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## General Writing-Information Packet for the Environmental Impact Project

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with the Staff of the  
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GENERAL WRITING-INFORMATION PACKET  
FOR THE ENVIRONMENTAL IMPACT PROJECT

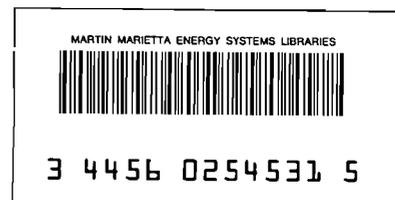
Helen P. Raaen  
with the Staff of the  
Technical Publications Department

Information Division

February 1975

**NOTICE** This document contains information of a preliminary nature and was prepared primarily for internal use at the Oak Ridge National Laboratory. It is subject to revision or correction and therefore does not represent a final report.

OAK RIDGE NATIONAL LABORATORY  
Oak Ridge, Tennessee 37830  
operated by  
UNION CARBIDE CORPORATION  
for the  
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION





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## 1. SUGGESTIONS TO AUTHORS OF ENVIRONMENTAL STATEMENTS



SUGGESTIONS TO AUTHORS OF ENVIRONMENTAL STATEMENTSManuscriptsFormat

Follow the instructions in FORMAT OF ENVIRONMENTAL STATEMENTS — but double space the first draft to facilitate editing.

Mechanics

Double space everything, including tables and references

Use 8 1/2- by 11-in. white paper

Use only one side of the paper

Leave margins on all four sides

Number the pages

For each second-order heading (one introduced by two digits, such as 3.2), begin a new page

Put each table on a page by itself

Put each figure on a page by itself

Begin each appendix on a new page

Locate cited references as indicated below

Locate bibliographic references as a complete unit immediately before the appendixes

ReferencesFormats

For formats of references, follow the instructions given in FORMATS OF REFERENCES GIVEN IN ENVIRONMENTAL STATEMENTS in this packet. Also see the hypothetical SELECTED BIBLIOGRAPHY in this packet and a recently issued Environmental Statement.

1-2

Be certain to include:

Titles

Beginning and ending page numbers of material cited  
(when applicable)

Exact location of any material cited from the Applicant's Environmental Report, including volume number or supplement number and page(s)

Cite the Applicant's Environmental Report first by call-out number. Thereafter cite it, not by number, but in text according to the format specified in FORMATS OF REFERENCES GIVEN IN ENVIRONMENTAL STATEMENTS.

Locations

Locate cited references as follows:

Cited in

Locate

Text	At end of section
Table	As footnote to the table
Figure	After figure caption
Appendix	At end of appendix

Call-outs

Number in order of first mention. Mark back-reference call-outs as an aid in case of deletions or additions. Use a separate series of numbers either for each section if the section has reasonably few references or for each subsection if the subsection has many references.

Copies and Conveyance

Convey manuscript and copies directly to the Task Group Leader and editor. Do not use the plant mail service; use of that service may cause a delay of one or more days. Provide one original plus one Xerox copies as follows:

	<u>To Task Group Leader</u>	<u>To Editor</u>
Text	Xerox copy	Original
Tables	Xerox copy	Original plus one Xerox copy
Figures	Xerox copy	Original plus one Xerox copy

Author's Special Responsibilities

Submit tables, figures, references (cited and bibliographic), and appendixes together with the text. Clear Xerox copies of rough drafts of the tables and figures are satisfactory only if nothing better is available.

Obtain permission to use any copyrighted material that will appear in the Environmental Statement.

Identify for the editor any copyrighted material that is to be used and to provide to the editor proof of permission to use the copyrighted material.

Ensure the correctness and completeness of all references (cited and bibliographic).

Proof copies of the final text, tables, figures, and appendixes and inform the editor of needed changes or corrections. (Remember, the author is responsible for the final text.)



## 2. FORMAT OF ENVIRONMENTAL STATEMENTS



FORMAT OF ENVIRONMENTAL STATEMENTS

## 1. HEADINGS

## 1.1 FOR SECTIONS

Designate the sequence of section headings by arabic numerals and decimals and by change in capitalization. Examples follow.

First-order heading

Format: centered, one-digit numerical prefix, all capitals, not underscored.

Example:

5. ENVIRONMENTAL EFFECTS OF STATION OPERATION

Second-order heading

Format: flush left, two-digit numerical prefix, all capitals, not underscored.

Example:

5.4 EFFECT ON AQUATIC ENVIRONMENT

Third-order heading

Format: flush left, three-digit numerical prefix, initial letter only capitalized, underscored.

Example:

5.1.1 Thermal effects

Fourth-order heading

Format: flush left, four-digit numerical prefix, initial letter only capitalized, underscored.

Example:

5.4.1.1 Discharge embayment

Fifth-order heading

Format: flush left, no numerical prefix, initial letter only capitalized, underscored.

Example:

Benthic invertebratesSixth-order heading

Format: flush left, no numerical prefix, initial letter only capitalized, underscored, heading followed by period and two spaces, text continued on same line as heading.

Example:

General conclusions. The staff recommends that these measurements be continued as part of the environmental-monitoring program ...

## 1.2 FOR THE FRONT MATTER AND BACK MATTER

For the following parts of the front matter and back matter, use centered, unnumbered, all-capitalized, nonunderlined headings: SUMMARY AND CONCLUSIONS, FOREWORD, CONTENTS, LIST OF TABLES, LIST OF FIGURES, REFERENCES (at ends of sections), and SELECTED BIBLIOGRAPHY.

## 1.3 FOR APPENDIXES

Designate the appendixes with capitalized letters in sequence. Use initial capital for the word "Appendix;" use all-capitalization for the title of the appendix. Center the heading.

Example:

## Appendix E

## EXPLANATION OF COST-BENEFIT TABLE

## 2. TABLE OF CONTENTS

List three orders of headings. Use all-capitalization for the first- and second-order headings; for third-order headings, use initial capital in the first word only. Example:

## CONTENTS

	<u>Page</u>
SUMMARY AND CONCLUSIONS . . . . .	iii
LIST OF FIGURES . . . . .	xi
LIST OF TABLES . . . . .	xiii
FOREWORD . . . . .	vii
1. INTRODUCTION . . . . .	1-1
1.1 THE PROPOSED PROJECT . . . . .	1-1
1.2 STATUS OF REVIEWS AND APPROVALS . . . . .	1-1
REFERENCES FOR SECTION 1 . . . . .	1-4
2. THE SITE . . . . .	2-1
REFERENCES FOR SECTION 2 . . . . .	2-3
3. THE PLANT . . . . .	3-1
REFERENCES FOR SECTION 3 . . . . .	3-3
4. ENVIRONMENTAL IMPACTS OF CONSTRUCTION . . . . .	4-1
4.1 ON TERRESTRIAL ECOLOGY . . . . .	4-1
4.1.1 At the site . . . . .	4-2
4.1.2 Along the transmission lines . . . . .	4-6
4.1.3 At other areas . . . . .	4-10
4.2 ON LAND USE . . . . .	4-11
Etc.	

### 3. FIGURE NUMBERS, CAPTIONS, AND POSITIONS

#### 3.1 WITHIN SECTIONS

Format: Use the arabic-decimal system to number the figures, the number before the decimal being that of the section within which the figure appears and the number after the decimal indicating the sequence position of the figure within the section. Capitalize the initial letter of only the first word of the caption. Place a period at the end of the figure number and at the end of the caption. To cite sources and references, use the formats indicated in the examples.

#### Examples:

Fig. 5.3. Summary of residual-chlorine toxicity data.

Fig. 2.8. Increases in selected chemical characteristics of Lake Ontario. Source: A. M. Beeton, "Eutrophication of the St. Lawrence Great Lakes," *Limnol. Oceanogr.* 10(2): 240-254 (1966).

Fig. 3.3. Simplified flow diagram of the turbine-condenser and service-water systems of the R. E. Ginna Nuclear Power Plant Unit No. 1. Reference: ER, vol. 1, pp. 3.3-7-3.4-1.

Fig. 2.17. Typical bottom and hardwood communities and associated fauna in the Piedmont region.

#### Sources:

R. Conant, *A Field Guide to Reptiles and Amphibians*, Houghton Mifflin, Boston, Mass., 1958.

D. W. Johnston and E. P. Odum, "Breeding Bird Populations in Relation to Plant Succession on the Piedmont of Georgia," *Ecology* 37: 50-62 (1956).

H. J. Oosting, "An Ecological Analysis of the Plant Communities of the Piedmont, North Carolina," *Amer. Midl. Natur.* 28: 1-128 (1942).

V. E. Shelford, *The Ecology of North America*, University of Illinois Press, Urbana, 1963.

Position: In the early draft of the Environmental Statement, mark the position of each figure with a full-page insert sheet together with a Xerox copy of the finished figure which shows its exact size or with a draft of the figure which is to be replaced as soon as possible by a copy of the final figure. In later and final versions, provide space on the photomaster to locate the figure, with respect to the text and any nearby tables, in a position that follows its call-out and that minimizes open space on the pages.

### 3.2 WITHIN APPENDIXES

Format: Use the same format for figures within appendixes as for figures within sections, except use the letter designation of the appendix in place of the number designation of the section.

Example:

Fig. D.2. Winter thermal bar in Lake Ontario.

## 4. TABLE NUMBERS, CAPTIONS, POSITIONS, AND CONTENT

### 4.1 NUMBERS, CAPTIONS, AND POSITIONS

Use the same systems for table numbers, captions, and positions as for figure numbers, captions, and positions, except do not use periods after table captions.

### 4.2 GUIDELINES TO CONTENT

- Ensure that the quantity of material to be presented justifies the use of a table.
- Define all limiting conditions either in a condensed listing under the caption or in footnotes; make the table independent of the text in this respect.
- Regarding headings and subheadings
  - Put a heading over each column in the table; make each heading as brief as possible.
  - Check for correlation with data below them.
  - Include the unit of measurement.
- Regarding the data
  - Replace all code numbers that have no meaning to the reader by 1, 2, 3, etc.
  - Do not list columns of unvarying data; condense the same information into a statement following the title or into a footnote.

- Present the proper number of significant figures so that the uncertainty of the data is interpreted properly.
- Do not use a multiplier at the top of a column of data to decrease the number of digits in the numerical data given in the column.
- Write numbers to the powers of ten in the usual format in the text but in the simplified format in tables. Examples: Write " $2.45 \times 10^6$ " in text, but "2.45E6" in tables; write " $3.1 \times 10^{-8}$ " in text, but "3.1E-8" in tables, unless the Project Manager objects to this simplified format in tables.
- Regarding footnotes
  - Use superscripted, italicized, lower case letters as call-outs.
  - Limit, as much as possible, the number of footnotes used.
- Regarding sources and references
  - Give the complete citation of the source or reference material under the heading "Source(s):" following the called-out lettered footnotes.
  - Arrange the citations as follows:
    - Alphabetically by senior author and unnumbered if they are not cited individually in the table.
    - In order of call-out and numbered with italicized arabic numerals if they are cited individually in the table.

## 5. PAGINATION

### 5.1 FRONT MATTER

Use lower-case Roman numerals to number the pages of the front matter. Count the cover sheet as pages "i" (front) and "ii" (back) but do not number either side of it.

## 5.2 SECTIONS

Number the pages of each section independently of those of the other sections. As the page number, use the number of the section followed by a hyphen and then by a number that indicates the page sequence. Example: designate page 26 of Section 5 as 5-26.

Locate the number of the first page of the section at the bottom of the page; locate the numbers of the succeeding pages at the tops of the pages. Number the pages of the REFERENCES for the section consecutively with the other pages of that section.

## 5.3 SELECTED BIBLIOGRAPHY

Use the same system as for the sections, except use "SB" in place of the section number. Example: designate page 12 of the SELECTED BIBLIOGRAPHY as SB-12.

## 5.4 APPENDIXES

Use the same system as for the sections, except use the letter designation of the appendix in place of the section number. Example: designate page 15 of Appendix C as C-15.

## 6. REFERENCES

See the special guide FORMATS OF REFERENCES GIVEN IN ENVIRONMENTAL STATEMENTS and the included examples, which are a part of this packet.

## 7. SPECIAL ITEMS

### 7.1 MASS NUMBERS OF RADIONUCLIDES

Write the mass number of a radionuclide on the line and following the symbol of the element and a hyphen. Example: In text, iodine-131; in tables, I-131.

### 7.2 POINTS OF THE COMPASS

Either spell out or abbreviate the points of the compass, but be consistent throughout. Example: north-northwest (possibly preferable in text) or NNW (preferable in tables).

### 7.3 TEMPERATURE

Use Celsius units of temperature (with °F in parentheses). Write an actual temperature with the numerical value closed up to the unit of measurement and with the degree sign before the abbreviation. Example: 25°C (77°F).

Write a temperature differential (i.e., ΔT) with the numerical value separated one space from the unit of measurement and with the degree sign after the abbreviation. Example: 5 C° (9 F°).

### 7.4 LATIN WORDS

Do not italicize Latin abbreviations and words such as et al., e.g., i.e., and per se.

### 7.5 FOUR-DIGIT NUMBERS

In text, tables, and figures, write a four-digit number without a comma (e.g., 4165). However, if a five-digit number appears in any column of a table, use a comma with each number that has more than three digits.

### 7.6 CITATIONS OF PARTS OF THE STATEMENT

When the word "Figure" or "Section" appears as the first word in a sentence and is followed by a number, write out the word. Examples:

"Figure 10.4 shows that ..."  
"Section 6.2 includes a discussion of ..."

When the word appears within a sentence, use an abbreviation, i.e., "Fig." or "Sect."

Do not abbreviate the word "Appendix."

### 7.7 DASHES

For an "en" (N) dash, use the typewriter hyphen (Example: pp. 81-89) except when a hyphen must also be used in an entry, in which case use an "en" dash (Example: pp. 5.2-4-5.4-5).

For an "em" (M) dash, use the underscore centered vertically and with a space on either side. Example: "... the station's purpose — producing electricity."

## 7.8 CROSS-REFERENCING

When a section, subsection, table, or figure is cross-referenced in another section of the report, check with the author of that particular section to determine or to verify the number of the cross-referenced material. Do not leave a blank or an incomplete number. If the proper number cannot be given in the margin, pencil in a clue for the editor (section or subsection title, figure caption, or table title). This information is especially helpful when two or more editors are working on the same report (different sections). Much confusion can be avoided if cross-referencing is clear.



3. FORMATS OF REFERENCES GIVEN IN  
ENVIRONMENTAL STATEMENTS



FORMATS OF REFERENCES GIVEN IN ENVIRONMENTAL STATEMENTS

1. GUIDELINES

- Abbreviate the titles of publications (especially journals) according to ANSI Z39-5, *American National Standard for the Abbreviation of Titles of Periodicals*. This standard is followed by the *Chemical Abstracts Service Source Index* (formerly *ACCESS*), which, however, covers only the literature of the chemical sciences.
- Do not cite personal communications unless they have been docketed.
- Italicize the titles (and their abbreviations) of books, journals, theses, reports, bulletins, and similar publications.
- Place in quotation marks the titles of journal articles, papers presented at meetings, and similar references.
- Do not use full given names of authors; use initials only.
- If a personal author is not indicated but a corporate author is, treat the corporate author as the personal author.
- In citing a part of a composite publication, list the author(s) and title of the part before the title and editor(s) of the whole publication.
- Do not use "ibid." Instead, use the applicable reference number and the inclusive page numbers. Example: Ref. 4, pp. 277-289.
- Do not use "op. cit.," "loc. cit.," and similar terms. Use "et al." only in the case of more than four authors or editors.
- When using page numbers to specify the location of a reference, give the number of both the beginning and the ending page and include all digits of the number of the ending page.

- Use the following abbreviations:

<u>Word</u>	<u>Abbreviation</u>
chapter(s)	Chap(s).
edition	ed.
editor(s)	Ed(s).
figure(s)	Fig(s).
number(s)	No(s).
page(s)	p. (pp.)
section(s)	Sect(s).
supplement(s)	Suppl(s).
volume(s)	vol(s).

## 2. EXAMPLES

### Anonymous reference

"EPA Lists Background Levels by States," *Nucl. News* 15(1): 47-48 (1972).

### Article in a journal

F. L. LaQue, "The Behavior of Nickel-Copper Alloys in Seawater," *J. Amer. Soc. Naval Engrs.* 53: 29-64 (1941).

"National Register of Historic Places," *Fed. Regist.* 37(51): 5433 (1972). (Note: Frequently, this journal is cited incorrectly; the format given here should be used.)

### Book

#### Entire book

K. O. Emery, *The Sea Off Southern California*, Wiley, New York, 1960.

N. H. Furman, Ed., *Standard Methods of Chemical Analysis*, 6th ed., van Nostrand, Princeton, N.J., 1962.

Part of a book (several contributing authors)

R. M. Patrick, "Some Effects of Temperature on Freshwater Algae," pp. 161-170 in *Biological Aspects of Thermal Pollution*, vol. 1, P. A. Krenkel and F. L. Parker, Eds., Vanderbilt University Press, Nashville, Tenn., 1969.

Pages of a book (only one contributing author)

R. C. Martin, *Water for New York*, Syracuse University Press, Syracuse, N.Y., 1960, pp. 14, 15, 17, 27, and 54.

Bulletin

A. O. Woodford, J. E. Schoellhamer, J. G. Vedder, and R. F. Yerkes, *Geology of the Los Angeles Basin*, Bulletin 170, California Division of Mines, 1954.

Certificate

Certificate of Conformance, Certificate 70-12, granted Oct. 7, 1970; based on Resolution 70-R42, adopted by the San Diego Regional Water Quality Control Board on Sept. 24, 1970, and by the California Regional Water Control Board as reflected in its Order No. 71-6.

Code of Federal Regulations

10 CFR 50.57

Note: This means "Title 10, Code of Federal Regulations, Part 50, Section 57."

Docketed references

Blueprint

Rochester Gas and Electric Corporation, blueprints of cooling-water-intake structure and discharge canal, Docket No. 50-244.

Letter

J. C. Haywood, Town of Ontario Water Department, letter of Jan. 25, 1973, Docket No. 50-244.

B. Van Emden, Idata, Inc., letter to J. A. Miele, Division of Industrial Hygiene, Department of Labor, State of New York, Dec. 19, 1972, Docket No. PRM 30-53.

List

A tentative faunal list of Lake Ontario macrobenthos, attachment to letter from A. Robertson, Fishery Biologist, National Oceanographic and Atmospheric Administration, to G. U. Ulrikson, Dec. 11, 1972, Docket No. 50-244.

Environmental Statement

Directorate of Licensing, U.S. Atomic Energy Commission, *Draft Environmental Statement, Nine Mile Point Nuclear Station*, Docket No. 50-410, January 1973.

Directorate of Licensing, U.S. Atomic Energy Commission, *Environmental Statement on Indian Point 2 Nuclear Generating Plant*, Docket No. 50-247, August 1972, Sect. V-D.

Government Printing Office document

International Joint Commission, Canada and United States, *Pollution of Lake Erie, Lake Ontario, and the International Section of the St. Lawrence River*, U.S. Government Printing Office, Washington, D.C., 1970.

Federal Power Commission, *The 1970 National Power Survey, Part II*, U.S. Government Printing Office, Washington, D.C., p. II-1-ix.

Hearing

*In the Matter of Pacific Gas & Electric Co., Diablo Canyon Units 1 and 2 - Hearings at San Louis Obispo, Calif. on May 20, 1972*, held by U.S. Atomic Energy Commission, pp. 828-829.

J. K. Newton, Federal Power Commission, transcript of direct testimony given in *Hearings on the Long Island Lighting Company Shoreham Nuclear Power Plant*, Docket No. 50-322, Dec. 13, 1972, p. 5.

Letter

See under Docketed references above.

Paper presented at a meeting

S. I. Auerbach et al., "Understanding the Dynamic Behavior of Radionuclides to the Environment and Implications," presented at the Fourth International Conference on the Peaceful Uses of Atomic Energy, Geneva, Switzerland, Sept. 6-16, 1971; to be published in the proceedings.

Paper published in the proceedings of a meeting

S. L. Wert, "A System for Using Remote Sensing Techniques to Detect and Evaluate Air Pollution Effects on Forest Stands," pp. 1169-1178 in *Proc. 6th Int. Symp. Remote Sensing of Environment*, University of Michigan, Ann Arbor, 1969.

ReportsApplicant's Environmental Report

Southern California Edison Company and San Diego Gas & Electric Company, *San Onofre Nuclear Generating Station Units 2 and 3, Supplement to Applicants' Environmental Report, Construction Permit Stage*, vols. I and II, Docket Nos. 50-361 and 50-362, issued Dec. 22, 1971.

Hereafter in this Environmental Statement, the applicant's Environmental Report will be cited as ER. The citations will appear in the body of the text and will be enclosed in parentheses. The ER will be followed by a specific volume, section, page, figure, table, appendix, or supplement number, e.g., (ER, vol. I, pp. 5.4-2-5.4-5).

(Note: The paragraph immediately above should always be a part of the first citation to the applicant's Environmental Report, which usually is given in Sect. 1 of the Environmental Statement.)

Applicant's Safety Analysis Report

Georgia Power Company, *Preliminary Safety Analysis Report, Alvin W. Vogtle Nuclear Plant*, February 1973, including Amendment No. 1, Docket Nos. 50-424, 50-425, 50-426, and 50-427, issued April 1973.

Hereafter in this Environmental Statement, the applicant's Preliminary Safety Analysis Report will be cited as PSAR. The citations will appear in the body of the text and will be enclosed in parentheses. The PSAR will be followed by a specific volume, section, page, figure, table, appendix, or supplement number, e.g., (PSAR, vol. 1, pp. 5.4-2-5.4-5).

(Note: The paragraph immediately above should always be a part of the first citation to the applicant's Safety Analysis Report, which usually is given in Sect. 1 of the Environmental Statement.)

#### General

J. Brett, *Thermal Requirements of Fish - Three Decades of Study, 1940-1970*, Technical Report W60-3, Robert A. Taft Sanitary Engineering Center, Cincinnati, Ohio, 1960, pp. 110-117.

Wayne County Planning Board, *Wayne County Recreation*, HUD Project No. NYP 223, August 1971, p. 19.

M. Reeves III, P. G. Fowler, and K. E. Cowser, *A Computer Code for Routine Atmospheric Releases of Short-Lived Radioactive Nuclides*, Report ORNL-TM-3613, Oak Ridge National Laboratory, Oak Ridge, Tenn., October 1972.

H. F. Nicholson, *The Chlorophyll a Content of the Surface Waters of Lake Ontario, June to November, 1967*, Technical Report No. 186, Fisheries Research Board of Canada, Canada Centre for Inland Waters, Burlington, Ontario, 1970.

#### Various NEPA-related reports

Raytheon Company, *Indian Point Ecological Survey: Final Report*, 1971.

Tennessee Valley Authority, *Thermal and Biological Studies in the Vicinity of the Widows Creek Steam Plant*, Mimeo Report, 1967.

U.S. Atomic Energy Commission, *Report of Inquiry into Allegations Concerning Operation of Indian Point 1 Plant of Consolidated Edison Company (for Period of August 1962 to June 1970)*, vols. I and II, Report Details, Division of Compliance and Regulations, July 1971.

*Conservation of Natural Resources, Annual Report*, U.S. Marine Corps Base, Camp Pendleton, Calif., 1971, p. 5.

W. H. Chapman, H. L. Fisher, and M. W. Pratt, *Concentration Factors of Chemical Elements in Edible Aquatic Organisms*, Report UCRL-50564, Lawrence Radiation Laboratory; University of California, Berkeley, 1968.

J. E. Logsdon and R. I. Chissler, *Radioactive Waste Discharges to the Environment from Nuclear Power Facilities*, Report BRH/DER 70-2, U.S. Department of Health, Education, and Welfare, March 1970.

#### Thesis

J. R. Trabalka, *The Radioecology of Ce-Pr-144 in a Littoral Freshwater Microcosm*, Ph.D. thesis, University of Michigan, Ann Arbor, 1971.



#### 4. PREPARATION OF SELECTED BIBLIOGRAPHY



PREPARATION OF *SELECTED BIBLIOGRAPHY*

- List uncited references only (cited references are called out in other parts of the Environmental Statement and are located accordingly).
- Group the references according to their relationship to particular sections of the Environmental Statement.
- Within each group, arrange the references as follows:

General References

Personal-authored (list alphabetically by author)

Corporate-authored (list alphabetically by name of organization)

Author undesignated (list alphabetically by first word of title)

NEPA-related References

Arrange as for General References

Include references of the following types:

Briefs (legal)  
 Applicants' Environmental Reports for other reactors  
 Environmental Statements for other reactors  
 Hearings (notes on)  
 Letters  
 Safety Evaluations  
 Standards  
 Technical Specifications  
 Telegrams

- Arrange as a complete unit and locate immediately before the APPENDIXES.

(A hypothetical *SELECTED BIBLIOGRAPHY* is attached.)

## SELECTED BIBLIOGRAPHY

## 2. THE SITE

General ReferencesPersonal-authored

A. J. Ellis and C. H. Lee, *Geology and Ground Waters of the Western Part of San Diego County, California*, Water-Supply Paper 446, U.S. Geological Survey, 1919.

K. O. Emery, *The Sea Off Southern California*, Wiley, New York, 1960.

C. W. Jennings, *Geologic Map of California, Long Beach Sheet*, California Division of Mines.

E. S. Larson, Jr., *Batholith and Associated Rocks of Corona, Elsinore, and San Luis Rey Quadrangles, Southern California*, Memo 29, Geological Society of America, 1948.

J. F. Mann, Jr., *Geology of a Portion of the Elsinore Fault Zone, California*, Special Report 43, California Division of Mines, 1955.

R. D. Reed, *Geology of California*, American Association of Petroleum Geologists, Tulsa, Okla., 1943.

F. P. Shepard and K. O. Emery, *Submarine Topography of the Southern California Coast: Canyons and Tectonic Interpretation*, Special Paper 31, Geological Society of America, 1941.

A. O. Woodford, J. E. Schoellhamer, J. G. Vedder, and R. F. Yerkes, *Geology of the Los Angeles Basin*, Bulletin 170, California Division of Mines, 1954.

Corporate-authored

Marine Advisers, "Mission Bay Development: An Evaluation of Pertinent Oceanographic Factors," *Marine Advisers, LaJolla* (1957). (Report includes the results of the survey made by M. Taylor and J. E. Fitch.)

State of California Resources Agency, Department of Parks and Recreation, *Status Report for Year Ending July 1971*.

Author undesignated

*Conservation of Natural Resources, Annual Report, U.S. Marine Corps Base, Camp Pendleton, Calif., 1971.*

"National Register of Historic Places," *Fed. Regist.* 37(51): 5433 (1972).

NEPA-related ReferencesCorporate-authored

U.S. Atomic Energy Agency, Directorate of Regulation, *Safety Evaluation, San Onofre Units 2 and 3, Construction Permit Stage, to be issued.*

## 3. THE STATION

General ReferencesPersonal-authored

N. H. Furman, Ed., *Standard Methods of Chemical Analysis*, 6th ed., van Nostrand, Princeton, N.J., 1962.

F. L. LaQue, "The Behavior of Nickel-Copper Alloys in Seawater," *J. Amer. Soc. Naval Engrs.* 53: 29-64 (1941).

NEPA-related ReferencesPersonal-authored

L. C. Adamo, P. L. Horrer, and S. M. Rupp, *San Onofre Nuclear Generating Station Units 1, 2, and 3 Refined Thermal Prediction, Mathematical Modeling*, Intersea Research Corporation, July 3, 1972.

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## 5. TROUBLESOME WORDS



TROUBLESOME WORDS

## SPELLING AND CAPITALIZATION

activity	Use "radioactivity" if that is meant <u>Note:</u> Do not use "radioactivity" to mean "radioactive material."
Administration	Always capitalize when referring to the Energy Research and Development Administration (ERDA)
aesthetic	Not "esthetic"
amendment	Capitalize only if part of a name, e.g., "Amendment 4" but not "...in the amendment."
applicant	Do not capitalize
archaeological	Not "archeological"
Commission	Always capitalize when referring to the Nuclear Regulatory Commission (NRC)
Federal	Always capitalize when referring to the national government
-fold	Do not hyphenate, e.g., "tenfold" not "ten-fold"
meteorology	Not "meterology"
plant	Capitalize only when the full name is given, e.g., "Vogtle Nuclear Plant" but not "...of the plant."
radionuclide	Not "nuclide"
radwaste	Instead, use "radioactive waste"
right-of-way	<u>Webster's Third New International Dictionary</u> lists "rights-of-way" as the first plural but also lists "right-of-ways" without prejudice
staff	Do not capitalize

5-2

State	Capitalized when referring to a specific state
Statement	Capitalize when "Environmental Statement" is meant
statement	Do not capitalize unless "Environmental Statement" is meant
Town	Canadian use for "township"
station	Do not capitalize

## USE

<u>Noun</u>	<u>Adjective</u>	<u>Verb</u>
base load	base-load	
benthos	benthic	
blowdown	blowdown	blow down
burnup	burnup	burn up
cleanup	cleanup	clean up
clear-cutting	clear-cut	clear-cut
closed cycle	closed-cycle	
cold water	cold-water	
cool water	cool-water	
countercurrent	countercurrent	
cropland		
crosswind	crosswind	
deep sea	deep-sea	
deep water	deepwater	
	downcoast	
	downriver	
	downstream	
drawdown	drawdown	draw down
fallout	fallout	fall out
farmland		
floodplain		
forebay		
fossil fuel	fossil-fueled	
fresh water (not stale)		
freshwater (not saline)	freshwater	
game fish	game-fish	
groundwater	groundwater	
guideline	guideline	

5-3

<u>Noun</u>	<u>Adjective</u>	<u>Verb</u>
hedgerow	halfway	
high use factors		
holdup	holdup	hold up
infrared	infrared	
landfill	landfill	
life span	largemouth	
long term	life-span	
low use factors	long-term	
makeup	makeup	make up
mechanical draft	mechanical-draft	
midsummer	midsummer	
midwinter	midwinter	
mollusk		
natural draft	natural-draft	
off-gas	off-gas	
	offshore	
	offsite	
	oil-fired	
	once-through	
	onshore	
	onsite	
pathway		
photoperiod		
phytoplankton	phytoplanktonic	
pipeline		
plankton	planktonic	
	postoperational	
	preoperational	
ridgeline	ridgeline	
riverbank	riverbank	
runoff	runoff	
salt water	saltwater	
sea level	sea-level	
sea salt	sea-salt	
seawater	seawater	
	semiannual	

5-4

<u>Noun</u>	<u>Adjective</u>	<u>Verb</u>
shoreline	shoreline	
short term	short-term	
shutdown	shutdown	shut down
	smallmouth	
surface water	surface-water	
sport fishing	sport-fishing	
startup	startup	start up
	steam-electric	
streamflow	streamflow	
strip mine	strip-mine	strip-mine
tap water	tap-water	
	tenfold	
total body	total-body	
	triaxial	
turnover	turnover	turn over
	upcoast	
	upriver	
	upstream	
understory	understory	
warm water	warmwater	
water table	water-table	
wet bulb	wet-bulb	
whole body	whole-body	
wildlife	wildlife	
zooplankton	zooplanktonic	

## 6. GLOSSARY



GLOSSARY

Discussions of the environmental effects of the construction and operation of nuclear power plants and fuel-reprocessing facilities use words and phrases that may be unfamiliar. The following glossary lists and defines a number of terms that appear in environmental reports and statements.

<u>Term</u>	<u>Definition</u>
aerobic, <i>adj</i>	living or active only in the presence of oxygen
algae, <i>n</i>	plants of the algae group, including practically all seaweeds and allied freshwater or nonaquatic plants; sizes range from microscopic single cells to seaweeds a few hundred feet in length
alluvium, <i>n</i>	sand, gravel, soil, or similar material deposited by running water
alternate, <i>n</i>	one of two or more items or actions among which use rotates; seldom, if ever, should occur in impact statements; usually "alternative" is meant
alternative, <i>n</i>	one of two or more items or actions to be chosen among
amphipod, <i>n</i>	a small shrimp-like animal belonging to the class Crustacea
anaerobic, <i>adj</i>	living or active in the absence of oxygen
aquifer, <i>n</i>	a body of earth material capable of transmitting water at a rate sufficient for economic extraction by wells
aquitard, <i>n</i>	a body of earth material that confines an aquifer but that transmits water in appreciable quantities, although not amounts adequate for a water supply

6-2

Term	Definition
artificial substrate, <i>n</i>	a device suspended in or placed on the bottom of a body of water to provide a base for attachment of aquatic plants and animals and to promote subsequent collection (devices range from microscope slides to concrete blocks)
benthos, <i>n</i>	the bottom of the sea; the organisms that live on or in the bottom of a body of water
biochemical (or biological) oxygen demand (BOD), <i>n</i>	the quantity of oxygen required by microorganisms to stabilize the organic matter in a body of water (by aerobic chemical reactions)
biomass, <i>n</i>	the amount of living matter in the form of one or more kinds of organisms present in a particular habitat; usually expressed as weight of organisms per unit area of habitat or per unit volume if in suspension.
biota, <i>n</i>	the plants (flora) and animals (fauna) of a region
biocide, <i>n</i>	any poisonous chemical substance that can kill living organisms
blowdown, <i>n</i>	that portion of the condenser-cooling water in a recirculating system released to prevent excessive buildup of solids as a result of evaporation
brackish water, <i>n</i>	moderately salty, nonpotable water such as that found in estuarine zones or marshes near the sea
chelating agent, <i>n</i>	a substance, usually organic, which combines with a metal to remove it from liquid effluents

Term	Definition
$\chi/Q$	a meteorological term used as a measure of the dispersion of a material in the atmosphere; in impact statements, $\chi$ (Ci/m <sup>3</sup> ) is the concentration of a radionuclide in the air, and $Q$ (Ci/sec) is the rate of continuous emission from a point source (such as the stack on a gaseous radioactive waste treatment system), the ratio [(Ci/m <sup>3</sup> )/(Ci/sec) = sec/m <sup>3</sup> ] varies with wind speed and with direction and distance from the release point
chloramine, <i>n</i>	any of various organic compounds containing chlorine and nitrogen, especially with the chlorine attached to the nitrogen
chlorine demand, <i>n</i>	the difference between the amount of chlorine with which condenser-cooling water is treated and the amount of unreacted chlorine that remains at the end of the treatment period
chlorophyll $\alpha$ , <i>n</i>	one of a family of pigments produced by living plants as a result of photosynthesis; used as a measure of primary productivity
cladoceran, <i>n</i>	any of the minute, chiefly freshwater, branchiopod crustaceans; water flea
consumptive use, <i>n</i>	the total water loss to the atmosphere from a recirculating system, e.g., cooling tower, cooling pond, cooling canal, or spray-module cooling system (consumptive use does not occur in once-through cooling systems)
copepod, <i>n</i>	a small crustacean (about 0.05 in. long); a common member of the zooplankton
crustacean, <i>n</i>	an animal having a hard but flexible exoskeleton

6-4

Term	Definition
cryptomonad, <i>n</i>	a member of a small order of plant-like flagellates, chiefly freshwater
curie, <i>n</i>	the quantity of a radioactive material in which $3.7 \times 10^{10}$ disintegrations occur per second
design-basis earthquake, <i>n</i>	maximum anticipated earthquake normalized to 0.12 g horizontal ground acceleration
diatom, <i>n</i>	unicellular greenish-brown plant with a siliceous exoskeleton; often forming chains
dinoflagellate, <i>n</i>	a member of an order of chiefly marine plant-like flagellates; a significant element of marine plankton, including members of important food chains and most of the flagellates that cause red tide
dissolved oxygen (DO), <i>n</i>	oxygen in solution in water; the concentration is usually expressed in milligrams per liter (mg/liter) or parts per million (ppm)
dose, <i>n</i>	a general term denoting the quantity of nuclear energy either radiated or absorbed; it is used synonymously with dose equivalent in environmental reports
dose equivalent, <i>n</i>	a term that expresses all radiations on a common scale for calculating the effective absorbed dose; the unit of dose equivalent is the rem
downwelling	no such word is listed in <i>Webster's Third New International Dictionary</i> ; choose "sink" or some other appropriate word
easterly, <i>n</i>	a wind blowing from the east

6-5

Term	Definition
ecosystem, <i>n</i>	the interrelation of animals, plants, and their physical and chemical environments
entrainment, <i>n</i>	the process of carrying along or over; in environmental reports, passage of organisms into and through the condenser-cooling system
epicenter, <i>n</i>	the earth's surface directly above the focus of an earthquake
epilimnion, <i>n</i>	the layer of water that overlies the thermocline of a lake and is subject to wind action
eutrophication, <i>n</i>	the process, artificial or natural, whereby a water body undergoes an increase in available plant nutrients (notably phosphates and nitrates) which results in an increase in biological productivity in the water
flagellate, <i>n</i>	a unicellular organism that propels itself by one or more whips (or flagella)
fossil-fired, <i>adj</i>	no steam plant is fired with fossils; the correct word is fossil-fueled
free chlorine, <i>n</i>	the molecular chlorine component of residual chlorine
genus, <i>n</i>	a taxonomic category that comprises a group of structurally related species
hydroid, <i>n</i>	a primitive aquatic invertebrate that resembles a small branched plant
hypolimnion, <i>n</i>	the layer of water beneath the thermocline of a lake, of essentially uniform temperature

Term	Definition
isotherm, <i>n</i>	a line that connects points, usually on a map, having the same temperature
larva, <i>n</i>	an embryo that becomes self-sustaining and independent before it has assumed the characteristic features of its parents
littoral, <i>adj</i>	growing or living near the shore
littoral, <i>n</i>	a coastal region
macrophyte, <i>n</i>	plant life, especially in water, large enough to be seen with the naked eye
man-rem, <i>n</i>	a unit measure of the total absorbed dose received by a large number of persons; the product of the number of persons in the group times the average dose absorbed (in rems) by each member of the group
moraine, <i>n</i>	an accumulation of earth and stones deposited by a glacier
noble gases, <i>n</i>	relatively inert gases (in environmental statements, usually xenon and krypton)
northerly, <i>n</i>	a wind blowing from the north
old field, <i>n</i>	land once used for agriculture which has been allowed to revert to the native state
outage, <i>n</i>	a period during which the supply of electrical energy from a generating station is interrupted, for maintenance or for an unplanned reason
peak load, <i>n</i>	highest demand for electric power, usually expressed for a given year
pheophytin $\alpha$ , <i>n</i>	one of a family of pigments produced by living plants as a result of photosynthesis; used as a measure of primary productivity

6-7

Term	Definition
phytoplankton, <i>n</i>	plant plankton
plankter, <i>n</i>	planktonic organism
plankton, <i>n</i>	passively floating or weakly swimming aquatic animal life (zooplankton) and plant life (phytoplankton) incapable of regulating its mobility
primary productivity, <i>n</i>	the capacity of an ecosystem to build with external energy, either radiant or chemical, the simple organic compounds that are basic to higher forms of life
recirculating system, <i>n</i>	correct term for "closed-cycle" cooling system in which hundreds of gallons of water per minute are evaporated to the atmosphere and a similar amount of blowdown is discharged
rem, <i>n</i>	a unit measure of the amount of any ionizing radiation which will cause the same amount of biological injury to human tissue as that caused by one roentgen of x or gamma radiation (the annual dose from naturally occurring radioactive materials is usually taken as 0.1 rem)
reserve capacity, <i>n</i>	the difference between installed generating capacity and peak load, expressed as MW or %
reserve margin, <i>n</i>	the difference between available power (generating capacity plus purchases) and peak load, expressed as MW or %
residual chlorine, <i>n</i>	chlorine (in several forms) that is available to react after the chlorine demand is satisfied
rhizoid, <i>n</i>	a rootlike structure used by an organism to attach itself to something, a "holdfast"

Term	Definition
roentgen, <i>n</i>	a unit measure of exposure to ionizing radiation; specifically, the amount of x or gamma radiation that produces a charge of one electrostatic unit in 1 cm <sup>3</sup> of dry air (or the transfer of 83 ergs to 1 gram of dry air)
salinity, <i>n</i>	the dried solid residues obtained from water when all organic matter has been oxidized, all bromides and iodides have been replaced by chlorides, and all carbonates have been converted to oxides; usually expressed in grams/kilogram or parts per thousand (ppt)
seine, <i>n</i>	a large net that hangs vertically in a body of water (because one edge is provided with sinkers and the other with floats) and encloses fish when its ends are brought together or are drawn ashore
sessile, <i>adj</i>	permanently attached and not free to move about
southerly, <i>n</i>	a wind blowing from the south
taxonomic, <i>adj</i>	relating to the systematic distinguishing, ordering, and naming of type groups within a subject field (flora and fauna)
thermal bar (natural), <i>n</i>	a layer of water, either horizontally or vertically oriented in a body of water, whose temperature is 39.2°F (the temperature at which the density of water is maximum at atmospheric pressure), as a result of natural phenomena, and which therefore causes a density-driven circulating flow in water layers adjacent to it
thermal bar (induced), <i>n</i>	a thermal bar formed, usually in a body of cold water, as a result of the discharge of a volume of heated water, as from the cooling system of a nuclear reactor

Term	Definition
thermal inversion, <i>n</i>	a reversal of the normal atmospheric temperature gradient; increase of temperature of air with increasing altitude
thermal plume, <i>n</i>	an integral volume of heated water, discharged from a nuclear reactor into a body of cooling water, which moves in the body of cooling water
thermal stability, <i>n</i>	normal condition of the temperature gradients that govern the buoyancy and the mixing properties of the atmosphere
thermocline, <i>n</i>	a layer in a thermally stratified body of water in which the temperature declines 1 C° for each 1 m of increase in depth
thermophilic, <i>adj</i>	capable of growing at high temperature (as various bacteria that thrive at 122° to 131°F)
thyroid-rem, <i>n</i>	use "millirems to the thyroid" instead of this construction, which could lead to "kidney-rem," "stomach-rem," "testicle-rem," and other such terms
traveling screen, <i>n</i>	a continuous-belt moving screen that filters debris from water entering a power plant
trophic, <i>adj</i>	pertaining to, or connected with, nutrition or feeding
type B package, <i>n</i>	a package described in 10 CFR 71 which must be designed to withstand severe accident conditions without loss of contents
understory, <i>n</i>	a foliage layer beneath and shaded by the main canopy of a forest, but above the ground cover

6-10

<u>Term</u>	<u>Definition</u>
westerly, <i>n</i>	a wind blowing from the west
young-of-the-year, <i>n</i>	organisms, usually fish, hatched in a given year
zooplankton, <i>n</i>	minute planktonic animals that feed on phytoplankton and, in turn, serve as food for young fish

## 7. ABBREVIATIONS, INITIALISMS, AND SYMBOLS



## ABBREVIATIONS, INITIALISMS, AND SYMBOLS

Although abbreviations should be used sparingly in titles, their usage in text is common in the following circumstances:

- when the word abbreviated is the name of a unit of measure and is preceded by a numeral
- when the abbreviation has been established by usage as a part of the vocabulary in a specific field.

When so used, abbreviations save space and prevent the reader from being distracted by a needless spelling-out of repetitious words and terms. An abbreviation should not be used, or at least it should be defined, if the reader is at all likely not to understand it. A more liberal use of abbreviations is recommended where space is limited, as in lists, tables, and illustrations, but their meanings should be clear or they should be defined in the text. A judicious use and a consistent treatment of abbreviations are imperative.

The use of metric units is recommended. The International System of Units has been widely adopted in the United States. To assist typists, the following partial table of metric prefixes is given:

Prefix	Abbreviation	Fraction or multiple
pico	p	$10^{-12}$
nano	n	$10^{-9}$
micro	$\mu$	$10^{-6}$
milli	m	$10^{-3}$
centi	c	$10^{-2}$
deci	d	$10^{-1}$
deca	da	$10^1$
hecto	h	$10^2$
kilo	k	$10^3$
mega	M	$10^6$
giga	G	$10^9$
tera	T	$10^{12}$

The list that follows gives those abbreviations which are "standard" for Environmental Impact Project reports. Most of the abbreviations are based on recommendations given by such well-known groups as the National Bureau of Standards, the American Institute of Physics, and the American Chemical Society. Ordinarily, when an abbreviation is used which is not listed here, it should be defined when first introduced in the report. (Abbreviations may be redefined in each major section of a large report.) When the circumstances are appropriate, the following forms may be used (without periods except as indicated):

## 7-2

absolute	abs	board foot	bd ft
acidity (negative logarithm of hydrogen ion concentration)	pH	boiling point	bp
acre	spell out	boiling-water reactor	BWR
acre-foot	acre-ft	Boulevard	Blvd.
Advisory Committee on Reactor Safeguards, NRC	ACRS	British thermal unit	Btu
Alabama	Ala.	Brookhaven National Laboratory	BNL
Alaska	spell out	Bureau of Ships	BuShips
alternating current	ac	bushel	bu
altitude	alt	calculated	calcd
ampere	A	calendar year	CY
angstrom	Å	California	Calif.
anno Domini	AD	calorie	cal
anonymous	anon.	Canal Zone	spell out
ante meridiem	AM	cent	¢
antilogarithm	antilog	Celsius (centigrade) degrees (temperature differential)	C°
Appendix(es)	spell out	centigram	cg
April	Apr.	centimeter	cm
Argonne National Laboratory	ANL	centimeters of mercury	cm Hg
Arizona	Ariz.	centimeters of water	cm H <sub>2</sub> O
Arkansas	Ark.	centimeters per second	cm/sec
atmosphere	atm	centipoise	cP
Atomic Energy Commission	AEC	chapter(s)	Chap(s).
atomic percent	at. %	<i>circa</i> (about) (dates only)	ca.
Atomic Safety and Licensing Board, NRC	ASLB	circular mil	cir mil
atomic weight	at. wt	Colorado	Colo.
August	Aug.	Company	Co.
Avenue	Ave.	concentrated	concd
average	av	confer (compare)	cf.
		Connecticut	Conn.
		constant	const
Bachelor of Science	B.S.	Corporation	Corp.
balance	bal	cosecant	csc
bar	spell out	cosine	cos
barn	b	cotangent	cot
barrel	bbbl	coulomb	C
Battelle Memorial Institute	BMI	count	spell out
before Christ	B.C.	counts per minute	counts/min
billion electron volts	GeV	counts per minute per milliliter	counts min <sup>-1</sup> ml <sup>-1</sup> (or counts/min/ml)
biochemical (or biological) oxygen demand	BOD	counts per second	counts/sec

cubic	cu	disintegrations per minute	dis/min
cubic centimeter	cm <sup>3</sup> or cc	disintegrations per second	dis/sec
cubic foot	ft <sup>3</sup>	dissolved oxygen	DO
cubic feet per minute	cfm	District of Columbia	D.C.
cubic feet per second	cfs	Division of Reactor Licensing, NRC	DRL
cubic feet per ton	ft <sup>3</sup> /ton	Doctor	Dr.
cubic inch	in. <sup>3</sup>	Doctor of Medicine	M.D.
cubic meter	m <sup>3</sup>	Doctor of Philosophy	Ph.D.
cubic micrometer (cubic micron)	$\mu\text{m}^3$ ( $\mu^3$ )	dollar	\$
cubic millimeter	mm <sup>3</sup>	dozen	doz
cubic yard	yd <sup>3</sup>	Draft Environmental Statement	DES
curie	Ci	dyne	spell out
cycle	spell out	dyne-centimeter	dyne-cm
cycles per minute	cpm	east	E
cycles per second	cps (or Hz)	east-northeast	ENE
day	spell out (d may be used for half-life measurements in lists)	east-southeast	ESE
December	Dec.	edited, edition	ed.
decibel	dB	editor(s)	Ed(s).
decibel (scale A)	dB(A)	electromotive force	emf
decibel (scale B)	dB(B)	electron volt	eV
decibel (scale C)	dB(C)	electrostatic unit	esu
decontamination factor	DF	emergency core-cooling system	ECCS
degree	° [deg is usually used when the unit is not preceded by a number; note the following examples: 40°C; 40C°/min; an angle of 40°; actual temperature (°C); tem- perature differential (C°); size of angle (deg); specific heat (cal/deg) or (cal/C°); tempera- ture change (deg/min); 12° 50' 30"; rare, 40 deg/min or 40° per minute]	Energy Research and Development Administration	ERDA
degrees Baumé	°B	Environmental Project Manager, NRC	EPM
degrees Celsius (centigrade)	°C	Environmental Protection Agency	EPA
degrees Fahrenheit	°F	Environmental Report	ER
degrees Kelvin	°K	equation(s)	Eq(s).
Delaware	Del.	equivalent	equiv
deoxyribonucleic acid	DNA	especially	esp
Department	Dept.	estimated	estd
Department of Transportation, U.S.	DOT	<i>et alii</i> (and others)	et al.
diameter	diam	<i>et cetera</i>	etc.
diameter breast height	dbh	<i>exempli gratia</i> (for example)	e.g.
direct current	dc	experiment	expt
		experimental	exptl
		exponential	exp
		Fahrenheit degrees (temperature differential)	F°

February .....	Feb.	high-efficiency particulate air (filter) .....	HEPA
Federal Aviation Agency .....	FAA	horsepower .....	hp
Federal Power Commission .....	FPC	horsepower-hour .....	hp-hr
Federal Radiation Council .....	FRC	hour .....	hr (h may be used for half-life measurements in lists)
Federal Water Pollution Control Act .....	FWPCA	Idaho .....	spell out
Federal Water Pollution Control Standards .....	FWPCS	<i>id est</i> (that is) .....	i.e.
feet per hour .....	ft/hr	Illinois .....	Ill.
feet per minute .....	fpm	inch .....	in.
feet per second .....	fps	inches of mercury .....	in. Hg
figure(s) .....	Fig(s).	inches of water .....	in. H <sub>2</sub> O
Final Environmental Statement .....	FES	inch-pound .....	in.-lb
Final Facility Design and Safety Analysis Report .....	FFDSAR	Incorporated .....	Inc.
Final Safety Analysis Report .....	FSAR	Indiana .....	Ind.
fiscal year .....	FY	inside diameter .....	ID
fissions per second .....	fissions/sec	International Atomic Energy Agency .....	IAEA
Florida .....	Fla.	International Commission on Radiological Protection .....	ICRP
foot .....	ft	Iowa .....	spell out
foot-pound .....	ft-lb	Jackson turbidity unit .....	Jtu
freezing point .....	fp	January .....	Jan.
frequency modulation .....	FM	joule .....	J
Friday .....	Fri.	Junior .....	Jr.
gallon .....	gal	Kansas .....	Kan.
gallons per day .....	gpd	Kentucky .....	Ky.
gallons per hour .....	gph	kilo (prefix) .....	k
gallons per minute .....	gpm	kiloampere .....	kA
gallons per second .....	gps	kilocalorie .....	kcal
Geiger-Mueller .....	G-M	kilocurie .....	kCi
Georgia .....	Ga.	kilocycle .....	kc
Governor .....	Gov.	kilo-electron volt .....	keV
gram .....	g	kilogram .....	kg
gram-atom .....	g-atom	kilogram-calorie .....	kg-cal
gram-calorie .....	g-cal	kilogram-meter .....	kg-m
gram-mole .....	g-mole	kilograms per cubic meter .....	kg/m <sup>3</sup>
grams per metric ton .....	g/metric ton	kilohertz .....	kHz
Hawaii .....	spell out	kilohm .....	kΩ
henry .....	H	kilojoule .....	kJ
hertz (singular and plural) .....	Hz		

kiloliter	kl	maximum permissible dose	MPD
kilometer	km	mean sea level	MSL
kiloroentgen	kR	mega (prefix)	M
kiloton	spell out	megacycle	Mc
kilovolt	kV	megahertz	MHz
kilovolt-ampere	kVA	megasecond	Msec
kilovolt (peak)	kVp	megaton	spell out
kilowatt	kW	megavolt	MV
kilowatt (electrical)	kWe	megavolt-ampere	MVA
kilowatt (thermal)	kWt	megawatt	MW
kilowatt-hour	kWhr	megawatt (electrical)	MWe
knot	spell out	megawatt (thermal)	MWt
		megawatt-day	MWd
laboratory (system)	lab	megawatt-days per metric ton	MWd/metric ton
langley	spell out	megawatt-days per ton	MWd/ton
latitude	lat	megawatt-hour	MWhr
lethal dose in 50% of the cases	LD <sub>50</sub>	megawatt-second	MWsec
limit (mathematics)	lim	megawatt-year	MWyr
Limited	Ltd.	megohm	MΩ
linear foot	lin ft	melting point	mp
liter	spell out	metastable	m (Sr-85m)
logarithm (common)	log	meter	m
logarithm (natural)	ln	meter-kilogram	m-kg
longitude	long.	meters per second	m/sec
Los Alamos Scientific Laboratory	LASL	metric ton	spell out
loss-of-coolant accident	LOCA	mho	spell out
Louisiana	La.	microampere	μA
lumen	lm	microampere-hour	μA-hr
Maine	Me.	microangstrom	μÅ
man-hour	spell out	microcoulomb	μC
man-rem	spell out	microcurie	μCi
man-year	spell out	microequivalent	μeq
March	Mar.	Michigan	Mich.
Maryland	Md.	micro	μ
Massachusetts	Mass.	microgram	μg
Massachusetts Institute of Technology	MIT	microhenry	μH
Master of Science	M.S.	microhm	μΩ
maximum	max	microinch	μin.
maximum permissible concentration	MPC	microliter	μl
		micrometer	μm
		micromho	spell out
		micromolar	μM

micromole	spell out	molecular weight	mol. wt
micron	(use micrometer)	mole fraction	m.f.
microsecond	$\mu$ sec	mole percent	mole %
microvolt	$\mu$ V	Monday	Mon.
microwatt	$\mu$ W	Montana	Mont.
mil	spell out	month	spell out
mile	spell out	nanometer	nm
miles per hour	mph	nanosecond	nsec
mill	spell out	National Bureau of Standards	NBS
milliamper	mA	National Committee on Radiation Protection	NCRP
millibarn	mb	National Environmental Policy Act of 1969	NEPA
millicurie	mCi	Naval Research Laboratory	NRL
milliequivalent	meq	Nebraska	Neb.
milligram	mg	neutron	spell out
millihenry	mH	neutrons per square centimeter per second	neutrons $\text{cm}^{-2} \text{sec}^{-1}$
milliliter	ml	Nevada	Nev.
millimeter	mm	New Hampshire	N.H.
millimeters of mercury	mm Hg	New Jersey	N.J.
millimho	spell out	New Mexico	N.M.
millimole	spell out	New York	N.Y.
milliohm	$m\Omega$	normal (concentration)	<i>N</i>
million electron volts	MeV	north	<i>N</i>
million gallons per day	Mgd	North Carolina	N.C.
million volts	MV	North Dakota	N.D.
millirad	spell out	north-northeast	NNE
millirem	spell out	north-northwest	NNW
milliroentgen	mR	northeast	NE
millisecond	msec (ms may be used for half-life measurements in lists)	northwest	NW
millivolt	mV	November	Nov.
milliwatt	mW	Nuclear Regulatory Commission	NRC
mils per year	mils/year	Nuclear Safety Information Center	NSIC
minimum	min	nuclear ship	NS
Minnesota	Minn.	number(s)	No(s).
minute	min (m may be used for half-life measurements in lists)	Oak Ridge Associated Universities	ORAU
miscellaneous	misc	Oak Ridge Gaseous Diffusion Plant	ORGDP
Mississippi	Miss.		
Missouri	Mo.		
molal	<i>m</i>		
molar	<i>M</i>		
mole	spell out		

Oak Ridge Institute of Nuclear Studies .....	ORINS	pressurized-water reactor .....	PWR
Oak Ridge National Laboratory .....	ORNL	Professor .....	Prof.
observed .....	obs	Public Health Service .....	PHS
October .....	Oct.	Puerto Rico .....	P.R.
Office of the General Counsel, NRC .....	OGC	quart .....	qt
Ohio .....	spell out	rad (treat as a word) .....	spell out
ohm .....	$\Omega$	radian .....	spell out
ohm-centimeter .....	$\Omega$ -cm	radio detection and ranging .....	radar
ohm-foot .....	$\Omega$ -ft	radio frequency .....	rf
Oklahoma .....	Okla.	reference(s) .....	ref(s).
Oregon .....	Ore.	relative biological effectiveness .....	RBE
ounce .....	oz	rem (treat as a word) .....	spell out
outside diameter .....	OD	revolutions per minute .....	rpm
Pacific Northwest		revolutions per second .....	rps
Laboratory .....	PNL	Rhode Island .....	R.I.
page(s) .....	p(pp).	ribonucleic acid .....	RNA
parts per billion .....	ppb	rod .....	spell out
parts per million .....	ppm	roentgen .....	R
parts per thousand .....	ppt	root mean square .....	rms
peck .....	pk	Saint .....	St.; plural, SS.
Pennsylvania .....	Pa.	Sainte .....	Ste.
percent .....	%	Samoa .....	spell out
picosecond .....	psec	Saturday .....	Sat.
pint .....	pt	Savannah River Laboratory .....	SRL
poise .....	P	Savannah River Plant .....	SRP
post meridiem .....	PM	schedule (pipe size) .....	sched
pound .....	lb	secant .....	sec
pound-foot .....	lb-ft	second .....	sec (s may be used for half-life measurements in lists)
pound-inch .....	lb-in.	second-foot .....	sec-ft
pound-mole .....	lb-mole	section(s) .....	Sect(s).
pounds per cubic foot .....	lb/ft <sup>3</sup>	Senior .....	Sr.
pounds per square foot .....	lb/ft <sup>2</sup>	September .....	Sept.
pounds per square inch .....	psi	sine .....	sin
pounds per square inch, absolute .....	psia	south .....	S
pounds per square inch, gage .....	psig	South Carolina .....	S.C.
Power Supply Area .....	PSA	South Dakota .....	S.D.
Preliminary Draft Environmental Statement .....	PDES	south-southeast .....	SSE
Preliminary Safety Analysis Report .....	PSAR	south-southwest .....	SSW
		southeast .....	SE
		southwest .....	SW

species .....	sp (p)	ton .....	spell out
specific gravity .....	sp gr	torr (singular and plural) .....	spell out
square .....	sq	total dissolved solids .....	TDS
square centimeter .....	cm <sup>2</sup>	Tuesday .....	Tues.
square foot .....	ft <sup>2</sup>	ultrahigh frequency .....	uhf
square inch .....	in. <sup>2</sup>	ultraviolet .....	uv
square kilometer .....	km <sup>2</sup>	United States .....	U.S.
square meter .....	m <sup>2</sup>	United States Atomic Energy	
square micrometer		Commission .....	USAEC
(square micron) .....	μm <sup>2</sup>	United States Air Force .....	USAF
square mile .....	sq mile	United States Army .....	USA
square millimeter .....	mm <sup>2</sup>	United States Marine Corps .....	USMC
square yard .....	yd <sup>2</sup>	United States Naval Reserve .....	USNR
stainless steel .....	SS	United States Navy .....	USN
standard .....	std	United States of America .....	U.S.A.
standard cubic feet per minute .....	scfm	United States ship .....	USS
standard temperature and pressure .....	STP	University .....	Univ.
steamship .....	SS	University of California Radiation	
Street .....	St.	Laboratory .....	UCRL
Sunday .....	Sun.	Utah .....	spell out
Superintendent .....	Supt.	Vermont .....	Vt.
supplement .....	Suppl.	versus .....	vs
Surgeon General .....	Surg. Gen.	very high frequency .....	vhf
symmetrical .....	sym	<i>videlicet</i> (namely) .....	viz.
tangent .....	tan	Virginia .....	Va.
television .....	TV	Virgin Islands .....	spell out
temperature .....	T	volt .....	V
temperature differential .....	ΔT	volt-ampere .....	V-A
Tennessee .....	Tenn.	volt-coulomb .....	V-C
Tennessee Valley Authority .....	TVA	volume(s) .....	vol(s).
Texas .....	Tex.	volume percent .....	vol %
Thursday .....	Thurs.	Washington .....	Wash.
Title 10, Code of Federal		watt .....	W
Regulations, Part 20 .....	10 CFR 20	watt-hour .....	Whr
Title 10, Code of Federal		watt-second .....	Wsec
Regulations, Part 50 .....	10 CFR 50	Wednesday .....	Wed.
Title 10, Code of Federal		week .....	spell out
Regulations, Part 50,		weight .....	wt
Section 57 .....	10 CFR 50.57	weight percent .....	wt %
Title 10, Code of Federal		weight-volume percent .....	w/v %
Regulations, Part 100 .....	10 CFR 100	west .....	W
tolerance limit			
(median) .....	TL <sub>m</sub>		

## 7-9

west-northwest .....	WNW	Wyoming .....	Wyo.
west-southwest .....	WSW	yard .....	yd
West Virginia .....	W.Va.	year .....	spell out (y may be used for half-life measurements in lists)
Wisconsin .....	Wis.		



## 8. MT/ST TAPING PROCEDURE

12

12

## MT/ST TAPING PROCEDURE

Begin recording with the first line of text material. Do not record extra carrier returns or stop transfer codes at the beginning of the page.

Use backspace code key for single words or short headings to be underscored. When lengthy headings or full lines require underscoring, record as follows:

Record line to be underscored.  
Carrier return and stop transfer code.  
Manually move carrier back to line and record underscoring.  
Carrier return and continue typing.

In centering headings, tab to center and use backspace code key.

Do not record page numbers or short footnotes. If footnote is lengthy, record as a separate reference to facilitate transferring.

Whenever possible, avoid the use of temporary hyphens. However, if it is necessary to use temporary hyphens, do not transfer hyphens when transferring in ADJUST.

End each page of a project as follows:

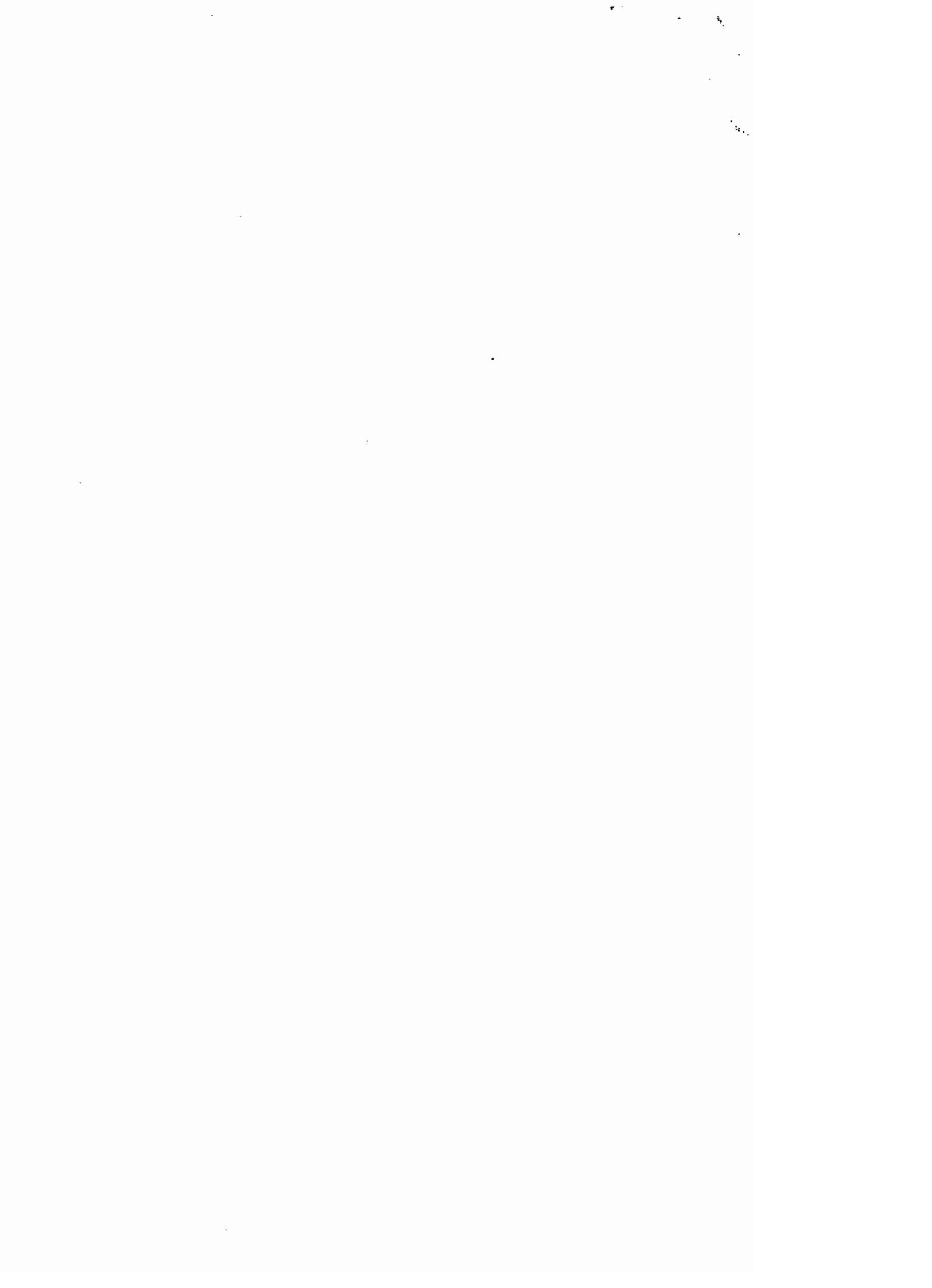
A page ending in the middle of a paragraph: One carrier return, a stop transfer code, and a reference code.

A page that completes a paragraph, section, chapter, etc.: Two carrier returns, a stop transfer code, and a reference code.

At the end of a project (or tape), after recording your last reference code, record eight to ten transfer codes.

Mark each page with reference number and tape number. List tab stops or any other information that will be helpful to another operator using your tapes. Label tapes clearly with name of project, number of reference codes, date, and your initials.





R

Handwritten scribbles or faint text in the lower right quadrant.