Scientific and Technical Information Management

Guide for Transmitting Standard Generalized Markup Language (SGML) Encoded Bibliographic Records

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PREFACE

The initiative to implement standards for the electronic exchange of scientific and technical information was promulgated within the Department of Energy (DOE) in August 1991 by the Office of Information Resources Management (IRM) Policy, Plans, and Oversight, when they announced an initiative to achieve electronic exchange of scientific and technical information (STI) within the Department. At that time the Department adopted the International Standards Organization (ISO) 8879, *Information processing—Text and office systems—Standard Generalized Markup Language (SGML)*, as defined in the *Federal Information Processing Standards (FIPS) Publication 152*, as the DOE standard. The DOE Office of Scientific and Technical Information (OSTI), who coordinates STI management within the Department, was given responsibility to manage the transition.

The initiative assumes an open systems environment in which international standards play the predominant role for electronic exchange of STI. The vision of this initiative is the electronic creation, storage, transfer, retrieval, and exchange of full-text scientific and technical documents throughout the community.

In February 1993, *The Electronic Exchange of Scientific and Technical Information: Strategic Plan* was issued by the Department. The Strategic Plan was developed by a team of information managers and professionals and computer scientists from DOE and contractor sites across the country. These stakeholders established the goal identified in the Strategic Plan to make electronic exchange of full-text DOE STI the norm by the year 2000.

With the inception of the Electronic Exchange Initiative in September 1991, a goal for this effort was to formalize a means of electronically exchanging bibliographic information by using SGML as the enabling technology. In January 1994, DOE OSTI embarked upon a partnership with the Westinghouse Savannah River Site (SRS) to conduct a pilot that resulted in the development of this guide. Invaluable experience and knowledge were gained about the nuances of SGML, and the challenges in communication and coordination between two geographically separated organizations. Invaluable contributions by the staff at SRS and at OSTI facilitated the preparation/completion of this document. The contribution, experience, and knowledge of those involved in this pilot effort will enable the transition of other DOE partners to this new electronic exchange environment.

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INTRODUCTION

This document provides the guidance necessary to transmit to the Department of Energy Office of Scientific and Technical Information (OSTI) an encoded bibliographic record that conforms to International Standard ISO 8879, *Information Processing—Text and office systems—Standard Generalized Markup Language (SGML)*. Included in this document are element and attribute tag definitions, sample bibliographic records, the bibliographic document type definition, and instructions on how to transmit a bibliographic record electronically to OSTI.

FILE NAMING CONVENTION

In order to transmit a file containing bibliographic records to the Office of Scientific and Technical Information, the file name must be configured as follows: Name of the site transmitting data (using the standardized code identifying the input source—in this case, SRS), followed by a period, followed by a date consisting of the year (2 digits), month (2 digits), and day (2 digits). For example: SRS.931015. Within this file, multiple numbers of records may be entered.

The tag **<BIBFILE>** must be entered *before* the first record in the file. After the last record, the tag **</BIBFILE>** must be entered (see sample reports in the next section). The BIBFILE tag signals the fact that the file being transmitted is a bibliographic file. More than one record may be transmitted.

The beginning of each record is signaled by the presence of the **<REPORT>** tag, and the end of each record is indicated by **</REPORT>**.

INSTRUCTIONS FOR SENDING A BIBLIOGRAPHIC FILE TO OSTI

1. FILE TRANSFER PROTOCOL

The necessary information to successfully transmit bibliographic information to the Office of Scientific and Technical Information (OSTI) is provided below. A password to enter our system will be sent separately.

OSTI NETWORK ADDRESS: ADONIS.OSTI.GOV
YOUR FTP USER IDENTIFICATION: DOESGML
PASSWORD: [SENT SEPARATELY]

The examples shown below are generic. The specific commands and system messages that appear on your screen may differ and will depend on your local system characteristics. Your system may or may not be case sensitive.

To connect with OSTI, use the following commands:

FTP ADONIS.OSTI.GOV
NAME: DOESGML
PASSWORD: [SENT SEPARATELY]

Note: Your system may require sending a separate LOGIN command after connecting.

LOGIN DOESGML PASSWORD

If the password is not specified, you will be prompted. In either case, the password is not echoed.

***BPUT**

FROM LOCAL FILE: SRS.YYMMDD
TO REMOTE FILE: SRS.YYMMDD

***BYE**

If you have any difficulties loading a file to the FTP area, please contact Mickey Moore at (615) 576-1138.

2. MAILING AN ELECTRONIC FILE VIA FLOPPY DISK

Diskettes must be either 3½ in. or 5¼ in. and must be readable using DOS version 5.0 or higher.

Files contained on diskettes must be in ASCII format.

Diskettes must be accompanied with a cover letter detailing file names and record counts.

The mailing address for diskettes mailed to the Office of Scientific and Technical Information is:

**Department of Energy
Office of Scientific and Technical Information
ATTN: Data Control
Post Office Box 62
Oak Ridge, Tennessee 37831**

BIBLIOGRAPHIC RECORD DATA DICTIONARY

This data dictionary is a list by field name of elements found in the Bibliographic Document Type Definition listed in the order in which they are entered in the bibliographic record. Included for each element are the field descriptions, parents, children, attributes, examples, and other relevant information.

1. LEADER INFORMATION

Field Name:	Leader Information
SGML Tag Name:	<LDR>
Definition:	<i>A one-letter code that indicates the status of the record: N = new record; C = changed record; D = deleted record.</i>
Description:	If the record is new, it is designated as N . Status codes C and D indicate that the entry was previously disseminated and should be changed or corrected with the current data C or deleted entirely D . If the record is a change of a previously submitted record, it will be designated as C , followed by the original reference number of the record that is being changed. If the record is a delete, it will be designated as D , followed by the original reference number of the record that is being deleted.
Format:	The Leader Information is entered as <LDR>C9300001</LDR>.
Content Model:	(#PCDATA)
Attributes:	None
Parent(s):	<cit>
Examples:	a. <LDR>N</LDR> - New Record b. <LDR>C93000001</LDR> - Change Record c. <LDR>D93000001</LDR> - Delete Record

2. REFERENCE NUMBER

Field Name:	Reference Number
--------------------	------------------

SGML Tag Name: <TRN>

Definition: *The incoming serial record number, i.e., the unique identifying number assigned to each record by the input source.*

Description: The incoming serial record number is formatted as the two-digit calendar year followed by a six-digit serial number. The first record issued for a new year will always be "000001." Serial numbers for succeeding records for that year are assigned in ascending sequence (000002, 000003, etc.). The serial number sequence begins with 000001 again at the start of the next new year.

Format: The Reference Number is entered as <TRN>93000001</TRN>.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <clt>

Example: <TRN>93000001</TRN>

3. DOCUMENT TYPE

Field Name: Document Type

SGML Tag Name: <DT>

Definition: *A one- or two-letter code that indicates the type of literature represented by the publication.*

Description: Enter the code for the type of literature represented by the publication. Each publication must be defined as a type of literature. Only one Type of Record code is entered for each publication.

NOTE: If a scientific or technical report does not have a report number assigned by the issuing organization, it should still be assigned Type of Record code R if a copy will be sent to the Office of Scientific and Technical Information. A report number will be assigned by the organization that makes the report available, i.e., the Office of Scientific and Technical Information.

NOTE: Because only reports were included in the first test phase of the Office of Scientific and Technical Information/Savannah River Site electronic exchange project, the only code used was R. Codes for other types of literature will be provided when needed.

Format: The Type of Record represented by the publication is entered as **<DT>R</DT>**

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Example: **<DT>R</DT>**

4. LITERARY INDICATOR

Field Name: Literary Indicator

SGML Tag Name:

Definition: *One-letter codes that emphasize certain literary characteristics of a publication independent of the type of record.*

Description: Assign as many codes as are applicable to the publication. When more than one code is assigned, enter them without any separation between the codes.

Format: The Literary Indicator is entered as **KN**.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Examples: **KN**
Y

Valid literary indicators are:

E Short Communication

Assign E whenever the publication is a short communication, e.g., when it is a summary or abstract of a conference paper or other publication, the full text of which is not available, or when it is a short communication such as a letter to the editor. When E is assigned to a publication, the abstract text must be "Short Communication."

K	Conference	<p>Assign K whenever the publication is the proceedings of a conference or other kind of meeting or if it is a paper given at such a meeting.</p> <p>When this literary indicator has been assigned, details of the conference must also be included in the Conference Title (tag <CTE>), Conference Place (tag <CL>), and Conference Date (tag <CD>) fields.</p>
N	Numerical Data	<p>Assign N whenever the publication contains useful numerical data. The data could be single numerical values presented in tables or in graphical form, e.g., tables of mathematical functions, tabulations of physical data, or graphs showing variations of physical properties for different parameters.</p>
Q	Legislative Material	<p>Assign Q whenever the publication is a piece of legislation, i.e., a law, statute, regulation, or other governmental or parliamentary instrument. This literary indicator should not be assigned to publications that treat legislation as subject matter. The subject LEGISLATIVE TEXT must be assigned when this literary indicator is used.</p>
T	Translation	<p>Assign T whenever the publication is a translation. This literary indicator must be accompanied by a citation for the source document in the Translation Note (tag <TN>).</p>
U	Thesis	<p>Assign U whenever the publication is a thesis or dissertation written for the purpose of obtaining a degree from an academic institution or for obtaining a level of membership in an academic institution. This literary indicator must be accompanied by the academic degree and academic dissertation in the Academic Degree (tag <TH>) field and the awarding institution in the Corporate Entry or Corporate Entry Text (tag <CS>) fields.</p>
V	Computer Program	<p>Assign V whenever the publication is documentation of a description of a computer program, user manual, or other software or program documentation necessary to run the program. For example, assign V to program documentation such as a user's program maintenance manual but not to a report describing an application or the user's experience.</p>
W	Standard	<p>Assign W whenever the publication Specification is a standard or a specification. Use is not restricted to official publications of national or international standardization organizations. The STANDARDS DOCUMENT must be assigned when this literary indicator is used.</p>
X	Non-conventional	<p>Assign X whenever the publication is nonconventional literature that, for some compelling reason, cannot be made available to the Office of Scientific and Technical Information in full-text form. When this literary indicator is assigned, an availability note must always be included in the Availability field. When X is assigned for a lead abstract, an X must also be assigned for each analytic related to that lead.</p>

Y Progress Report

Assign Y whenever the publication is a progress report. The subject PROGRESS REPORT must be assigned when this literary indicator is used.

NOTE: Progress reports are reports issued to inform people about research being conducted or recently completed by an organization or one of its components. The activities described may relate to one project or to more than one project. Progress reports are usually issued at intervals throughout the life of the project with a final report being issued after the project is completed. The reports may be called "progress" or "status" reports. They usually indicate the time period covered and contain information concerning progress made during that reporting period; thus they provide important information, although they may not include the history or objectives of the research and often need to be used along with other reports in the series.

Z Bibliography

Assign Z whenever the publication is a bibliography; e.g., a list of citations (with or without abstracts) covering a specific field of knowledge or the publications of a specific organization. The subject BIBLIOGRAPHIES must be assigned when this literary indicator is used.

**5. PERSONAL AUTHOR/
AFFILIATION**

Field Name: Personal Author/Affiliation

SGML Tag Names: <AUTHRM><AU><AFFIL>

Definition: *The person(s), including the inventor of a patent, chiefly responsible for the creation of the intellectual content of the publication.*

Description: A personal author must be included if one is indicated on the publication. If there is not a personal author, leave the field blank. If more than one personal author is entered, repeat all the tags for each author.

Selecting Personal Authors

All persons responsible for the intellectual content are treated as personal authors and their names are included in the personal author fields. Thus the following should be selected:

- Name(s) preceded by the word "by"
- Name(s) not specified as author(s) but which, because of their

location on the publication, may be assumed to be the author(s)

- Person(s) preparing the publication (especially if a report)
- Person(s) submitting the publication (especially if a report)
- Editor(s)
- Compiler(s)
- Principal investigator(s)
- Inventor(s) of patents
- Others who are designated as responsible parties

Author names usually appear on the cover or title page of a publication. Check other pages to verify an author's name, if necessary.

Project or program managers or directors are not selected as authors unless it is specified that the publication was "prepared by" or "submitted by" that person.

For translations, the author of the source document is selected. The name of the translator is not entered in the record.

Unless otherwise indicated, the information for a personal author is entered in the following sequence: the surname, forename initial(s), name fragment, editor or compiler relationship (i.e. a relator), affiliation.

Affiliation

The affiliation provides the name and location of the laboratory or other organization where the author was employed when carrying out the work being described. It is included in the record only if it is given in the publication being cataloged. Do not use the author's current affiliation if it differs from the affiliation where the author was employed when the work was carried out.

If the author's affiliation is the same as the corporate body that will be included in the record, do not include the affiliation in the author field.

NOTE: If there is no personal author, but an organization is listed, enter the

organization as a corporate entry in the Corporate Entry (tag <CC>) field. *Do not* enter an affiliation without a personal author in the personal author fields.

The affiliation may be entered as the corporate text or as the standardized corporate code. In either case, the affiliation is enclosed in parentheses and is separated from the author's name or the relator by a space.

Format: The Personal Author/Affiliation tags are entered as <AUTHRM><AU>Smith, J.R. </AU><AFFIL>4039000</AFFIL> </AUTHRM>

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Examples: <AUTHRM><AU>Smith, J.R. </AU><AFFIL>4039000</AFFIL> </AUTHRM>

<AUTHRM><AU>Hill, A.N.(ed.) </AU><AFFIL>5049000</AFFIL> </AUTHRM>

<AUTHRM><AU>Smith, T.R.M. III (ed.) </AU><AFFIL> <4039000</AFFIL> </AUTHRM>

**6. SPONSORING
ORGANIZATION
CODE**

Field Name: Sponsoring Organization Code

SGML Tag Name: <SPC>

Definition: *A standardized code identifying the organization(s) that funded or monitored the research and development.*

Description: Enter the Sponsoring Organization Code as it appears in Appendix A, "Sponsoring Organization Codes." When more than one code is entered, separate them with a semicolon and a space. If a code for the organization is not listed in Appendix A, send the name and location of the organization along with a suggested code to the Office of Scientific and Technical Information for approval.

Format: The Sponsoring Organization Code is entered as **<SPC>DOE/EH</SPC>**

Content Model: (#PCDATA)

Attributes: None

Parent(s): **<clt>**

Examples: **<SPC>DOE/EH</SPC>**

<SPC>AAPG</SPC>

<SPC>DOE/EH; DOE/FE</SPC>

7. PRIMARY TITLE (M)

Field Name Primary Title (M)

SGML Tag Name: **<TLM>**

Definition: *The distinguishing or identifying English-language name of a monograph.*

Description: Always entered in English; translated if necessary. Only the initial letter, acronyms, and proper names are capitalized; special characters are permitted. Enter numbers that are not part designations as they appear on the publication. Part designations are translated into English and abbreviated. Ordinal and Roman numerals used in part designations are converted to Arabic numerals and followed by a period. Numbers written as words should also be converted to Arabic numerals.

Format: The Primary Title (M) is entered as **<TLM>Crossing the INTERNET threshold</TLM>**.

Content Model: (#PCDATA)

Attributes: None

Parent(s): **<clt>**

Examples: **<TLM>Crossing the INTERNET threshold</TLM>**

<TLM>Energy 2000. Pt. 12</TLM>

**8. PRIMARY REPORT
NUMBER**

Field Name: Primary Report Number

SGML Tag Name: <RN>

Definition: *The primary alphanumeric identification number assigned to a report by the organization which issued that report or which made it available for distribution.*

Description: The primary report number consists of a standardized prefix separated from a free form suffix by a double hyphen (--). The prefix is usually alphabetic and the suffix is usually numeric. Only hyphens and slashes are allowed in a primary report number; spaces are not allowed. Standardized abbreviations are used in the prefix and suffix. (Contact the Office of Scientific and Technical Information for additional information on formatting report numbers.)

Format: The Primary Report Number *is* entered as <RN>WSRC-MS-14</RN>.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <clt>

Examples: <RN>WSRC-NS--14</RN>
<RN>ORNL--3904-REV</RN>

**9. SECONDARY REPORT
NUMBER**

Field Name: Secondary Report Number

SGML Tag Name: <SR>

Definition: *Any report number assigned to a publication that is not entered as the primary report number.*

Description: Use the same format for secondary report numbers as that for primary report numbers. Multiple secondary report numbers are separated with a semicolon and a space. [The International Standard Book Number (ISBN) and International Standard Serial Number (ISSN), if present, are not entered in this field.]

Format: The Secondary Report Number is entered as **<SR>WSRC-ZX--15</SR>**.

Content Model: (#PCDATA)

Attributes: None

Parent(s): **<clt>**

Examples: **<SR>WSRC-ZX--15</SR>**

**<SR>SRS-TN--545; DOE/FE--3-REV
</SR>**

**10. CONTRACT NUMBER
(DOE)**

Field Name: Contract Number (DOE)

SGML Tag Name: **<CN>**

Definition: *The U.S. Department of Energy contract number assigned to the contract under which the research was conducted or the publication was produced.*

Description: Enter the number as it appears on the publication. The contract number may have up to 30 characters. Only alphanumerics and hyphens are allowed; spaces should be deleted and the number closed up. Multiples are separated by a semicolon and a space.

NOTE: Enter the CRADA (Cooperative Research and Development Agreement) number in tag **<CNCR>** (CRADA Number). Enter the CRADA Project Task Statement Number in tag **<CNCP>** (CRADA Project Task Statement Number). If the DOE number is for a grant, project, or other type of agreement and it is not in the standard DOE contract number format, enter the number in tag **<CNN>** [Contract Number (Non-DOE)].

Format: The Contract Number (DOE) is entered as **<CN>AC09-89SR18035</CN>**.

Content Model: (#PCDATA)

Attributes: None

Parent(s): **<clt>**

Examples: <CN>AC09-89SR18035</CN>

<CN>AC02-79R510011;
W-31109-ENG-38</CN>

**11. CONTRACT NUMBER
(NON-DOE)**

Field Name: Contract Number (Non-DOE)

SGML Tag Name: <CNN>

Definition: *The non-DOE contract or other agreement number under which the research was conducted or the publication was produced.*

Description: First enter the term describing the type of agreement, e.g., "Contract," "Project," or "Grant," followed by a space and the agreement number as it appears on the publication. Multiples are separated with a semicolon and a space. If more than one number for a type of agreement is entered, separate them with a semicolon and a space. If more than one type of agreement is entered, precede each number with the type of agreement.

NOTE: Enter the CRADA (Cooperative Research and Development Agreement) number in tag <CNCR> (CRADA Number). Enter the CRADA Project Task Statement Number in tag <CNCP> (CRADA Project Task Statement Number).

Format: The Contract Number (Non-DOE) is entered as
<CNN>Contract AX550921P</CNN>.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Examples: <CNN>Contract AX550921P</CNN>

<CNN>Contract AC01-79C20;
PEF 86/004/03</CNN>

<CNN>Contract No 56-764/01; Grant
UI-550859/10</CNN>

12. PUBLICATION DATE

Field Name:	Publication Date
SGML Tag Name:	<PBD>
Definition:	<i>The date when the publication was published.</i>
Description:	A publication date must be entered for every publication. It is formatted as a 1- or 2-digit day, a space, the first 3 letters of the English language name of the month or season in uppercase and lowercase, a space, and the 4-digit year. If no date of publication is available, the year when the item was processed is entered, enclosed in square brackets ([]).
Format:	The Publication Date is entered as <PBD>3 May 1994</PBD>.
Content Model:	(#PCDATA)
Attributes:	None
Parent(s):	<clt>
Examples:	<PBD>3 May 1994</PBD> <PBD>Jun 1993</PBD> <PBD>1994</PBD> <PBD>[1994]</PBD>

13. COPYRIGHT FLAG

Field Name:	Copyright Flag
SGML Tag Name:	<CPYRT>
Definition:	<i>A one-letter code indicating that a non-conventional publication, such as a scientific or technical report, is copyrighted.</i>
Description:	Enter an uppercase Y if the publication is copyrighted; i.e., carries a copyright notice. Do not enter a code if the publication does not carry a copyright notice.
Format:	The Copyright Flag is entered as <CPYRT>Y</CPYRT>.

14. PAGES (M)

Content Model: (#PCDATA)
Attributes: None
Parent(s): <clt>
Example: <CPYRT>Y</CPYRT>

Field Name: Pages (M)

SGML Tag Name: <PB>

Definition: *The total number of pages in a monograph.*

Description: Enter the total number of pages for the entire publication, including unnumbered pages. Use Arabic numerals, converting Roman numerals to Arabic numerals when necessary. If pagination cannot be determined, enter an estimated number of pages, enclosed in square brackets, e.g., [501].

Format: The Pages (M) is entered as <PB>150</PB>.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <clt>

Examples: <PB>150</PB>

<PB>[72]</PB>

15. TRANSLATION NOTE

Field Name: Translation Note

SGML Tag Name: <TN>

Definition: *The citation to the source, or original, document, i.e., the publication from which a translation was made.*

Description: Input should begin with either "Translated from" or "Translation of," followed by the citation to the source document. The citation should provide sufficient information to allow a user to obtain a copy of the source document. If the translation does not contain a complete citation to the

source document, then enter any information that is available. If no translation information is available, enter the following statement: "Translation source information not available." If information is entered here, literary indicator T should be entered in tag (Literary Indicator).

Format: The Translation note is entered as
 <TN>Translation of "*Mizu no shichiryō supekutoru no tokui genshō*" from *Shitsuryō Bunseki*, v. 19(3) p. 150-157 (1971)</TN>.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <clt>

Examples: <TN>Translation of "*Mizu no shichiryō supekutoru no tokui genshō*" from *Shitsuryō Bunseki*, v. 19(3) p. 150-157 (1971)</TN>

<TN>Translated from *Wiadomości Botaniczne*, v. 13(2) (1969)</TN>

<TN>Translated from Russian</TN>

<TN>Translation source information not available</TN>

16. LANGUAGE (CODE)

Field Name: Language (Code)

SGML Tag Name: <LA>

Definition: The standardized two-letter code(s) for the language(s) in which the publication is written or published.

Description: At least one language code must be assigned to every record. No more than five codes should be assigned. Multiples are separated by a comma and a space. The standardized language codes are given in Appendix B, "Language Names and Codes." Do not enter the language text in this field.

Format: The Language (Code) is entered as
 <LA>EN, FR, SV</LA>.

Content Model: (#PCDATA)
Attributes: None
Parent(s): <cft>
Examples: <LA>EN</LA>
 <LA>EN, FR, SV</LA>.

17. NOTES

Field Name: Notes
SGML Tag Name: <DN>
Definition: *Supplementary cataloging information that is not entered elsewhere in the bibliographic record.*
Description: Entries should be in English. Format is otherwise unrestricted.
Format: Notes are entered as <DN>Contains several maps in annex</DN>.
Content Model: (#PCDATA)
Attributes: None
Parent(s): <cft>
Examples: <DN>Contains several maps in annex</DN>
 <DN>Includes 6 sheets of 24x reduction microfiche</DN>

18. CONFERENCE TITLE (ENGLISH)

Field Name: Conference Title (English)
SGML Tag Name: <CTE>
Definition: *The English language name of the conference in its official and most complete form as assigned by the organizers of the conference.*
Description: Enter the conference title in English, translated if necessary. When two or more conference titles are cited, separate them with a semicolon and a space.
 If information is entered here, literary indicator K must be entered in tag (Literary Indicator).

Format: The Conference Title (English) is entered as **<CTE>Waste management '93</CTE>**.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Examples: **<CTE>Waste management 1993</CTE>**

<CTE>7. International conference on power costs; Globalcon '92: conference and exposition on energy and the environment</CTE>

19. CONFERENCE PLACE

Field Name: Conference Place

SGML Tag Name: <CL>

Definition: *The place where the conference was held.*

Description: Formatted as the English language name of the city, a comma, a space, the standard state or province code, a space, and the standardized country code enclosed in parentheses (see Appendix C, "State and Province Codes") (see Appendix D, "Country and International Organization Names and Codes"). Multiples are separated with a semicolon and a space.

If information is entered here, literary indicator K must be entered in tag (Literary Indicator).

Format: The Conference Place is entered as **<CL>Tucson, AZ (US)</CL>**.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Examples: **<CL>Tucson, AZ (US)</CL>**.

<CL>Paris (FR); New York, NY (US)</CL>

20. CONFERENCE DATES

Field Name: Conference Dates

SGML Tag Name: <CD>

Definition: *The date or dates when the conference was held.*

Description: If the conference was held on only one day, enter the day, the month, and the year in the standard date format. If the conference covered a range of days, enter both the beginning and ending dates. Days within a range are separated by a hyphen; if the range extends between months or years, the dates are separated by a space, a hyphen, and a space. If the conference was held at several different times, or if more than one conference is cited, separate the multiple dates with a semicolon and a space.

If information is entered here, literary indicator K must be entered in tag (Literary Indicator).

Format: The Conference Date is entered as <CD>28 Feb - 4 Mar 1993</CD>.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <clt>

Examples: <CD>28 Feb - 4 Mar 1993</CD>

<CD>12 Jun 1988</CD>

<CD>23-26 Jan 1992; 4-6 Apr 1992</CD>

<CD>29 Dec 1992 - 4 Jan 1993</CD>

21. ACADEMIC DEGREE

Field Name: Academic Degree

SGML Tag Name: <TH>

Definition: *The designation of the academic dissertation and the academic degree for which the publication was prepared.*

Description: Enter the academic dissertation, a space, and then the academic degree enclosed

in parentheses and abbreviated according to national conventions.

Format: The Academic Degree is entered as
<TH>Thesis (Ph.D.)</TH>.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Example: <TH>Thesis (Ph.D.)</TH>

22. DISTRIBUTION CATEGORY

Field Name: Distribution Category

SGML Tag Name: <DC>

Definition: *The distribution subject category assigned to a document.*

Description: The field is formatted as the prefix, UC-, followed by the 3-digit distribution subject category. Multiples are separated with semicolons only.

Format: The Distribution Category is entered as
<DC>UC-123</DC>.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Examples: <DC>UC-123</DC>
<DC>UC-123;UC-432</DC>

23. US DOE PROJECT/ NONPROJECT

Field Name: US DOE Project/Nonproject

SGML Tag Name: <PS>

Definition: *A code indicating whether or not the publication results from a U.S. Department of Energy (DOE)-sponsored project.*

Description: Enter a P if the publication results from DOE-sponsored research. Do not enter any code if the publication does not result from research sponsored by DOE.

For conference proceedings or other conference-related publications, enter a P if DOE sponsored or cosponsored the conference.

Format: The US DOE Project/Nonproject code is entered as **<PS>P</PS>**.

Content Model: (#PCDATA)

Attributes: None

Parent(s): **<cit>**

Example: **<PS>P</PS>**

24. SOURCE OF BIBLIOGRAPHIC INPUT

Field Name: Source of Bibliographic Input

SGML Tag Name: **<BS>**

Definition: *The standardized code identifying the input source providing the information for the record.*

Description: The standardized code is formatted as 2 to 4 uppercase alphabetic characters.

The Source of Bibliographic Input code for the Savannah River Site is SRS.

Format: The Source of Bibliographic Input is entered as **<BS>SRS</BS>**.

Content Model: (#PCDATA)

Attributes: None

Parent(s): **<cit>**

Example: **<BS>SRS</BS>**

25. COUNTRY OF ORIGIN

Field Name: Country of Origin

SGML Tag Name: **<CO>**

Definition: *The code identifying the country or international organization where the research was performed.*

Description: Input is based on the location of the affiliation of the first author or on the

corporate body if no author is listed. Enter the 2-letter ISO 3166 country code or the standardized 2-letter international organization code. These codes are listed in Appendix D, "Country and International Organization Names and Codes."

Format: The Country of Origin code is entered as **<CO>US</CO>**.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Example: **<CO>US</CO>**

26. COUNTRY OF PUBLICATION

Field Name: Country of Publication

SGML Tag Name: **<CP>**

Definition: *The code identifying the country where the publication was published or the international organization that published it.*

Description: Enter the 2-letter ISO 3166 country code or the standardized 2-letter international organization code. These codes are listed in Appendix D, "Country and International Organization Names and Codes."

Format: The Country of Publication code is entered as **<CP>US</CP>**.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <clt>

Example: **<CP>US</CP>**

27. TITLE AUGMENTATION

Field Name: Title Augmentation

SGML Tag Name: **<TIA>**

Definition: *Supplementary information provided to clarify or elaborate on the title of the item and to assist with subject indexing of the item.*

Description: Enter the augmentation using the same procedures as those for entering a publication title.

Format: The Title Augmentation is entered as
<TIA>chemical waste Industries</TIA>

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Example: <TIA>chemical waste Industries</TIA>

28. CRADA NUMBER

Field Name: CRADA Number

SGML Tag Name: <CNCR>

Definition: *The unique number assigned to a CRADA (Cooperative Research and Development Agreement).*

Description: The CRADA Number is entered as the standardized CRADA prefix assigned to the DOE organization, two hyphens, and the suffix assigned to the specific CRADA being cited.

Format: The CRADA Number is entered as
<CNCR>C/WSRC--CR-93-011</CNCR>.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Example: <CNCR>C/WSRC--CR-93-011</CNCR>

29. CRADA PROJECT TASK STATEMENT NUMBER

Field Name: CRADA Project Task Statement Number

SGML Tag Name: <CNCP>

Definition: *The Project Task Statement Number (PTS) assigned to a specific project covered by a CRADA.*

Description: The CRADA Project Task Statement Number is entered as the standardized

PTS prefix, two hyphens, and the suffix assigned to that specific project.

Format: The CRADA Project Task Statement Number is entered as
<CNCP>CP/SWRC--XYZ-001</CNCP>.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Example: <CNCP>CP/SWRC--XYZ-001</CNCP>

30. CORPORATE ENTRY CODE

Format Name: Corporate Entry Code

SGML Tag Name: <CC>

Definition: *The standardized seven-digit code assigned to corporate entries.*

Description: A corporate entry is composed of the name and location of the corporate body responsible for the publication being described. Enter the code without any spaces. Multiples are separated with semicolons only. See Appendix E, "Corporate Codes," for a listing of corporate codes frequently used for Savannah River Site publications.

Format: The Corporate Code is entered as
<CC>9520932</CC>.

Content Model: (#PCDATA)

Attributes: None

Parent(s): <cit>

Examples: <CC>9520932</CC>
<CC>9520932; 9528993</CC>

31. CORPORATE ENTRY TEXT

Field Name: Corporate Entry Text

SGML Tag Name: <CS>

Definition: *The name and location of the corporate body or corporate bodies responsible for the publication being described.*

Description:

Enter the name of the corporate body followed by its location (city, state or province, country) unless a code has been entered in the Corporate Entry Code field (tag CC) *Text should not be entered if the corresponding code has been entered in the Corporate Entry Code field (tag CC)*. Multiples should be separated with a semicolon and a space.

Corporate bodies are defined as:

Corporate Author: the organizations(s) identified on the publication as being responsible for its intellectual content (in the absence of a personal author), or

Issuing Body/Assignee: the organization(s) identified on the publication as:

- (1) technically, editorially, or contractually responsible for its contents (in conjunction with a personal author);
- (2) the academic institution granting a degree;
- (3) the organization(s) sponsoring a scientific meeting.

NOTE 1: For translations published in report form, the corporate entry is the organization identified on the source, or original, document. If that organization cannot be identified, the issuing body responsible for the translation should be selected.

NOTE 2: Funding and monitoring organizations are reported in the Sponsoring Organization Code field (tag SPC) (see page 11).

Format:

The Corporate Entry Text is entered as <CS>Westinghouse Savannah River Company, Alken, SC (US)</CS>.

Content Model:

(#PCDATA)

Attributes:

None

Parent(s):

<clt>

Examples:

<CS>Westinghouse Savannah River
Company, Aiken, SC (US)</CS>

<CS>Savannah River Laboratory,
Aiken, SC (US); Westinghouse Savan-
nah River Company, Aiken, SC (US)
</CS>

32. ABSTRACT**Field Name:**

Abstract

SGML Tag Name:

<AB>

Definition:

*A clear and concise English language
summary of the information contained in
the publication being processed.*

Description:

This is a free form field that should
always contain information. Alpha-
numerics, punctuation, and special
characters are permitted. Capitalization
follows standard English language
conventions. The number of references,
tables, figures, and other illustrative
material should be added at the end of
the abstract; use the terms in the follow-
ing table for this information. If literary
indicator E has been entered in tag
(Literary Indicator), enter "Short commu-
nication" in the abstract field.

**Terms Used for Referencing
Illustrative Material**

Reference, References	ref., refs.
Chart, Charts	
Figure, Figures	fig., figs.
Table, Tables	tab., tabs.
Map, Maps	
Plan, Plans	
Illustration, Illustrations	ill., ills.

Format: The Abstract is entered as **<AB>**. This document presents the results of a study of watershed habitats over many years. 5 Ills.**</AB>**.

Content Model: (#PCDATA)

Attributes: None

Parent(s): **<cit>**

Example: **<AB>**This document presents the results of a study of *watershed habitats* over many years. 5 Ills.**</AB>**

<AB>Short communications.**</AB>**

DOCUMENT TYPE DEFINITION AND SAMPLE REPORTS

<!--

-->

<!DOCTYPE bibfile [

<!--

Entities -->

&&& -->

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ovr, tilde, bar, anti, lvec, rvec,
acute, breve, umlt, hacek, grave,
accent, dot, cflx" -- OSTI special characters -->

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<!-- Basic structure of the report -- >

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<!-- The numbers in the following explanations refer to EDB field numbers when EDB fields have been retained intact -->

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<IELEMENT	li	--	(#PCDATA)	--40 Literary Indicator -->

<!-- The repeatable element authrm contains two elements: "au" and the optional "affil." Other elements, not identified for this test transmission, may be repeatable -->

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<IELEMENT	tlm	--	(#PCDATA)	--110 Primary Title (M) -->
<IELEMENT	rn	--	(#PCDATA)	--150 Primary Report Number -->
<IELEMENT	sr	--	(#PCDATA)	--210 Secondary Number -->
<IELEMENT	cn	--	(#PCDATA)	--240 Contract Number (DOE) -->
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 <authrm><au>Looney, B.</au></authrm><authrm><au>Cook, J.R.</au></authrm>
 <tlm>Evaluation of waste tank 16 using a field mercury analyzer</tlm>
 <rn>DPST--88-560</rn>
 <cn>AC09-76SR00001</cn>
 <cnn>Contract SA20207S</cnn>
 <pbd>12 May 1988</pbd>
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 <pb>8</pb>
 <la>EN</la>
 <dc>MN-721</dc>
 <ps>P</ps>
 <bs>SRS</bs>
 <co>US</co>
 <cp>US</cp>
 <tia>Contains glossary.</tia>
 <cncr>C/WSRC--CR-93-011</cncr>
 <cc>9520932</cc>
 <ab>Liquid & Epsilon radioactive wastes from the chemical processing of nuclear materials at the Savannah River Plant (SRP) are stored in large tanks buried near the ground surface. Each tank has multiple containment & microbarriers designed to prevent leakage to the surrounding soil and groundwater. The only incident in which waste leaked through the multiple containment of a waste tank at SRP occurred at Tank 16 on September 8, 1960. Tank 16 was built in 1955 and has a capacity of approximately one million gallons. Tank 16 consists of a steel primary containment vessel resting in a shallow steel pan. A massive concrete encasement surrounds the tank and pan. After the leak in 1960, the tank was removed from service until 1967; at that time it was placed into service for lower activity wastes. In 1972 the tank was removed from service. Subsequently, all of the waste except a sludge heel of 67,000 gallons was removed from the tank. In 1980, this sludge was removed. Following the sludge removal, the tank was exhaustively cleaned and rinsed. Concentrations of radioactivity in the rinsewater suggested that the cleaning of the tank was effective. Recently, there has been concern about residual nonradioactive constituents, such as mercury, in the tank. To assist in evaluating the potential for residual mercury contamination, a survey method was developed and a survey of several tanks was conducted. 3 refs., 1 tab.</ab><cncp>CP/WSRC--xyz-001</cncp>
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 <authrm><au>Wicks, G.</au></authrm><authrm><au>Jantzen, C.</au>
 </authrm><authrm><au>Plodinec, J.</au></authrm>
 <tlm>SRL in-situ tests in the United Kingdom: Part 1, program document and sample emplacements</tlm>
 <rn>DPST--88-494</rn>
 <cn>AC09-76SR00001</cn>
 <pbd>14 Apr 1988</pbd>
 <pb>18</pb>
 <la>EN</la>
 <dc>MN-721</dc>
 <ps>P</ps>

<bs>SRS</bs>

<co>US</co>

<cp>US</cp>

<cncr>C/WSRC--94-011</cncr>

<cs>Savannah River Lab., Aiken, SC (US)</cs>

<ab>The primary objective of the high-level waste management program at the Savannah River Plant (SRP) is to safely and effectively immobilize high-level radioactive defense waste into borosilicate glass. A multiphase experimental effort, directed at assessing and understanding waste glass behavior under repository conditions, has been in progress at Savannah River Laboratory (SRL) for approximately seven years. Emphasized in this program are waste glass and repository relevant interactions both on a laboratory scale and in field tests. It is the objective of this report to describe the new SRL in-situ program conducted in the UK. 33 refs., 5 figs., 4 tabs.</ab>

</reportx>

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<ldr>N</ldr>

<trn>93000003</trn>

<dt>R</dt>

Y

<authrm><au>Mackey, H.E. (ed.)</au></authrm>

<tlm>Comprehensive cooling water study: Volume 4, Wetlands: Final report</tlm>

<rn>DP--1739-4 </rn>

<cn>AC09-76SR00001</cn>

<pbd>Sep 1987</pbd>

<pb>170</pb>

<la>EN</la>

<dc>MN-702</dc>

<ps>P</ps>

<bs>SRS</bs>

<co>US</co>

<cp>US</cp>

<cncr>C/WSRC--94-021</cncr>

<cc>2205000</cc>

<ab>The Comprehensive Cooling Water Study (CCWS) was initiated in 1983 to evaluate the environmental effects of the intake and release of cooling water on the structure and function of aquatic ecosystems. This document is the final report and concludes the program. The report comprises eight volumes. The first is a summary of environmental effects. The other seven volumes address water quality, radionuclide and heavy metal transport, wetlands, aquatic ecology, Federally endangered species, ecology of Par Pond, and waterfowl. 87 refs., 49 figs., 58 tabs.</ab>

</reportx>

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<dt>R</dt>

KN

<authrm><au>Jalbert, R.A.(ed.)</au><affil>Los Alamos National Lab., NM (US)</affil></authrm>

<authrm><au>Murphy, C.E.</au><affil>9520932 </affil></authrm>

<tlm>US team measurements during the June 1987 experimental HT release at the Chalk River Nuclear Laboratories, Ontario, Canada</tlm>

<rn>LA-UR--88-820</rn>

<sr>WSRC--MS93-480</sr>

<cn>W-7405-ENG-36</cn>

<pbd>1988</pbd>

<pb>6</pb>

<la>EN</la>

<dn>Also available on floppy diskette.</dn>

<cte>3. topical meeting on tritium technology in fission, fusion and isotopic applications</cte>

<cl>Toronto, (CA)</cl>

<cd>1 MAY 1988</cd>

<dc>MN-425</dc>

<ps>P</ps>

<bs>SRS</bs>

<co>US</co>

<cp>US</cp>

<cncr>C/WSRC--94-012</cncr>

<cc>9520932</cc>

<ab>In June 1987, an experiment was performed at the Chalk River Nuclear Laboratories in Ontario, Canada, to study the oxidation of HT in the environment. The experiment involved a 30-minute release of 100 Ci of HT to the atmosphere at an elevation of one meter. The HTO/HT ratios were shown to slowly increase downwind ($\{approximately\}4 \{times\} 10^{\{minus\}5}$ at 50 meters to almost $10^{\{minus\}3}$ at 400 meters) as conversion of HT takes place. For several days after the release, HTO concentrations in the atmosphere remained elevated. Freeze-dried water from vegetation samples was found to be very low in HTO immediately after the release suggesting a very low direct uptake of HTO in air by vegetation. The tritiated water concentration increased during the first day, peaking during the second day (about 400 to 600 pCi/ml of water at 50 meters from the source) and decreasing by the end of the second day. The organically bound tritium continued to accumulate during the period following exposure (about 10 pCi/gm dry weight at 50 meters after two days). 4 refs., 6 figs., 2 tabs.</ab>

</reportx>

<reportx>

<ldr>N</ldr>

<trn>93000005</trn>

<dt>R</dt>

UT

<authrm><au>Trotignon, L.</au><affil>Laboratory of Long-Term Behavior Research, Fontenay aux Roses Cedex (FR)</affil></authrm>

<spc>DOE/DP</spc>

<tlm>Aqueous corrosion of borosilicate glasses nature and properties of alteration layers</tlm>

<m>WSRC-tr--142</m>

<cn>AC09-89SR18035</cn>

<pbid>[1991]</pbid>

<pb>188</pb>

<tn>Translation of French thesis presented before Paul Sabatier University in Toulouse, June 25, 1990.

</tn>

<la>EN</la>

<th>Thesis (Ph.D.)</th>

<dc>MN-703</dc>

<ps>P</ps>

<bs>SRS</bs>

<co>US</co>

<cp>US</cp>

<cncr>C/WSRC--94-012</cncr>

<cc>9525316;6287800</cc>

<ab>In this study, we compare corrosion and alteration layers of gradually more complex borosilicate glasses, from a ternary sodium borosilicate glass to a simulated nuclear glass (this concerns the standard French glass SON 68 18 17 L1 C2 A2 Z1, also called R7T7, whose exact composition is given in Nogues [1984]). The simplified glasses, called G2, G3, etc., are formulated to respect the same molar ratios between the different oxides composing them as those of simulated nuclear glass. We progressively

increase their complexity by adding the oxides in nuclear glass to them by decreasing order of abundance. After some theoretical comments on the structure and corrosion of borosilicate glasses, we present the material studied, the aqueous corrosion experiments, and the analytical techniques used for studying the alteration layers. We present the experimental results. We discuss the implications for underground storage of nuclear glasses from our results at this time; we also give some prospects for further research in this area.

SPECIAL CHARACTER SET

<!--

FILE: SPECIAL.ENT

DATE: 06/20/94

This file contains entity definitions for the OSTI special character set. Several symbols are not supported because they contain characters not allowed in SGML element names.

String type special characters, such as {sup ...} are handled as elements.

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APPENDIX A: SPONSORING ORGANIZATION CODES

Listing as of September 29, 1993

Code	Description
AAPG	American Association of Petroleum Geologists
ACADFI	Academy of Finland
ACDA	U.S. Arms Control and Disarmament Agency
ACEEE	American Council for an Energy-Efficient Economy
ACERR	Alberta/Canada Energy Resources Research Fund
ACHEMS	American Chemical Society
ACMA	American Cast Metals Association
ACNP	American College of Nuclear Physics
ACS	American Cancer Society
AECL	Atomic Energy of Canada, Limited
AEE	Atomic Energy Establishment
AEENG	Association of Energy Engineers
AEERL	Air and Energy Engineering Research Laboratory
AESJA	Atomic Energy Society of Japan
AGA	American Gas Association
AGC	Agriculture Canada (Ottawa)
AGU	American Geophysical Union
AIAA	American Institute of Aeronautics and Astronautics
AICHE	American Institute of Chemical Engineers
AID	U.S. Agency for International Development
AIP	American Institute of Physics
AKINDUS	Alaska Industrial Association Program
AKRONU	University of Akron
AKU	University of Alaska
AKZO	(Research Division, The Netherlands)
ALA	Alberta Agriculture, Lethbridge, AB Canada
ALCMA	Alabama Cast Metals Association, Edmonton, AB Canada
ALEFLW	Alberta Energy, Forestry, Lands and Wildlife Library, Edmonton, AB Canada
ALENV	Alberta Environment, AB Canada
ALHUNU	University of Alabama-Huntsville
ALLSE	The Alliance to Save Energy
ALMA	Alberta Municipal Affairs
ALP	Alberta Power Ltd, AB Canada
ALRC	Alberta Research Council, Edmonton, AB Canada
ALTRT	Alberta Technology, Research and Telecommunications, AB Canada
ALU	University of Alabama
AMA	American Medical Association
AMCA	AMCA International Ltd
AMFSOC	American Fisheries Society
AMMC	American Mining Congress
AMPET	American Petroleum Institute
AMSN	American Solar Network
AMVACS	American Vacuum Society

Code	Description
ANDERSO	City of Anderson, Illinois
ANL	Argonne National Laboratory
ANS	American Nuclear Society
ANTRIM	Antrim County, Michigan
APS	American Physical Society
ARC	Australian Research Council
ARTI	Air Conditioning and Refrigeration Technology Institute
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASNT	American Society for Nondestructive Testing
ASPRC	Academia Sinica of the People's Republic of China
ASTM	American Society of Testing and Materials
ASWM	Alberta Special Waste Management Corporation
ATLANU	Atlanta University
ATLANUC	Atlanta University Center
AUAT	Argonne Universities Association Trust
AUBURNU	Auburn University
AURGS	Australian Research Grant Scheme
AUSF	Austrian Science Foundation
AVHFOUN	Alexander von Humboldt Foundation
AVICHS	The Alberni Valley Intermediate Care Home Society
AWMA	U.S. Air & Waste Management Association
AWU	Associated Western Universities
AZPUBSE	Arizona Public Service
AZSOLEN	Arizona Solar Energy Commission
AZSRP	Arizona Salt River Project
AZSU	Arizona State University
AZU	University of Arizona
BABWIL	Babcock and Wilcox
BALLSU	Ball State University
BASTEC	BASTEC
BCH	British Columbia Hydro, Vancouver, BC Canada
BCL	Battelle Columbus Laboratories
BCNDCT	Brazilian Conselho Nacional de Desenvolvimento Cientifico e Tecnologico
BELGIUM	Government of Belgium
BENSF	Belgian National Science Fund
BMFT	Bundesministerium fuer Forschung und Technologie
BROWNU	Brown University
BYU	Brigham Young University
CAARA	California Association for Research in Astronomy
CACMA	California Cast Metals Association
CADCOMM	California Department of Commerce
CADCOU	The Cadmium Council
CAEC	California Energy Commission
CAFGD	California Fish and Game Department
CAIAR	Canadian Institute for Aerospace Research
CAIEE	California Institute for Energy Efficiency
CALTECH	California Institute of Technology
CANSERC	Natural Sciences and Engineering Research Council of Canada
CARLFDN	Carlsberg Foundation
CASLC	California State Lands Commission

Code	Description
CAU	University of California
CCPI	Cogeneration & Competitive Power Institute
CCTP	California Competitive Technology Program
CEA	Commissariat a l'Energie Atomique
CEC	Commission of the European Communities
CEOGR	Center for Enhanced Oil and Gas Recovery Research
CEO	Council on Environmental Quality
CERN	European Organization for Nuclear Research
CFKRL	C.F. Kettering Research Laboratory
CHILEU	University of Chile
CHLPROJ	Swiss LUMEN Project
CHNMC	City of Hope National Medical Center
CIA	Central Intelligence Agency
CIAR	Center for Indoor Air Research
CIEMAT	Centro de Investigaciones Energeticas, Medioambientales y Tecnologias
CINCU	University of Cincinnati
CIOFLA	City of Los Angeles
CIOFSA	City of Sacramento
CLATU	Clark Atlanta University
CMHC	Canada Mortgage and Housing Corporation
cmu	Carnegie-Mellon University
CNR	Consiglio Nazionale delle Ricerche
CNRGNA	Consiglio Nazionale delle Ricerche, Gruppo Nazionale di Astronomia
COCEM	Colorado Center for Environmental Management
COGLA	Canada Oil and Gas Lands Administration
COIGC	Colorado Interstate Gas Company
COLU	Columbia University
COLUMBU	City of Columbus, Ohio
COOGA	Colorado Oil & Gas Association
COSCHMI	Colorado School of Mines
COSTA	Government of Costa Rica
costs	Colorado State University
cou	University of Colorado
CPA	Canadian Petroleum Association
CPSC	Consumer Product Safety Commission
CPWA	Canadian Public Works Association
CRRRA	Conseil Regional de la Region Rhone-Alpes
CRSSE	Center for Research in Superconductivity and Superconducting Electronics
CTU	University of Connecticut
CUA	Catholic University of America
CUNY	City University of New York
CWOFOUN	C. W. Obel Foundation
DANME	Danish Ministry of Education
DARTMO	Dartmouth College
DEFMST	German Federal Ministry of Science and Technology
DELFTU	Delft University of Technology
DEMRT	German Ministry of Research and Technology
DESMOI	City of Des Moines, Iowa
DEU	University of Delaware
DFG	Deutsche Forschungsgemeinschaft - DFG (German Research Partnership)

Code	Description
DKTU	Danish Technical University
DNA	Defense Nuclear Agency
DNSRC	Danish Natural Science Research Council
DOA	U.S. Department of Agriculture
DOC	U.S. Department of Commerce
DOD	U.S. Department of Defense
DODA	Australian Department of Defense
DOE/AD	U.S. DOE Office of Administration and Human Resource Management
DOE/AN	U.S. DOE Office of Arms Control and Nonproliferation
DOE/AO	U.S. DOE Albuquerque Operations Office
DOE/APA	U.S. DOE Alaska Power Administration
DOE/BPA	U.S. DOE Bonneville Power Administration
DOE/BPO	U.S. DOE Bartlesville Project Office
DOE/BU	U.S. DOE Office of Small and Disadvantaged Business Utilization
DOE/CE	U.S. DOE Office of Conservation & Renewable Energy
DOE/CGE	U.S. DOE Northeast Regional Center for Global Environmental Change
DOE/CO	U.S. DOE Chicago Operations Office
DOE/CP	U.S. DOE Assistant Secretary for Congressional, Intergovernmental, and Public Affairs
DOE/CR	U.S. DOE Financial Management and Controller
DOE/DP	U.S. DOE Office of Defense Programs
DOE/EE	U.S. DOE Office of Energy Efficiency & Renewable Energy
DOE/EH	U.S. DOE Office of Environment Safety & Health
DOE/EI	U.S. DOE Energy Information Administration
DOE/EM	U.S. DOE Office of Environmental Restoration and Waste Management
DOE/EP	U.S. DOE Office of Domestic and International Energy Policy
DOE/ER	U.S. DOE Office of Energy Research
DOE/FE	U.S. DOE Office of Fossil Energy
DOE/IE	U.S. DOE Assistant Secretary for International Affairs and Energy Emergencies
DOE/IG	U.S. DOE Office of Inspector General
DOE/IN	U.S. DOE Office of Intelligence
DOE/IO	U.S. DOE Idaho Operations Office
DOE/LPO	U.S. DOE Laramie Project Office
DOE/MA	U.S. DOE Office of Management & Administration
DOE/MET	U.S. DOE Morgantown Energy Technology Center
DOE/MI	U.S. DOE Office of Minority Economic Impact
DOE/NE	U.S. DOE Office of Nuclear Energy
DOE/NO	U.S. DOE Nevada Operations Office
DOE/NP	U.S. DOE Office of New Production Reactors
DOE/NS	U.S. DOE Office of Nuclear Safety
DOE/NT	U.S. DOE Office of Intelligence
DOE/OE	U.S. DOE Office of Emergency Planning and Operations
DOE/ORO	U.S. DOE Oak Ridge Operations Office
DOE/PE	U.S. DOE Office of Policy, Planning and Analysis
DOE/PET	U.S. DOE Pittsburgh Energy Technology Center
DOE/PO	Federal Fleet Conversion Task Force
DOE/PR	U.S. DOE Office of Procurement, Assistance and Program Management
DOE/RG	U.S. DOE Economic Regulatory Administration
DOE/RO	U.S. DOE Richland Operations Office
DOE/RW	U.S. DOE Office of Civilian Radioactive Waste Management

Code	Description
DOE/S	U.S. DOE Office of the Secretary
DOE/SA	U.S. DOE Office of Security Affairs
DOE/SEP	U.S. DOE Southeastern Power Administration
DOE/SFO	U.S. DOE San Francisco Operations Office
DOE/SRO	U.S. DOE Savannah River Operations Office
DOE/ST	U.S. DOE Office of Science and Technology
DOE/SWP	U.S. DOE Southwestern Power Administration
DOE/WAP	U.S. DOE Western Area Power Administration
DOED	U.S. Department of Education
DOEIND	DOE-Industry EM Consortium
DOHHS	U.S. Department of Health and Human Services
DOHUD	U.S. Department of Housing and Urban Development
DOI	U.S. Department of the Interior
DOJ	U.S. Department of Justice
DOL	U.S. Department of Labor
DOS	U.S. Department of State
DOT	U.S. Department of Transportation
DOTR	U.S. Department of the Treasury
DOVA	U.S. Department of Veterans Affairs
DSMS	Demand Side Management Society
DTRC	Danish Technical Research Council
DTRS	David Taylor Research Center
DUKEU	Duke University
EC	Environment Canada
ECFOUN	Edmonton Churchill Foundation
ECSFELL	E.C. Stevens Fellowship
EEC	European Economic Community
EEI	Edison Electric Institute
EEMI	Environmental Engineers & Managers Institute
ELECPOB	Electric Power Board
ELEINST	Elementary Institute
EMFAP	Energy Modeling Forum Affiliates Program
EMR	Energy, Hines and Resources Canada, Ottawa
EPA	Environmental Protection Agency
EPCA	Emergency Preparedness Canada, Ottawa, CA
EPRI	Electric Power Research Institute
ERRF	Energy Resources Research Fund (Alberta)
ESEERC	Empire State Electric Energy Research Corporation
ESRF	Environmental Studies Research Funds, Ottawa, CA
ETDE	Energy Technology Data Exchange
EURSF	European Science Foundation
FAA	Federal Aviation Administration
FAMI	Foundry Association of Michigan
FEMA	U.S. Federal Emergency Management Agency
FEMP	Federal Energy Management Program (Canada)
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
FIIMR	Finnish Institute of Marine Research
FJHFOUN	Fannie and John Hertz Foundation
FLATU	Florida Atlantic University

Code	Description
FLFEL	Feodor Lynen Fellowship
FLHTC	Florida High Technology Council
FLSEC	Florida Solar Energy Center
FLSL	Florida State Legislature
FLU	University of Florida
FMHA	Farmers Home Administration
FMSR	Federal Ministry of Science and Research
FNSRS	Fonds National Suisse de la Recherche Scientifique
FORDFDN	Ford Foundation
FOUNVN	Foundation Vision North
FREMB	French Embassy in the United States
FSFELL	Feinberg School Fellowship
FSU	Florida State University
FTC	Federal Trade Commission
FULBCOM	Fulbright Commission
GAO	U.S. General Accounting Office
GASU	Georgia State University
GAU	University of Georgia
GEORGEU	Georgetown University
GEOSA	Geological Society of America
GGUSTF	Goeran Gustafsson Foundation
GIT	Georgia Institute of Technology
GLCAACM	Great Lakes Colleges Association/Associated Colleges of the Midwest
GRAMSU	Grambling State University
GRI	Gas Research Institute
GSA	U.S. General Services Administration
GSIDARM	Center for Heavy Ion Research (Gesellschaft fuer Schwerionenforschung
Darmstadt - GSI Darmstadt)
HAMSF	Hokkaido Area Management and Support Foundation
HANEI	Hawaii Natural Energy Institute
HARVU	Harvard University
HERFOUN	Herbette Foundation
HMIB	Hahn-Meitner-Institut Berlin GmbH
HOUSU	University of Houston
HPSOC	Health Physics Society
HUAS	Hungarian Academy of Sciences
HUNSRF	Hungarian National Scientific Research Foundation
IAEA	International Atomic Energy Agency
IALE	International Association for Landscape Ecology
IASU	Iowa State University
ICRUM	International Commission on Radiation Units and Measurements, Bethesda, MD
IDA	Institute for Defense Analysis
IDU	University of Idaho
IEA	International Energy Agency
IEEE	Institute of Electrical and Electronics Engineers
IESNA	Illuminating Engineering Society of North America
IGT	Institute of Gas Technology
IGU	International Gas Union
IIEC	International Institute for Energy Conservation
ISME	Industry Initiatives for Science and Math Education

Code	Description
IIT	Illinois Institute of Technology
ILARO	Agricultural Research Organization (Israel)
ILASH	Israel Academy of Science and Humanities
ILCOSTI	National Center of Scientific and Technological Information (Israel)
ILCRSC	Illinois Center for Research on Sulfur in Coal
ILDENR	Illinois Department of Energy and Natural Resources
ILIT	Israel Institute of Technology
ILMOEI	Ministry of Energy and Infrastructure
ILU	University of Illinois
ILZRO	International Lead Zinc Research Organization
INDIA	Government of India
INFN	National Institute for Nuclear Physics (Italy)
INSTPST	Institute of Paper Science and Technology
INTFOUN	Intel Foundation
IPAMS	Independent Producer's Association of Mountain States
IRNE	Institutul de Reactori Nucleari Energetici
ISEP	International Society for Electrostatic Precipitation
ISHMEF	International Society for Hybrid Microelectronics Educational Foundation Fellowship
ITINFN	National Institute for Nuclear Physics, Italy (Istituto Nazionale di Fisica Nucleare - INFN)
ITMPI	Italian Ministry of Public Instruction
ITRC	Information Technology Research Centre (Ontario)
ITSA	Italian Space Agency
JAERI	Japan Atomic Energy Research Institute
JAGA	Japan Gas Association
JAMESC	Japan Ministry of Education, Science and Culture
JAUSFFT	Japan/U.S. FFTF-MOTA Collaboration of U.S. DOE and Monbusho
JHOPKU	Johns Hopkins University
JIFT	JIFT Program
JIHIR	Joint Institute for Heavy Ion Research
JINR	Joint Institute for Nuclear Research
JMHW	Japanese Ministry of Health and Welfare
JRCEEM	Joint Research Committee of European Engine Manufacturers
JSPS	Japan Society for the Promotion of Science
KECFOUN	Keck Foundation
KEK	National Laboratory for High Energy Physics (Japan)
KENTCO	Kent County, Michigan, Department of Public Works
KENTSU	Kent State University
KFK	Kernforschungszentrum Karlsruhe
KFKI	Central Research Institute for Physics, Budapest, Hungary
KHFDN	Knud Højgaard Foundation
KOREA	Republic of Korea
KOSEF	Korea Science and Engineering Foundation
KRUFOUN	KRUPP Foundation (Germany)
KYU	University of Kentucky
LAMARUT	Lamar Utility Board
LANL	Los Alamos National Laboratory
LBL	Lawrence Berkeley Laboratory
LEHIGHU	Lehigh University
LINCOLN	City of Lincoln, Nebraska

Code	Description
LINFOUN	Link Foundation
LLNL	Lawrence Livermore National Laboratory
LOC	Library of Congress
LOUNFDN	Lounsbery Foundation
LOWELLU	University of Lowell (MA)
MAU	University of Massachusetts
mciss	Midwest Consortium for International Security Studies
MDEM	Manitoba Department of Energy and Mines, Winnipeg
MDU	University of Maryland
MES	Ministry of Education and Science (Spain)
MEU	University of Maine
MGLS	The Minerals and Geotechnical Logging Society
MIAMIOU	Miami University (Ohio)
MIENAD	Michigan State Energy Administration
MILRWC	Midwest Interstate Low-Level Radioactive Waste Commission
MIMA	Mineral Insulation Manufacturers Association
MIT	Massachusetts Institute of Technology
MITECHU	Michigan Technological University
MNU	University of Minnesota
MOREC	Morehouse College
mou	University of Missouri
MRBFOUN	Mary Reynolds Babcock Foundation
MSCON	Midwest Superconductivity Consortium
MSRUF	Ministry of Sciences of the Russian Federation
mssu	Mississippi State University
msu	University of Mississippi
MTCC	Montana Coal Council
MTCMST	Montana College of Mineral Sciences and Technology
MTL	Metals Technology Laboratories
MTSU	Montana State University
MTTU	Montana Technical University
MURCTR	Murdock Charitable Trust
NADP	National Atmospheric Deposition Program
NAEC	Naval Air Engineering Center
NAGRA	Swiss National Cooperative for the Storage of Nuclear Waste
NAHBRF	National Association of Home Builders Research Foundation
NARUC	National Association of Regulatory Utility Commissioners
NAS/NAE	National Academy of Sciences/National Academy of Engineering/Institute of Medicine
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organization
NATRC	National Research Council
NBDNRE	New Brunswick Department of Natural Resources and Energy
NBES	New Brunswick Energy Secretariat
NCATT	North Carolina AT&T
NCEL	Naval Civil Engineering Laboratory
NCGA	National Corn Growers Association
NCGS	North Carolina Geological Survey
NCI	National Cancer Institute
NCPIAS	National Council for the Paper Industry on Air and Stream Improvement

Code	Description
NCRPM	National Council on Radiation Protection and Measurements
NCSU	North Carolina State University
NDC	National Dairy Council
NDU	University of North Dakota
NEA	National Endowment for the Arts
NEDO	New Energy and Industrial Technology Development Organization
NEFF	National Energie-Forschung-Fonds
NERSC	National Energy Research Supercomputer Center
NEU	University of Nebraska
NEWDME	Newfoundland Department of Mines and Energy
NFCR	National Foundation for Cancer Research
NGS	National Geographic Society
NIEHS	National Institute of Environmental Health Sciences
NIGEC	National Institute for Global Environmental Change
NIGMS	National Institute of General Medical Sciences
NIOSH	National Institute for Occupational Safety and Health
NIPER	National Institute for Petroleum and Energy Research
NIST	National Institute of Standards and Technology
NJDENV	New Jersey Department of Environmental Protection
NLH	Newfoundland and Labrador Hydro
NLM	National Library of Medicine
NLZWO	Netherlands Organization for the Advancement of Pure Research (Nederlandse Organisatie voor Zuiver Wetenschappelijk Onderzoek ZWO)
NMBMMR	New Mexico Bureau of Mines and Mineral Resources
NME	Newfoundland Department of Mines and Energy (St. John's)
NMFOUN	Nukazawa Memorial Foundation
NMPETRO	New Mexico Petroleum Recovery Research Center
NMRDI	New Mexico Research and Development Institute
NMU	University of New Mexico
NOAA	National Oceanic and Atmospheric Administration
NOMIU	Northern Michigan University
NORC	Royal Norwegian Council for Scientific and Industrial Research
NORCUS	Northwest College and University Association for Science
NORFOUN	Norman Foundation
NOSR	Netherlands Organization for Scientific Research
NOTREDU	University of Notre Dame
NOVA	NOVA, an Alberta Corporation, Calgary
NOVEM	Nederlandse Maatschappij voor Energie en Milieu BV
NOWESTU	Northwestern University, Illinois
NRC	Nuclear Regulatory Commission
NRC/ADM	NRC Office of Administration
NRC/AEOD	NRC Office for Analysis and Evaluation of Operational Data
NRC/IRM	NRC Office of Information Resources Management
NRC/NMS	NRC Office of Nuclear Material Safety and Safeguards
NRC/NRR	NRC Office of Nuclear Reactor Regulation
NRC/RES	NRC Office of Nuclear Regulatory Research
NRC/RI	NRC Region I
NRC/RII	NRC Region II
NRC/RIII	NRC Region III
NRC/RIV	NRC Region IV

Code	Description
NRC/RV	NRC Region V
NRCA	National Roofing Contractors Association
NRCC	National Research Council of Canada
NREL	National Renewable Energy Laboratory
NREP	National Registry of Environmental Professionals
NRPB	National Radiological Protection Board
NRRI	National Regulatory Research Institute
NSCROC	National Science Council of Republic of China
NSF	National Science Foundation
NVLVU	University of Nevada, Las Vegas
NWPPC	Northwest Power Planning Council
NWTRB	Nuclear Waste Technical Review Board
NYGG	New York Gas Group
NYSEO	New York State Energy Office
NYSERDA	New York State Energy Research and Development Authority
NYSPLP	New York State Power Lines Project
NYU	New York University
OAKLANU	Oakland University
OGDEN	Ogden, Utah, City Corporation
OHSC	Ohio Supercomputing Center
OKU	University of Oklahoma
OMFDN	Otto Moensted Foundation
OMFOUN	Otto Moensted Foundation
ONCMR	Ontario Centre for Materials Research
ONMAF	Ontario Ministry of Agriculture and Food
ONME	Ontario Ministry of Energy
ONTE	Ontario Ministry of Treasury and Economics
ONTHYD	Ontario Hydro
OPSEC	Interagency OPSEC
OPSOCAM	Optical Society of America
ORAU	Oak Ridge Associated Universities
ORDE	Oregon Department of Energy
ORFDN	Dr. Otto Roehm Foundation
ORISE	Oak Ridge Institute for Science and Education
ORNL	Oak Ridge National Laboratory
ORSU	Oregon State University
ORU	University of Oregon
OSAGE	City of Osage, Kansas
osu	Ohio State University
OTTAWAU	University of Ottawa
PAFA	Pennsylvania Foundrymen's Association
PASU	Pennsylvania State University
PAU	University of Pennsylvania
PBCHWR	Pacific Basin Consortium for Hazardous Waste Research
PDVSA	Petroleos de Venezuela S.A.
PERD	Federal Panel on Energy Research and Development, Ottawa, Canada
PETRESF	Petroleum Research Fund
PFF	Packard Foundation Fellowship
PHOENIX	City of Phoenix, Arizona
PIMA	Polyisocyanurate Insulation Manufacturers Association

Code	Description
PITSC	Pittsburgh Supercomputing Center
PITTU	University of Pittsburgh
PMRL	Physical Metallurgy Research Laboratories, Ottawa
POANE	Polish Agency of Nuclear Energy
POLAS	Polish Academy of Science
POLMNE	Polish Ministry of National Education
PORTU	Government of Portugal
PRINU	Princeton University
PRU	University of Puerto Rico
PSCCO	Public Service Company of Colorado
PTAIAEA	US Program for Technical Assistance to International Atomic Energy Agency
Safeguards
PUBHEAL	U.S. Public Health Service
PURDUEU	Purdue University
QUEENU	Queen's University
RAWF	Robert A. Welch Foundation
RICEU	Rice University
RISO	Research Establishment Risoe
RMAG	Rocky Mountain Association of Geologists
RMINST	Rocky Mountain Institute
RNCSIR	Royal Norwegian Council for Scientific and Industrial Research
ROCFOUN	Rockefeller Foundation
ROCHESU	Rochester University
RTI	Research Triangle Institute
RUAS	Russian Academy of Science
SAE	Society of Automotive Engineers
SAPC	Saskatchewan Power Corp, Regina, SK Canada
SCHNAT	Schweizerische Nationalfonds
SCPE	Scientific Committee on Problems of the Environment
scu	University of South Carolina
SCWMRD	South Carolina Wildlife and Marine Resources Department
SCVRC	South Carolina Water Resources Commission
SEAMFDN	Sweden America Foundation
SEC	Science and Engineering Council (US)
SEI	Stockholm Environment Institute
SEMR	Saskatchewan Department of Energy and Mines
SEMRC	Swedish Medical Research Council
SENBTD	Swedish National Board for Technical Development
SENEA	Swedish National Energy Administration
SENPI	Swedish Nuclear Power Inspectorate
SENRC	Swedish Natural Research Council
SENSRC	Swedish National Science Research Council
SERI	Solar Energy Research Institute
SESM	Swedish Society of Medicine
SFINST	Santa Fe Institute
SFIT	Swiss Federal Institute of Technology
SIGMAXI	Sigma Xi, The Scientific Research Society
SLOAN	A.P. Sloan Foundation
SMIRT	Structural Mechanics in Reactor Technology
SMITHIN	Smithsonian Institution

Code	Description
smu	Southern Methodist University
SNL	Sandia National Laboratories
SNM	Society of Nuclear Medicine
SNSF	Swiss National Science Foundation
SOCAU	University of Southern California
SOCMME	Society for Mining, Metallurgy and Exploration
SOFOUN	Samuel Oschin Foundation
SOVFUS	Soviet Fusion Program
SPAIN	Government of Spain
SPI	Society of the Plastics Industry
SPOKANE	City of Spokane, Washington
SRNFOUN	Samuel Roberts Noble Foundation
SSCL	Superconducting Super Collider Laboratory
STAJA	Science and Technology Agency of Japan
STCS	Science and Technology Center for Superconductivity
STOFAK	State of Alaska
STOFCA	State of California
STOFFL	State of Florida
STOFGA	State of Georgia
STOFHI	State of Hawaii
STOFIL	State of Illinois
STOFIN	State of Indiana
STOFKY	State of Kentucky
STOFMI	State of Michigan
STOFMN	State of Minnesota
STOFNC	State of North Carolina
STOFNE	State of Nebraska
STOFNJ	State of New Jersey
STOFNM	State of New Mexico
STOFNY	State of New York
STOFOH	State of Ohio
STOFPA	State of Pennsylvania
STOFSC	State of South Carolina
STOFTN	State of Tennessee
STOFTX	State of Texas
STOFUT	State of Utah
STOFWI	State of Wisconsin
STPAUL	City of St. Paul, Minnesota
SUNUN	Sun Utility Network
SUNY	State University of New York
SURA	Southeastern Universities Research Association
SYRACUU	Syracuse University
TAIPC	Taiwan Power Company
TALLAH	City of Tallahassee, Florida
TAUC	TransAlta Utilities Corp., Calgary, AB Canada
TCA	Transport Canada, Ottawa, CA
TCSTE	The Triangle Coalition for Science and Technology Education
TEMPLEU	Temple University
TLIT	Technion-Israel Institute of Technology (Israel)
TNTECHU	Tennessee Technological University

Code	Description
TNU	University of Tennessee
TNUSPI	University of Tennessee - Space Institute
TRIUMF	British Columbia University, TRIUMF Facility
TUBFOUN	Tuborg Foundation
TUBITAK	TUBITAK (Turkey)
TVA	Tennessee Valley Authority
TXAERF	Texas Atomic Energy Research Foundation
TXAMU	Texas A&M University
TXARLU	University of Texas - Arlington
TXARP	Texas Advanced Research Program
TXATECH	Texas Advanced Technology Program
TXNRLC	Texas National Research Laboratory Commission
TXSOU	Texas Southern University
TXTECHU	Texas Tech University
TXU	University of Texas
UFC	University Funding Council (UK)
UKAEA	U.K. Atomic Energy Authority
UKDTI	UK Department of Trade and Industry
UKSERC	U.K. Science and Engineering Research Council
UNISOR	University Isotope Separator at Oak Ridge
UNIVFIR	Universita di Firerize
UNIVMT	University of Montana
UNIVPV	Universidad del Pais Vasco
UNNAT	United Nations
UPC	Politechnic University of Catalunya (Madrid, Spain)
USA	Department of the Army
USAF	Department of the Air Force
USAID	United States Agency for International Development
USCG	U.S. Coast Guard
USCUST	U.S. Customs Service
USFDA	U.S. Food and Drug Administration
USFS	U.S. Forest Service
USGS	U.S. Geological Survey
USHSTJF	US-Hungarian Science and Technology Joint Fund
USILBSF	United States-Israel Binational Science Foundation
USJACS	US-Japan Cooperative Stellarator/Heliotron Program
USJAIFS	Joint US-Japan Institute for Fusion Studies
USJPCNS	U.S.-Japan Cooperative Neutron Scattering Program
USJPPCT	US-Japan High Energy Physics Collaboration Treaty
USM	U.S. Marine Corps
USN	Department of the Navy
USNSC	National Security Council
USOTA	U.S. Office of Technology Assessment
USPS	U.S. Postal Service
USSF	US Space Foundation
UTGMS	Utah Geological and Mineral Survey
UTILCON	Utility Consortium
UTU	University of Utah
VACIT	Commonwealth of Virginia Center for Innovative Technology
VACOMU	Virginia Commonwealth University

Code	Description
VALPARU	Valparaiso University
VAPISU	Virginia Polytechnic Institute and State University
VETAD	Veterans Administration
VOLI	Volcano, Inc, Winnipeg
WASEO	Washington State Energy Office
WASU	Washington State University
WAU	University of Washington
WCSMFEL	Walter C. Sumner Memorial Fellowship
VELFOUN	Welch Foundation
WEMIU	Western Michigan University
WHDFDN	William H. Donner Foundation, Inc.
WHIFOUN	Whitaker Foundation
WICMA	Wisconsin Cast Metals Association
WIDOA	Wisconsin Department of Administration
WINSASU	Winston-Salem State University
WIU	University of Wisconsin
VVU	West Virginia University
WYU	University of Wyoming
YALEU	Yale University
YUJFST	US-Yugoslav Joint Fund for Scientific and Technological Cooperation

APPENDIX B: LANGUAGE NAMES AND CODES

The following names and codes are taken from International Standard ISO 639:1988, Code for the representation of names of languages. Codes in ISO 639:1988 which differ from those in ISO R/639-1967 are entered in italics. Codes and text that are new to this list are shown in boldface.

Afrikaans	AF	Korean	KO
Arabic	AR	Latvian, Leftish	LV
Armenian	HY	Lithuanian	LT
Azerbaijani	AZ	Malay	MS
Bulgarian	BG	Moldavian	MO
Byelorussian	BE	Mongolian	MN
Chinese	ZH	Norwegian	NO
Czech	CS	Persian	FA
Danish	DA	Polish	PL
Dutch	NL	Portuguese	PT
English	EN	Romanian	RO
Estonian	ET	Russian	RU
Finnish	FI	Serbo-Croat	SH
French	FR	Slovak	SK
Georgian	KA	Slovenian	SL
German	DE	Spanish	ES
Greek	<i>EL</i>	Swedish	SV
Hebrew	<i>IW</i>	Tajik	TG
Hindi	m	Thai	TH
Hungarian	HU	Turkish	TR
Indonesian	IN	Turkmen	TK
Irish	GA	Ukrainian	UK
Italian	IT	Uzbek	UZ
Japanese	JA	Vietnamese	VI
Kazakh	KK	Welsh	CY
Kirghiz	RY		

APPENDIX C: STATE AND PROVINCE CODES

This Appendix includes state and province codes and names for Australia, Brazil, Canada, China, France, and the United States. Within each country listing, the codes are arranged alphabetically or numerically and followed by the name.

Australia

ACT	Australian Capital Territory	SA	South Australia
NSW	New South Wales	TAS	Tasmania
NT	Northern Territory	VIC	Victoria
QLD	Queensland	WA	Western Australia

Brazil

AC	Acre	PA	Para
AL	Alagoas	PB	Paraiba
AM	Amazonas	PE	Pernambuco
AP	Amapa	PI	Piaui
BA	Bahia	PR	Parana
CE	Ceara	RJ	Rio de Janeiro
DF	Distrito Federal	RN	Rio Grande do Norte
ES	Espirito Santo	RO	Rondonia
FN	Fernando de Noronha	RR	Roraima
GO	Goiias	RS	Rio Grande do Sul
MA	Maranhao	SC	Santa Catarina
MG	Minas Gerais	SE	Sergipe
MS	Mato Grosso do Sul	SP	Sao Paulo
MT	Mato Grosso	TO	Tocantins

Canada

AB	Alberta	NT	Northwest Territories
BC	British Columbia	ON	Ontario
LB	Labrador	PE	Prince Edward Island
MB	Manitoba	PQ	Quebec
NB	New Brunswick	SK	Saskatchewan
NF	Newfoundland	YT	Yukon Territory
NS	Nova Scotia		

China

AH	Anhui	LN	Liaoning
BJ	Beijing	NM	Neimenggu
FJ	Fujian	NX	Ningxia
GD	Guangdong	QH	Qinghai
GS	Gansu	SC	Sichuan
GX	Guangxi	SD	Shandong

GZ	Guizhou	SH	Shanghai
HB	Hubei	SN	Shaanxi
HEB	Hebei	SX	Shanxi
HEN	Henan	TJ	Tianjin
HL	Heilongjiang	TW	Taiwan
HN	Hunan	XJ	Xinjiang
JL	Jilin	XZ	Xizang
JS	Jiangsu	YN	Yunnan
JX	Jiangxi	ZJ	Zhejiang

France

01	Ain	48	Lozere
02	Aisne	49	Maine-et-Loire
03	Allier	50	Manche
04	Alpes-de-Haute-Provence	51	Marne
05	Alpes (Hautes)	52	Marne (Haute)
06	Alpes-Maritimes	53	Mayenne
07	Ardeche	54	Meurthe-et-Moselle
08	Ardenne	55	Meuse
09	Ariege	56	Morbihan
10	Aube	57	Moselle
11	Aude	58	Nievre
12	Aveyron	59	Nord
13	Bouches-du-Rhone	60	Oise
14	Calvados	61	Orne
15	Cantal	62	Pas-de-Calais
16	Charente	63	Puy-de-Dome
17	Charente-Maritime	64	Pyrenees-Atlantiques
18	Cher	65	Pyrenees (Hautes)
19	Correze	66	Pyrenees-Orientales
20	Corse; Corse-du-Sud;
Corse-du-Nord	67	Rhin (Bas)
21	Cote-d'Or	68	Rhin (Haut)
22	Cotes-du-Nord	69	Rhone
23	Creuse	70	Saone (Haute)
24	Dordogne	71	Saone-et-Loire
25	Doubs	72	Sarthe
26	Drome	73	Savoie
27	Eure	74	Savoie (Haute)
28	Eure-et-Loir	75	Paris
29	Finistere	76	Seine-Maritime
30	Gard	77	Seine-et-Marne
31	Garonne (Haute)	78	Yvelines
32	Gers	79	Sevres (Deux)
33	Gironde	80	Somme
34	Herault	81	Tam
35	Ile-et-Vilaine	82	Tarn-et-Garonne
36	Indre	83	Var
37	Indre-et-Loire	84	Vaucluse
38	Isere	85	Vendee
39	Jura	86	Vienne
		87	Vienne (Haute)

40	Landes	88	Vosges
41	Loir-et-Cher	90	Territoire de Belfort
42	Loire	91	Essonne
43	Loire (Haute)	92	Hauts-de-Seine
44	Loire-Atlantique	93	Seine-Saint-Denis
45	Loiret	94	Val-de-Marne
46	Lot	95	Val-d'Oise
47	Lot-et-Garonne		

France - Overseas Departments

971	Guadeloupe	973	Guyane
972	Martinique	974	Reunion (La)

United States of America

AK	Alaska	MP	Northern Mariana Islands
AL	Alabama	MS	Mississippi
AR	Arkansas	MT	Montana
AS	American Samoa	NC	North Carolina
AZ	Arizona	ND	North Dakota
CA	California	NE	Nebraska
CO	Colorado	NH	New Hampshire
CT	Connecticut	NJ	New Jersey
CZ	Canal Zone	NM	New Mexico
DC	D.C. (District of Columbia)	NV	Nevada
DE	Delaware	NY	New York
FL	Florida	OH	Ohio
FM	Federated States of Micronesia	OK	Oklahoma
GA	Georgia	OR	Oregon
GU	Guam	PA	Pennsylvania
HI	Hawaii	PR	Puerto Rico
IA	Iowa	PW	Palau Island
ID	Idaho	RI	Rhode Island
IL	Illinois	SC	South Carolina
IN	Indiana	SD	South Dakota
KS	Kansas	TN	Tennessee
KY	Kentucky	TX	Texas
LA	Louisiana	UT	Utah
MA	Massachusetts	VA	Virginia
MD	Maryland	VI	Virgin Islands
ME	Maine	VT	Vermont
MH	Marshall Islands	WA	Washington
MI	Michigan	WI	Wisconsin
MN	Minnesota	WV	West Virginia
MO	Missouri	WY	Wyoming

APPENDIX D: COUNTRY AND INTERNATIONAL ORGANIZATION NAMES AND CODES

(March 1994 revision)

This Appendix includes the two-letter ISO country codes and the country names listed in ISO International Standard 3166:1993, Codes for the representation of names of countries, and the organizational codes and names used by INIS and the ETDE/OA.

Table D.1., "Countries Arranged by Name," includes the country names and codes sorted by the names. Table D.2., "International Organizations Arranged by Name," includes the international organization names and codes sorted by the names. Table D.3., "Country and International Organizations Arranged by Code," includes both the country and international organization names and codes sorted by the codes.

Codes and names for new countries established since July 1992 are entered in boldface in Tables D.1. and D.3. Former names of these countries are entered in italics in Table D.1; the former names are not included in Table D.3.

In Table D.1., the entries for Yemen and Yugoslavia have been modified and an entry for Slovak Republic has been added. These entries have not been highlighted except as indicated above.

International organizations that have been added are entered in boldface in Tables D.2. and D.3. When an organization ceases to exist, the former name is entered in italics in Table D.2.; there is no entry for it in Table D.3.

Note: Entries followed by an asterisk (*) are for ETDE use only.

Note: This Appendix replaces IAEA-INIS-5, INIS: Terminology and Codes for Countries and International Organizations.

Table D.1. Countries Arranged by Name

Afghanistan	AF	Cyprus	CY
Albania	AL	Czech Republic	CZ
Algeria	DZ	<i>Czechoslovakia</i>	<i>CS</i>
Andorra	AD	<i>[Used until August 1993]</i>	
Angola	AO	<i><u>Divided into Czech Republic</u></i>	
Antigua and Barbuda	AG	<i><u>and Slovakia</u></i>	
Argentina	AR		
Armenia	AM	Dahomey	
Australia	AU	<u>See</u> Benin	
Austria	AT	Democratic Kampuchea	
Azerbaijan	AZ	<u>See</u> Cambodia	
		Democratic People's Republic	
Bahamas	BS	(D.P.R.) of Korea	
Bahrain	BH	<u>See</u> Korea, Democratic People's	
Bangladesh	BD	Republic of	
Barbados	BB	Democratic Yemen	YD
Belarus	BY	<u>See</u> Yemen, Democratic	
Belgium	BE	Denmark	DK
Belize	BZ	Djibouti	DJ
Benin	BJ	Dominica	DM
Bermuda	BM	Dominican Republic	DO
Bhutan	BT		
Bolivia	BO	Ecuador	EC
Bosnia and Herzegovina	BA	Egypt	EG
Botswana	BW	El Salvador	SV
Brazil	BR	Equatorial Guinea	GQ
Brunei Darussalam	BN	Estonia	EE
Bulgaria	BG	Ethiopia	ET
Burkina Faso	BF		
Burma (BU)		Fiji	FJ
<u>Changed to</u> Myanmar		Finland	FI
Burundi	BI	France	FR
Byelorussian SSR (BY)			
<u>Changed to</u> Belarus		Gabon	GA
		Gambia	GM
Cambodia	KH	Georgia	GE
Cameroon	CM	German Democratic Republic (DD)	
Canada	CA	<i>[Used until October 3, 1990]</i>	
Cape Verde	CV	<u>Changed to</u> Germany	
Central African Republic	CF	Germany	DE
Chad	TD	Germany, Federal Republic of (DE)	
Chile	CL	<i>[Used until October 3, 1990]</i>	
China	CN	<u>Changed to</u> Germany	
Colombia	CO	Ghana	GH
Comoros	KM	Greece	GR
Congo	CG	Grenada	GD
Costa Rica	CR	Guam	GU
Cote d'Ivoire	CI	Guatemala	GT
Country unknown/Code not available	ZZ	Guinea	GN
Croatia	HR	Guinea-Bissau	GW
Cuba	CU		

Table D.1. (Continued)

Guyana	GY	Maldives	MV
Haiti	HT	Mali	ML
Holy See		Malta	MT
<u>See</u> Vatican City State, Holy See		Mauritania	MR
Honduras	HN	Mauritius	MU
Hong Kong	HK	Mexico	MX
Hungary	HU	Moldova, Republic of	MD
		Monaco	MC
Iceland	IS	Mongolia	MN
India	IN	Morocco	MA
Indonesia	ID	Mozambique	MZ
Iran		Myanmar	MM
<u>See</u> Iran, Islamic Republic of		Namibia	NA
Iran, Islamic Republic of	IR	Nauru	NR
Iraq	IQ	Nepal	NP
Ireland	IE	Netherlands	NL
Islamic Republic of Iran		New Zealand	NZ
<u>See</u> Iran, Islamic Republic of		Nicaragua	NI
Israel	IL	Niger	NE
Italy	IT	Nigeria	NG
Ivory Coast		Norway	NO
<u>See</u> Cote d'Ivoire			
Jamaica	JM	Oman	OM
Japan	JP		
Jordan	JO	Pakistan	PK
		Panama	PA
Kazakhstan	KZ	Papua New Guinea	PG
Kenya	KE	Paraguay	PY
Kiribati	KI	Peru	PE
Korea, Democratic People's Republic of	KP	Philippines	PH
Korea, Republic of	KR	Poland	PL
Kuwait	KW	Portugal	PT
Kyrgyzstan	KG	Puerto Rico	PR
Lao People's Democratic Republic	LA	Qatar	QA
Latvia	LV		
Lebanon	LB	Republic of Korea	
Lesotho	LS	<u>See</u> Korea, Republic of	
Liberia	LR	Romania	RO
Libya		Russian Federation	RU
<u>See</u> Libyan Arab Jamahiriya		Rwanda	RW
Libyan Arab Jamahiriya	LY		
Liechtenstein	LI	Saint Lucia	LC
Lithuania	LT	Saint Vincent and the Grenadines	VC
Luxembourg	LU	Samoa	WS
		San Marino	SM
Madagascar	MG	Sao Tome and Principe	ST
Malawi	MW	Saudi Arabia	SA
Malaysia	MY	Senegal	SN
		Seychelles	SC

Table D.1. (Continued)

Sierra Leone	SL	United Arab Emirates	AE
Singapore	SG	United Kingdom	GB
Slovak Republic		United Republic of Tanzania	
<u>See</u> Slovakia		<u>See</u> Tanzania, United Republic of	
Slovakia	SK	United States	US
Slovenia	SI	Upper Volta	
Solomon Islands	SB	<u>See</u> Burkina Faso	
Somalia	SO	Uruguay	UY
South Africa	ZA	USA (United States of America)	
Spain	ES	<u>See</u> United States	
Sri Lanka	LK	USSR (Union of Soviet Socialist	
Sudan	SD	Republics) (SU)	
Suriname	SR	[Used until December 1991]	
Swaziland	SZ	<u>Divided into</u> Armenia; Azerbaijan;	
Sweden	SE	Belarus; Estonia; Georgia;	
Switzerland	CH	Kazakhstan; Kyrgyzstan; Latvia;	
Syria		Lithuania; Moldova, Republic of;	
<u>See</u> Syrian Arab Republic		Russian Federation; Tajikistan;	
Syrian Arab Republic	SY	Turkmenistan; Ukraine; Uzbekistan	
		Uzbekistan	UZ
Taiwan, Province of China *	TW		
Tajikistan	TJ	Vanuatu	VU
Tanzania		Vatican City State, Holy See	VA
<u>See</u> Tanzania, United Republic of		Venezuela	VE
Tanzania, United Republic of	TZ	Viet Nam	VN
Thailand	TH		
The Czech and Slovak Federal Republic		Yemen	YE
<u>See</u> Czechoslovakia		[Used from July 12, 1993]	
Togo	TG	Yemen (Yemen Arab Republic)	
Tonga	TO	<u>Changed to</u> Yemen, Republic of	
Trinidad and Tobago	TT	Yemen, Democratic	
Tunisia	TN	<u>Changed to</u> Yemen, Republic of	
Turkey	TR	Yemen, Republic of	
Turkmenistan	TM	<u>Changed to</u> Yemen	
Tuvalu	TV	Yugoslavia	YU
		<u>See also</u> Bosnia and Herzegovina;	
Uganda	UG	Croatia; Slovenia	
UK (United Kingdom of Great Britain			
and Northern Ireland)		Zaire	
<u>See</u> United Kingdom		ZR	
Ukraine	UA	Zambia	ZM
Ukrainian SSR (UA)		Zimbabwe	ZW
<u>Changed to</u> Ukraine			

* for ETDE use only

Table D.2. International Organizations Arranged by Name

Arab Atomic Energy Agency	AAEA	XH
Commission of the European Communities	CEC	XE
Council for Mutual Economic Assistance	CMEA	XM
[Used until December 1991]		
<u>Ceased</u>		
European Organization for Nuclear Research	CERN	XC
European Patent Office	EP	
European Space Agency	ESA	XZ
Food and Agricultural Organization of the United Nations	FAO	XF
Information Service in Physics, Electrotechnology and Control	INSPEC	QS
International Atomic Energy Agency	IAEA	XA
International Commission on Radiological Protection	ICRP	XR
International Energy Agency	IEA	XY
International Institute for Applied Systems Analysis	IIASA	XI
International Organization for Standardization	ISO	XS
International organizations without location	AA	
International Patent Document Centre	INPADOC	QZ
Joint Institute for Nuclear Research	JINR	XJ
Nuclear Energy Agency of the OECD	NEA	XN
Organization of the African Unity	OAU	XO
Organization for Economic Co-Operation and Development	OECD	XD
United Nations	UN	XU
United Nations Industrial Development Organization	UNIDO	XT
World Energy Conference	WEC	XX
World Health Organization	WHO	XW
World Intellectual Property Organization	WIPO	WO
World Meteorological Organization	WMO	XK

Table D.3. Country and International Organizations Arranged by Code

AA	International organizations without location	DK	Denmark
AD	Andorra	DM	Dominica
AE	United Arab Emirates	DO	Dominican Republic
AF	Afghanistan	DZ	Algeria
AG	Antigua and Barbuda	EC	Ecuador
AL	Albania	EE	Estonia
AM	Armenia	EG	Egypt
AO	Angola	EP	European Patent Office
AR	Argentina	ES	Spain
AT	Austria	ET	Ethiopia
AU	Australia	FI	Finland
AZ	Azerbaijan	FJ	Fiji
		FR	France
BA	Bosnia and Herzegovina	GA	Gabon
BB	Barbados	GB	United Kingdom
BD	Bangladesh	GD	Grenada
BE	Belgium	GE	Georgia
BF	Burkina Faso	GH	Ghana
BG	Bulgaria	GM	Gambia
BH	Bahrain	GN	Guinea
BI	Burundi	GQ	Equatorial Guinea
BJ	Benin	GR	Greece
BM	Bermuda	GT	Guatemala
BN	Brunei Darussalam	GU	Guam
BO	Bolivia	GW	Guinea-Bissau
BR	Brazil	GY	Guyana
BS	Bahamas		
BT	Bhutan	HK	Hong Kong
BW	Botswana	HN	Honduras
BY	Belarus	HR	Croatia
BZ	Belize	HT	Haiti
		HU	Hungary
CA	Canada	ID	Indonesia
CF	Central African Republic	IE	Ireland
CG	Congo	IL	Israel
CH	Switzerland	IN	India
CI	Cote d'Ivoire	IQ	Iraq
CL	Chile	IR	Iran, Islamic Republic of
CM	Cameroon	IS	Iceland
CN	China	IT	Italy
CO	Colombia		
CR	Costa Rica	JM	Jamaica
CU	Cuba	JO	Jordan
CV	Cape Verde	JP	Japan
CY	Cyprus		
CZ	Czech Republic	KE	Kenya
		KG	Kyrgyzstan
DE	Germany		
DJ	Djibouti		

Table D.3. (Continued)

KH	Cambodia	PH	Philippines
KI	Kiribati	PK	Pakistan
KM	Comoros	PL	Poland
KP	Korea, Democratic People's Republic of	PR	Puerto Rico
KR	Korea, Republic of	PT	Portugal
KW	Kuwait	PY	Paraguay
KZ	Kazakhstan		
LA	Lao People's Democratic Republic	QA	Qatar
LB	Lebanon	QS	INSPEC [Information Service in
Physics, Electrotechnology and
Control]
LC	Saint Lucia	QZ	INPADOC [International Patent
Document Centre]
LI	Liechtenstein		
LK	Sri Lanka	RO	Romania
LR	Liberia	RU	Russian Federation
LS	Lesotho	RW	Rwanda
LT	Lithuania		
LU	Luxembourg	SA	Saudi Arabia
LV	Latvia	SB	Solomon Islands
LY	Libyan Arab Jamahiriya	SC	Seychelles
MA	Morocco	SD	Sudan
MC	Monaco	SE	Sweden
MD	Moldova, Republic of	SG	Singapore
MG	Madagascar	SI	Slovenia
ML	Mali	SK	Slovakia
MM	Myanmar	SL	Sierra Leone
MN	Mongolia	SM	San Marino
MR	Mauritania	SN	Senegal
MT	Malta	SO	Somalia
MU	Mauritius	SR	Suriname
MV	Maldives	ST	Sao Tome and Principe
MW	Malawi	SV	El Salvador
MX	Mexico	SY	Syrian Arab Republic
MY	Malaysia	SZ	Swaziland
MZ	Mozambique		
NA	Namibia	TD	Chad
NE	Niger	TG	Togo
NG	Nigeria	TH	Thailand
NI	Nicaragua	TJ	Tajikistan
NL	Netherlands	TM	Turkmenistan
NO	Norway	TN	Tunisia
NP	Nepal	TO	Tonga
NR	Nauru	TR	Turkey
NZ	New Zealand	TT	Trinidad and Tobago
OM	Oman	TV	Tuvalu
PA	Panama	TW	Taiwan, Province of China *
PE	Peru	TZ	Tanzania, United Republic of
PG	Papua New Guinea	UA	Ukraine
		UG	Uganda

Table D.3. (Continued)

US	United States	XJ	JINR [Joint Institute for Nuclear Research]
UY	Uruguay	XK	WMO [World Meteorological Organization]
UZ	Uzbekistan	XN	NEA [Nuclear Energy Agency of the OECD]
VA	Vatican City State, Holy See	XO	OAU [Organization of the African Unity]
VC	Saint Vincent and the Grenadines	XR	ICRP [International Commission on Radiological Protection]
VE	Venezuela	XS	ISO [International Organization for Standardization]
VN	Viet Nam	XT	UNIDO [United Nations Industrial Development Organization]
VU	Vanuatu	XU	UN [United Nations]
WO	WIPO [World Intellectual Property Organization]	XW	WHO [World Health Organization]
WS	Samoa	XX	WEC [World Energy Conference]
XA	IAEA [International Atomic Energy Agency]	XY	IEA [International Energy Agency]
XC	CERN [European Organization for Nuclear Research]	XZ	ESA [European Space Agency]
XD	OECD [Organization for Economic Co-Operation and Development]	YE	Yemen
XE	CEC [Commission of the European Communities]	YU	Yugoslavia
XF	FAO [Food and Agricultural Organization of the United Nations]	ZA	South Africa
XH	AAEA [Arab Atomic Energy Agency]	ZM	Zambia
XI	IIASA [International Institute for Applied Systems Analysis]	ZR	Zaire
		ZW	Zimbabwe
		ZZ	Country unknown/Code not available

*for ETDE use only

APPENDIX E: CORPORATE CODES

Code	Corporate
2204000	Du Pont de Nemours (E.I.) and Co., Aiken, SC (United States). Savannah River Lab.
2205000	Du Pont de Nemours (E.I.) and Co., Aiken, SC (United States). Savannah River Plant
5668000	Savannah River Ecology Lab., Aiken, SC (United States)
6621000	USAEC Savannah River Operations Office, Aiken, SC (United States)
9501001	Energy Research and Development Administration, Aiken, SC (United States). Savannah River Operations Office
9505658	Department of Energy, Aiken, SC (United States). Savannah River Operations Office
9508806	Savannah River Lab., Aiken, SC (United States). Technical Div.
9512875	USDOE Savannah River Operations Office, Aiken, SC (United States)
9520931	Savannah River Lab., Aiken, SC (United States). Environmental Sciences Div.
9520932	Savannah River Lab., Aiken, SC (United States)
9521006	Savannah River Lab., Aiken, SC (United States). Reactor Safety Research Div.
9521007	Savannah River Lab., Aiken, SC (United States). Reactor Dept.
9521042	Savannah River Lab., Aiken, SC (United States). Explosives Dept.
9524098	Savannah River Ecology Lab., Aiken, SC (United States). Stress and Wildlife Ecology Div.
9525316	Westinghouse Savannah River Co., Aiken, SC (United States)
9526764	South Carolina Univ., Columbia, SC (United States). Savannah River Archaeological Research Program
9528773	Savannah River Lab., Aiken, SC (United States). Analytical Development Section
9528993	Soil Conservation Service, Aiken, SC (United States). Savannah River Site
9530402	USDOE Savannah River Field Office, Aiken, SC (United States)
9530488	Du Pont de Nemours (E.I.) and Co., Aiken, SC (United States). Savannah River Works
9530561	Bechtel Savannah River, Inc., North Augusta, SC (United States)
9531555	Savannah River Lab., Aiken, SC (United States). Environmental Technology Section
9532046	Savannah River Ecology Lab., Aiken, SC (United States). Wildlife Ecology and Toxicology Div.
9532269	Bechtel Savannah River, Inc., Aiken, SC (United States)