expand "tsca substances" | (h)elp (f)orward (b)ack (/)search (r)eturn | 100%

As you browse through the terms that are displayed with the **expand** command, be sure to note those terms that are more appropriate for your search or additional terms that should be included in your search. In the example, we used **expand** with TSCA substances but it did not prove to be a productive lead, so we will not pursue that line of inquiry. Some leads will be fruitful, others will be dead-ends. Both types, however, will provide you with useful information to further refine your search strategy.

The "Show Key" Command

This command can be used within the abstracted datasets (EREGS and ESTAT) to display a list of all valid keyterms for that dataset. If used in addition to the **expand** command, it can produce numerous search terms relevant to a specific topic.

Again from the EREGS dataset command line, type:

show key

Example: The "show key" Command

```
EREGS 1:  show key
aboveground storage tanks
ast
accidents
emergencies
leaks
upset conditions
accumulation points
satellite accumulation points
acid pickling operations
acids
acute wastes
commercial chemical products
manufacturing chemical products
off-specification commercial chemical intermediates
off-specification manufacturing chemical products
aesthetic requirements
air pollution episodes
air pollution sources
air contaminant sources
emission sources
general emission sources
```

Show key displays all possible keyterms for this dataset, listed alphabetically. Terms that are out of alphabetical order are within the same hierarchy as the term that precedes them but are narrower terms. Note the lack of highlighting since all are keyterms.

```
industrial process emission sources
manufacturing emission sources
new sources of air pollution
pollution sources
process industry emission sources
stationary emission sources
stationary rotating machinery
air quality classification
air quality control regions
aqcr
priority regions
aircraft
aldrin
dieldrin
alkaline cleaning baths
aluminum
aluminum casting plants
aluminum forming plants
aluminum reduction plants
primary aluminum reduction plants
aluminum smelters
ammonia
ammonia plants
ammonium nitrate plants
ammonium sulfate plants

 Show key | (h)elp (f)orward (b)ack (/)search (r)eturn |    4%
```

SELECTION OF SEARCH TERMS

Notice that each of our terms has several forms. You should begin building a list of concepts with all the terms needed for your search. For "groundwater" we found the following related terms or alternate forms of the word: groundwater, ground water, groundwaters, groundwater-monitoring, and ground-water. For the search term "pcbs" we found these related terms: pcb, pcbs, polychlorinated biphenyl, and polychlorinated biphenyls.

You now have some appropriate search terms by which to begin developing the search statement for ***EnviroText*** to execute. In Module 4 you will learn some additional commands to be used to focus the search statement. Then you will be ready to execute your search.

APPLICATION AND PRACTICE

Take time to practice the commands you have learned in this module by first using the examples we have provided. This will give you a "test run." Then use the procedure described to formulate a search strategy for a current project you are managing. The commands you should practice include:

show fields
locate
search
show stoplist
expand
show key

MODULE FOUR

EXECUTING A SEARCH

OBJECTIVES

In this module you will augment what you have learned in Module 3 about identifying and selecting appropriate search terms. You will learn about the second key component of a successful search statement: logical "operators" and commands whose function is to combine search terms to focus your search more specifically. These techniques enable you to make the most effective use of ***EnviroText***'s search capabilities. You also will learn commands for viewing the output of your searches.

After completing this module, you should be able to complete the following objectives:

4.1 Formulate a strategy to perform and execute a search using the following Boolean operators:
- 4.1a **and**
- 4.1b **or**
- 4.1c **except**
- 4.1d **w@<n>**
- 4.1e any combination of two operators.

4.2 Use the wildcard operator (*) as you formulate a search.

4.3 Conduct the search formulated in Modules 3 and 4, using selected search terms and appropriate operators and commands.

4.4 Use the **history** command to review search statements.

4.5 Modify or re-execute a previous search using the re-execute (!) command.

4.6 Use the following commands to view output:
- 4.6a **view**
- 4.6b **list**

THE *ENVIROTEXT* SEARCH PROCESS

SEARCH COMPONENTS

The Command Line Prompt

In Module 2, you were introduced to the concept of the command mode, which is the default mode for the ***EnviroText*** system. When you are in the command mode, you will see the command prompt, which consists of the name of your current dataset and the line number. This is the prompt from which you will execute your search.

The Search Statement

As you learned in Module 3, the ***EnviroText*** system is designed to search the datasets for words ("search terms") and combinations of search terms. These search terms make up the **search statement**, and the command line number becomes the **search statement number** for that particular search when it is executed. Each time a search is executed, this number is incremented by one. We will discuss the search statement in detail in the section of this module entitled "Components of the Search Statement." (See below.)

The Search Procedure

EnviroText searches a dataset by comparing the search term(s) in the search statement to every word contained in that dataset in order to find a match. Once a search is completed, the system will report its results onscreen, including:

- Number of records in which the search terms are found
- Fields in which the search terms are found

Once you have identified the search terms you want to use (as we did in Module 3), you must type them in at the command line to retrieve records. After you type in your terms and hit **<Enter>**, the system will retrieve any records containing your terms.

COMPONENTS OF THE SEARCH STATEMENT

Several components make up a search statement:

- Search terms
- Boolean or logical operators
- Wildcard operator

SEARCH TERMS

In Module 3, we discussed in detail how to identify appropriate search terms to meet your search goals. Search terms serve as the content or conceptual part of the search statement, whereas logical operators determine how these concepts are related to each other. When we execute the search statement we have developed, we will combine our selected search terms with the Boolean operators or the wildcard operator.

BOOLEAN OR LOGICAL OPERATORS

Many search topics consist of more than one concept and most concepts can be represented by more than one search term. Logical operators (also called Boolean operators after 19th Century English mathematician George Boole) allow you to combine search terms and to specify how they relate to one another. The operators are used to define a condition or conditions that a record must meet before being retrieved. Many search terms can be combined to make a complex search statement containing two or more conditions. ***Enviro-Text*** compares each record in the dataset against the set of conditions specified in the search statement in order to determine if the record meets the condition(s).

You will learn how to use the following operators, both alone and in combinations:

- **and**, page IV-3
- **or**, page IV-4
- **except**, page IV-5
- **w@<n>** (the proximity operator), page IV-6

On the following pages you will see graphical depictions showing what records would be retrieved using the various operators. In each diagram, the shaded area represents the records that would be selected by the sample search statement found in the caption.

The "and" Operator

Using **and** in a search statement narrows the focus of your search because ***EnviroText*** retrieves a record only if all terms connected by **and** are found in the record. You can use more than one **and** in a search statement and therefore can have two or more conditions that must be met in order for the record to be retrieved.

The syntax for using **and** is as follows:

<search term> and <search term>

e.g., **pollution and prevention** or

pollution and prevention and nc

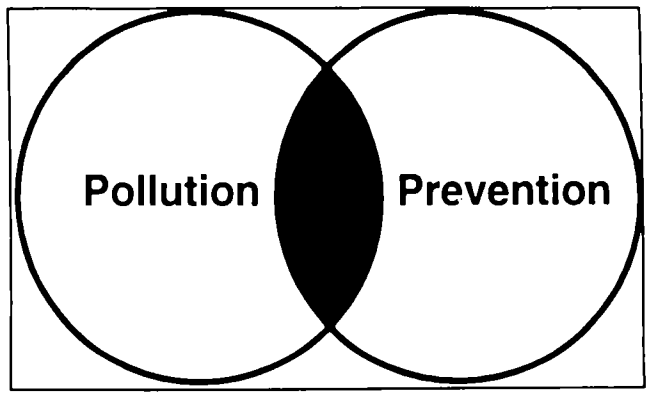


Figure 1. Pollution **and** Prevention

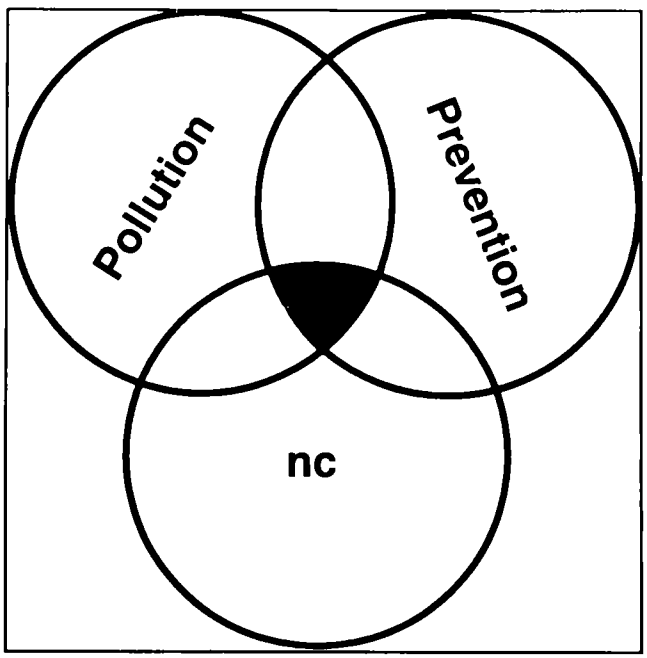


Figure 2. Pollution **and** Prevention **and** NC

In comparing these two examples, the second search statement would be narrower than the first because an extra condition must be met; that is, the record must also contain a reference to the State of North Carolina in addition to containing both "pollution" and "prevention."

The "or" Operator

Using **or** in a search statement broadens the scope of your search because ***EnviroText*** retrieves a record if any of the terms separated by **or** is found in the record. The record is rejected only if none of the search terms is found.

The syntax for using **or** is as follows:

<search term> or <search term>

e.g., **pollutant or contaminant** or

pollutant or contaminant or toxin

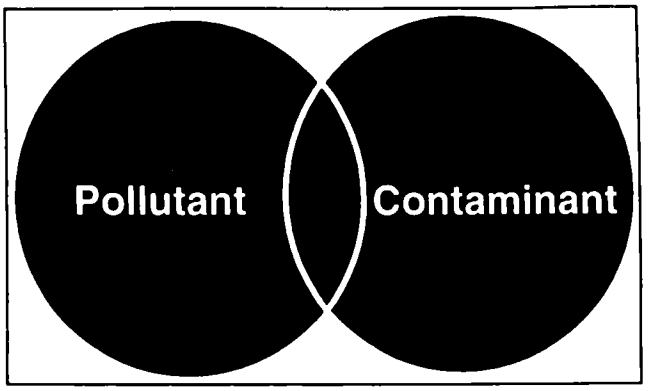


Figure 3. Pollutant **or** Contaminant

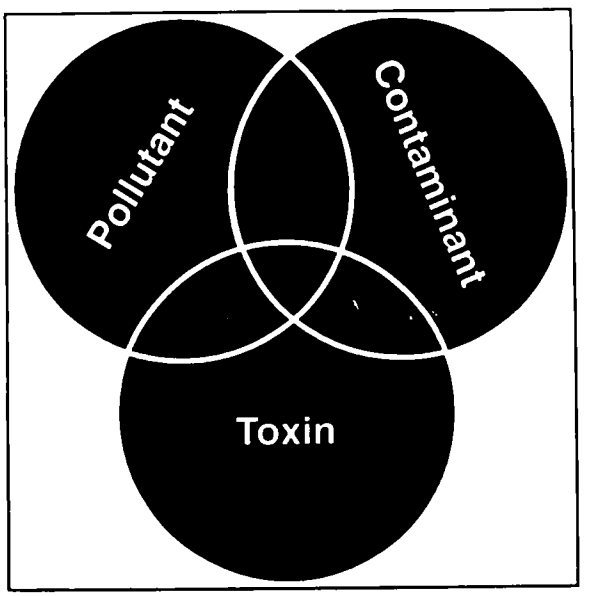


Figure 4. Pollutant **or** Contaminant **or** Toxin

The "except" Operator

Using the operator **except** is another way to narrow your search because it excludes records that contain the search term defined by **except**. (This would be the search term that follows **except**.) In other words, records that contain a match for the term preceding **except** will be selected only if they also do not contain a match for the term following **except**.

The syntax for using **except** is as follows:

<search term> except <search term>

e.g., **contaminant except airborne**

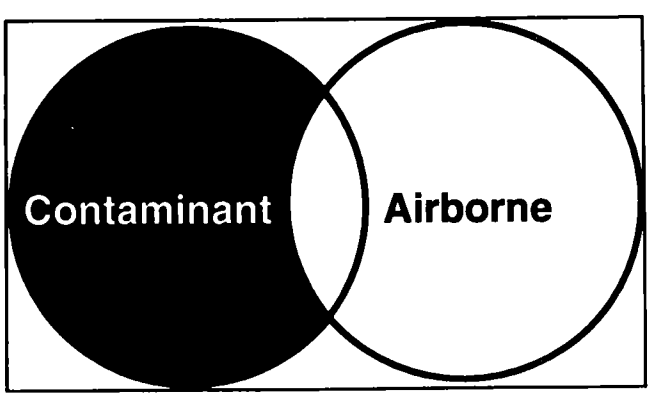


Figure 5. Contaminant **except** Airborne

This search statement might be useful for someone who is seeking regulations pertaining to all types of contaminants except for airborne contaminants. However, the **except** operator should be used sparingly because it can easily exclude records that may be of interest. For instance, in the example above, some of the records that contain the term "airborne" might also contain the word "groundwater," one of terms that we identified at the end of Module 3 as a possible search term for retrieving records pertaining to PCB-contaminated groundwater. Therefore, we would not want to use this statement containing the **except** operator, because more than likely we would exclude some potentially useful records that might also contain the term "groundwater" and therefore include information about groundwater contamination.

The Proximity Operator: w@<n>

The proximity operator works similarly to **and**, but imposes the additional condition that the two terms must physically be located within a specified number (**n**) of words of each other in the text of the record. It does not matter in which order the two terms occur as long as they occur within the specified number of words. This additional proximity requirement makes the search more specific than using **and**. When you use **and**, your search terms can be located anywhere in the record—they may even occur in different fields. In contrast, by using the proximity operator, you are able to specify how close the terms should be, thereby increasing the likelihood that the terms appear in the same context.

The proximity operator is especially useful as a method of searching for phrases when you are working in the full-text datasets. (Phrases are not valid search terms unless they are keyterms found in the abstracted datasets.) For example, if you wanted to search for two- or three-word phrases, you would join the words with the proximity operator and use an **n** of "1" (in w @<n>) as your specified number of intervening words. Note that searching for phrases with the proximity operator is approximate since the words can be in either order. When a commonly used phrase is composed of several words very general in nature, the proximity operator allows you to create a much more narrowly defined search statement. Such a statement ensures that the only records retrieved are ones that meet the narrowed parameters defined by the search statement.

The syntax for using the proximity operator is:

<search term> w@<n> <search term>, *etc.*

where **n** is the number of words that intervene between the two terms. (If you wish to select records in which the terms are adjacent to each other, you would use 1, not 0.)

e.g., **groundwater w@1 pollution w@1 remedies**

COMBINING OPERATORS TO CREATE MULTIPLE CONDITIONS SEARCHING

It is possible to string together many different search terms using Boolean operators and therefore to construct complex search statements. When such complex statements are created, ***EnviroText*** uses a concept from algebra called the "Order of Operations," also known as "Precedence." Precedence is simply a set of rules that tells the system the order in which to apply the operations that the terms specify (*i.e.*, the order used to search the records for a match). The operator that has the higher order of precedence is the operation that will be carried out first.

In the ***EnviroText*** system, the order of precedence is from highest to lowest as follows:

1. **w@<n>**
2. **and**
3. **or**
4. **except**

If two search terms are joined by the same operator and thus have equal precedence, the operations are performed in order from left to right. If there are two operations to be performed, and one of them is in parentheses, the one in parentheses will be carried out first.

However, if the search statement contains an operation that normally would not be performed first, but you wish it be performed first (*i.e.*, to have higher precedence over other operations in the statement), you would place the operation having the lower precedence within parentheses. In a case where there are multiple operations within the parentheses, the normal order of precedence will be followed for the parenthetical operations; then the operations outside the parentheses will be performed.

For example, if you input the following terms:

pollutant or contaminant or toxin and airborne

the system would proceed with the search as follows:

1. Combine the two terms ("toxin" and "airborne") linked by the operator **and**, finding records with both "toxin" **and** "airborne."

   (Rule: **and** has higher precedence than **or** so this operation is executed first. Any records retrieved must contain both "toxin" and "airborne.")

2. Retrieve all records containing either of the terms ("pollutant" or "contaminant") linked by the operator **or**, in order from left to right.

The result would be the retrieval of any records that contain both "toxin" and "airborne" plus any records that contain "pollutant" and any that contain "contaminant." This is probably not the result intended, but it illustrates the degree of care that must be used when developing search statements that combine multiple operators.

If you were to use parentheses with the following statement:

(pollutant or contaminant or toxin) and airborne

the system would proceed with the search as follows:

1. Search for records that contain the term "airborne"

   (Rule: **and** takes precedence over **or**. Since the operator **and** links "airborne" to all the other terms within parentheses, any records retrieved must contain the term "airborne")

2. Search for records that also contain any of the other three terms linked by **or**, in order from left to right: "pollutant" **or** "contaminant" **or** "toxin."

The result would be the retrieval of any records that contain "airborne" as well as either "pollutant" or "contaminant" or ' toxin."

THE WILDCARD OPERATOR

If you are using a term that may have variant beginnings or endings (which you would have identified using the **search** or **locate** commands), there is a function called the **wildcard operator** that allows you to retrieve several terms at once. The wildcard operator (designated by the asterisk symbol *) allows you to broaden your search by including the retrieval of any records containing your search string, no matter where the string occurs within a word contained in the record. Using the operator truncates, or shortens, the string of characters required for a match. Since the requirements are reduced, * will retrieve a broader set of records related to your area of interest.

Depending on where the operator is located in relation to the search term, it will match certain parts of the term. The following variations of the operator can be used:

1. ***<search term>** (before the search term, with no intervening spaces)

   e.g., ***pollution**

   will retrieve all records containing any word that ends with the search term/string.

2. **<search term>*** (after the search term)

   e.g., **pollution***

   will retrieve all records containing any word that begins with the search term/string.

3. ***<search term>*** (before and after the term)

   e.g., ***pollution***

   will retrieve all records containing any word that contains the term/string.

Be careful not to use too short of a stem when using the wildcard operator because such a stem may retrieve too many unanticipated records. If you are simply trying to retrieve a search term and its plural, it is often faster to combine the term and its plural with **or** to retrieve either one (*e.g.*, mcl or mcls for Maximum Contaminant Levels) instead of using the wildcard operator (mcl*). However, if you are truncating characters at the end of a search term, it is always best to check the term by using the **locate** command. If you are truncating characters at the beginning, use the **search** command so you will see what terms ***EnviroText*** will match as it searches the records of the dataset.

The **search** and **locate** commands also can be used to find unexpected punctuation within search terms. For instance, ***EnviroText*** considers two terms connected by a hyphen to be a single term. Also, terms can contain apostrophes and other punctuation within the term. This type of term will appear in the list of terms displayed by the **search** and **locate** commands.

The following example uses the **locate** command to identify alternate forms of the term pcb (polychlorinated biphenyl).

Search Example: The "locate" Command

```
EREGS 1:  locate pcb
pbed
pbq
pbt
pc
pc-sw-2
==>pcb
==>pcb incinerators
==>pcb's
==>pcb-1016
==>pcb-1221
```

Notice that there are several hyphenated terms beginning with "pcb". We can retrieve these terms with the wildcard operator by inputting **pcb***.

```
==>pcb-1232
==>pcb 1,4
==>pcb 1,1-
==>pcb 1,,4
==>pcb-1260
==>pcb-containing
==>pcb-contaminated
==>pcb polychlorinated
==>pcbs
==>pcbs--the
pcdd
pcdds
pcdf
pcdfs
pce

Locate "pcb" | (h)elp (f)orward (b)ack (/)search (r)eturn | 100%
```

EXECUTING THE SEARCH

You now have learned all the commands and tools necessary for executing the sample search. At the end of Module 3, we had identified the following concepts for our search example of pcb-contaminated groundwater:

groundwater
ground water
groundwater—monitoring
groundwaters
ground-water
pcb
pcbs
polychlorinated biphenyl
polychlorinated biphenyls

To execute a search, simply enter the search terms at the command prompt. We can use Boolean and wildcard operators to combine each of our terms—one concept at a time.

Search Example: Combining Boolean and Wildcard Operators

EREGS 1: **ground water or groundwater* or ground-water* or ground w@1 water***

1478 records found for '(((ground water=KEYTERM or (((((((groundwater=TITLE or groundwater=LEGAL REFERENCE) or groundwater=AGENCY ADDRESS) or groundwater=ABSTRACT) or groundwater=TABLE) or groundwater-monitoring=ABSTRACT) or groundwatering=ABSTRACT) or ((groundwaters=LEGAL REFERENCE or groundwaters=ABSTRACT) or groundwaters=TABLE))) or (((ground-water=TITLE or ground-water=LEGAL REFERENCE) or ground-water=ABSTRACT) or ground-water=TABLE)) or (((((ground=TITLE or ground=LEGAL REFERENCE or ground=AGENCY ADDRESS) or ground=ABSTRACT) or ground=TABLE) w@1 (((((water=TITLE or water=LEGAL REFERENCE) or water=AGENCY ADDRESS) or water=ABSTRACT) or water=TABLE)

EREGS 2: **pcb* or polychlorinated w@1 biphenyl***

353 records found for '(((((((((((((((((((pcb=TITLE or pcb=LEGAL REFERENCE) or pcb=AGENCY ADDRESS) or pcb=ABSTRACT) or pcb=TABLE) or pcb=KEYTERM) or pcb incinerators=KEYTERM) or (pcb's=ABSTRACT or pcb's=TABLE)) or pcb-1016=TABLE) or pcb-1221=TABLE) or pcb-1232=TABLE) or pcb-1242=TABLE) or pcb-1248=TABLE) or pcb-1254=TABLE) or pcb-1260=TABLE) or pcb-containing=ABSTRACT) or (pcb-contaminated=ABSTRACT or pcb-contaminated=TABLE)) or pcb-polychlorinated=TABLE) or (((pcbs=TITLE or pcbs=LEGAL REFERENCE) or pcbs=ABSTRACT) or pcbs=TABLE)) or pcbs--the=ABSTRACT) or ((((polychlorinated=TITLE or polychlorinated=LEGAL REFERENCE) or polychlorinated=ABSTRACT) or polychlorinated=TABLE) w@1 (((((biphenyl=LEGAL REFERENCE or biphenyl=ABSTRACT) or biphenyl=TABLE) or biphenyl-containing=ABSTRACT) or biphenyle=TABLE) or (((biphenyls=TITLE or biphenyls=LEGAL REFERENCE) or biphenyls=ABSTRACT) or biphenyls=TABLE))))'.

EREGS 3: **(ground water or groundwater* or ground-water* or ground w@1 water*r) and (pcb* or polychlorinated w@1 biphenyl*)**

95 records found for '((((ground water=KEYTERM or (((((((groundwater=TITLE or groundwater=LEGAL REFERENCE) or groundwater=AGENCY ADDRESS) or groundwater=ABSTRACT) or groundwater=TABLE) or groundwater-monitoring=ABSTRACT) or groundwatering=ABSTRACT) or ((groundwaters=LEGAL REFERENCE or groundwaters=ABSTRACT) or groundwaters=TABLE))) or (((ground-water=TITLE or ground-water=LEGAL REFERENCE) or ground-water=ABSTRACT) or ground-water=TABLE)) or (((((ground=TITLE or ground=LEGAL REFERENCE) or ground=AGENCY ADDRESS) or ground=ABSTRACT) or ground=TABLE) w@1 ((((water=TITLE or water=LEGAL REFERENCE) or water=AGENCY ADDRESS) or water=ABSTRACT) or water=TABLE))) and ((((((((((((((((((((pcb=TITLE or pcb=LEGAL REFERENCE) or pcb=AGENCY ADDRESS) or pcb=ABSTRACT) or pcb=TABLE) or pcb=KEYTERM) or pcb incinerators=KEYTERM) or (pcb's=ABSTRACT or pcb's=TABLE)) or pcb-1016=TABLE) or pcb-1221=TABLE) or pcb-1232=TABLE) or pcb-1242=TABLE) or pcb-1248=TABLE) or pcb-1254=TABLE) or pcb-1260=TABLE) or pcb-containing=ABSTRACT) or (pcb-contaminated=ABSTRACT or pcb-contaminated=TABLE)) or pcb-polychlorinated=TABLE) or (((pcbs=TITLE or pcbs=LEGAL REFERENCE) or pcbs=ABSTRACT) or pcbs=TABLE)) or pcbs--the=ABSTRACT) or ((((polychlorinated=TITLE or

```
polychlorinated=LEGAL REFERENCE) or polychlorinated=ABSTRACT) or polychlorinated=TABLE) w@1
(((((biphenyl=LEGAL REFERENCE or biphenyl=ABSTRACT) or biphenyl=TABLE) or
biphenyl-containing=ABSTRACT) or biphenyle=TABLE) or (((biphenyls=TITLE or biphenyls=LEGAL
REFERENCE) or biphenyls=ABSTRACT) or biphenyls=TABLE)))))'.
```

COMMANDS USED WITH EXECUTED SEARCHES

THE HISTORY COMMAND: REVIEWING EXECUTED SEARCHES

As you proceed with your search, you may lose track of your earlier search steps as your search scrolls off the screen. In this case, you can use the **history** command to review your search steps; it will display for you all the search statements (and their statement numbers) that you used during the current session within that dataset.

The **history** command enables you to retrieve information on your completed search statements using a variety of options:

- ***Option 1***. For a complete listing of <u>all</u> searches, type:

  history

  When used alone, without any subcommands, **history** displays all the search statements, including their numbers, that have been executed in the current session.

  Once the search statements are listed, you can choose which ones were productive and save only those statements.

- ***Option 2***. To list <u>one</u> search statement, type:

  history followed by the statement number of the statement you want to be displayed

  e.g., **history 2**

- ***Option 3***. For a <u>partial</u> listing of searches, use either method (a) or (b):

  a. **history** followed by a list of the statement numbers in succession, separated by spaces

     e.g., **history 1 3 5**

b. **history** followed by the statement numbers written as a range of numbers, with the first and last numbers in the range separated by a hyphen (-):

e.g., **history 1-5**

THE RE-EXECUTE COMMAND: REPEATING AND COMBINING SEARCHES

The re-execute command (!) re-executes a search that has been performed during the current dataset session. It is useful when you want to re-execute a search without retyping it. The re-execute command (!) also can be used with the logical operators when you want to combine a previously executed search statement with a new search term or statement, or if you want to combine two previously executed search statements to make one new statement.

To use this command, you must know the search statement number of the search you wish to re-execute. (If necessary, use the **history** command to retrieve a list of your executed search statements.)

Then, to re-execute the appropriate search statement, type (with no intervening spaces):

!<search statement number>

In the example shown below, statements 1 and 2 are combined to create a new statement, number 3. Following this procedure allows you to build your search one concept at a time so you know what concepts retrieved what records.

Search Example: The Re-execute (!) Command

```
EREGS 1:  ground water or groundwater* or ground-water* or ground w@1 water*

1478 records found for '(((ground water=KEYTERM or (((((((groundwater=TITLE or groundwater=LEGAL
REFERENCE) or groundwater=AGENCY ADDRESS) or groundwater=ABSTRACT) or groundwater=TABLE) or
groundwater-monitoring=ABSTRACT) or groundwatering=ABSTRACT) or ((groundwaters=LEGAL REFERENCE or
groundwaters=ABSTRACT) or groundwaters=TABLE))) or (((ground-water=TITLE or ground-water=LEGAL
REFERENCE) or ground-water=ABSTRACT) or ground-water=TABLE)) or (((((ground=TITLE or ground=LEGAL
REFERENCE) or ground=AGENCY ADDRESS) or ground=ABSTRACT) or ground=TABLE) w@1 (((((water=TITLE or
water=LEGAL REFERENCE) or water=AGENCY ADDRESS) or water=ABSTRACT) or water=TABLE)
```

```
EREGS 2:  pcb* or polychlorinated w@1 biphenyl*

353 records found for '((((((((((((((((((((pcb=TITLE or pcb=LEGAL REFERENCE) or pcb=AGENCY
ADDRESS) or pcb=ABSTRACT) or pcb=TABLE) or pcb=KEYTERM) or pcb incinerators=KEYTERM) or
(pcb's=ABSTRACT or pcb's=TABLE)) or pcb-1016=TABLE) or pcb
-1221=TABLE) or pcb-1232=TABLE) or pcb-1242=TABLE) or pcb-1248=TABLE) or pcb-1254=TABLE) or
pcb-1260=TABLE) or pcb-containing=ABSTRACT) or (pcb-contaminated=A
BSTRACT or pcb-contaminated=TABLE)) or pcb-polychlorinated=TABLE) or (((pcbs=TITLE or pcbs=LEGAL
REFERENCE) or pcbs=ABSTRACT) or pcbs=TABLE)) or pcbs--the=ABSTRACT) or ((((polychlorinated=TITLE
or polychlorinated=LEGAL REFERENCE) or polychlorinated=ABSTRACT) or polychlorinated=TABLE) w@1
(((((biphenyl=LEGAL REFERENCE or biphenyl=ABSTRACT) or biphenyl=TABLE) or
biphenyl-containing=ABSTRACT) or biphenyle=TABLE) or (((biphenyls=TITLE or biphenyls=LEGAL
REFERENCE) or biphenyls=ABSTRACT) or biphenyls=TABLE))))'.

EREGS 3:  !1 and !2
--------> 3: (ground water or groundwater* or ground-water* or ground w@1 water*) and (pcb* or
polychlorinated w@1 biphenyl*) <----------

95 records found for '((((ground water=KEYTERM or (((((((groundwater=TITLE or groundwater=LEGAL
REFERENCE) or groundwater=AGENCY ADDRESS) or groundwater=ABSTRACT) or groundwater=TABLE) or
groundwater-monitoring=ABSTRACT) or groundwatering=ABSTRACT) or ((groundwaters=LEGAL REFERENCE or
groundwaters=ABSTRACT) or groundwaters=TABLE))) or (((ground-water=TITLE or ground-water=LEGAL
REFERENCE) or ground-water=ABSTRACT) or ground-water=TABLE)) or (((((ground=TITLE or ground=LEGAL
REFERENCE) or ground=AGENCY ADDRESS) or ground=ABSTRACT) or ground=TABLE) w@1 (((((water=TITLE or
water=LEGAL REFERENCE) or water=AGENCY ADDRESS) or water=ABSTRACT) or water=TABLE)
```

VIEWING COMMANDS: DISPLAYING SEARCH RESULTS

You were introduced in Module 2 to the concept of the viewing mode, which is used to view menus, search results, news, or help screens. There are two commands used mainly for viewing search results: **view** and **list**. The **view** command will display the results of your search one screen at a time in a paginated form and can be used with various subcommands. The **list** command displays results in a continuous scrolling format that can only be aborted with a special keystroke.

The View Command

The **view** command displays in paginated format the records retrieved by your most recent search. Like the **history** command, **view** can be used in various forms.

The various options for using **view** are as follows:

- ***Option 1. Menu Version.*** After executing a search statement, at the command prompt, type:

  view

  This will retrieve a menu listing all the fields comprising a record within the current dataset. From this menu you can choose the fields you wish to view.

- ***Option 2. Command-line Version.*** If you already know the fields that you wish to view from a retrieved record, type

  view <field abbreviation> <field abbreviation>, *etc.*

  e.g., **view ttl sec**

  (Remember that you can use **show fields** to see a list of the fields and their abbreviations.)

- ***Option 3.*** If you wish to view all the fields, type

  view all

Both of these shorthand versions will bypass the menu display and begin displaying data from the fields you have requested.

In Module 2 you learned about the various viewer commands that enable you to browse through records. Pressing **h** for help within the viewer will display this menu of subcommands. In addition, the line at the bottom of the screen lists the most commonly used of these subcommands.

In the following example, in order to conserve space, we have shown only part of the information you will see displayed when you use this command.

Search Example: The "view" Command

```
EREGS 4:  view all
 3943
TITLE:
Disposal of PCBs (polychlorinated biphenyls) in Chemical
Waste Landfills.
```

```
DATE:

4-19-93

LEGAL REFERENCE:

Code of Federal Regulations; Title 40: Protection of the
Environment; Part 761: Polychlorinated Biphenyls; Subpart D:
Section 761.75. (15 u.s.c. 2605, 2607, 2611.)

CFR:

40:761

USC:

15 usc 2605

Viewing Rec: 3943 | (h)elp (f)orward (b)ack (/)search (r)eturn |   2%
```

The List Command

List is a command used mainly when one wishes to capture output to a file using a software communications package. (We will discuss this feature in Module 7 of this course.) Using **list** to display records retrieved from a search does not allow the user to browse through the contents of the records, as is possible with the **view** command.

List, like **view**, has a menu version and a command line version. Typing **list** will display a menu from which you may choose fields to be listed onscreen. Typing **list** with the appropriate field abbreviations will bypass the menu and display data from the fields you have selected.

APPLICATION AND PRACTICE

You should practice developing and executing search statements using each of the Boolean operators, first, as a single condition statement, and second, as search statements with multiple conditions. Formulate your search by using the wildcard operator, and then combine several

of your search statements by using the re-execute command. Use **history** to review your executed search statements, then **view** and **list** to look at the results.

MODULE FIVE

ADVANCED SEARCHING TECHNIQUES

OBJECTIVES

Knowing and applying advanced searching techniques presupposes that you are able to examine your search strategies, and based upon that examination, to decide what steps to implement in order to improve upon them. In this module, you will learn how to examine components of your search strategy and to make the necessary improvements. Components for examination include the search terms, operators, and commands you used; the structure of the search statement (how you put together the terms with the commands or operators); and the results you obtained from the search statement. You will learn how to improve upon a search statement in a variety of ways, either by combining one or more previous search statements by making use of the wildcard command, or by re-executing previous search statements in conjunction with a new term or statement.

In this module, you also will learn how certain commands (**domain** and **prompt**) can modify and focus your search by limiting the fields to be searched. Other commands to be learned (**verbose** and **status**) will supply you with useful information during the search process.

After completing this module, you should be able to:

5.1 Analyze one of the completed searches conducted in Module 4 in terms of "lessons learned."

5.2 Revise the search analyzed in Objective 5.1 to create a new, more effective search statement, and then execute this search. Compare the results to the first search using the same analysis procedure.

5.3 Modify a previously completed search to narrow its focus, using the following commands:
- 5.3a **Domain**
- 5.3b **Prompt**

5.4 Use the following commands while conducting a search:
- 5.4a **Verbose**
- 5.4b **Status**

ANALYZING AND REVISING A SEARCH

ANALYZING A SEARCH

The single most important factor that will help you determine the effectiveness of a search statement will be the results it provides. As you analyze your search strategy, it is important to analyze the results to make sure you are getting the information you need. By examining the results, you will be able to draw conclusions about the components you used in the search strategy, for example, selection of search terms and choice of logical operators used. Examine your results and answer the following questions:

1. Did you retrieve fewer records than you expected? If so, how could you change the statement to broaden the area of interest and increase the number of records retrieved?

   You may not be using enough synonyms or variant forms of your term(s) or you may be combining too many concepts with **and** or the proximity operator. If you have more than two concepts in your strategy, you might consider combining your concepts two-at-a-time. For instance, if you were searching for regulations on PCBs and groundwater in the State of California, you might first search just PCBs in California and then groundwater in California.

2. Did you retrieve more records than you expected? If so, how could you refine or narrow the scope of your search statement? Were there records that were not pertinent or relevant to your search goal?

   What search term (if part of a complex statement) retrieved those records? What would be the result of eliminating that term or concept from your search?

   Were the records too general to be useful? If so, how could you rewrite or revise your search statement to make it more specific?

3. What was the nature of any records that were not useful? In what ways were they not relevant? Do you see any patterns?

   Can you add a concept that would make your search more specific, thereby eliminating the unwanted records?

   Or, do you need to eliminate a term that was retrieving irrelevant records?

4. Is it necessary to retrieve every single record on your topic, or is it more important to retrieve a smaller number of highly relevant records?

   If you are doing research on ARARs, it may be necessary to examine every regulation on a topic.

   However, if you are just doing a preliminary search or gathering sample regulations, a few relevant records may suffice.

REVISING A SEARCH STATEMENT

Once you have answered these questions, you should have a sense of whether you need to make minor refinements or whether you need to completely revise your search strategy. Organize the information in such a way that you are able to delineate the strong elements and the weak elements of your statement. Then make changes to the weakest area first. While in the learning stage, it is important to make one change at a time. Then execute the new statement and notice if you get better results. Perform the analysis process again on these results. Then you are ready to make another incremental change. Once you have applied this process of analysis twice, and executed both revised statements, you will have a good idea of how to change a statement to retrieve more relevant search results.

COMMANDS FOR TARGETING YOUR SEARCH

If you decide you need to make your search more specific, ***EnviroText*** has several commands to help you target or limit your search to particular fields. Every record is divided into fields, and each field contains a particular unit of information. ***EnviroText*** usually searches for your search term(s) in all the fields of a record unless you specify otherwise. At times you may find it helpful to modify a search statement by searching only certain fields of a dataset. There are two commands that will allow you to limit the fields to be searched by ***EnviroText***: **domain** and **prompt**. Because of their similarity in function, the two commands cannot be used at the same time. The default for the **domain** command is to search "all fields;" the default **prompt** setting is <u>off</u>.

THE DOMAIN COMMAND

The **domain** command allows you to limit the fields that ***EnviroText*** searches for matches to your search terms. This allows you to save time because you direct the system beforehand to search only the specific fields in which you are interested.

To use the **domain** command, at the command prompt, type:

domain

You then will be asked to select, from the fields listed, those that you wish searched. To make your selection, at the prompt type the numbers representing those fields in which you want to search. From this point on in your dataset session, ***EnviroText*** will search only these fields for matches to your search terms unless you execute the command again and tell it to search elsewhere.

Abbreviated Version of Domain

There is an abbreviated version of this command in which you type **domain** and the abbreviations of the fields you wish to search, typing a space between each abbreviation. However, you must know the correct abbreviation of the fields if you want to use this version. (Remember from Module 3 that these abbreviations are provided by typing the command **show fields**.)

The correct syntax for this command is:

domain <field abbreviation> <field abbreviation>, *etc.*

e.g., **domain ttl abs dat**

You might use the **domain** command if, for instance, you were searching chemical names in the EREGS dataset and you wanted to find only records where your chemical appeared in a table. You would type **domain** and then choose the number for the table field.

Changing the Status of Domain

If you wish to change the fields to be searched, you must type **domain** again and make a new selection from the displayed list of field names, or use the abbreviated method, specifying the new fields by their abbreviations.

If you wish to return to the "all fields" default mode, type:

domain all

THE PROMPT COMMAND

The **prompt** command is similar to **domain** in the way it narrows a search, but it allows more flexibility in selecting which fields you want searched. With **domain**, once you select the fields you want searched, ***EnviroText*** will search only those fields for the remainder of the dataset session until you tell it otherwise. (You would do so by typing **domain** and selecting fields again.) In contrast, **prompt** allows you to designate different fields for each term entered throughout the session as long as **prompt** remains on.

The **prompt** command operates in either an on or off mode; when it is on, it will ask you what fields you want searched for each search term in a search statement. This feature is particularly helpful when used with complex search statements composed of several search terms strung together by Boolean operators; if one of the search terms is targeted toward a particular field (*e.g.*, the date), you can limit your search for this term to that particular field.

Whereas **prompt** offers flexibility, it requires that you declare from which fields you would like data retrieved before each search. Using this command thus requires you to think carefully, as you create the search statement, about the results you hope to obtain by the search. **Prompt** allows the experienced ***EnviroText*** user to define the search parameters even more precisely than when Boolean operators are combined in one statement.

In order to turn the **prompt** command on, type:

prompt on

To turn off the prompting feature, type:

prompt off

One of the most common uses of the **prompt** command is for searching State information. For instance, in the EREGS dataset, you might search for "groundwater" and "ca" for California. By turning prompt on first, you can choose to search for "groundwater" in all fields and "ca" only in the State field. This way, you will not retrieve the "ca" in any other field (such as the table field where "ca" is likely to appear as an abbreviation for calcium).

THE VERBOSE COMMAND

Normally, ***EnviroText*** reports the results of a search by displaying the total number of records retrieved and the fields in which the search term is found. The **verbose** command provides additional information when it is activated; it breaks down search results by reporting (1) the number of times the search term occurred in each field in which it was found, and (2) the number of records in which the term was found in that particular field.

This information can be useful when you are analyzing your search results for possible changes. By giving you more details about where and how often the system is finding your terms, the **verbose** command may help you identify terms that are generating unwanted results. Or it may alert you that your term is found in a field where the term has a different meaning (like the example of "ca" above). You can then turn **prompt** on to limit your search to other fields.

Look at the following examples:

Example 1. **verbose** is off.

1: ashes

21 records found for (ashes=ABSTRACT or ashes=TABLE).

Explanation:
There are 21 records found in which the term ashes occurs; some of them were found in the ABSTRACT field and some in the TABLE field.

Example 2. **verbose** is on.

1: ashes

19 records, 23 occurrences found for ashes=ABSTRACT

2 records, 2 occurrences found for ashes=TABLE

21 records found for ashes=ABSTRACT or ashes=TABLE

Explanation:
23 occurrences of the term ashes were found in the ABSTRACT field of 19 records.

2 occurrences of the term ashes were found in the TABLE field of 2 records.

A total of 21 records were found in which ashes occurred either in the ABSTRACT field or the TABLE field.

When **verbose** is off, we know only that some occurrences of a search term were found in a particular field, whereas when **verbose** is on, we know the exact number of times the term occurred in each field in which it is found, and we know the number of records in which the term occurred for each of those fields. The **verbose** command can be useful when complex Boolean searches are performed.

The **verbose** command operates in an on-off mode and can be turned on or off just like **prompt**. (The default value for **verbose** is off.) To execute the command, type:

verbose on or **verbose off**

THE STATUS COMMAND

The **status** command informs you of the current settings of the **domain**, **prompt**, or **verbose** commands, or all three at once.

To see the setting of all three, type:

status

By typing one of these 3 commands as the subcommand of **status**, you will see the setting for that command only. The correct syntax would be:

status <subcommand>

e.g., **status domain**

Using **status** is a convenient method of returning all three of these commands back to their default setting. To return to the default status, type:

status default

APPLICATION AND PRACTICE

You may want to first create a flowchart showing the progression of your search. Then you can study the commands used, the search statements developed, and the results you obtained. Next, you should devise some alternate methods to enable you to search more effectively. Then execute this revised search. You also should practice using the commands **prompt**, **domain**, **verbose**, and **status**, taking note of how they modify your search procedure.

MODULE SIX

SAVING SEARCH STATEMENTS

OBJECTIVES

Saving search statements allows you to recall and re-execute saved searches during a future session. *EnviroText* has several commands for saving search strategies/statements and for manipulating and using saved searches.

After completing this module, you will be able to:

6.1 Determine the appropriate action for reviewing and saving search strategies by using the **save** command.

6.2 Determine how to manipulate saved files, using the following commands:
- 6.2a **show**
- 6.2b **restore**
- 6.2c **delete**

USING THE SAVE COMMAND

The **save** command is used to store a search statement for later use. Saving the search statement to a file on OSIRIS will allow you to execute it again without having to retype it.

WHEN TO USE THE SAVE COMMAND

When would saving a search statement to a file be useful?

- When you must exit from an ***EnviroText*** search session before you have viewed, printed, or downloaded the results of your search.

  Saving the search statement will allow you to execute it at your next ***EnviroText*** session without retyping the statement.

- When you want to analyze your search statement in terms of the quality or quantity of the results it has produced.

Analyzing the search statement in this way provides a starting point for refining or improving your search strategy by altering the saved statement.

- When you have combined several search statements to create a more complex statement.

  You may have a search statement consisting of a frequently-searched concept that can be combined with additional concepts for different situations. For instance, you might develop a strategy for searching a particular chemical; you could save that strategy and later combine it with a State code to find regulations for that chemical in a particular State. Saving that strategy for the chemical enables you to restore the search later and to combine it with a different State code or another set of terms.

- When you have a search that you need to execute frequently or that you execute each time the dataset is updated.

  If you regularly do a search to keep up-to-date on regulations or legislation on a particular topic, you might save a search and re-execute it whenever the dataset is updated.

SAVE COMMAND SYNTAX

The complete **save** command will look like this:

save <search statement number(s)> <filename>

where:

- **<search statement number>** = the original statement number from the command line at which the search was executed. (Note: If you can't remember the statement numbers of the search statements you have created, you can use the **history** command, discussed in Module 4, to display your search steps.)

- **<filename>** = the name you have chosen for the file in which the search is to be stored. The filename should be 12 alphanumeric characters or less and should not contain special symbols such as **?**, **#**, and **+**, but it may have a filename extension—a period followed by up to 3 alphanumeric characters.

Look at the example of the **save** command illustrated on pages VI-3 and VI-4. In this example, the first two search statements are combined into a third statement, which is then saved under the filename "pcbs" for polychlorinated biphenyls.

Example: The "save" Command

EREGS 1: **pcb* or polychlorinated w@1 biphenyl***

350 records found for '((((((((((((((((((((pcb=TITLE or pcb=LEGAL REFERENCE) or pcb=AGENCY ADDRESS) or pcb=ABSTRACT) or pcb=TABLE) or pcb=KEYTERM) or pcb inci nerators=KEYTERM) or (pcb's=ABSTRACT or pcb's=TABLE)) or pcb-1016=TABLE) or pcb -1221=TABLE) or pcb-1232=TABLE) or pcb-1242=TABLE) or pcb-1248=TABLE) or pcb-12 54=TABLE) or pcb-1260=TABLE) or pcb-containing=ABSTRACT) or (pcb-contaminated=A BSTRACT or pcb-contaminated=TABLE)) or pcb-polychlorinated=TABLE) or (((pcbs=TI TLE or pcbs=LEGAL REFERENCE) or pcbs=ABSTRACT) or pcbs=TABLE)) or pcbs--the=ABS TRACT) or ((((polychlorinated=TITLE or polychlorinated=LEGAL REFERENCE) or poly chlorinated=ABSTRACT) or polychlorinated=TABLE) w@1 (((((biphenyl=LEGAL REFEREN CE or biphenyl=ABSTRACT) or biphenyl=TABLE) or biphenyl-containing=ABSTRACT) or biphenyle=TABLE) or (((biphenyls=TITLE or biphenyls=LEGAL REFERENCE) or biphen yls=ABSTRACT) or biphenyls=TABLE))))'.

EREGS 2: **groundwater* or ground-water* or ground w@1 water**

1234 records found for '(((((((((groundwater=TITLE or groundwater=LEGAL REFEREN CE) or groundwater=AGENCY ADDRESS) or groundwater=ABSTRACT) or groundwater=TABL E) or groundwater-monitoring=ABSTRACT) or groundwatering=ABSTRACT) or ((groundw aters=LEGAL REFERENCE or groundwaters=ABSTRACT) or groundwaters=TABLE)) or (gro und-water=ABSTRACT or ground-water=TABLE)) or (((((ground=TITLE or ground=LEGAL REFERENCE) or ground=AGENCY ADDRESS) or ground=ABSTRACT) or ground=TABLE) w@1 ((((water=TITLE or water=LEGAL REFERENCE) or water=AGENCY ADDRESS) or water=ABS TRACT) or water=TABLE)))'.

EREGS 3: **11 and 12**

--------> 3: (pcb* or polychlorinated w@1 biphenyl*) and (groundwater* or ground-water* or ground w@1 water) <----------

89 records found for '((((((((((((((((((((pcb=TITLE or pcb=LEGAL REFERENCE) or pcb=AGENCY ADDRESS) or pcb=ABSTRACT) or pcb=TABLE) or pcb=KEYTERM) or pcb inci nerators=KEYTERM) or (pcb's=ABSTRACT or pcb's=TABLE)) or pcb-1016=TABLE) or pcb -1221=TABLE) or pcb-1232=TABLE) or pcb-1242=TABLE) or pcb-1248=TABLE) or pcb-12 54=TABLE) or pcb-1260=TABLE) or pcb-containing=ABSTRACT) or (pcb-contaminated=A BSTRACT or pcb-contaminated=TABLE)) or pcb-polychlorinated=TABLE) or (((pcbs=TI TLE or pcbs=LEGAL REFERENCE) or pcbs=ABSTRACT) or pcbs=TABLE)) or pcbs--the=ABS

```
TRACT) or ((((polychlorinated=TITLE or polychlorinated=LEGAL REFERENCE) or poly
chlorinated=ABSTRACT) or polychlorinated=TABLE) w@1 (((((biphenyl=LEGAL REFEREN
CE or biphenyl=ABSTRACT) or biphenyl=TABLE) or biphenyl-containing=ABSTRACT) or
 biphenyle=TABLE) or (((biphenyls=TITLE or biphenyls=LEGAL REFERENCE) or biphen
yls=ABSTRACT) or biphenyls=TABLE)))) and (((((((((groundwater=TITLE or groundwa
ter=LEGAL REFERENCE) or groundwater=AGENCY ADDRESS) or groundwater=ABSTRACT) or
 groundwater=TABLE) or groundwater-monitoring=ABSTRACT) or groundwatering=ABSTR
ACT) or ((groundwaters=LEGAL REFERENCE or groundwaters=ABSTRACT) or groundwater
s=TABLE)) or (ground-water=ABSTRACT or ground-water=TABLE)) or ((((ground=TITL
E or ground=LEGAL REFERENCE) or ground=AGENCY ADDRESS) or ground=ABSTRACT) or g
round=TABLE) w@1 ((((water=TITLE or water=LEGAL REFERENCE) or water=AGENCY ADDR
ESS) or water=ABSTRACT) or water=TABLE))))'.

EREGS 4: save 3 pcbs
File 'pcbs' saved.
```

The command "**save 3 pcbs**" saves our search statement number 3 in a file called "pcbs."

POINTS TO REMEMBER

There are several points you should remember about the **save** command:

- Only the search statement is saved to the file that you designate; the search results are not saved. (The results of the search are saved by using the downloading function, discussed in Module 7.)

- The saved search statement can be executed again only in the dataset in which it was first used; it cannot be retrieved and executed within another dataset.

- Filenames must be given to any data that you save. These names should conform to the *Unix* Operating System's conventions: keep them under 12 characters and choose only from the 36 alphanumeric characters (no spaces or punctuation or other keyboard characters). You may use extensions in the filenames.

USING AND MANIPULATING SAVED FILES

There are several commands that you may find useful when you are saving searches: these commands are **show**, **restore**, and **delete**.

THE SHOW COMMAND: DISPLAYING SAVED FILES

You were introduced to the **show** command in Module 3 where we discussed previewing dataset organization and identifying search terms. This command is also helpful when you are starting a new session in a dataset and you did not keep a written record of the previously saved search statements from earlier sessions. By using **show** to view the files that you have saved previously, you can choose the pertinent searches you would like to execute.

When used to display information about saved search statements, the command has two variations: **show files** and **show files filename**.

(1) Used with the word "files," **show** will list all the files containing saved search statements from the dataset in which you are located. Type:

show files

The following example from the EREGS dataset displays all that dataset's saved files.

Example: The "show files" Command

```
                    Welcome to the EREGS Dataset

     The Environmental Regulations (EREGS) dataset (formerly CELDS), is a collection of
abstracted Federal and State environmental regulations.  The abstracts presented here cover many
of the major environmental categories and have been carefully constructed, keeping the user in
mind.  They are, however, intended to be used as a guide and are not a substitute for legal
advice or for the original document.

     To see a list of the fields comprising an EREGS record, type 'show fields'.

For help, type 'help'.
```

```
EREGS 1:  show files

History Files:
        ground
        pcbs

To list a particular file: 'show files <filename>'
        (one file at a time)
```

The system indicates that we have two saved files—one called "ground" and one called "pcbs."

(2) Used with a specific filename, **show** will retrieve and display the designated file containing previously saved search statement(s). Type

show files <filename>

Example: The "show files <filename>" Command

```
EREGS 1: show files pcbs

===> pcbs:
        (pcb* or polychlorinated w@1 biphenyl*) and (groundwater* or ground-water* or ground w@1
water)
```

THE RESTORE COMMAND

The **restore** command retrieves a file that has been saved using the save command, then automatically executes the search statement(s) stored in the retrieved file(s). It will execute search statements saved from either your current session or a previous session within that same dataset.

Remember that you can use the **show** command to see a list of your saved statements/files.

To **restore** a saved search, type:

restore <filename>

The search is retrieved and executed automatically, and the results of the search are displayed onscreen. Note the new search statement number (#1) following the arrow in the example shown below. The file we named "pcbs" was originally search statement #3. (You can see this on pages VI-3 and VI-4.) By restoring the file at the command line "EREGS 1:" the number changes.

Example: The "restore" Command

```
EREGS 1: restore pcbs

--------> 1: (pcb* or polychlorinated w@1 biphenyl*) and (groundwater* or ground-water*
or ground w@1 water) <----------

89 records found for '((((((((((((((((((((pcb=TITLE or pcb=LEGAL REFERENCE) or
 pcb=AGENCY ADDRESS) or pcb=ABSTRACT) or pcb=TABLE) or pcb=KEYTERM) or pcb inci
nerators=KEYTERM) or (pcb's=ABSTRACT or pcb's=TABLE)) or pcb-1016=TABLE) or pcb
-1221=TABLE) or pcb-1232=TABLE) or pcb-1242=TABLE) or pcb-1248=TABLE) or pcb-12
54=TABLE) or pcb-1260=TABLE) or pcb-containing=ABSTRACT) or (pcb-contaminated=A
BSTRACT or pcb-contaminated=TABLE)) or pcb-polychlorinated=TABLE) or (((pcbs=TI
TLE or pcbs=LEGAL REFERENCE) or pcbs=ABSTRACT) or pcbs=TABLE)) or pcbs--the=ABS
TRACT) or ((((polychlorinated=TITLE or polychlorinated=LEGAL REFERENCE) or poly
chlorinated=ABSTRACT) or polychlorinated=TABLE) w@1 (((((biphenyl=LEGAL REFEREN
CE or biphenyl=ABSTRACT) or biphenyl=TABLE) or biphenyl-containing=ABSTRACT) or
 biphenyle=TABLE) or (((biphenyls=TITLE or biphenyls=LEGAL REFERENCE) or biphen
yls=ABSTRACT) or biphenyls=TABLE)))) and (((((((((groundwater=TITLE or groundwa
ter=LEGAL REFERENCE) or groundwater=AGENCY ADDRESS) or groundwater=ABSTRACT) or
 groundwater=TABLE) or groundwater-monitoring=ABSTRACT) or groundwatering=ABSTR
ACT) or ((groundwaters=LEGAL REFERENCE or groundwaters=ABSTRACT) or groundwater
s=TABLE)) or (ground-water=ABSTRACT or ground-water=TABLE)) or (((((ground=TITL
E or ground=LEGAL REFERENCE) or ground=AGENCY ADDRESS) or ground=ABSTRACT) or g
round=TABLE) w@1 ((((water=TITLE or water=LEGAL REFERENCE) or water=AGENCY ADDR
ESS) or water=ABSTRACT) or water=TABLE))))'.
```

THE DELETE COMMAND

The **delete** command removes a saved search file from permanent storage. Once you no longer need to execute a search statement, you should delete the file in which it is stored.

To **delete** a file, type:

delete <filename>

Files must be deleted one at a time (wildcards cannot be used in a filename). Make sure that you delete the proper file because once a file is deleted, it cannot be retrieved. Instead, it has to be recreated. In order to verify the correct filename, you may want to first use the **show** command to display the saved files; then use the **delete** command. In the example that follows, the file "pcbs" has already been deleted, so it is not retrieved when **show files** is used.

Example: The "delete" Command

```
EREGS 2:  delete pcbs
File 'pcbs' deleted.

EREGS 2:  show files

History Files:
        ground

To list a particular file: 'show files <filename>'
        (one file at a time)
```

Since we've deleted the file, when we type **show files**, we see that the "pcbs" file is gone.

APPLICATION AND PRACTICE

Take time to practice the commands you have learned in this module. You should first execute several of the searches from a previous session. Use the **history** command to display these executed searches, and then save the search statements to a file (or files) by using the **save** command. Using the **show** command, list the files you have saved. Then use the **restore** and **delete** commands to restore and then delete one of the search statements/files.

MODULE SEVEN

GENERATING OUTPUT

OBJECTIVES

This module teaches you the ***EnviroText*** system commands for printing or downloading the results of a completed search to your computer and explains when you should use each option.

After completing this module, you will be able to:

7.1 Print the results of a completed search at the ETRS Support Center.
- 7.1.a Use the menu-driven version of **print**.
- 7.1.b Use the command-line version of **print**.

7.2 Create and download a saved file containing the results of a completed search.
- 7.2.a Download using **x**.
- 7.2.b Download using **s**.

USING THE ETRS PRINT COMMAND

The **print** command prints the results of a search to a remote ETRS high-speed line printer at the University of Illinois in Champaign. The printout is then mailed to the user. Look at the Sample *(Partial) Printout of the Results of a Completed Search* that came with the course materials. You will receive similar printouts when you use the **print** command to request a printout from CERL.

WHEN TO USE THE PRINT COMMAND

Printing the results of a search is useful in several circumstances:

- When a large amount of data has been retrieved and it is not convenient or cost-effective to spend the time and expense downloading or capturing it online.

- When there is no immediate need for the data, so waiting to receive a printout is not a problem.

- When you want to have the search results automatically delivered to someone other than yourself.

- When you don't need your search results in an electronic format. (See the section beginning on page VII-6 of this module entitled "Downloading a Saved File of Search Results" for a discussion of various methods of obtaining an electronic version.)

HOW TO USE THE PRINT COMMAND

There are two methods for executing the **print** command: a menu-driven version and a command-line version. For either version, you must have already executed a search and be at the ETRS command line.

Menu-Driven Version of Print Command

For the menu-driven version of **print**, ***EnviroText*** will prompt you at each step of the process. To begin the printout process, you must complete the following steps:

1. After having executed a search, at the command line prompt, type:

   print

2. The available fields from the records of that particular dataset will appear as a list of choices. You may select from this list whatever fields you would like to be printed and mailed to you. Several output options are described below.

   - ***Option 1.*** To receive a printout of the data from all of the fields, select the option for **all fields** and hit **<Enter>**.

     e.g., select **# all fields <Enter>**

     (Note: The number for the **all fields** selection will vary depending on which dataset you are in. This is because datasets vary in the number of total fields they contain. For example, if the dataset has only eight fields, the selection for **all fields** would be the #9 choice.)

   - ***Option 2.*** To have data printed from some of these fields: from the list of choices, type in the numbers that are next to the fields you want printed, typing a space between each number. Then hit **<Enter>**.

     e.g., **2 6 8 <Enter>**

3. Once you have selected the fields you want printed, ***EnviroText*** will request your name and mailing address for delivery of the printout.

Print Example: Menu-Driven Version of Print

```
EREGS 1:  landfill* and wetland*

53 records found for '((((((((((((((landfill=TITLE or landfill=LEGAL REFERENCE) or
landfill=ABSTRACT) or landfill=TABLE) or landfill gases=KEYTERM) or landfill's=ABSTRACT) or
landfill--total=ABSTRACT) or landfill-design=ABSTRACT) or landfill-type=ABSTRACT) or
(landfilled=TITLE or landfilled=ABSTRACT)) or ((landfilling=TITLE or landfilling=LEGAL REFERENCE)
or landfilling=ABSTRACT)) or ((((landfills=TITLE or landfills=LEGAL REFERENCE) or
landfills=ABSTRACT) or landfills=TABLE) or landfills=KEYTERM)) or landfills--cover=ABSTRACT) or
landfills--dispose=ABSTRACT) or landfills--phase=TITLE) and (((((((wetland=TITLE or wetland=LEG
AL REFERENCE) or wetland=ABSTRACT) or wetland=TABLE) or wetland's=ABSTRACT) or wetland**1=TABLE)
or wetland-oriented=ABSTRACT) or (((((wetlands=TITLE or wetlands=LEGAL REFERENCE) or
wetlands=AGENCY ADDRESS) or wetlands=ABSTRACT) or wetlands=TABLE) or wetlands=KEYTERM)))'.

EREGS 1:  print

 Please select the data field(s) to use for
 output by typing the number(s), separating
 them by spaces.
 --> 1: RECORD
 --> 2: TITLE
 --> 3: DATE
 --> 4: LEGAL REFERENCE
 --> 5: CFR
 --> 6: USC
 --> 7: STATE
 --> 8: AGENCY ADDRESS
 --> 9: ABSTRACT
 --> 10: TABLE
 --> 11: MEC
 --> 12: KEYTERM
 --> 13: All Fields

(enter the field numbers to be listed):  13

This printout will be generated at the DCL building
on the U of I campus, and will be forwarded to you.
Please note that delivery may take several days.
```

```
Do you wish to continue (y/n):  y

Input address to send listing.
Name:  Joe User
Organization:  U.S. EPA, Mailcode 8100
FULL ADDRESS
    Street address:  401 M Street, SW
    City:  Washington
    State:  DC
    Zip:  20460
Address recorded.
```

Command-Line Version of Print Command

The command-line method for printing search results combines Steps 1 and 2, but requires that you know the correct abbreviations of the field names in the current dataset. If you cannot remember the field abbreviations for the dataset you are in, type **show fields** to display all the fields and their correct abbreviations. (See the example on page VII-5.)

1. After having executed a search, decide which of the following output options you wish to receive and follow the appropriate instructions for your choice.

   - ***Option 1***. If you want a printout of all the fields, type:

     print all

   - ***Option 2***. If you want a printout of one field, type:

     print <field abbreviation>

     e.g., **print rec**

   - ***Option 3***. If you want a printout of multiple fields, but not all the fields: with a space between each entry, type:

     print <field 1 abbreviation> <field 2 abbreviation>, *etc.*

     e.g., **print rec cit**

2. Step 2 is identical to Step 3 of the menu-driven version: enter your name and address.

Example: Command-Line Version of Print

```
EREGS 1:  show fields

 EREGS Data Field Names:

 Field Names   Values Displayed                        Abbrev.
 -----------   ------------------------------------   -------
 record        record number in dataset               rec
 title         title of a regulation                  ttl
 date          last date regulation was reviewed      dat
 reference     legal reference                        ref
 cfr           Code of Federal Regulations citation   cfr
 usc           United States Code citation            usc
 state         State                                  sta
 agency        agency address                         agy
 abstract      abstract                               abs
 table         table                                  tbl
 mec           major environmental category           mec
 keyterm       value-added keyterm(s)                 key

 Show fields | (h)elp (f)orward (b)ack (/)search (r)eturn | 100%  r

EREGS 1:  print ttl ref sta abs tbl

This printout will be generated at the DCL building
on the U of I campus, and will be forwarded to you.
Please note that delivery may take several days.

Do you wish to continue (y/n):  y

Input address to send listing.
Name:  Joe User
Organization:  U.S. EPA, Mailcode 8100
FULL ADDRESS
    Street address:  401 M Street, SW
    City:  Washington
    State:  DC
    Zip:  20460
Address recorded.
```

DOWNLOADING A SAVED FILE OF SEARCH RESULTS

Downloading your search results is another way to transfer them to your personal computer (PC) for later use or for editing. There are two ways to download: one is to create a temporary file on OSIRIS for immediate downloading to your computer, and the other is to permanently save a file on the OSIRIS computer for downloading at any time.

CREATING AND DOWNLOADING A TEMPORARY FILE

When to Create a Temporary File for Downloading

The temporary file download option is useful in the following situations:

- You want an electronic version of the data for editing, formatting, or inclusion in other documents.
- You need the entire set of search results.
- You need the data quickly.
- You need to ensure the data validity of the information downloaded.
- You want to save money by exiting ***EnviroText*** as quickly as possible.

How To Create and Download a Temporary File of Search Results Using "x"

To download using this command, follow these steps:

1. Execute a search.
2. Use ***EnviroText***'s **view** command to display your search results.
3. Type **x** to initiate the ***EnviroText*** "General File Transfer Utility."
4. You are asked to name the file that will be created for the text data you will be downloading/saving to your PC. Enter a name for the file at the prompt.
   (Note: You must follow the *Unix* conventions for filenames. This means that the filename must be less than 12 characters, without special symbols. However, if you are downloading to a DOS computer, you must conform to the DOS format of 8 characters, plus an optional 3-character extension.)

5. When the menu of telecommunications packages appears onscreen, select the number that corresponds to the software you are using to access ***EnviroText***.
   (Note: Select "other" if your software is not listed.)

6. A screen that lists the various transfer protocols appears next. Select one.
   (Note: Refer to your communications software manual to determine the appropriate choice.)

7. Continue the appropriate transfer procedures according to the directions for your particular software.

8. The file transfer is initiated after your selection and a message is then displayed to confirm that the transfer is complete.

Example: Downloading Using "x"

```
EREGS 1:  earthquake* and us

4 records found for '((earthquake=ABSTRACT or earthquakes=ABSTRACT) and us=STATE)'.

EREGS 2:  view sta
Listing 4 records based on '((earthquake=ABSTRACT or earthquakes=ABSTRACT) and us=STATE)':

RECORD:

 3337

STATE:

us


RECORD:

 3339

STATE:

us


RECORD:
```

```
Viewing Rec: 8150 | (h)elp (f)orward (b)ack (/)search (r)eturn |  59%   x
Enter a new name for this file =>  states

              --- TeleCommunication Software Options ---

    1 or ctalk16  . . . Crosstalk XVI

    2 or ctalk4 . . . . Crosstalk Mk.4

    3 or procomm  . . . Procomm

    4 or pcplus . . . . Procomm Plus

    5 or enable . . . . Enable version 4.5

    6 or smartcom . . . Smartcom II

    7 or vistacom . . . VistaCOM version 5.2

    8 or smarterm . . . SmarTerm 100 version 4.0

    9 or other  . . . . Other software packages not on this list

  * Please specify the telecommunication software package you are using *

 Type Item No. and <Enter> to Select | (r)eturn (h)elp (q)uit | 9 of 9 Items
VIEW_TRANSFER
 Enter menu selection =>  4

              --- File Transfer Protocol Options ---

    1 or xmodem . . . . X-Modem File Transfer Protocol

    2 or ymodem . . . . Y-Modem File Transfer Protocol

    3 or xmodem . . . . Z-Modem File Transfer Protocol

  * Please specify the File Transfer protocol to use *

 Type Item No. and <Enter> to Select | (r)eturn (h)elp (q)uit | 3 of 3 Items
VIEW_TRANSFER
 Enter menu selection =>  3
```

Typing **x** from within the viewer initiates the file(s) transfer. You are prompted to enter a filename and then to indicate which communications software and transfer protocol to use.

```
Initiate your PC Z-Modem download now.
To abort transfer, type several Ctrl-X's immediately.
Sending in Batch Mode
**
Download of file 'states' successful.  Press <Enter> to continue...
```

CREATING AND DOWNLOADING A PERMANENT FILE

When to Create a Permanent File for Downloading

The permanent file download option is useful in the following situations:

- You want an electronic version of the data for editing, formatting, or inclusion in other documents.
- You need the entire set of search results.
- It is not inconvenient to use a two-step process.
- You need to ensure the data validity of the information downloaded.
- You want to create more than one file of search results for downloading.
- You want to guard against losing your results if you have downloading problems.

How to Create and Download a Permanent File of Search Results Using "s"

Unlike downloading a temporary file, the downloading of a permanent file is a two-step process. First you use the **s** command to create a file; then you use **x** to initiate the "General File Transfer Utility," which downloads the file.

Step One: Creating the Permanent File Using "s"

1. Execute a search.
2. Use the **view** command to display the search results. The fields that you choose to view will be the fields included in your downloaded results.
3. From the ETRS text viewer, type **s**.

4. At the prompt, enter the filename for the text data to be saved.

(5.) (Optional Step.) You also may enter a directory name if you want to save the file to a directory other than your home directory, which is your default directory on OSIRIS.

6. The text will be saved under the designated filename, and a message confirms that the file has been saved.

7. Type **bye** to exit the dataset when you have completed saving the search results to a file. When you exit the dataset, you will return to the parent menu for that dataset.

Step Two: Downloading the Permanent File Using "x"

To download the saved file, you must use the "General File Transfer Utility," which can be accessed from any menu screen within ***EnviroText***. To do this, perform the following steps:

1. From any ETRS menu screen such as the Main Menu or a Dataset Menu, type **x** to initiate the File Transfer Utility.

2. You will be asked whether you will be uploading a file from your computer ("PC") to ETRS or downloading a file from ETRS to your PC. Select the download option.

3. A menu displaying various telecommunications devices will appear; select the number corresponding to the software package you used to access ***EnviroText***.
   (Note: Select "other" if your software is not listed.)

4. Select the appropriate file transfer protocol at the next screen.
   (Note: Refer to your communications software manual if necessary.)

5. The system will prompt you to enter the name of the directory you want to look in. Type **<Enter>** for your default directory; if you specified another directory when entering the filename, type the name of that directory.

6. The system will display a list of files that you have created. Follow the instructions at the bottom of the screen to select the file(s) you would like to download. You can select more than one file for downloading.

7. Once you have selected the files to download, type the letter **o** for okay.

8. Continue the appropriate transfer procedures according to the directions for your particular communications software.

9. The transfer is initiated after your selection and a message is displayed, confirming the transfer.

Example: Downloading Using "s", Then "x"

```
EREGS 2:  view all

Listing 4 records based on '((earthquake=ABSTRACT or earthquakes=ABSTRACT) and us=STATE)':

RECORD:

 3337

TITLE:

National Primary Drinking Water Regulations:  Maximum Contaminant Levels for Inorganic and
Organic Chemicals Effective Until 7-30-92.

DATE:

4-23-92

LEGAL REFERENCE:

Code of Federal Regulations; Title 40: Protection of the Environment; Part 141:  National Primary
Drinking Water Regulations, Subpart A: General; Sections 141.3 and 141.5, Subpart B: Maximum
Contaminant Levels; Sections 141.11, and 141.12, and Subpart G: National Revised
Primary Drinking Water Regulations: Maximum Contaminant

Viewing Rec: 3337 | (h)elp (f)orward (b)ack (/)search (r)eturn |   3%  s
Enter the filename to save as =>  quakes
Text saved to file '/home/epa/emsinc/quakes'.  Press <Enter>...

Listing 4 records based on '((earthquake=ABSTRACT or
earthquakes=ABSTRACT) and
us=STATE)':

RECORD:

 3337

TITLE:

National Primary Drinking Water Regulations:  Maximum Contaminant
Levels for Inorganic and Organic Chemicals Effective Until 7-30-92.
```

The s command saves the search results to a file.

DATE:

4-23-92

LEGAL REFERENCE:

Code of Federal Regulations: Title 40: Protection of the Environment; Part 141: National Primary Drinking Water Regulations, Subpart A: General; Sections 141.3 and 141.5, Subpart B: Maximum Contaminant Levels; Sections 141.11, and 141.12, and Subpart G: National Revised Primary Drinking Water Regulations: Maximum Contaminant

Viewing Rec: 3337 | (h)elp (f)orward (b)ack (/)search (r)eturn | 3% r

EREGS 2: **bye**

Type **bye** to exit the dataset viewer so you can return to a menu screen and execute a global file transfer.

--- Regulatory Datasets ---

1 or **eregs** . . . . Abstracted Federal & State Regulations

2 or **cfr** . . . . . Fulltext Federal Regulations

3 or state . . . . Fulltext State Regulations

4 or register . . . Federal Register

5 or **agenda** . . . . Unified Agenda of Federal Regulations

*** Menu Items that are NOT highlighted are NOT active at this time ***

ETRS->REGULATIONS

Type Item No. and <Enter> to Select | (r)eturn (h)elp (q)uit | 5 of 5 Items x

Typing **x** from the menu screen initiates the transfer.

--- **File Transfer Options** ---

1 or **upload** . . . . Transfer a File from your PC to the ETRS Host

2 or **download** . . . Transfer a File from the ETRS Host to your PC

```
Type Item No. and <Enter> to Select | (r)eturn (h)elp (q)uit | 2 of 2 Items
GLOBAL_TRANSFER
 Enter menu selection => 2

                --- TeleCommunication Software Options ---

    1 or ctalk16  . . . Crosstalk XVI

    2 or ctalk4 . . . . Crosstalk Mk.4

    3 or procomm  . . . Procomm

    4 or pcplus . . . . Procomm Plus

    5 or enable . . . . Enable version 4.5

    6 or smartcom . . . Smartcom II

    7 or vistacom . . . VistaCOM version 5.2

    8 or smarterm . . . SmarTerm 100 version 4.0

    9 or other  . . . . Other software packages not on this list

  * Please specify the telecommunication software package you are using *

 Type Item No. and <Enter> to Select | (r)eturn (h)elp (q)uit | 9 of 9 Items
GLOBAL_TRANSFER
 Enter menu selection => 4

                --- File Transfer Protocol Options ---

    1 or xmodem . . . . X-Modem File Transfer Protocol

    2 or ymodem . . . . Y-Modem File Transfer Protocol

    3 or zmodem . . . . Z-Modem File Transfer Protocol


  * Please specify the File Transfer protocol to use *
 Type Item No. and <Enter> to Select | (r)eturn (h)elp (q)uit | 3 of 3 Items
GLOBAL_TRANSFER
 Enter menu selection => 3
```

For the sake of this example, we will choose Procomm Plus and Zmodem.

```
Please enter the name of the directory to Download from,
<Enter> for your home directory, or "q" to quit:  <Enter>

Files available for Downloading

Item#    Date Size       Name
-------------------------------------

1.Jan    3021:4832099    quakes
2.Jan    2916:33241664   core
3.Jan    1308:3555334    grounds

<Space> to Select  <Enter> Next Item | (h)elp (o)k (r)eturn | 1 of 9   o

Initiate your PC Z-Modem download now.
To abort transfer, type several Ctrl-X's immediately.

Sending in Batch Mode
**
Download successful.  Press <Enter> to continue...
```

Place the cursor next to the file called "quakes" and press **<spacebar>** and then **o** for okay.

Refer to Chapter 8 of the ***EnviroText*** *Retrieval System User Manual* for a more complete discussion of these two (temporary or permanent file) downloading methods.

CAPTURING DATA USING YOUR COMMUNICATIONS SOFTWARE

In addition to using the ***EnviroText*** commands described above, it also is possible to use your own communications software to create a file containing search results.

WHEN TO CAPTURE DATA

The file capture procedure is useful in the following situations:

- You want an electronic version of the data for editing, formatting, or inclusion in other documents.

- You need the flexibility of being able to turn the capture feature on and off as you review records.

- You want to save a record of your entire session, not just the search results.

- You want to retrieve data in as few steps as possible.

HOW TO CAPTURE DATA

Most communications software packages have a feature that allows you to capture to a file on your computer all the data that scrolls across your screen. The feature is usually called "capture" or "creating a log file." Once this feature is turned on, everything that scrolls across your screen will be captured to the file. This means that all commands, menus, and search results that appear on your screen will go into the file. (If you want only search results to go into a file, you would not turn the feature on until you are ready to display the results.)

When you capture data in ***EnviroText***, it is best to use the **list** command so that the search results will scroll continuously without pausing between screens or records. Check your communications software manual for the exact commands for capturing text. Refer also to page 48 of *The **EnviroText** Retrieval System User Manual* for more information on this option.

APPLICATION AND PRACTICE

Use the **restore** command to retrieve and execute a search you saved in Module 6. Then use the results of this search to practice the **print** command and the two downloading commands, **x** and **s**.

MODULE EIGHT

USING THE ELECTRONIC MAIL SYSTEM

OBJECTIVES

EnviroText includes an electronic mail utility (Elm) that permits you to send and receive messages to or from the system operators or other ***EnviroText*** users. (Do not confuse this Elm feature with EPA's own E-MAIL system or any other local electronic mail; Elm is strictly limited to users of OSIRIS.)

After completing this module, you will be able to complete the following tasks:

8.1 Access Elm.

8.2 Read a mail message.

8.3 Send a mail message.

8.4 Exit Elm.

ACCESSING ELM

The following steps will allow you to access Elm:

1. You will need to be at the OSIRIS system prompt. The prompt will look like this:

   "login account name" osiris/home/epa/"login account name">1>

2. At this prompt (using lower case letters), type:

   elm <enter>

3. The Mailbox Screen and command line prompt will appear. (See next section.)

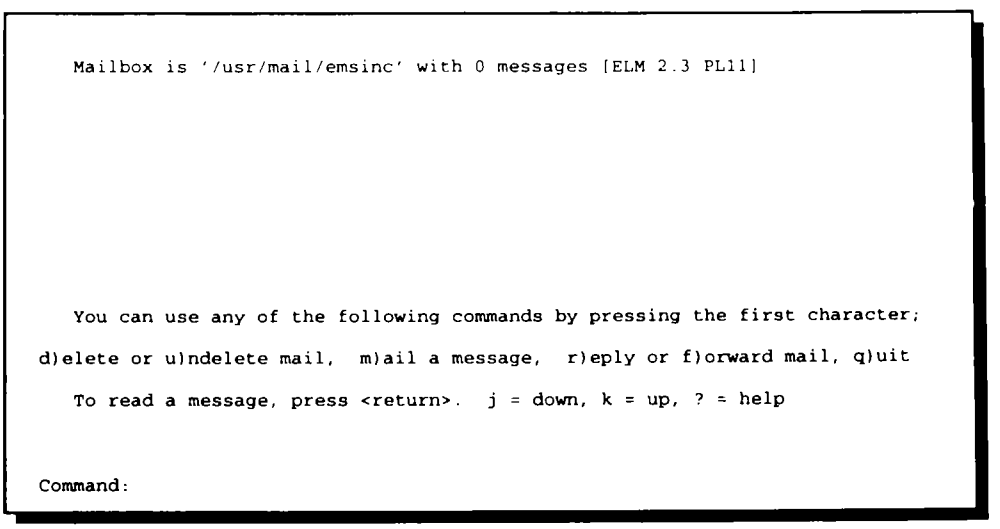
MAILBOX SCREEN

The mailbox screen and command prompt appear (see illustration below) and display the following information:

1. Mailbox is '/usr/mail/"login account name" with **0** messages [ELM 2.3 PL11]

or

Mailbox is '/usr/mail/"login account name" with # messages [ELM 2.3 PL11]



MAILBOX SCREEN

2. Information About Messages

No Messages. If you do not have any messages to read, the mailbox screen will appear as shown in the illustration above, with "0 messages."

With Messages. If you have messages to read, Elm will list the number of messages in place of the 0 in the prompt line, plus the following information below the prompt line:

- Date each message was sent
- Party who sent each message
- Status of each message (*i.e.*, old or new)
- Message number
- Total number of lines in each message
- Subject of each message

3. There also will be a status line at the bottom of this screen that will list the commands available in Elm:

d)elete
u)ndelete
m)ail a message
r)eply
f)orward mail
q)uit
<Enter> to read a message

4. A list of keystrokes to enable the user to move through the mail screens is also displayed:

j = move down
k = move up
? = help

The user can select from the menu of commands at this screen, typing the appropriate letter at the command prompt.

INCOMING MAIL MESSAGES

RETRIEVING AND READING MESSAGES

In order to read a message, you must be located at the mailbox screen where your messages are displayed. (See "Mailbox Screen" and illustration on page VIII-2). Then follow these steps:

1. Highlight the message that you wish to read by using the:

   up and **down** arrow keys

2. To retrieve the message that is highlighted, hit:

   <Enter>

3. If you have more than one message to read, read the first message and then go automatically to the next message by hitting:

   <Spacebar>

4. When you have finished reading your messages, hit:

   i

   This stands for **index** and will return you to the menu of commands located at the initial mailbox screen. From there, you can make another selection from the command menu (see "Mailbox Screen" on page VIII-2), or you can exit from Elm. (See page VIII-6 for exiting procedures.)

SAVING MESSAGES

To save a message you have just read (before hitting the spacebar to go to the next message), type

   >

The system will prompt you for the folder where they are to be saved. To save them to your default folder, hit

   <Enter>

SENDING A MAIL MESSAGE

To send a message using Elm, follow these steps:

1. At the command prompt of the mailbox screen, type:

   m

2. The system will ask who the message is being sent to, so you must know the user's login account name in order to respond. Type:

   <user's login account name> <Enter>

3. Next you will be prompted to type the subject of the message. This can be a brief phrase describing the message contents. Type:

   <subject> <Enter>

   (Note: You may skip this step by just hitting **<Enter>**.)

4. You also will be asked if you would like to send copies of the message to any other user. If so, type their:

   <login account name> <Enter>

   (Note: You may skip this step by hitting **<Enter>** only. You can send a copy to yourself by entering your own login account name here.)

5. Next, you will be asked to choose a text editor for purposes of composing and editing your message. ***EnviroText*** has three editors: pico, jed, and vi. (Refer to *The ETRS New User Information Guide* for descriptions of the text editors available to Elm users.) We suggest that you select pico, the easiest editor to use.

   e.g., select **1** for **pico**, then hit **<Enter>**

6. Instructions on how to use the editor will appear. Then the screen will clear and you may type your message.

7. When you finish typing, you must exit the editor. To exit, type:

   <control-x>

   The system will ask if you want to save the text. Type:

   y for yes, **n** for no

8. If you typed **y** to save the message, a list of options pertaining to your message will now appear. You may choose to do any of the following actions:

   e)dit the message
   edit **h**)eaders
   s)end it
   f)orget it

9. If you chose to send the message by selecting **s**, you will receive confirmation that it has been sent.

READING FROM YOUR "RECEIVED" FOLDER

A "received" folder or mail subdirectory is created for each user who has saved messages previously read. Reading messages from this subdirectory requires a different procedure than reading incoming mail. The procedure for accessing this folder/subdirectory is as follows:

1. In order to read these saved messages, you must first be located at the OSIRIS system prompt (which appears before you enter ***EnviroText*** or the mail system). This prompt is:

   "login account name" osiris/home/epa/"login account name" #>

2. Next, you need to get into the subdirectory called **Mail**. To get to **Mail** from the OSIRIS system prompt, type:

   cd Mail

3. To view or read the folder, type:

   elm -f =received

4. You may now read your messages using the same commands and keystrokes as with incoming mail.

5. To exit your folder, at the command prompt, type:

   q

EXITING ELM

To exit Elm without changing the status of any of your messages, at the command prompt, type:

x

However, if you wish to change the status of your messages, follow this procedure:

1. Before you exit Elm, you must answer several questions pertaining to your mail messages in order to update your mailbox. At the mailbox screen, in order to quit Elm, type:

   q

2. Question 1 will appear:
   Delete message? (y/n)

   This question asks if you have deleted any messages. Its purpose is to confirm that you want to delete those messages marked for deletion during this Elm session. You cannot delete messages at this point unless they have already been marked for deletion.

   - If you still wish the messages to be deleted, type:

     y

   - If you have changed your mind and do not want to delete them, type:

     n

3. Question 2 will appear:
   Move read message to "received" folder? (y/n)

   This option allows you to save messages to a special mailbox file or received folder once you have read them, unless you have deleted the message previously.

   - To move the message to your received folder, type:

     y

   - To keep the message in your incoming mailbox file, type:

     n

4. Question 3 will appear:
   Keep unread message in incoming mailbox? (y/n)

   This step allows you to retain the status of an incoming message as "unread" so that it remains in your incoming mailbox to be read at the next Elm session.

   - To retain the message as incoming, type:

     y

   - To move the message to your received folder, type:

     n

5. Elm will now display a status report detailing the activities you conducted during your Elm session, *e.g.*, the number of deleted messages, the number of messages stored in your received folder, or the number saved in your incoming mailbox. The status report serves as confirmation that you are now out of Elm.

APPLICATION AND PRACTICE

You now should be able to perform the following actions using the ***EnviroText*** Email system:

- Access Elm
- Read mail
  —From your incoming mailbox
  —From your received folder
- Send mail
- Exit Elm
  —Create a received folder
  —Retain unread messages in your incoming mailbox

Practice Notes:

- We suggest that you send a message to "support," which is the login account name of the ***EnviroText*** User Support Center where the system operators receive messages, comments, and suggestions about the system.

- To practice creating a received folder, you should type **y** for **yes** to Question 2 (step 3 of the exit procedure described on page VIII-7). Then, when you access Elm again, you can practice the procedure for reading a message from your received folder.

COURSE EVALUATION FORM

For Users of the *EnviroText* Retrieval System Self-Study Guide Training Package

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Please take a few moments to answer the following questions. Your responses will help us determine whether this training package met your needs and our objectives, so that we may design future training materials.

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Please check the appropriate item and fill in blanks, as appropriate:

Place of employment:

- EPA Region number..... which Program Office.....
- EPA Headquarters..... which Program Office.....
- Or, which other Federal Agency.....
  which Program Office.....
  located where.....
- Other.....name of organization.....
  located in which State.....

==========

QUESTIONS ABOUT THE TRAINING PACKAGE

1. Are the Self-Study Guide's explanations and directions about using the *EnviroText* Retrieval System helpful and easily understandable? Please comment, providing page numbers where you recommend specific changes. If necessary, you may continue your comments on an additional page.

2. Are the other materials that are included in the training package helpful and easily understandable? Please provide specific comments, where relevant, concerning the following materials:

- ETRS User Application Form
- TheEnviroText Retrieval System; Interagency Development Project (system description)

<please see other side>

(COURSE EVALUATION FORM, continued)

- Demonstration diskette and set-up instructions

- Regional User Group -- Technical Assistance for Training (list)

- **EnviroText** at a Glance (system guide)

- Sample Print-Out of CFR Search

- Course Evaluation Form

3. Did you find any typographical or other errors or omissions in the Self-Study Guide and/or the other materials included in the training package (see list at item 2, above)? If so, please describe them here, citing page numbers where you recommend specific changes. If necessary, you may continue your comments on an additional page.

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When you have completed the course evaluation, please staple this page together with any additional pages, and mail to: Beth Dennison, Director, EnviroText Support Center, 1003 West Nevada Street, Urbana, IL 61801.

✿ ✿ ✿ **THANK YOU!** ✿ ✿ ✿

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NOTE: If you have comments or suggestions about the **EnviroText** Retrieval System, you may include them in writing with this form, but not stapled to it. Alternatively, you may communicate on-line either by sending an electronic mail message to the System Manager, or by answering the query that comes onto the screen at the time of log-off.

THE WHITE HOUSE

WASHINGTON

May 9, 1994

The Honorable Carol Browner
Administrator
Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Administrator Browner:

Attached is letter from Mr. Hank Porterfield requesting that the Office of the Vice President review an Environmental Protection Agency decision not to continue the development and implementation of the Indian Tribal Environmental Database.

I would appreciate it if you would please forward this information to the proper EPA official for appropriate action.

Thank you for your assistance.

Sincerely,

Kathleen A. McGinty
Director, White House Office on
Environmental Policy

Attachments
KAM/JSB

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN - 2 1994

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Hank Porterfield
Consulting Resources, Inc.
1317 Vincent Place
McLean, Virginia 22101

Dear Mr. Porterfield:

Thank you for your letter of March 29, 1994, to Sue Lundgarten regarding the Indian Tribal Environmental Law Database Project. Your letter was referred to me for response. I appreciate your concern regarding the continued development of this database as part of the interagency system, EnviroText, and would like to assure you that, while the mechanisms for funding the system and its databases are currently in transition, our commitment to the Indian tribal database has not terminated.

At the end of 1994, the EnviroText system will move from its current pilot system status to full access. The approach for setting priorities for the continued operation and associated funding for the system is currently in transition as part of the move from pilot to full access system. Let me clarify the approach that will be used for the full access system. The U.S. Army Construction Engineering Research Laboratory (CERL) is responsible for technical management of the database including expanding and updating datasets. Direction as to the priorities for expansion and updating and funding levels is to be provided to CERL by a configuration management board consisting of the federal agency and other sponsors. Funding will be provided to CERL from the sponsoring federal agencies based on the board's direction. CERL is responsible for determining the mechanism to be used (i.e., contracting or doing the work itself) to meet the priority and funding direction of the board.

plural

Let me assure you that EPA considers all elements of its environmental protection programs related to Indian tribal matters to be of the highest agency priority. We will continue to present the expansion and maintenance of the Indian Tribal Environmental Law Database to the EnviroText configuration management board as an Agency priority. We will also be

no, based on each agency's ability + willingness to pay

examining the availability of end of year funding to augment that already provided in Fiscal Year 1994 for this database and other elements of the EnviroText system. I am confident that the objectives for the Indian tribal database will be met and that your concerns will be addressed by these actions.

Sincerely,

Stephen Luftig

for Henry L. Longest II
Director
Office of Emergency and Remedial Response

none for development in FY 94