Editing and Compositing Guidelines for Preparing Environmental Stewardship–Environmental Remediation and Surveillance Documents

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Prepared by the
Environmental Stewardship–Environmental Remediation and Surveillance
Publications Team

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"Editing and Compositing Guidelines for Preparing ER Project Documents," 3rd edition

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CONTENTS

Appendixes

Appendix A   Style Sheet for Environmental Stewardship–Environmental Remediation and Surveillance Documents

Appendix B   Editing and Production Checklists

Appendix C   Hyphenation, Punctuation, and Capitalization of Commonly Used Terms

Appendix D   Reference Information

Figures

Tables

Acronyms

ACS   American Chemical Society

ADC   authorized derivative classifier

AEC   Atomic Energy Commission

AOC   area of concern

AP   administrative procedure

ASTM   American Society for Testing and Materials

ATSDR   Agency for Toxic Substances and Disease Registry

CEARP   Comprehensive Environmental Assessment and Response Program

CFR   Code of Federal Regulations

CMS	corrective measure study
CT	communications tracker
D&D	decontamination and decommissioning
DI	desk instruction
DOE	U.S. Department of Energy
ECR	Environmental Characterization and Remediation Group
ENV	Environmental Stewardship Division
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPS	electronic publication specialist
ER	Environmental Restoration Project
ER ID	Environmental Restoration identification number
ERDA	Energy Research and Development Administration
ERS	Environmental Remediation and Surveillance Program
ESH	Environment, Safety, and Health Division
FIMAD	Facility for Information Management, Analysis, and Display
FR	Federal Register
FTP	File Transfer Protocol
GIS	Geographic Information System
GPMP	Groundwater Protection Management Program
GSA	Geological Society of America
HDSB	Hazardous Substances Databank
HE	high explosive
HMX	high-melting explosive
HRMB	Hazardous and Radioactive Materials Bureau (of NMED)
HSE	Health, Safety, and Environment Division
HSWA	Hazardous and Solid Waste Amendments
IA	interim action
ID	identification
IM	Information Management Division
IM	interim measure
IM-1	Communication Arts and Services Group
IWP	installation work plan
LAAO	Los Alamos Area Office
LANL	Los Alamos National Laboratory
LASO	Los Alamos Site Office

LA-CP	Los Alamos Controlled Publication
LA-LP	Los Alamos Laboratory Publication
LAMS	Los Alamos Manuscript (a type of LA-series report)
LA-UR	Los Alamos Unlimited Release
LAT	Los Alamos Thesis (a type of LA-series report)
LIR	Laboratory implementation requirements
LPR	Laboratory performance requirements
M	map
MDA	material disposal area
MEPAS	Multimedia Environmental Pollutant Assessment System
NA	not analyzed
na	not available
n/a	not applicable
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NNSA	National Nuclear Security Administration
NOD	Notice of Deficiency
OU	operable unit
OUO	official use only
PDF	portable document format
PRS	potential release site
QA	quality assurance
QC	quality control
QP	quality procedure
RCRA	Resource Conservation and Recovery Act
RDX	research department explosive
RFI	RCRA facility investigation
RPF	Records Processing Facility
RPMP	RCRA Permits Management Program
RS	Remediation Services
RSI	Request for Supplemental Information
S	Security and Safeguards Division
S-7	Classification Group
SAL	screening action level
SAP	sampling and analysis plan
SOP	standard operating procedure

SWMU   solid waste management unit

TA   Technical Area

TIR   Technical Information Release

TOC   table of contents

USGS   U.S. Geological Survey

UTL   upper tolerance limit

VCA   voluntary corrective action

VCM   voluntary corrective measure

1.0   INTRODUCTION

1.1   Background

This document provides guidance for preparing and producing plans, reports, and other documents for the Environmental Stewardship–Environmental Remediation and Surveillance (ENV-ERS) Program, formerly the Environmental Restoration (ER) Project, as required by Los Alamos National Laboratory's (the Laboratory's or LANL's) permit to operate under the Resource Conservation and Recovery Act (RCRA[1]).

In 1989, under the authority of RCRA, the New Mexico Environment Department (NMED) issued an operating permit (a Hazardous Waste Facility Permit) for operations at the Laboratory. In 1990, the Environmental Protection Agency (EPA) issued Hazardous and Solid Waste Amendments (HSWA) to the permit. These amendments are known as the HSWA module but are actually Module VIII of the permit.[2]

ENV-ERS is covered by a Laboratory installation work plan (IWP), which is updated regularly. The latest state-approved version is Revision 7 from 1998.

1.2   Scope and Objectives

"Editing and Compositing Guidelines for Preparing Environmental Stewardship–Environmental Remediation and Surveillance Documents" is intended to be a tool for producing RCRA-driven documents. In addition to being based on RCRA, the guide also reflects the Laboratory's online "Publishing at Los Alamos" manual (available at http://int.lanl.gov/publishing), which covers the policies, procedures, and services central to publishing at the Laboratory. "Publishing at Los Alamos" is produced and maintained by the Information Management (IM) Division's Communication Arts and Services Group (IM-1), the group that also deploys most of the professional communicators who make up the ENV-ERS Publications Team.

The ENV-ERS Publications Team is composed of writer-editors, electronic publication specialists (compositors), illustrators, a document production assistant, and a document manager. The document manager schedules and assigns all incoming publication projects, including presentations, viewgraphs, posters, handouts, and web pages.

In planning a project's schedule, the document manager should be given adequate advance notice and adequate time should be set aside for the actual editing, writing, composing, designing, and proofing. Nearly all ENV-ERS documents must go through a peer review and comment resolution process that takes time to complete. Depending upon the length and complexity of the document, at least two weeks should be set aside for the initial peer review edit and two to three weeks for the final editing and composition.

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[1] RCRA is an act passed in 1976 as an amendment to the Solid Waste Disposal Act of 1965. The primary goals of RCRA are to protect human health and the environment from the potential hazards of waste disposal; to conserve energy and natural resources; to reduce the amount of waste generated, including hazardous waste; and to ensure that waste is managed in an environmentally sound manner. RCRA was amended in 1984 by the Hazardous and Solid Waste Amendments, which expanded RCRA's scope.

[2] The HSWA modified specific sections of RCRA. When ENV-ERS undertakes a Class III permit modification, it does so to this module of the permit. For more information, consult one of the "Request for Permit Modification" documents available from ENV-ERS.

"Editing and Compositing Guidelines for Preparing Environmental Stewardship–Environmental Remediation and Surveillance Documents" supplements the following desk instruction (DI) and quality procedures (QPs), which are available from the Environmental Stewardship–Environmental Characterization and Remediation (ENV-ECR) internal web site (http://erinternal.lanl.gov/):

- DI-4.20 (latest revision), *Assembling Reference Sets for ER Project Documents*

- QP-3.5 (latest revision), *Peer Review Process*

- QP-4.3 (latest revision), *Records Management* (covers how the Records Processing Facility [RPF] works)

- QP-4.4 (latest revision), *Record Transmittal to the Records Processing Facility*

- QP-4.9 (latest revision), *Document Development and Approval Process*

- QP-4.12 (latest revision), *Documenting Oral Communications*

Throughout this text are references to sections of the *Chicago Manual of Style* (*Chicago*, either the 14th or the 15th edition unless otherwise noted) or *Facts on File*. These reference books are cited fully in Appendix D.

1.3   Types of Documents

Key requirements for the types of documents ENV-ERS produces are shown in ENV-ECR QP-4.9. However, check http://erinternal.lanl.gov/DocCatalog/DocReviewerList.asp for the current official list of document types and the reviewers needed for each.

1.4   Forms Particular to ENV-ERS

Electronic versions of two applicable forms are available from links on the ENV-ECR internal web site:

- a comment resolution form, which is used to record document reviewer comments and their resolution (see ENV-ECR QP-3.5, Peer Review Process), and

- a document signature form, which is generated when you obtain an ENV Division document catalog number (see section 1.5.1).

1.5   ENV-ERS Numbering Systems

Currently ENV-ERS uses four numbering systems: communication tracker (CT) numbers, document catalog numbers, ER identification (ID) numbers, and Los Alamos Unlimited Release (LA-UR) numbers. Symbol numbers are no longer used but were assigned to letters and memoranda by the ER Project office before 2002.

1.5.1   Communication Tracker (CT) Numbers

CT numbers look like this: C792. They are assigned by the ENV-ECR group office to incoming correspondence that needs a response (e.g., a Notice of Deficiency [NOD] or Request for Supplemental Information [RSI]).

1.5.2   Document Catalog Numbers

Document catalog numbers look like this: ER2005-0015. This numbering system is designed to be used to track every document generated by ENV-ERS. To obtain a number, go to http://erinternal.lanl.gov/DocCatalog. The person who requests the number is the only one who can alter the information on the form. The form should display the requester's Z number near the top, if viewing the online version (see Figure 1.5-1). If the type of document you are working on is not available from the drop-down list, you should choose a type that is similar. For more details about where this number is used and who is supposed to obtain one, see ENV-ECR QP-4.9.

Figure 1.5-1.   Sample Document Catalog Signature Form

1.5.3   ER ID Numbers

ER ID numbers look like this: 59969. They are assigned by the Records Processing Facility (RPF). One number is assigned to each record that comes into the RPF. For details, see section 5.4, ER ID Numbers.

1.5.4   LA-UR Numbers

LA-UR numbers look like this: LA-UR-98-3918. LA-UR numbers are assigned by the Laboratory (through the Security and Safeguards–Classification Group [S-7]) as the Laboratory's tracking number. Assigning of some number is a U.S. Department of Energy (DOE) requirement, as is the information release review

that S-7 performs. Note that this numbering system is used by the Laboratory's Research Library (as their "technical report" number in the online catalog). See section 4.2.1 for details.

1.5.5   Symbol Numbers

Symbol numbers look like this: EM/ER:98-237. They are used on Laboratory memos and correspondence and are usually located in the upper right-hand corner of the first page. For example, EM/ER tells you the division that produced the document. The 98 tells you the year it was produced, and the 237 tells you that it was the 237th piece of correspondence. In Los Alamos National Laboratory memorandum L-9/80-116, L = division; 9 = group; 80 = 1980; 116 = the 116th memo of that year. Although new symbol numbers are no longer assigned by the ENV-ERS Program, the numbers may appear in references citing administrative records.

1.6   Overview of ENV-ERS Document Process

See ENV-ECR QP-4.9 for elements of the ENV-ERS document process.

2.0   STYLE

2.1   Abbreviations and Acronyms

A list of acronyms and abbreviations (along with a glossary) is posted on the internal web site at http://erinternal.lanl.gov/resources/writing_guide.shtml. One can copy and paste from this list when writing documents. Proposed changes or additions to the list (or glossary) can be submitted to the ENV-ERS document manager.

A list of abbreviations and acronyms used in each document should be compiled. This list should appear either in Appendix A, together with a tailored glossary, or at the end of the front matter, if the list is very short.

Technical abbreviations are usually unpunctuated, lowercase, clipped forms of words (ac, dc, ir, tan, g, km). Acronyms are unpunctuated all-caps abbreviations and are pronounced as words: NASA, LANL. Initialisms are all-caps abbreviations that are not pronounced as words: U.S., DOE.

Do not use the before acronyms but do use them before initialisms. Note, however, that the is not used before the following initialisms: DOE, EPA, NMED.

Sentences may begin with an acronym or initialism but may not begin with a technical abbreviation (ir). One should rewrite the sentence to avoid this. Do not use acronyms or abbreviations in ENV-ERS document titles (spell out instead).

Sections 2.1.1 (Abbreviations) and 2.1.2 (Acronyms) below supplement the project's official acronyms and abbreviations list at http://erinternal.lanl.gov/resources/writing_guide.shtml.

2.1.1   Abbreviations and Acronyms: Abbreviations

Technical abbreviations (g, km, Pu, IR, gal.) remain the same whether singular or plural. They do not have to be defined, spelled out, or added to the acronym and abbreviation list. However, more unusual abbreviations may be defined, at the author's discretion. If so, the abbreviation should go into the

acronym and abbreviation list. (See section 2.6.1 for examples of the abbreviation of units of measurement.)

Do not abbreviate the following:

- investigation work plan (IWP used to be used for the project-wide installation work plan)

- work plan

- acre

- integrated sampling and analysis plan (although SAP for sampling and analysis plan is OK)

- notice of disapproval (NOD is already used for notice of deficiency; both terms are still used)

- Figure and Table

Chemical elements in running text should not be abbreviated (use plutonium, not Pu) as well as isotopes (use uranium-235, not ^{235}U). Also, instead of gpm, use gal./min.

2.1.2 Abbreviations and Acronyms: Acronyms

An acronym must be defined in parentheses when it is first used, but only if that acronym is used at least one more time in the major section (executive summary, main text, appendix) in which it is defined. If the acronym is never used again, do not introduce it. Try to avoid using acronyms in summaries.

If the first occurrence of an acronym is in a heading, figure caption, or table title, it should be defined, but try to rewrite to avoid this. If the first occurrence is in a table, define it in a footnote but redefine it at first use in running text.

Plurals of acronyms are usually made by adding an s. Examples: SWMUs, COPCs, SOPs, SAPs, SMEs, but HE stands for high explosive(s). After the Technical Area (TA) acronym has been introduced, Technical Areas 03, 04, 05 should be abbreviated as TA-03, -04, -05, not TA-3, -4, -5.

Terms that begin with numerals (e.g., 2-D or 3-D) go at the top of the acronym list, before all other terms that begin with letters (in other words, not under T for two or three). These numeral-based terms should appear in numerical order. If symbols are used, those terms should go before the numeric terms.[3]

Once the TA acronym has been introduced, Technical Area 21 should be abbreviated as TA-21. Use the hyphen only when you use the full abbreviated form (TA-21), not when you define the acronym. So, use Technical Area (TA) 21 instead of Technical Area (TA)-21 or Technical Area (TA-) 21.

Definitions of acronyms are only capitalized if proper nouns: Many standard operating procedures (SOPs) contain...

Spell out high-melting explosive (HMX), research department explosive (RDX), etc., like any other abbreviation or acronym. Use judgment as to spelling out HMX as "high-melting explosive" or as its full chemical name, "cyclotetramethylenetetranitramine," or both, depending upon the document and audience.

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[3] 12/13/00, Nancy Mulvany's *Indexing* book

2.2   Capitalization

2.2.1   Capitalization: Agencies, Organizations, Job Titles, and Facilities

According to Publishing at Los Alamos, initial caps, once used to lend importance to certain words, now are reserved for proper names, trademarks, and trade names. For example, official job titles are capitalized but generic references to those positions are not. The trend in English is away from capitalization, partly because heavily capitalized text is harder to read:

- The state[4] of New Mexico is south of Colorado and east of Arizona.
  The State[5] wants us to rewrite the plan.
  State regulations say that the permit must be updated.

- Use initial cap for the Laboratory (meaning LANL, not an outside analytical laboratory).

- Use uppercase for ENV-ERS Program; the deputy program director's title is Deputy Program Director for Environmental Remediation and Surveillance. (Job functions, such as project leader or team leader, are not capitalized.)

- The field team but the Decontamination and Decommissioning (D&D) Project team

- Geographical terms that are proper nouns should be capitalized. If they have become accepted as the actual official names of the areas, and not descriptives based on direction, they have become proper nouns: found in the North Slope area but the north slope of the hill.

- Use initial cap for a building and its facility number: Building 1109 at TA-00. Buildings also can have names that would be capitalized, such as Building 89, the Air Filter Building, or the Rest House (Building 411).[6]

- Capitalize references to specific buildings, rooms, wings: the CMR Building, Room 126, Wing 5.

2.2.2   Capitalization: Document Names and Parts

Note the following:

- For cross-references within a document and for references to sections in other documents, be consistent in your choice of lowercase or uppercase: see Chapter 14 of the text book or look in section 3 for further information.

- However, see Appendix A, Acronyms because Appendix is part of the actual name of the appendix.

- For complete titles of ENV-ERS documents and other reports when referenced in text, use title case, quotation marks, no italics: the "RFI Work Plan for OU 1082" shows. However, if that document is cited in full elsewhere, you may shorten the title, leaving off the quotation marks and

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[4] Such terms as *state* (and others) are capitalized when they follow a name and are used as an accepted part of the name; when preceding the name or used alone, such terms are usually lowercased: "Washington State but the state of Washington."—*Chicago*, 14th ed., 8.55

[5] "Where the government rather than the place is meant, the words *state, city,* and the like are usually capitalized." —*Chicago,* 14th ed., 8.56

[6] "Description of Technical Areas and Facilities at Los Alamos National Laboratory—1997," an Environment, Safety, and Health (ESH) Division publication, LA-UR-97-4275

using lowercase, if you use the same order and form as the full title[7]. Though acronyms in titles such as the one found above have been noted in the past, current guidance discourages use of acronyms in document titles: the "Resource Conservation and Recovery Act Facility Investigation Work Plan for Operable Unit 1082."

- Capitalize callouts for specific figures and tables: see Table 3.1-2 for more data, see Figure 2.10-1.

- References to forms are not capitalized unless you are citing a specific form's full title.

2.2.3   Capitalization: Headings

Note the following:

- Always capitalize the first and last words and all major words including the first word following a colon.

- Lowercase the following: the a an and but for or nor to as. However, lowercase prepositions that are stressed (A River Runs Through It), are used adverbially or adjectivally (The On Button), are used as conjunctions (Look Before You Leap), or are part of a Latin expression used adjectivally or adverbially (De Facto).

2.2.4   Capitalization: Vertical Lists

If list items either complete a sentence or are phrases rather than whole sentences, initial words should be lowercase. Initial-cap list items that are complete sentences.

Note: See Appendix C for a more complete list of words and phrases and their capitalization; *Chicago*, 14th ed., 8.167 on headline style; and *Chicago*, 14th ed., 8.170 on capitalizing hyphenated words.

2.3   Numbers

In technical documents, numerals (1, 2, 3) are preferred because they are more immediately recognizable than spelled-out numbers (one, two, three). But for nontechnical documents, follow *Chicago*: spell out numbers below 100.[8]

Be consistent within paragraphs (for more information, see *Chicago*, 14th ed., 8.8 and 8.11, especially).

Use commas for numerals of five digits and more: 10,000 and 100,000. Four-digit numerals should be closed up: 1538 instead of 1 538 or 1,538.

Use numerals in the following instances:

- to represent values of 10 or more:[9] 10 boreholes

- in measurements, such as time and quantity: 4 ft, 7 h, 30 d

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[7] *Chicago,* 14th ed., 8.179
[8] IM-1 training materials
[9] Chapter 5 of *The ACS (*American Chemical Society) *Style Guide,* 2nd ed.

- in mathematical expressions: divided by 6

- for decimals: 0.25 mm

- for percentages: 26%—except when the number is spelled out, as at the beginning of a sentence, "Twenty-six percent. . . ."

- in proportions: 1 to 3

- for dates: 1st of April or September 10, 1998

Spell out numbers in the following instances:

- at the beginning of a sentence: Twenty-five milliliters of acetone and 5 mL of HCl were added.

- for general, round figures: two decades

- when counting objects less than 10: two trial runs and eight tests

- for numbers less than 100 that precede a numeral: fifteen 250-mL flasks. But for numbers more than 100, use numerals: 250 250-mL flasks.

2.4   Punctuation

2.4.1   Punctuation: Apostrophes

For decades, use 1950s not 1950's.

2.4.2   Punctuation: Commas

Use the serial comma: X, Y, and Z.

Periods and commas precede closing quotation marks: a discussion of MDA G is on page 6 of "Environmental Surveillance at Los Alamos during 2002." See also *Chicago*, 14th ed., 6.8 and 6.56, for examples.

2.4.3   Punctuation: Ellipses

To replace a complete sentence, use four spaced periods:

> This is a complete sentence.#.#.#.# Following the ellipses is another complete sentence.

To replace part of a sentence, use three spaced periods:

> This is all about#.#.#.#us.

In the examples above, # is a nonbreaking space (type Ctrl+Shift+Space bar in Microsoft Word).

2.4.4   Punctuation: Hyphens, En Dashes, and Em Dashes

2.4.4.1   Hyphens

The hyphen is used between numbers that are not inclusive, for example in a telephone number: 665-0208.

Commonly seen hyphen examples include the following:

- one-half mile

- 5 ft in diameter and 11 ft high, but 2-ft-thick concrete walls

- Technical Area 33, but TA-33 and TA-03, -04, and -05

Table 2.4-1 presents additional information regarding hyphenation.

Table 2.4-1
Hyphenation and Compound Words

Type	Example
chemical compounds	sodium chloride, sodium chloride solution
chemical element + isotope numbers	plutonium-238
noun + adjective modifiers	lead-free samples
numbers + words as unit modifier	1-L tank, 10-m-long board
noun + past participle modifier	time-tested theory
noun + present participle modifier	neutron-scattering events
spelled-out compound numbers up through 99 (but see section 2.3 where spelling out of numbers is discussed)	twenty-one, but six hundred thousand
a prefix ending in a vowel and a root word beginning in the same vowel (but check the dictionary)	anti-inflammatory

Also see Appendix C for examples of hyphenation and compounding, and *Chicago*, 14th ed., 7.90, for guidance on compounding and closing up.

2.4.4.2   En Dashes

En dashes are used

- with prefixes plus an open compound:
  post–World War II

- to link compound adjectives when two or more of the elements are hyphenated compounds:
  quasi-public–quasi-judicial body

- to connect continuing or inclusive numbers:
  May–June 1967 or pp. 35–38

- to show ranges (depth or concentration):
  3–5 ft of wire, but not the wire ranges in length from 3–5 ft (should be 3 to 5 ft)

- for a minus sign in mathematical expressions (especially important in superscript and subscript):
  $52-3 = 49$ or 4^{-3}.

When abbreviated, Environmental Stewardship[en dash]Environmental Remediation and Surveillance becomes ENV[hyphen]ERS.

Create an en dash (–) in Microsoft Word (hereafter Word) by typing Ctrl+Numeric -.

2.4.4.3   Em Dashes

Use em dashes in running text to indicate a long pause and in tables to indicate missing values. Create an em dash (—) in Word by typing Alt+Ctrl+Numeric -.

2.4.5   Punctuation: Lists

Make items in a list grammatically parallel.

If list items are complex or contain commas, use semicolons to separate the list items.

Four or more items may be presented in a vertical list; if the items are very simple, change the format from vertical list to running text. Avoid use of a vertical list for three or fewer items, particularly if each item is simple, as in the following example:

The hydroponic flooding system included

- a sealed reservoir,
- an aquarium vibrator air pump, and
- a plant container.

Vertical list items are often introduced by a colon; however, if the list is preceded by a complete sentence, either a period or a colon may end the sentence.

Do not use a colon between a verb or preposition and its direct object.

The hydroponic flooding system included:

- a sealed reservoir (etc.)

or

The four variables are:

- precipitation (etc.)

The items in a vertical list can complete a sentence; if so, do not use a colon to introduce the list and end the list with a period. If there are any commas within the individual bulleted or numbered items, the end of the item should be punctuated with a semicolon. For example:

The final analyte list for each watershed includes

- general chemical analytes;
- analytes for which analysis has not been previously conducted or for which data are insufficient;
- analytes detected at concentrations above 25% of regulatory standard more than 5% of the time;
- analytes identified by the evaluation of source, detection limit, or other considerations; and
- analytes recommended for inclusion from a base flow analytical list.

If vertical list items complete a sentence, the initial word in each item should be lowercase. In phrases that are not a complete sentence or do not complete a sentence, capitalizing the first word after the colon is optional; however, be consistent.

If list items are self-contained complete sentences, punctuate them with periods. If items are a mix of complete and incomplete sentences within the same list, try to rewrite list items for consistency.

2.4.5.1 Numbered and Bulleted Lists

If items have no special rank, sequence, or significance (are of equal importance), don't use numbers; use bullets.

Use bullets for a list when the list items are composed of more than one line (e.g., one long sentence, two or more sentences, or a paragraph). Indent one level and align runover lines by using the bullet paragraph style (hanging indent).

For second-level bulleted lists (lists within lists), indent further and use diamonds instead of round bullets by using the bullet2 paragraph style:

- bullet xxxxxxxxxxxxx
  - bullet2 xxxxxxxx
  - bullet2 xxxxxxxx

For numbered vertical lists, use a numeral, followed by a period, then a tab.

1. <Tab>XXXXX

Align numbered vertical lists by left-aligning the numerals as well as left-aligning the text:

9. xxxxxxx
   xxxxxxxxxxxxxxxx
10. xxxxxxxxxx
    xxxxx
100. xxxxxxxxxx
    xxxxxx

Align any turnover lines of text with the first letter in the first word of the line immediately above.

For running text, use (1) in lists, not 1 or 1). For example: The amount of surface water is dependent on (1) precipitation, (2) evaporation, and (3) groundwater recharge.

2.4.6 Punctuation: Mathematical Operators

- Use a true multiplication symbol ($\times$) rather than the letter x. In Word, select Insert and Symbol.

- For a minus sign, use an en dash rather than a hyphen (see "En Dashes" above).

- Insert a space (usually nonbreaking) between a math operator and the characters on either side of that operator: (6.023 $\times$ 1023) or (10 – y). In Word, use the shortcut Ctrl+Shift+Space.

- Use a space around > or < in equations. However, close up in text:
  . . . for the analysis of low concentrations of organics (<100 ng per injection), the . . .

- Use italics for variables: ($a^2 + b^2 = c^2$).

2.4.7   Punctuation: Parentheses/Brackets/Braces

In text, the nesting order is ([ ]). In mathematics, the order is {[( )]}. However, in regards to solid waste management units (SWMUs), don't change the parentheses in a SWMU such as 16-021(c). So, in this special case, we reverse the traditional text nesting order: [SWMU 16-021(c)].

In running text, numbered or lettered lists should have parentheses on both sides:
we can see (1) xxx., and (2) xxxx. In vertical lists, use the numeral followed by a period and a tab.

Within quoted matter, use brackets, not parentheses, for comments or clarification.

2.4.8   Punctuation: Periods

Do not add a period at the end of a figure caption unless it's a complete sentence. Do not add a period at the end of a table title.

Add a period in the following cases:

- between numerals and items in a displayed numbered list
  1. Item
  2. Item

- to the end of all table footnotes

- to the end of abbreviations only if there is possible confusion between the abbreviation without a period and another word (e.g., in. and gal.)

- between figure numbers and the start of captions
  Figure 2.3-1.   This caption is a complete sentence.

2.4.9   Punctuation: Quotation Marks

For references to sections or parts of a document, regardless of capitalization, do not use quotation marks:

> . . . see section 1.0, Introduction, in the first report . . .
> Further examples will be found in the appendix.

Use quotation marks for titles of articles and reports when they appear in reference lists (see section 5.4.2 of this document):

> Abeele, W. V., March 1984. "Hydraulic Testing of Crushed Bandelier Tuff," Los Alamos National Laboratory report LA-10037-MS, Los Alamos, New Mexico.

For complete titles of documents and other reports referenced in text, use quotation marks and title case, but no italics:

> . . . the "Interim Site-Wide Groundwater Monitoring Plan" shows . . .

However, for QPs and SOPs use only title case:

QP-4.9, Peer Review Process, is undergoing peer review.

If a referenced document is cited in full in the list of references, you may shorten the title in the report text, if you use the same order and form as the full title[10]: . . . the Interim Plan proposes . . .

2.4.10 Punctuation: Tabs

Note the following:

- Add a tab (not spaces) between each heading number and the heading text.

- To obtain consistent formatting and turnover alignment, type a tab between the period following a figure number and the text of a figure caption:
  Figure 2.3-1. [tab] This caption is a complete sentence.

2.4.11 Punctuation: Spaces

Use spaces

- after periods and colons in text (only one space), and

- between numbers and units (e.g., 3 mg) and closely connected terms (e.g., material disposal area [MDA] B). In these cases, use a nonbreaking space by typing Ctrl+Shift+Space bar (in Word).

Do not use spaces in the following cases:

- before the first parenthesis in SWMU numbers: SWMU 16-021(c)

- in a reference list, between people's initials: D.I. Smythe

- before a first parenthesis in oxidation numbers in running text: Copper(III), chromium(VI) (note that the oxidation numbers are not closed up in formulas)

- in chemical names: bis(2-ethylhexyl)pththalate

- before or after an en dash or em dash

See also Appendix C for special cases.

2.5 Trademarks

Brand names that are registered trademarks should be capitalized as the manufacturer does. The symbols ® and ™ should be omitted.[11]

Although Laboratory management prohibits endorsing any company's products, it's acceptable to use a name descriptively: the team used an En Core sampler in the field.

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[10] *Chicago,* 14th ed., 7.134

[11] *Chicago,* 15th ed., 8.162

2.6   Units of Measurement

Don't separate numerals from their units of measure; use a nonbreaking space between them. (In Word, use shift+ control+space.)

2.6.1   Units: Abbreviations

Note the following in regards to abbreviating units of measure:

- The abbreviation for liter should be an uppercase L (to avoid confusion with the lowercase letter L in the Arial fonts we use).
- Common units of measurement (mg, for example) do not need to be spelled out in abbreviation lists.
- Abbreviate inches, atomic (as in at. wt or at.%), and gallons with periods to avoid confusion with the words in, at, and gal; other units do not get periods.
- Use 6 ft, not 6' (and use 6.5 ft instead of 6 ft 6 in., unless the context is approximate or for nontechnical use).
- Spell out dimensions the first time: 6 ft long × 8 ft wide × 48 ft deep. Thereafter, use 6 × 8 × 48 ft.
- Instead of g.p.m., use gal./min.
- Don't abbreviate acre.
- Use yd^3 not cy to abbreviate cubic yard.
- The plural forms all units of measure are the same as the singular, so, for example, lb can mean pound or pounds, and yr can mean year or years: the well was drilled 30 yr later.[12]
- Use s for second, min for minute, h for hour, d for day, yr for year (no periods).

2.6.2   Units: Concentrations

In terms of concentrations, note the following:

- A partial definition of concentration:

  Typical units are milligrams of pollutant per liter of water, which is the same as ppm (mass). Or micrograms of pollutant per liter of water, which equals ppb (mass). Soil and food concentrations are mass/mass ratios. They are in milligrams of a chemical per kilogram of medium, which is the same as ppm (mass). Or micrograms of a chemical per kilogram of medium, which is equal to ppb (mass). (—*Facts on File*, p. 58)

- The abbreviation ug/L should always be changed to µg/L (both represent micrograms per liter) —µg/L is an expression of water concentration of a dissolved material.

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[12] *Chicago,* 15.72 and 15.75

- The abbreviation ppb is a unit of measure commonly employed to express the number of parts (e.g., grams) of a chemical contained within a billion parts of gas (air), liquid (water), or solid (soil). (—*Facts on File*, p. 181)

- The abbreviation ppm is used to express number of parts of a chemical contained in a million parts of air, water, or soil (dimensionless); however, air is usually measured in ppm or ppb, water in mg/L or µg/L, and soil in mg/kg or µg/kg (—*Facts on File*, p. 58 and p. 290).

- The abbreviation mrem/yr = millirem per year.

- The abbreviation pCi/g = picoCuries per gram.

- Do not mix type of units within the same measure: use kg/m^3, not kg/gal.

2.6.3   Units: Data Tables

- Use feet instead of inches in tables to show depth; when all depths in a table are less than 1 ft, list all depths in inches.

2.6.4   Units: Metric or English or Both?

As a rule, engineers use English units; hydrologists, geologists, and other scientists use the metric system. The Geological Society of America (GSA) web site has the following to offer on units of measure:

> Use the International System of units (metric) in captions, illustrations, and text. Where English measurements are necessary, follow metric with English in parentheses.

As a result, one or the other or both units of measurement occur in drafts of ENV-ERS documents.

Several factors indicate that it is sensible to use a mix of units in these documents. For example, DOE encourages using metric units, but EPA uses English units in the HSWA module. It is often awkward and time-consuming to convert from one type of unit in a source document to the other in a report, and the large lay component of the audience is accustomed to English units.

In the text, it is recommended that authors use English units whenever possible, with metric units in parentheses afterward. Exceptions include hydrologic and geologic data originally presented in metric and regulatory standards that use metric. The following standard text may be inserted in the introduction of reports to explain the use of English and metric units in the document:

> This document uses English units of measure primarily, although metric units are used when information is based on a document in which the metric system is used.

In maps and illustrations, English units should be used, if possible; however, if the original material uses metric, conversion may not be feasible. Rather than converting every occurrence in text, the editor and author together may decide to add a conversion table to a document (in an appendix or to the front matter). This is especially true for longer documents but may be true for any documents in which inconsistency issues come up.

2.6.5   Units: Punctuation

Note the following:

- Separate numbers and units by a space: 3 m, 7 ms, 2 kg. But close up numbers with kilobytes, megabytes: 56Kb, 3Mb file.

- Close up % and degrees C or F: 2%, wt%, 5°C. (With ranges of closed-up units, repeat the % or ° with the number: 10%–20% of the samples…. With ranges of all other units, do not repeat the unit of measurement symbol.)[13]

- Use en dashes in ranges such as a diameter of 6–8 in. but keep parallel construction with from and between: from 6–8 in. is incorrect; it needs to be from 6 to 8 in.[14]

- For ranges that include hyphens, consider rewriting. Instead of the 3–5-in. clay pipe, you may use the 3- to 5-in. clay pipe.

- For measurements of diameter, one can write 3-in.-diameter clay pipe or clay pipe 3 in. in diameter.

3.0   USAGE

Repeat nouns when needed for clarity: Los Alamos Canyon, Acid Canyon, and Pueblo Canyon is preferred to avoid the potential reading of Los Alamos [the townsite], Acid, and Pueblo Canyons.

Do not use *the* before acronyms (abbreviations pronounced as words) but do use *the* before initialisms (abbreviations not pronounced as words). Note, however, that the is not used before the following initialisms: DOE, EPA, NMED. For more about acronyms, see section 2.1.

3.1   Terminology Related to ENV-ERS

See Appendix C for a list of commonly used terms.

3.1.1   Chemistry

The primary resource for chemistry questions (other than a chemist) should be the American Chemical Society (ACS) Style Guide. See Appendix D for a list of reference books and web sites that are useful.

The following are some usage guidelines:

- Systematic names, especially those for organic compounds, can be complex and contain numerals, parentheses, and brackets. These numbers are separated by commas (but no spaces) and set off from the rest of the name by hyphens: 1,2-dichloroethane is preferable in running text but dichloroethane[1,2-] is frequently found in tables.

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[13] Most units of measurement are separated by a space from the number associated with them: 3 m, 7 ms, 2 kg. There are two exceptions: % and degrees Celsius or Fahrenheit: 2%, 5°C. In ranges, therefore, repeat the percent or degree C or F symbol with the number. With ranges of all other units, do not repeat the unit of measurement symbol.—Judy Prono of IM-1

[14] See *Chicago,* 14th ed., 6.83, for more information.

- Brackets enclosing numbers are closed up: trans-1,8-bis(3,4,5-trimethoxyphenyl)bicyclo[4.4.0]decane.

- Spell out chemical elements in running text: plutonium, not Pu.

- Spell out isotopes in running text: uranium-238 not ^{238}U. Use the symbol only when you encounter a space problem, as in a table.

- Some definitions: radioactive (adj.) = of or exhibiting radioactivity; radioactivity (n.) = spontaneous emission of radiation; the radiation emitted by a radioactive substance; radiological (adj.) = pertains to nuclear radiation, radioactivity, or nuclear weapons.

- Don't use hot spot unless referring to volcanic hot spots.

- Use suspended hyphens in the phrase gross-alpha, -beta, and -gamma radioactivity.

Note the following preferences:

- inorganic chemicals not inorganic compounds or inorganics (same rules for organic chemicals)

- radionuclide not radioisotope and not rad

- radioactively contaminated waste not radioactive waste

- plutonium-239/240 and uranium-235/236 not plutonium-239, -240 and uranium-235, -236 (exception: analysis using thermal ionization mass spectrometry, which can differentiate)

- analytical suites not analyte suites

3.1.2   Data and Documents

The following are some usage guidelines:

- RFI = RCRA facility investigation; do not add investigation or activity after it.

- SAL value is redundant; use SAL (a screening action level) alone.

- UTL value is redundant; use UTL (an upper tolerance limit) alone.

- Work plan is two words, except when referring to the Laboratory's "Hydrogeologic Workplan."

- List multiple SWMUs and areas of concern (AOCs) separately for data-tracking purposes: 16-021(a), 16-021(b), 16-021(c), not 16-021(a,b,c) and not 16-021(a-c). This is especially important on cover pages and titles. If listing all SWMUs is too awkward or space-consuming, use an alternative in text, keeping in mind that electronic searching will be affected.

- Be consistent with units per liter (micrograms versus milligrams) (see section 2.2).

- Don't use chapter except when referring to old RFI work plans.

- Identify the owner of QPs and SOPs (e.g., ENV-ECR QP-4.9 or WGII SOP-4.8) but once context is clear, optionally abbreviate as QP-4.9 or SOP-4.8.

Note the following preferences:

- the data are J-qualified not the data are "J"-qualified

- undetected is not the same as nondetected

- background levels not just background

- baseline validation should be routine validation throughout reports[15]

- section not subsection (Make section either initial cap or not, but be consistent within a document.)

3.1.3   Geography

Note the following:

- State Highway 4 not State Road 4 or Route 4

- townsite of Los Alamos, but not town or city of Los Alamos

3.1.4   Geology and Hydrology

See Appendix C for more terms (e.g., Qbt 4). See Appendix D for a list of reference books and web sites that are useful references. The following are written examples of some common local geologic and hydrologic nomenclature:

- Cerro Toledo interval and Cerro Toledo unit (unit is an informal term for any component stratum in a stratigraphic sequence)

- Cerros del Rio basalt (Cerros del Rio igneous rocks and Cerros del Rio volcanic field are more accurate; some of the units are not basaltic)

- Guaje Pumice Bed

- Hydrologic (referring generally to atmospheric, surface, and subsurface water science on continental land masses) versus hydrogeologic (referring specifically to the geologic setting of surface and subsurface water)

- Otowi Member of the Bandelier Tuff ("Otowi Member" may be used alone if earlier text specifies that this member is part of the Bandelier Tuff)

- Puye Formation, fanglomerate facies

- Tsankawi Pumice Bed of the Tshirege Member, Bandelier Tuff (Tsankawi is a pumice fall; surge beds generally occur in the upper part of the Tshirege Member)

- Tshirege Member of the Bandelier Tuff

- unit 1g (no space between 1 and g) but unit 1 v-u, Qbt 1 v-c (space between the unit and number)

- upper Bandelier Tuff

- Cañada del Buey heads on the Pajarito Plateau and extends . . .

- intermediate perched zone (as distinct from alluvial perched water)

Also note the following usage:

- geomorphological not geomorphic[16]

- unit 2 of the Tshirege Member not Tshirege Unit 2

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[15]Per R. Mirenda, October 2004.

[16]Per D. Katzman, the latter is more correct; the former is more informal.

- downgradient of not downgradient from

- infiltrate not infiltrate into

The best general reference is the Glossary of Geology, 4th ed., J. A. Jackson and R. L. Bates, editors, American Geological Institute.

3.1.5   Legal and Scientific Terms

See Appendix D for a list of reference books and web sites. Note the following:

- Use of sample location versus sampling location (they're not identical).

- Format for EPA SW-846 methods: EPA SW-846 Method 8260. SW-846 is a group of EPA methods; EPA SW-846 Method 8260 is a specific method.

- Fixed-site laboratory versus mobile laboratory—use these terms only if both are used, in order to draw a distinction between them (don't shorten laboratory as in fixed-site lab).

- Use external analytical laboratory not outside laboratory.

- The HSWA module = Module VIII; Table A and Table C are in Module VIII.

- The correct way to refer to Module VIII (the module that covers environmental restoration): Module VIII of RCRA Permit No. NM0890010515, EPA Region 6, issued to LANL . . . effective May 23, 1990 . . . .

- Neither consolidated SWMU nor consolidated AOC should be used, unless you are referring to a SWMU or AOC that has been taken off the permit; former site can be used referring to an area that has been cleaned up or where activities used to occur.

- Neither former SWMU nor former AOC should be used; change both to consolidated unit unless in a quote or formal title.

- For potential release site, do not use PRS; NMED does not approve of either of these terms, and all PRSs are either SWMUs or AOCs.

- Do not use data suggest; use data indicate or data demonstrate.

- When referring to HSWA and the Laboratory's operating permit, the following usage is appropriate:

Correct	Not Correct
"SWMU 16-021(c) is included in Table A of the Hazardous and Solid Waste Amendments module of the Laboratory's Hazardous Waste Facility Permit."	"Table A of the Hazardous and Solid Waste Amendments (HSWA) Module VIII of the Laboratory's RCRA permit"
"Table A of the HSWA module of the Laboratory's Hazardous Waste Facility Permit."	"Table A of the Laboratory's HSWA module" (the Laboratory does not have an HSWA module, the permit does)
"the HSWA module of the Laboratory's operating permit"	"the Laboratory's HSWA permit" (the Laboratory does not have an HSWA permit; it has a Hazardous Waste Facility Permit)

3.1.6   Los Alamos National Laboratory

Note the following:

- Don't use facility unless you mean the Laboratory or the RPF.

- Don't use the Lab when referring to Los Alamos National Laboratory; use the Laboratory or LANL. Use of the Laboratory is preferable to LANL, particularly in running text, but LANL can be used in some instances; e.g., in citations, (LANL, 1998, 20057).

- Subareas (e.g., East Ten Site Slope and Sigma Mesa) fall within aggregates (e.g., Middle Mortandad/Ten Site) and aggregates fall within watersheds (e.g., Mortandad).

- In running text, TAs are always two-digit numbers: TA-3 is really TA-03, and for SWMU 3-056(c), it should actually be SWMU 03-056(c).

- TA-16-340 does not signify a SWMU, it signifies a structure.

- Building and facility number: either Building 1109 at TA-18 or Building 18-1109 are acceptable, but Building TA-0-1109 is not. Sump 15-039 or Structure 33-004 are also acceptable.

- Areas have been aggregated under the relatively new watershed approach, resulting in names like the Chaquehui Canyon Aggregate and the Ancho Watershed.

3.1.6.1   Historical Terms

- LASL versus LANL: Los Alamos Scientific Laboratory became Los Alamos National Laboratory on January 1, 1981. If memos or engineering drawings are cited that give the date but not the organization, LASL should be used for such materials prepared before January 1, 1981, and LANL for sources printed afterward.

- AEC became ERDA, and later became DOE: Sometimes it is necessary to cite memos from the Los Alamos Area Office (LAAO) that have no letterhead information. If there is a date on the memo, it will provide a clue. The Atomic Energy Commission (AEC) was established on August 1, 1946. On January 19, 1975, the AEC became the Energy Research and Development Administration (ERDA), whose nonregulatory functions were assumed by DOE on August 3, 1977. Currently, the local DOE office is the Los Alamos Site Office (LASO) and is part of the National Nuclear Security Administration (NNSA) (the whole referred to as DOE/NNSA-LASO).

- NMEID was correct from 1971 to 1991; NMED is correct from April 1991 on.

3.2   Voice

The (old) Laboratory Publications Manual says of the active versus the passive voice,

> The active voice is more direct and dynamic than the passive voice. . . . A sentence requires the passive voice only when the actor or agent is unknown or when the receiver of the action is more important. Otherwise, the active voice often prevents grammatical problems that interfere with the reader's understanding. . . . Active writing does not always have to be personal; you do not have to use I or we to avoid the passive.

Example 1

Passive voice: In the last report the importance of maintaining uniform spacing between adjacent cylinders was described.

Active voice (note that neither "I" nor "we" are used): The last report described the importance of maintaining uniform spacing between adjacent cylinders.

Example 2

Passive voice: Oxidation tendency is also accelerated by the presence of metals that act as catalysts.

Active voice (again, notice that neither "I" nor "we" were used): Metals that act as catalysts also accelerate oxidation.

Ideally, the active is preferred to the passive voice; however, the reports produced for and by ENV Division often are written primarily using the passive voice, and it may not be possible or practical to revise extensively for the use of active voice. Consider the author's style and the time constraints before you decide to rewrite large tracts of text.

4.0   FORMAT FOR TEXT, FIGURES, TABLES, AND COVERS

This section describes the format to be followed when producing final ENV-ERS documents. Appendix A also provides guidance on document formatting.

4.1   Arranging Text

4.1.1   Text: Fonts

Type for running text should be 10-point, flush-left, Arial.

Headings are 10-point, bold, Arial.

Phrases such as et al. and in situ do not need to be italicized.[17]

See Appendix A or the MS Word template available from http://erinternal.lanl.gov/home_links/Library_doctemp.shtml for more details.

4.1.2   Text: Numbered and Lettered Headings

Use outline-style numbering (the indentation shown below is for illustration only):

    1.0   Heading 1
    1.1   Heading 2
       1.1.1   Heading 3
    1.2   Heading 2
       1.2.1   Heading 3
          1.2.1.1   Heading 4

Do not go beyond four levels of headings (exception: updates to the installation work plan). Level 1 headings are all caps; level 2–4 headings are initial-capped. You can't add any new numbered headings

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[17]Foreign words and phrases familiar to most readers and listed in Webster are not italicized—*Chicago*, 14th ed., 7.54.

to a document that follows the "official" Consent Order outline, but you may add heads with lettering. For example, within section 2.3.2 you may add the following type of head (flush left):

(a) Further Subhead

4.1.3   Text: Order of Elements

The order of text elements in a document is as follows: outside cover (page i); inside cover (page ii); title page with signatures (page iii, for NMED deliverables); back of title page, which is blank (page iv); the executive summary (page v); the table of contents (page vii or the next right-hand page); and the main text (page 1).

An executive summary comes before the table of contents and is not listed in it.

An acronym and abbreviation list, if short, may appear at the end of the front matter, rather than in its own appendix.

Page numbers should be lowercase roman numerals for all front matter: title page, table of contents, executive summary—unless the document is so large that section numbering is best (e.g., ES-1 for executive summary's first page). Appendix page numbers use the appendix letter as a prefix: A-1, B-1, etc.

Put all figures and tables at the end of the main text or at the end of each appendix, starting on a new right-hand page, with no "Figures" or "Tables" heading.

See Appendix A (p. A-3) for a table of document sections or elements and their page numbers.

4.2   Covers, Spines, Signature Pages, and CD Labels

Go to http://erinternal.lanl.gov/home_links/Library_doctemp.shtml or the Pubs folder on the ER5 server to obtain copies of current templates for front covers, inside covers, spines, signature pages, and CD labels (there is no special format for back covers). Each ENV-ERS compositor and editor should have access to an electronic copy of the templates. Contact the document manager if you need copies of these files through other means, or if the templates need updating.

Some older documents—work plans and the installation work plan—use the old block-style cover. There is a special cover for reference sets. The cover that mentions "CD included" should be used any time a CD is attached. The Compliance Order on Consent requires one electronic and two hard copies be delivered to NMED; therefore, NMED deliverables will always have one or more CDs attached.

Do not put individual author names on the inside cover of documents. For traceability and accountability, the ER Document Catalog Number system (http://erinternal.lanl.gov/DocCatalog/home.asp) provides a document team field. When the document manager obtains the catalog number, which is required for every document, he or she will enter the names of the authors, editors, compositors, illustrators, and administrative support people for that document. For some documents (e.g., well reports), the author may want to add an acknowledgements section, just before the references section, that spells out who did what.

On covers and in titles, list multiple SWMUs and AOCs separately for data-tracking purposes: 16-021(a), 16-021(b), 16-021(c); do not use 16-021(a–c). However, if this is too awkward or space consuming, the editor/author may use an alternative such as 16-021(a-c) in the body of a document, keeping in mind that electronic searching of the body text will be affected.

4.2.1   Signature Pages: LA-UR Numbers

For documents that need Classification Group (S-7) review (see the document matrix in QP-4.9 for a list), the document manager will fill out a Technical Information Release (TIR) form and submit it to S-7, which is the Classification Group within the S Division. The TIR instructions need to be followed carefully.

Classification review takes place before the document is distributed for peer review (this is necessary because an "external" person might see the document during peer review). This review is performed by an authorized derivative classifier (ADC). To find a local ADC, contact the document manager or view S-7's list of ADCs at http://int.lanl.gov/security/classification/docs/restricted/ADC_List.shtml. When the document is distributed for peer review a copy is also sent to S-7. At least three days should be set aside for S-7 processing. If a document is to be hand-delivered to S-7 the person will need an L or Q clearance as S-7 is behind the fence. Following S-7 review an LA-UR number is assigned to the document.

4.3   Figure and Table Numbering

Label figures and tables sequentially beginning with the two-digit section number, then a hyphen, then a number that shows the sequence of the figure or table within the section. For example, the first table in the third subsection of section 2 (section 2.3) is named Table 2.3-1, even if that table actually falls within section 2.3.2.3 (ignore further levels of heading when numbering). Ignore any lettered subheads, so that the first table within 2.3.3.3(a) is not Table 2.3-a1. Rather, it could be Table 2.3-4, where the 4 indicates that it is the fourth table of all the tables in Section 2.3.

Appendixes and attachments use a similar designation, but the two-digit section number is preceded by a letter and hyphen indicating the appendix or attachment. For example, the first table in section 1 of Appendix B would be Table B-1.0-1; the second and third figures in section 2.0 of Appendix B would be Figure B-2.0-2 and Figure B-2.0-3, respectively.

4.4   Figures

Figures include maps, plates, engineering drawings, illustrations, graphs, photographs, and charts. Within this section, figure will be used to represent all these types.

For drafts, you may have to distribute photocopies rather than printouts from electronic files. The photocopies should be inserted after placeholder pages that contain the relevant captions.

4.4.1   Figures: Captions

Every diagram, map, graph, chart, and photo is referred to as a figure (even plates). Do not abbreviate Figure to Fig.

Captions should be as short as possible and do not need to describe the obvious (e.g., delete "A photograph of" in Figure 1.2-1. A photograph of MDA P during cleanup). Discussion of a figure's contents should occur in the text that the figure illustrates.

Enter figure captions in the document text so that

- numbering can be easily changed if the order of the figures or sections change,

- the list of figures for the table of contents can be electronically generated, and

- drafts can be produced that show the correct caption and number on a blank page (with the hard copy figure tipped in just after).

Captions and figure numbers are preferably not included within the graphic itself. Using Word, a list of figures can be readily generated if all captions are in the document text rather within the figure file.

4.4.1.1   Captions: Capitalization

Initial cap the first word in a figure caption and any proper nouns thereafter.

4.4.1.2   Captions: Format

Both partial-page and full-page figures should be centered.

Captions should be 10-point bold Arial, approximately 10 points of space below the figure, and aligned with the left side of the figure. If a caption runs wider than its figure, consider applying a right-hand indent so that the caption assumes its figure's margins. Any caption turnover (additional lines following the first line) should be aligned with the first word in the body of the caption.

Pages with turned (landscape) figures should have upright (portrait) headers and footers.

A figure caption is made up of the figure number, a period, a tab, a short title, a source (optional), and a period (only if the caption is a complete sentence).

Figure 4.4-1.   Because this caption is a complete sentence, it must end with a period.

4.4.2   Figures: Color

Color photographs can be used for aesthetics and to provide technical clarity (keep in mind that the first generation of photocopying will most likely eliminate the color).

4.4.3   Figures: Engineering Drawings

Any cited engineering drawing should be in the RPF and appear in the RPF database so that the drawing can be given an ERID and cited by ER ID. If a drawing is not in the RPF, you should submit it to the RPF. However, be on the lookout for official use only (OUO) markings. If a drawing is so marked, contact the author about removing the OUO marking. The security division's OUO information page (http://int.lanl.gov/security/protectinfo/index.php?fuseaction=home.category&cat=11) discusses OUO marking removal.

In text, refer to a drawing this way: ". . . according to the engineering drawing (ENG-C 48195) . . . ." Check the actual drawing for spacing and punctuation around any letters and numerals. If appropriate, cite the sheet number as well (e.g., Sheet 7 of 20).

Engineering drawings can be reproduced in a number of ways. They can be (1) reduced to fit on a page; (2) assembled in a separate appendix or in a separate volume, if they are numerous; or (3) broken up into portions that are enlarged and revised by an illustrator to illustrate the text.

4.4.4   Figures: Location

Following instructions in the Compliance Order on Consent, group all figures and then all tables at the end of the main text and at the end of each appendix. Begin both figures and tables on a right-hand page but with no heading. If a blank page results, label it "This page intentionally left blank." Count such blank pages in the pagination, but include no header, footer, or page number on them.

4.4.5   Figures: Maps

Any cartographer (Laboratory or subcontractor) who produces a map for ENV-ERS documents must follow these guidelines as well as those in DI-4.10, Map Layout and Design Elements. Compositors, illustrators, and editors making changes to maps must also adhere to the guidelines and the DI.

ENV-ECR has a Geographic Information Systems (GIS) team that produces maps appropriate for ENV-ERS documents. Maps should be requested by using the online request system from the ECR home page (http://erinternal.lanl.gov/ and click on the GIS Support link on the left side). When possible, authors should use maps produced by the GIS team or by GISLab.

If you need a copy of the DI, or if you cannot access the online request system, contact the ENV-ERS document manager.

Warning: All maps showing the Laboratory must be shredded and not put into the recycling bins. This is a precaution suggested by Operational Security in Information Architecture D202. This is true even if the map has already been approved for unlimited release by S-7.

4.4.5.1   Maps: Altering Existing Maps

Changes to maps are of two types: spatial feature data and superficial. Spatial feature data (e.g., roads, contours, location IDs) should not be changed independently of a GIS specialist. Superficial changes (e.g., changing color or shading, adding "proposed" items or text labels) may be made by compositors or illustrators.

Any graphic element (e.g., proposed sample points) added by an illustrator or compositor to a map generated from the ER spatial database must be specifically referenced in the map legend (or data source notes table) as "graphic added" or "feature altered." This is done so that readers will be able to distinguish between data digitally captured on the map and data drawn on the map.

Warning: Don't reuse old maps. Spatial data, like tabular data, change. Out-of-date maps that are used repeatedly to display new data are likely to contain errors such as obsolete information. Whenever possible, a new map should be generated to display the new data required.

4.4.5.2   Maps: Data Source Statements

For all standalone maps, and for those maps that have the space, data sources should appear on the front of the map. If data sources cannot be displayed on the front of a map for space reasons, put the sources for that map on the following page. Some maps may have 10 to 15 data sources (see Figure 4.4-2).

Data Sources:

Communication Lines;
LANL, FWO Utilities and Infrastructure;
08 August 2002.

DOE Boundary;
LANL, FWO Utilities and Infrastructure;
01 February 2003.

Hypsography:
10, 20 and 100 Foot Contour Interval; LANL,
RRES Remediation Services Project; 1991.

LANL technical areas; LANL,
Site and Project Planning Group; 01 February 2003;
as captured 07 September 2004.

MDA B Geophysical Survey; LANL,1998.
(Color intensity correlated to disturbed area boundaries).

Paved and dirt roads; LANL, KSL Site Support Services,
Planning, Locating and Mapping Section;
06 January 2004; Development Edition of 05 January 2005.

Primary Electric Grid;
LANL, FWO Utilities and Infrastructure;
06 January 2004.

Primary Fences and Gates; LANL,
FWO Utilities and Infrastructure; 06 January 2004.

Primary Industrial Waste Lines; LANL, KSL Site Support Services,
Planning, Locating and Mapping Section;
06 January 2004; Development Edition of 05 January 2005.

Structures; LANL, KSL Site Support Services,
Planning, Locating and Mapping Section;
06 January 2004; Development Edition of 05 January 2005.

Structures; County of Los Alamos, Information Services; 08 September 2004.

Waste Volume Sections, digitized; LANL,
ENV Remediation Services Project, ECR GIS;
Unpublished data generated for map
R05010; 18 January 2005.

1:2,000
SPCS, New Mexico Central Zone
North American Datum 1983

0   85   170   340
Feet

Map # R05010 Remediation Services Project
Environmental Stewardship Division, LANL
Cartography: Miriam Oudejans, February 2, 2005

Figure 4.4-2.   Example of data sources listed on a map

4.4.5.3   Maps: File-Naming Convention

The ENV-ECR GIS team has asked that we try to include map numbers in figure file names. It is easier to find a particular map when one has the map number. File names should still begin with the figure number and can include the map's subject and report name, but try to include the map number somewhere (e.g., F3_proposed_BH_MDA_B_IWP_R04041.eps).

Not all maps have map numbers, but maps created by the ENV-ECR GIS team or GISLab should have them. Skim the legend and any small type for something that begins with GISLab or LANL GIS Database or map (M) # (e.g., m200578).

4.4.5.4 Maps: Required Elements

The following items are required elements on all maps:

- display frame

- title

- scale bar

- legend for all symbols on the map

- originator label with the cartographer's name and the date

- dates of any changes to the original map and the initials of the modifier

- projection, scale, and datum information (NAD 27, NAD 83, etc.)

- contour lines (where appropriate)

- north arrow

- index map (where practical)

- data source statements

See Figure 4.4-3 for an example of a map that was produced by a GIS team cartographer.

Note: Though cartographers are accustomed to providing an absolute scale on maps (e.g., 1:24,000), this should be included only if maps for documents are created such that they will not need to be resized. If the maps are resized even a small amount, this ratio is no longer valid and the absolute scale should not be presented on the map.

Some elements, such as data source statements, product statements, disclaimers, and index maps, may be omitted if the information is provided elsewhere in the document that contains the map.

For the most up-to-date guidance regarding map production, please refer to DI-4.10, Map Layout and Design Elements. This DI supersedes information presented here.

4.4.5.5 Maps: Scale Bar and Scale Texts

A map, references to its grid space, and scale bar are all interdependent elements; they are always generated together to characterize a geographic position. If a map needs to be reduced or enlarged, it should be scaled uniformally, i.e., with no distortion. The scale bar, grid intervals (tic marks and labels), and scale text should never be altered independently from the map.

4.4.5.6 Maps: Standard Symbols and Patterns

ENV-ERS does not currently use a standard map feature library. To promote consistency, use the symbols depicted in ECR maps. Suggested symbols and their format (with Illustrator-specific instructions) are shown in Figure 4.4-4. No matter which symbols you use, strive for consistency.
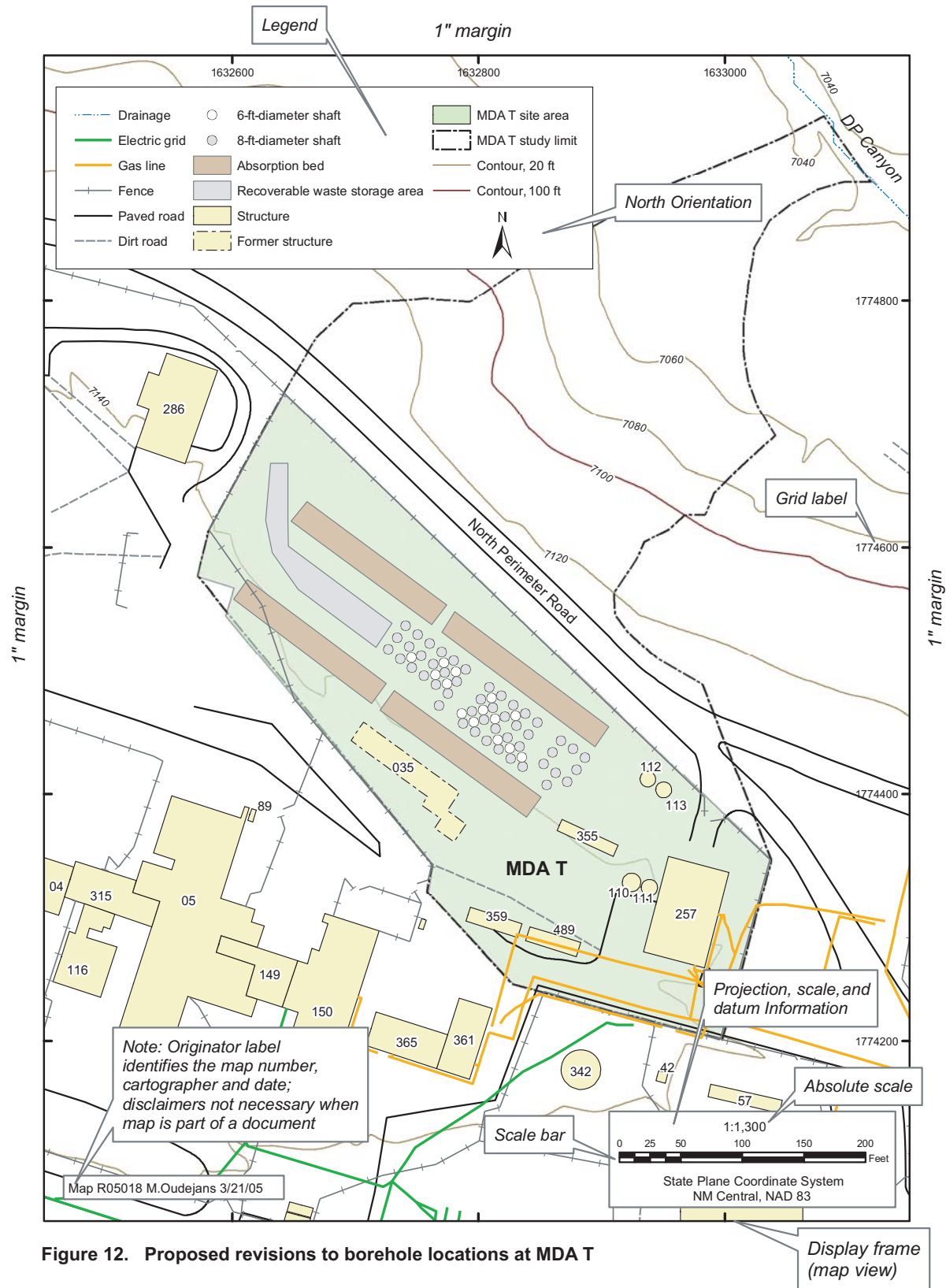
Figure 12.   Proposed revisions to borehole locations at MDA T

1.5" – 2" margin (for side that has the caption)

Figure 4.4-3.   Example map showing required elements including margin spacing

Map box is a solid 1.5-pt K line
Legend box is a solid 0.5-pt K line
Legend text is Arial regular 8 pt, can use Arial narrow for legend and for other text if space is limited
The order here represents legend order

K = black, M = magenta, Y = yellow, C = cyan, W = white

Symbol	Label	Description
	Building or structure	*Solid K box, 0.5 pt, fill = 25%Y, bldg. no. Arial 7 pt, centered in 25%Y box*
	Former building or structure	*Dashed K box, 0.5 pt, 4/3/4/3, fill same as above, bldg. no. same as above*
	Approximate location of SWMU	*Solid K box, 0.5 pt, fill = 12.5%C and 25%Y, labels Arial 10 pt bold*
	Laboratory boundary	*Solid line, 3 pt, 5%C, 20%M, 95%Y, 0%K*
	TA boundary	*Dashed K line, 1 pt, 6/2/1.5/2*
⊙	Proposed borehole	*Solid K circle, 0.5 pt, fill = 100%W, solid K smaller circle overlaid*
⊗	Previous borehole	*Solid K circle, 0.5 pt, fill = 100%W, "X" overlaid*
■	Proposed sampling location	*Solid box, fill = 100%C and 100%Y*
▲	Previous sampling location	*Solid K triangle*
●	Sampling location (generic)	*Solid K circle*
	Paved area	*Solid K line, 1 pt*
	Unpaved road	*Dashed K line, 0.75 pt, 5/4/5/4*
	Drainage channel	*Dashed line, 1.25 pt, 100%C and 50%M, 6/2/1/2/1/2 (sometimes these values are doubled for clarity)*
	Outfall	*Solid K line, 1 pt; put symbol on end of sewer/drainage line, if appropriate, aligned with the line*
	Gas line and utility data	*Solid orange (59%M and 99%Y) line, 0.75 pt*
	Electrical line and utility data	*Solid green (79%C and 100%Y) line, 0.75 pt*
	Telephone line and utility data	*Solid pink (21%C and 61%M) line, 0.75 pt*
	Water line and utility data	*Solid blue (90%C and 80%M) line, 0.75 pt*
	Fence	*Solid K line, 0.5 pt, with short 0.5 pt cross lines*
	20-ft contour	*Solid line, 0.4 pt, 16%C, 25%M, 52%Y, 4%K*
	100-ft contour	*Solid line, 0.5 pt, 50%C, 100%M, 100%Y, 0%K*

MISCELLANEOUS

④ ㉚ ⑤⁰² State roads: solid circle/oval, 0.5-pt K line; white fill; text is Arial narrow italic, 8 or 10 pt, centered. Road names are ALL CAPS

Stream or canyon names are Arial italic; Initial Caps and should follow the curves of the canyon wherever possible. These are tracked at 50 to 150/1000 em.

National forest land, Native American-owned land, national park land, and other miscellaneous land-ownership labels should be in Arial italic, all CAPS, 8 to 10 pt, and tracked at 50 to 150/1000em.

Building numbers should be Arial regular 10 pt, boxed; sampling location labels and other descriptive text are 8 pt; SWMU Nos. are Arial bold 10 pt. Align descriptive text flush L to point R, centered to point up/down; or flush R to point L. (See examples below right.)

Contour interval elevation markers should be Arial italic, 6 or 7 pt centered in white box.

NAD-83 coordinate labels should be Arial regular, 6 or 7 pt, flush left or right, boxed.

Originator labels should be 6-pt Arial regular, flush right, aligned with the bottom right hand edge of the map

Linear scales should be in one (occasionally BOTH) of these formats:
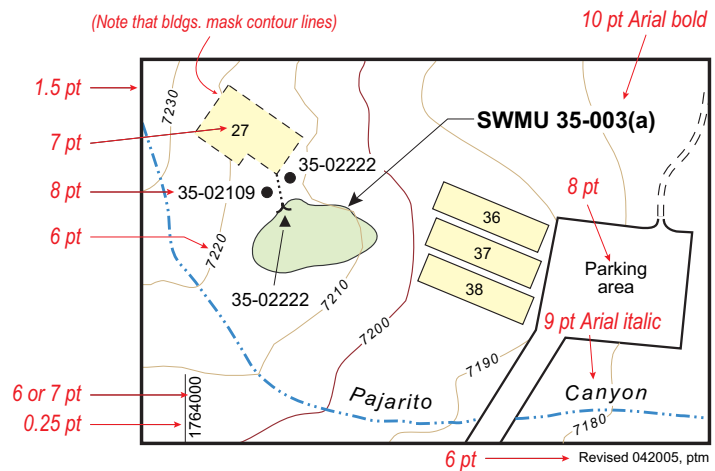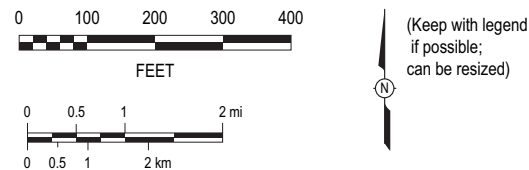
Figure 4.4-4.   Map legend styles

The U.S. Geological Survey (USGS) does provide Adobe Illustrator swatches for geologic map patterns. The patterns are available at http://pubs.usgs.gov/map/bctr-pattern-lib/bctrpatt.zip, linked from http://cpg.cr.usgs.gov/pub/software.html.

For historical reasons, use the following colors for utility features: green for electrical utility data, orange for gas utility data, violet for sewer system data, blue for water utility data.

4.4.5.7 Maps: Terminology Issues

The terminology on maps needs careful review. For example, either San Ildefonso Pueblo or Pueblo of San Ildefonso is preferred over San Ildefonso Indian Reservation, which appears on some older maps. See this document's Appendix C, and the usage sections, for examples of currently correct terms.

Laboratory boundaries and features are changing, as land transfers take place. Be sure to use the most current map. Contact the ENV-ECR GIS team to generate a new map.

4.4.6 Figures: Notes within Figures

When explanatory notes are needed for a specific part of a map, use the legend; for a flow chart, use a series of footnote symbols such as asterisks or daggers. To add a general note or source note, insert the note in 8-point Arial, flush left, just below the figure (do not put source information in the caption).

Note: Surface fracture data from Lewis et al. (2002, 45543)

4.4.7 Figures: Originator Labels

At a minimum, figures should bear a date of production, the original figure number and map number (if the figure has been modified or based on another figure), and the creator's initials or name, so that the original can be found (use 6- or 7-point Arial to keep the label from being intrusive).

One option is to insert the label in the lower right-hand corner:

figure number, shortened doc. name, date created, creator's initials

For example, the original Figure 1.3-2 from the Pajarito Canyon work plan, produced on June 18, 1998, by A.C. Kennedy, might look like that shown in Figure 4.4-5 below.

F1.3-2, Pajarito WP, 061898, ack
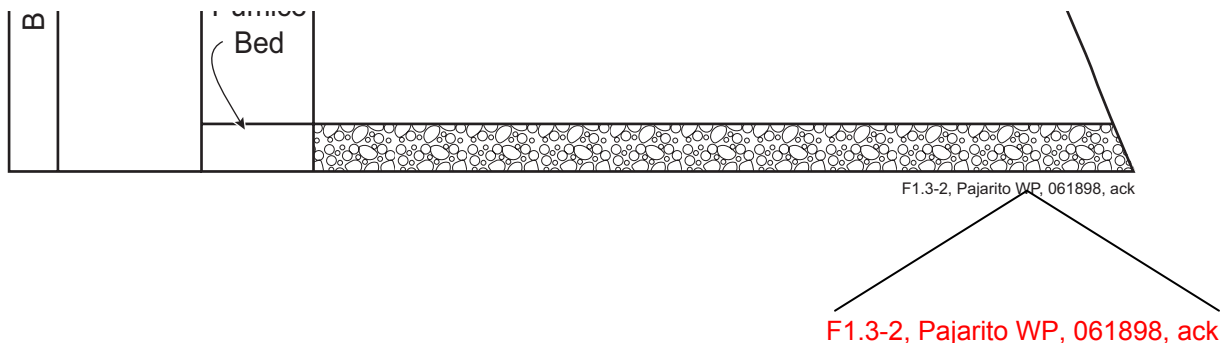
Figure 4.4-5.   Example figure showing figure number, document title abbreviation, map number, and creator's initials

Allow approximately 7 points of space between the figure caption or the figure edge and the label.

If a map was created by a GIS cartographer, that information should be included in the label:

> Source: Cartographer's name or initials, GIS map no., date created; modified for figure number, shortened doc. name, date modified, creator's initials

> Source: D. Walther, GISLab m100000, 060498; modified for F1.3-2, Pajarito WP, 061898, ack

If you use the figure again in a different document, keep the original label to show the source. However, each time the figure gets modified, add new information to the label:

> Source: Cartographer's name or initials, GIS map no., date created; modified for figure number, shortened doc. name, date modified, creator's initials; modified for figure number, shortened doc. name, date modified, creator's initials

> Source: D. Walther, GISLab m100000, 060498; modified for F1.3-2, Pajarito WP, 061898, ack; modified for F2.3-3, Bayo WP, 060605, ack

If a figure is taken from a published Laboratory report or other public document, that source should be noted under the figure; if a figure is adapted from a figure in some other report, that should be indicated. (As with any other reference, an ER ID number is required.)

> Source: Reference citation including ER ID; modified for figure number, shortened doc. name, date modified, creator's initials

> Source: Reneau et al. 1997, 12345; modified for F1.3-2, Pajarito WP, 061898, ack

Using copyrighted figures should be avoided. If one must be used, the author or editor will have to obtain written permission from the publisher to use it.

Exception: Data sources, which are required for maps, have their own format. They are provided by a GIS specialist.

4.4.8   Figures: Photos

If color photos are used, print the report on high-quality paper made for color printing so that the colors are shown best.

Photos should be cropped to show the subject matter of interest (while keeping perspective, context, and scale in mind). They should contain text and arrows that label hard-to-distinguish areas. Keep in mind that quality will degrade with each photocopy.

If photos are copied from electronic sources such as web pages, the resolution will be too low for good print reproduction.

Table 4.4-1 provides information on image size and resolution.

Table 4.4-1
Calculating Image Size and Pixels Per Inch

	Printer Quality		
	Draft/Economy	Standard	High/Photo
Print @	300 - 320 dpi	600 - 720 dpi	1200 - 2880+ dpi
Scan @	150 ppi	150-240 ppi	240-360 ppi
Printed Size	Actual Pixel Dimensions (Average)		
2" x 3"	300 x 450 pixels	400 x 600 pixels	600 x 900 pixels
4" x 6"	600 x 900 pixels	800 x 1200 pixels	1200 x 1800 pixels
5" x 7"	750 x 1050 pixels	1000 x 1400 pixels	1500 x 2100 pixels
8" x 10"	1200 x 1500 pixels	1600 x 2000 pixels	2400 x 3000 pixels

Note: Generally, printing photographic images requires more pixels per inch. For photo printing, you will get better results using the higher end of the scale

4.4.9 Figures: Providing Figures to the Editor

The editor needs a copy of the figures (whether printed from an electronic file or hand-drawn) at the time that an author's draft is submitted because the editor's responsibilities for figures include

- checking spellings in the figure;

- checking to see that the figure shows what the text says it shows;

- making sure that figures are not duplicated in the text (for example, ensuring that Figure 3.2-1 and Figure 3.3-1 are not the same figure); and

- making sure that the final version of the figure is ready before production must begin.

Some figures may not be completely finished when the first draft is delivered. In that case, the author should submit a hard copy for the editor to review. When the illustrator or author has completed the figure, the illustrator or author should deliver both a hard copy and a standalone electronic version to the editor. (See section 4.6.4, Software and File Types, for information about electronic file formats.)

4.4.10 Figures: Size of Figures

Figures should be no larger than necessary to convey information clearly. They should be a maximum size (if possible) of 6.5 × 9 in., including caption, to allow for 1-in. borders all around. If the caption is not included inside the figure file, leave at least .5 in. more on the side that will contain the caption. (If a caption is included in the figure file, create a "dummy" on the same page as the figure, so that the caption is included in Word's generated list of figures but is not visible. Try 2-point white text with no space above or below the paragraph.)

At times, figures may need to be larger, up to approximately 9 × 15 in. for an 11 × 17 page. In this case, an accordion fold-out can be done, but production time and effort must be taken into account. The page number should still be visible once the page is folded.

Another option is an "index" map that shows boxed areas. In each boxed area is a reference to an additional map with more detail.

Some oversized figures, usually maps, are treated as plates, although they should still be labeled figure. They are included in the very front or back of a document, inserted in clear plastic envelopes, and folded so that the title is visible when the plate is in the envelope.

4.5   New Pages

Tables of contents start on a new right-hand page.

For most documents, a level 1 heading runs in with text. For very long documents that will use tabs as separators, a level 1 heading must start on a new right-hand page.

Group all figures and then all tables at the end of the main text or at the end of an appendix. Begin a new right-hand page and start with figures (includes photos/maps); then do the same with tables. If a blank left-hand page results, label it "This page intentionally left blank." Make sure it has no header, footer, or page number.

A turned figure or table still requires an upright (portrait) header and footer.

4.6   Software and File Types

4.6.1   Software and File Types: Editing Online

Some editors and authors use the reviewing/track-changes feature in Word.

Using the comments feature in Word can help when several people are editing and reviewing a document online. It allows authors and editors to talk about a query in the document without the dialog appearing within the document itself.

If multiple authors need access to a draft, consider posting the current version electronically on an ENV-ERS server (either in a view-only Word version or in portable document format [PDF]) or on a file transfer protocol (FTP) site where everyone who needs to can view it.

4.6.2   Software and File Types: Naming Files

The QP for producing ENV-ERS documents requires that electronic file names contain the Document Catalog Number. However, you may also include more descriptive information in the name: ER1999-0001_MDA_P_cert_rpt_intro.doc. Use the same format for the catalog number that is used in the footer of the document. Do not use spaces in file names; use underlining instead. Keep in mind that files could be put on Unix systems (e.g., files that we provide to the Laboratory Research Library for creating their PDFs) in which case file names cannot contain spaces (use underline character instead), asterisks, ampersands, percentage signs, slashes, colons, quotation marks, or exclamation marks.

Table 4.6-1 is a guide to name extensions. **Note:** the extensions that contain software version numbers (e.g., p65) may become outdated as the versions change.

Table 4.6-1
IM-1 Standard File-Naming Extensions

Extension	Software or File Type	Extension	Software or File Type
.ai	Adobe Illustrator	.per	Persuasion
.bin	an encoding method	.pgm, .p65	PageMaker, PageMaker 6.5

.cnv	Canvas	.pict, .pct, .pic	PICT image format
.css	cascading style sheet	.png	portable network graphic
.doc, .dot	MS Word file, MS Word template	.ppt, .pot	PowerPoint, PowerPoint template
.drw	Claris Draw	.ps	PostScript
.eps	encapsulated PostScript	.psd	PhotoShop
.fla	Macromedia Flash editor	.qxp	Quark XPress
.fm, .fm5	FrameMaker, FrameMaker 5	.rtf	rich text format
.fmp, .fm3	FileMaker Pro	.sea, .sit	compressed archive (for Mac)
.gif	graphics interchange format	.stn	Strata Vision
.html, .htm	hypertext markup language	.swf	Flash player
.jpeg, .jpg	joint photographic expert group	.tiff, .tif	tagged information file format
.mdp	MacDraw Pro	.txt	text file
.mif	FrameMaker (maker interchange format)	.wpd	WordPerfect
.dir	MacroMedia Director	.xls	Excel
.mov, .moov	Quicktime movie	.xwd	AutoCAD
.pdf	portable document format	.zip	compressed file (for PC)

4.6.3   Software and File Types: Recommended File Types

Table 4.6-2 shows publication parts and the preferred software to use for each when submitting final versions to an editor or compositor.

To keep information editable, keep any file (figure, photo, map, or table) that has been inserted into, or embedded in, another document separately in its source format.

Based on your document's size, consider the issue of embedding files in the final document. Not embedding keeps the final document's file size smaller but requires keeping multiple files together.

4.6.3.1   Recommended File Types: Figures

Figures should be created and edited using the following programs:

- Illustrator (for maps and line drawings)
- Photoshop (for photographs)
- PowerPoint (for viewgraphs)
- Excel or Visio (for charts and graphs)

Table 4.6-2
ENV-ERS Recommended File Types

CD Labels	Maps	Photos	Charts, Graphs, Viewgraphs	Covers, Spines, Final Page Layout	Web (pages)	Web Graphics	Tables	Text
Roxio	Illustrator native, or Illustrator EPS, or Illustrator PDF	Photoshop native, JPG (if high resolution)	Excel, Visio, or PowerPoint native	Word	Dreamweaver	JPG or PNG for photos	Word	Word
CD Stomper Pro	Other EPS or PDF	TIFF	EPS (out of S-plus, Visio, AutoCAD, etc.)	FrameMaker	PDF	GIF for nonphotos	Excel	RTF
			PostScript	PageMaker			Tab-delimited text	Unformatted text

Note: Top to bottom: more preferred to less preferred. EPS = encapsulated postscript

4.6.3.2   Recommended File Types: Tables

Short tables are most easily done in Word or in the page layout program you're using. Longer tables are more tricky. They may be best submitted in Excel or in tab-delimited text. Check with your compositor.

4.6.4   Software and File Types: Software to Use

The Publications Team has decided that each compositor/editor may use their own preferred software: it could be InDesign, Word, or FrameMaker. NMED has expressed no particular preference, nor has DOE. However, be aware that authors usually want Word versions for revising or updating the document, both during and after the production process.

When documents are long (a judgment call), you may want to convert files from Word to InDesign or FrameMaker for the better document management those products offer. This conversion may not be possible under some deadlines.

4.6.5   Software and File Types: Submitting Files

Submit or exchange files by e-mail, FTP, posting on the ENV-ERS server, or CD. The Laboratory has an FTP site for file exchanging. For more information about that site, see http://network.lanl.gov/web/anon_ftp.shtml.

Submit files in the recommended format and separately. For example, do not submit a PowerPoint file by embedding it in a Word file. If you must embed a file, also submit the embedded file independently.

4.6.6   Software and File Types: Where to Keep Files

The ENV-ERS Publications Team keeps its current and recently archived documents in \\Er5\pubs. This area is restricted to team members.

Storing files in the Pubs area is essential. It means that there's one place where all team members can go to find the current or final version of a document, in case someone is out sick, etc.; and the files are backed up regularly.

If you need to exchange a file with someone, keep the current version in the Pubs folder but rename it by prefacing it with something like checked out to author. Or, if its a series of files, create a new folder to hold the current version and title the folder something like "checked out." Then, when the updated file returns to you, replace the checked-out version that was in Pubs (perhaps keeping the previous version in a "Drafts" folder).

If a particular document has a complex history, the editor or compositor may write up a synopsis of the events and leave it in the folder on Pubs with the final files. Save the synopsis as a plain text file and name the file something like Notes_from_editor.txt. The file might contain something like this:

> Summer 2004
>
> This NOD was prepared by Shaw, Inc., in Albuquerque. Devon Dercinovic and Lara Beasley were the contacts. The "addendum" folders in this subdirectory were distributed on CD for most recipients, but as hard copy for NMED. The text file included here is correct except for the LA-UR number in the footer; this was fixed after the text file was made and sent to us. We made the CD label here. The cover letter should already be archived in RPF. The document catalog number was ER2004-0039. The LA-UR was LA-UR-04-0480.
>
> --Lisa Levine

4.7   Tables

4.7.1   Tables: Arranging the Format

4.7.1.1   Table Format: Breaking

When tables break across pages, repeat the table number (not the full title), followed by (continued), on all subsequent pages. Repeat column headings on all subsequent pages.[18] Table 4.7-1 shows how a continued table should be formatted.

---

[18]Tip: In Word, after adjusting column widths, split your table at the end of the first page. At the top of the second page, insert a row with no border and type in the table number and (continued). Highlight the table number and all column header rows and select Table → Heading Rows Repeat. Word will repeat the table number and header rows automatically on all remaining pages of that table.

Table 4.7-1 (continued)

Sample ID	Analytical Suite	Request Number	Data Quality Assessment
0316-98-0098	VOCs	4185R	Results were PM-qualified because the samples exceeded holding times for 1 day. There was also 0% recovery for one internal standard during the blank analysis.
0316-98-0122	SVOCs	4185T	Results were discarded because the samples exceeded holding times.

Always keep table number, table title, table column heading row(s), and the first body row together. Try not to leave one body row alone on a page. Keep at least one body row (along with table title, etc.) with table footnotes.

4.7.1.2 Table Format: Cells

No cell should be left empty. Insert one of these:

- NA ("NA = Not analyzed." in a footnote),

- n/a ("n/a = Not applicable." in a footnote),

- na (na = Not available." in a footnote), or

- an em dash (explain meaning of the em dash in a footnote, as shown in Table 4.7-2).

Table 4.7-2
Summary of Samples Taken at SWMU 49-002

Sample ID	Location ID	Depth (ft)	Matrix	SVOCs	PCBs	Inorganic Chemicals	Radionuclides
0549-95-0252	49-0780	0–0.25	Soil	—*	—	4.12	5.01
0549-95-0253	49-7537	0–0.5	Sediment	—	—	4.12	1.22
0549-95-0263	49-7551	0–0.5	Soil	—	—	—	51.23
0549-95-0264	49-7560	0–1	Soil	3.02	3.55	4	21.22

*A dash indicates that the analysis was not requested.

4.7.1.3 Table Format: Column Headings

Note the following:

- Use title case for column headings.

- Repeat column headings on all pages of a multipage table.

- Column headings may be rotated vertically or at an angle to conserve space.

4.7.1.4   Table Format: Formatting Definitions and Styles

The angled brackets in Table 4.7-3 contain the style names that should be used in tables (if using our Word document template):

Table 4.7-3
Your Favorite Table <Table>

<Table Column Head>[a]	<Table Column Head>	<Table Column Head>
<Table Cell>	16.5	Contents
Important information	222[b]	More contents

[a] <Table footnote> This is a table footnote. All table footnotes end with a period.

[b] <Table footnote> A second table footnote.

- Overall, tables should be centered horizontally and should be 6.5 in. wide in letter-sized portrait orientation and 9 in. wide in letter-sized landscape orientation. If there are very few columns, the table should be wider than the table title.

- Titles are 10-point Arial bold, centered. In Word, use 6 points after for paragraph spacing and at least 14 points for line spacing.

- Column heads are 10-point Arial Narrow bold, centered. Align column headings by centering (horizontally) and bottom aligning (vertically).

- Column subheadings (e.g., SWMU 21-025 in Table 4.7-4) are 9-point Arial bold, usually flush left.

Table 4.7-4
Data Quality Assessment for SWMU 16-005(d)

Sample ID	Analytical Suite	Request Number	Data Quality Assessment
SWMU 21-025			
0316-98-0098	VOCs	4185R	Results were PM-qualified because the samples exceeded holding times.

- When tables break across pages, insert continued in parentheses, lowercase, roman.

- Cell contents are 9-point Arial (unless you have to reduce to 8 points for space reasons). For longer chunks of text, left-align. For shorter chunks of text, left-align the contents of a column's cells, then center all of those by the widest line. For those columns of numerals where addition is implied, center the widest numeral and then decimal-align the remaining column's numerals to match. Change the borders of the column so that there is neither too little nor too much space around the text. Make content alignment consistent within columns. Begin text with a capital letter.

- Footnote definitions are 8-point Arial. In Word, use 10-point superscript Arial for footnote letters in the body of the table, use 10-point superscript Arial for letters in the footnote definitions (Word's default superscript is too small).

- Rules should be 0.5-point thick, table row height should be auto, and the default cell margins (space between the border and the text) should be 0.05 in. for left and right and 0 in. for top and bottom.

- Footnotes should appear in bodies of tables in alphabetical order, reading left to right across rows and then down rows from top to bottom.

- Turned (landscape) tables and their titles should have upright (portrait) headers and footers.

- In Word, try Table → Autofit → Autofit to Contents in pull-down menu as a first step to making a table fit on a page. Then drag to each column to finely tune the width. Go to landscape orientation or smaller font if necessary.

4.7.2 Tables: Footnotes

For footnotes specific to parts of a table, use letters, not asterisks or daggers. (Exception: if there is only one footnote in a table, use an asterisk.) A superscript letter or asterisk should be repeated within column headings if those headings are repeated because of page breaks.

General footnotes should not appear in the table number or title. If information needs to be added that applies to the table as a whole, use Note: below the first page of the table.[19]

4.7.2.1 Table Footnotes: Notes Commonly Used in ENV-ERS Documents

In addition to the following notes, data qualifier notes (UJ, J, etc.) are frequently used (see Table 4.7-5).

- n/a = Not applicable

- na = Not available

- NA = Not analyzed

- an em dash (explain meaning of the em dash in a footnote, as shown in Table 4.7-2).

4.7.2.2 Table Footnotes: Format

Always use an initial cap for the definition of a footnote; always add a period at the end. At the start of the footnote definition, letters are superscript[20], then follows a <tab>, then no space to the subsequent text (the <tab> enables easier turnover alignment). The footnote should have sentence capitalization.

Table footnotes should be left-aligned with the left-hand edge of the table above and should break at the right-hand edge of the table. Footnote turnovers (any additional lines following the first) should be aligned with the first word in the footnote.

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[19] *Chicago,* 14th ed., 12.48

[20] *Chicago,* 14th ed., 12.52

4.7.2.3   Table Footnotes: Data Qualifiers

Data qualifiers are letter codes that indicate a verifiable or potential data deficiency. These qualifiers may be explained in text. If they are not, a table should be added to the document that lists the data qualifier definitions (e.g., in investigation work plans, the table should be added to Appendix A after the metric conversion table). A table footnote referring to the qualifier table should be added to each table that uses data qualifiers.

The data qualifiers are defined in Table 4.7-5:

Table 4.7-5
Data Qualifier Definitions

Data Qualifier	Definition
U	The analyte was analyzed for but not detected.
J	The analyte was positively identified, and the associated numerical value is estimated to be more uncertain than would normally be expected for that analysis.
J+	The analyte was positively identified, and the result is likely to be biased high.
J-	The analyte was positively identified, and the result is likely to be biased low.
UJ	The analyte was not positively identified in the sample, and the associated value is an estimate of the sample-specific detection or quantitation limit.
R	The data are rejected as a result of major problems with quality assurance/quality control (QA/QC) parameters.

4.7.2.4   Table Footnotes: Location

The order of notes to a table should be (1) source, (2) general—applying to all of table, and (3) specific[21].

Source notes and general notes do not require a footnote within the body or title of the table. They are defined below the first page of the table in which they have been used:

Xxxxx	Xxxxx	Xxxxx	Xxxxx	Xxxxx

Source: The information in this table came from out-of-date guidance.
Note: This whole table should be eliminated.

Specific footnotes should be grouped together at the end of the table.

4.7.2.5   Table Footnotes: Sources

If necessary, origin of information should be provided in a table source note (a footnote beginning with Source:).

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[21] *Chicago,* 14th ed., 12.46

4.7.3   Tables: Location, Numbering, and Titles

Table location and numbering follow the same rules as figures (see sections 4.3 and 4.4.4).

Following the Compliance Order on Consent, group all tables at the end of the main text or at the end of an appendix, following the figures section. Begin on a new right-hand page, with no heading. If a blank page results, label it "This page intentionally left blank." Intentionally blank pages contain a header and footer.

Separate the table title from the table number with a manual line break. When breaking a long table title, try to achieve a pyramid shape. Table titles should be initial-capped ("Headline Case"), appear above the tables they refer to, and contain no periods. Always keep table number, table title, column header row(s), and first body row together.

4.8   Tables of Contents (TOCs)

TOCs are treated differently than other tables and should contain the following elements:

- the title Contents (not Table of Contents)

- a list of headings from the main text up through the third level, with page numbers

- a list of appendixes, without page numbers (no attachments to appendixes and no appendix contents, unless the document is so long or complex that appendix headings might be helpful), headed by Appendixes

- a list of attachments, without page numbers, headed by Attachments

- a list of enclosed plates, headed by Plates

- a list of figures, with page numbers, headed by Figures

- a list of tables, with page numbers, headed by Tables

Page numbers should be lowercase Roman numerals for all front matter, including TOCs, unless the document is so large that section numbering is best (e.g., ES-1 for the first page of the executive summary and TOC-1 for the first page of the table of contents). Typically, for a document with a two-page executive summary, the TOC would start on page vii.

For formatting and layout details, see Appendix A and the generic document template at http://erinternal.lanl.gov/home_links/Library_doctemp.shtml.

5.0   REFERENCES

All documents require a reference list; some require a reference set. A reference set is a hard-copy collection of all the documents cited in a reference list. The boilerplate text in DI-4.20, Assembling Reference Sets for ER Project Documents, has in the past been used to precede any document's reference list. However, it is out of date. The following two paragraphs should now be used to precede reference lists:

The following list includes all documents cited in this report. Parenthetical information following each reference provides the author, publication date, and ER ID number. This information is also included in text citations. ER ID numbers are assigned by the ENV-ERS Records Processing Facility (RPF)

and are used to locate the document at the RPF and, where applicable, in the ENV-ERS Program reference set titled "Reference Set for Material Disposal Areas, Technical Area 21."

Copies of the reference sets are maintained at the NMED Hazardous Waste Bureau; the DOE Los Alamos Site Office; the U.S. Environmental Protection Agency, Region 6; and the ENV-ERS Program. The sets were developed to ensure that the administrative authority has all material needed to review this document, and they are updated periodically as needed. Documents previously submitted to the administrative authority are not included.

The text will need to be tailored to your particular document (e.g., report may be changed to work plan or appendix, acronyms need to be defined as related to the rest of the text, and the reference set pertaining to your document needs to be listed). Each appendix should have its own reference list, no matter how short the list.

5.1 Author's Responsibilities for References

- Citing specific page number(s) on which the information can be found if the document is longer than 3 pages. The page number is indicated in the running text, not in the reference list: (Rea and Lanpher 1992, 99203, p. 102).

- Creating a list of complete references for all citations made in their sections (including appendixes). This list should go to the editor with the first draft of their document or section.

- Providing ER ID numbers, or arranging for them to be obtained.

- Providing (to the editor) photocopies of all documents that go in a reference set. Contact the editor to learn the content of a reference set. To locate a copy of a document produced by the Laboratory or ENV-ERS, try these sources:

    - the Laboratory's Research Library (instructions at http://lib-www.lanl.gov/infores/reports/edocs.htm). The library has copies of all Los Alamos Manuscript (LAMS) reports, many LA-URs; many are available online as PDFs.

    - the RPF at http://erinternal.lanl.gov/RPFData/new/Query.asp

    - the document catalog number database at http://erinternal.lanl.gov/DocCatalog/home.asp (this system is somewhat new, so use it for fairly recent documents.)

    - the ENV-ERS virtual library at http://erproject.lanl.gov/documents/virtualhome-old.html

    - the potential release site (PRS) database (for Laboratory internal use only) at http://erinternal.lanl.gov/PRS/PRSMain.asp. It should list all documents that ENV-ERS has submitted to DOE; it may indicate if a document has been delivered to NMED.

5.2 Assigning and Using ER ID Numbers

ER ID numbers are reference numbers (e.g., the 99203 in Rea and Lanpher 1992, 99203, p. 102). The only entity to assign these numbers is the RPF, which is located in the Pueblo Complex. To assign a number, RPF must receive a copy of the cited material (either a complete hard copy or the relevant pages). Electronic media may also get ER ID numbers.

ER ID numbers are used for tracking documents, maps, drawings, etc. cited in project reports. Most documents referenced in a report need to have their own ER ID numbers. The ER ID system allows any

decisions/assertions to be backed up going to one central place (RPF) for a hard copy of a referenced document.

For more information about getting an ER ID number from the RPF, see section 5.2.2.

Historical note: Before March 1998, three numbering systems were used to reference project documents: document-specific reference list numbers (e.g., 09-0510), master accession list numbers (e.g., 5609), and ER Project identification (ER ID) numbers (e.g., 45365). As of March 1998, ER ID numbers became the only numbers to be used as reference numbers in project reports. For more information about the history, look at this same section in a previous edition of these guidelines.

At the Laboratory level, a fourth type of number is added to many types of documents, the LA-UR number. These are assigned by S-7 (the classification group). Currently, ENV-ERS also assigns a Document Catalog Number to every document (e.g., ER2004-0344). Neither the LA-UR nor the Document Catalog Number should be used as the reference number, although they may appear within a bibliography.

5.2.1   ER ID Numbers: Submittal Requirements by Information Type

Further guidelines for getting ER ID numbers follow (see also section 5.5):

- Books or journals—To cite a few pages, submit a photocopy of the pages to the RPF, along with a photocopy of the cover, the title page with full title, the table of contents, and the copyright or other page that shows publishing information and the ISBN, if applicable.

- E-mail—Submit a printout to the RPF to get an ER ID number (this may require signatures of sender and receiver).

- Software package—Submit a printout of relevant information taken from the software (e.g., data). Also submit a printout of any splash screen or copyright page that shows the complete title of the software, the date the software was produced, the manufacturer/publisher of the software, the location of that publisher, and the version number.

- Database—Submit a printout from an electronic database to get an ER ID number. Also submit any information about where to find the database, its version number, date, publisher, etc.

- Phone conversations—Submit a record of the conversation, but read QP-4.12, Documenting Oral Communication.

- Web sites—Make a printout of the actual information that was cited. Be sure the printout shows the home page URL, the date the site was accessed, and the specific URL for the pages the author is citing.

- Engineering drawings—These should have ER ID numbers assigned to them. If a drawing does not already have an ER ID number, consult with the RPF to be sure that the RPF gets a copy and assigns a number. Contact RPF staff regarding the engineering drawings kept there.

- Laboratory notebooks—If the notebook is complete, submit the entire notebook to the RPF, which stores it. If it is incomplete, the relevant pages can be copied by the author and sent to the RPF, accompanied by the date the notebook was begun and any other identifying information. Later, when the entire notebook goes to the RPF, the notebook should get the same number as the original pages submitted. (**Note:** When you submit the whole notebook later, you must provide the RPF with the ER ID number of the original pages for proper cross-reference.)

- Interviews—A written record, such as a "memo to file" or a specific form for the purpose, should be prepared as a record and submitted to the RPF in its entirety. (**Note:** Some interviews are considered sensitive; for those, indicate to the RPF that sensitive information exists in the documented interview. This ensures a flagged entry into the records database.)

- Maps—Standalone maps produced by GISLab (formerly the Facility for Information Management, Analysis, and Display [FIMAD]) are numbered with their own numbering system and do not need an additional ER ID number.

- Drafts of documents—You can get an ER ID number for a draft of an ENV-ERS document (this occurs when you need to cite a document before it is finished). Although the RPF prefers the final version for filing, if that draft record is the only means of documentation, RPF can assign an ER ID number to it.

- Reports of site reconnaissance visits—Site reconnaissance visits should be documented as memos to file and should be submitted to the RPF in their entirety.

5.2.2   ER ID Numbers: Getting ER ID Numbers from the RPF

See QP-4.3, Records Management, and QP-4.4, Records Transmittal to the Records Processing Facility, for details about how the RPF handles documents. Those QPs should supersede the guidance here.

Find out if the document already has an ER ID number by checking the RPF's online records database at http://erinternal.lanl.gov/RPFData/new/Query.asp (see section 5.2.4 below) or contacting RPF personnel for help. When you request an ER ID number, RPF staff may query the RPF database before assigning it. This is to ensure that an ER ID number hasn't already been assigned to the document.

The RPF assigns an ER ID number of five digits. In some instances, the five digits are followed by a period and an extension number. This extension represents the beginning page number of a new document within the entire submittal to RPF. It is used for retrieval purposes, particularly if the whole submittal package consists of hundreds of pages and/or many documents. For example:

  34224.1 = the first page of the cover letter that went with a closure report, now p. 1 of a whole package

  34224.3 = the certification statement, which falls on p. 3 of the whole package

  34224.4 = the first page of a closure report, which starts on p. 4 of the whole package

  34224.46 = the document signature form, which falls on p. 46 of the whole package

5.2.3   ER ID Numbers: Citing ER ID Numbers

Generally, in text and in reference lists do not include extensions (02345 not 02345.13). Extensions are used *only* if the same ER ID number is cited more than once in a document and refers to two different documents within the whole package (e.g., 56743.3 is a letter and 56734.17 is a work plan). Leading zeros should be included if the ER ID number is less than five digits (e.g., 02345 not 2345).

5.2.4 ER ID Numbers: Searching the RPF Online

The RPF has a database of records that you should query to find out if a document already has an ER ID number. The URL for queries is http://erinternal.lanl.gov/RPFData/new/Query.asp:

- Input is case-insensitive. If you enter more than one selection criterion (the subject and originator pairs are each considered to be a single selection criterion), the criteria will be logically joined by and.

- Press the Submit Query button or the Enter key to submit your query.

- After submitting a query, if you use the Back button in your browser, the criteria and options you entered for the most recent query will be retained to facilitate refining queries. To start with a clean slate, click on the Return to Selection button at the top of the results screen.

The following search fields are available (not all fields need be filled in for a search):

- ER ID Number—If you know it, enter the five-digit ER ID number (plus the optional two-digit extension). If you search on only the first five digits, there may be multiple results. All other records within a package of records will have the same first five numerals but differing extensions.

- Document Date—The date a record originated (in the case of a document, the date it was written, not the date it was submitted). It should be entered in the mm/dd/yy format. If you are unsure of the date but know the year, for example, enter 01/01/XX in the first field and 12/31/XX in the second field where the XX is the last two digits of the known year (e.g., 05 for 2005). If you know the complete date, enter it in both fields. If you enter a date in only the first field, you are requesting all dates equal to and after that date. If you enter a date in only the second field, you are requesting all dates equal to and before that date. When only the month is provided by the submitter, the RPF enters the first day of that month as the document date. When only the year has been provided, the document is dated January 1.

- Subject Contains—Enter keywords or short phrases from the title of a document, not the exact title. Use a specific topic that describes the contents of a document. The two subject fields are logically linked by either and or, depending upon which one is selected in the Subject Logical Operator field.

- Originator Contains—An originator is the author of the record. The data in the field will be an unstructured string of first, last, and organization names; therefore, using two originator fields should help. Try entering last names rather than full names if searches are coming up empty. The two originator fields are logically linked by either and or or, depending upon which one is selected in the Originator Logical Operator field.

- Subject Logical Operator—Choose and to obtain only those records whose subject (title) contains both of the keywords in the two above fields; choose or to obtain those records whose subject contains either one.

- Originator Logical Operator—Choose and to obtain only those records whose list of author names includes both of the originators in the two above fields; choose or to obtain those records whose list of author names includes either one.

- Type Contains—This is a classification given to each document. It could be Report, Memorandum (or Memo), Form, Letter, Plan, Photo, etc. Because there are so many types in the RPF's database, and because the types are often incorrect, this field is not the most useful.

- Symbol Contains—This could be an LA-UR number, an EPA document number, or a Laboratory-generated symbol number. Many times this field is left blank.

- Record Package Number—Similar to the ER ID number, this number represents a package, or group, of individual records.

- ER Document Catalog Number—This unique identifier assigned to ENV-ERS Program-generated documents should be entered in this form: ER1999-0234.

- Sort 1 and Sort 2—These pull-down menus can be set to ER ID, Originator, Document Date, Type, or Symbol (the default is ER ID). Sort 1 is the primary order.

- Documents Per Page—The number in this field determines how many documents per page are displayed on the results screen (the default is 10). You can adjust this number to fit an entire screen full of documents into your browser window. If you set the field to 0, all the results will be displayed on one page.

5.2.5 ER ID Numbers: Types of Documents That Do Not Get ER ID Numbers and Do Not Appear in Reference Lists

- SOPs written by ENV-ECR

- QPs written by ENV-ECR

- DIs written by ENV-ECR

- DOE orders

- executive orders

- the New Mexico Administrative Code (NMAC)

- the Code of Federal Regulations (CFR)

- the Federal Register (FR)

- American Society for Testing and Materials (ASTM) standards (enough information needs to be in running text so that the reader can find it)

- Laboratory-wide documents such as Laboratory Implementation Requirements (LIR) and Laboratory Performance Requirements (LPR)

- EPA methods

These documents also do not appear in reference sets.

5.3 Citations: Author of Record

5.3.1 Author of Record: Documents Produced Outside the Laboratory

List individual authors when they are available; if not available, use name of corporate/institutional author.

5.3.2 Author of Record: Documents Produced Within the Laboratory

List individual authors for all LA-series reports, but not for LA-URs.

5.3.2.1 Laboratory Documents Produced for ENV-ERS

For documents produced within ENV-ERS (or for it by subcontractors), such as LA-UR reports, viewgraphs, and posters, list LANL as the author.

Neither subcontractor companies (e.g., Neptune, Shaw) nor their employees should be listed as document authors. However, a full reference should reflect the fact that the company prepared the document for ENV-ERS or the Laboratory.

> LANL (Los Alamos National Laboratory), 1981. Engineering Drawing ENG-C 43943, sheet number 36, prepared by Roy F. Weston, Inc., for the Environmental Restoration Project, Los Alamos, New Mexico. (LANL 1981, 55609)

For letters written on behalf of ENV-ERS or the Laboratory:

> LANL (Los Alamos National Laboratory), July 16, 1998. "Request to Use Industrial Exposure Scenarios in Lieu of Residential Scenarios for Human Health Risk Assessment in 260 Outfall [PRS 16-021(c)] RFI/CMS Process (Former OU 1082, FU 3)," Los Alamos National Laboratory letter (EM/ER:98-237) to B. Garcia (NMED-HRMB) from J. Canepa (ER Program Manager) and T. Taylor (DOE ER Program Manager), Los Alamos, New Mexico. (LANL 1998, 59173)

5.3.2.2 Laboratory Documents Not Produced for ENV-ERS

For documents such as LA-URs, letters, memos, interviews, personal correspondence, laboratory notebooks, and technical papers, list individual authors:

> Buckland, C.W., November 1, 1952. "Dumping Liquid Waste from the Incinerator Site TA 42," Los Alamos Scientific Laboratory memorandum to R.G. Merryman (Eng-4) from C.W. Buckland (H 1), Los Alamos, New Mexico. (Buckland 1952, 74939)

5.4 Citations: Format for References in Running Text and Reference Lists

5.4.1 Citations: Running Text

Citations in the text show author name(s); either year of publication or access date for a web site; ER ID number; and page, plate, or figure number (optional):

> . . . this shows that we are correct (Abeele 1984, 66520).

> . . . this shows that we are correct (Abrahams and Purtymun 1966, 81241).

> . . . this shows that we are correct (Abeele et al. 1981, 63273, p. 301).

> Abeele's study (1984d, 65320, p. 5) reports that . . .

For more than one reference in running text, separate each by a semicolon: (Abeele 1984, 66520; Smith 1998, 02340). Use either alphabetical (by author) or chronological order.

Page numbers should be given if a document is longer than 3 pages.

Put titles of books, articles, and reports in quotation marks. Use headline capitalization: "Bibliography of North American Geology, 1970"; a shortened title may be introduced in parentheses and then used thereafter if a long title is cited often.

5.4.2   Citations: Reference Lists

Any document of significant length that contains citations should have a reference list. Create a comprehensive reference list at the end of the main text, before any figures or tables, and before appendixes or attachments. Each appendix should have its own reference list, no matter how short the list.

5.4.2.1   Reference Lists: Format

Note the following:

- We do not put the initialisms "ER ID" in references (either in running text or in end-of-document lists).

- Insert the boilerplate text found in section 5.0 before reference lists (this text explains ER IDs but may need to be modified if the document will not have a reference set).

- No boldface is used.

- Close up initials in references (e.g., D.B. Brown not D. B. Brown).

5.4.2.2   Reference Lists: Order of References

List references alphabetically by first (senior) author name. All references by a single author should be grouped together and listed first but in chronological order. Next, list references written by that person as a senior author but with others. Each identical group of authors is treated as a unit. Within each unit, use chronological order. If there are documents by the same author in the same year, alphabetize by the first significant word in the title. All reference list items end with their running-text callout in parentheses.

5.5   Citations: Specific Types of Documents and Examples

5.5.1   Book

Hurlbut, C.S., Jr., and C. Klein, 1977. *Manual of Mineralogy*, 19th ed., John Wiley & Sons, New York, New York, p. 318. (Hurlbut and Klein 1977, 47193)

and part of a book:

Pierce, W., A.J. Gude, and E.D. McKee, 1982. "Insoluble Residue Patterns," Chapter 3 of *The Supai Group of Grand Canyon*, John Wiley & Sons, New York, New York, pp. 263–272. (Pierce et al. 1982, 55425)

5.5.2   Electronic Databases (Not Online)

From a CD or other physical electronic media, not the web:

ATSDR (Agency for Toxic Substances and Disease Registry), June 1997. ATSDR's Toxicological Profiles on CD-ROM. (ATSDR 1997, 56531)

5.5.3   E-mail Communication

Keller, D., February 19, 1999. Culture technique. E-mail message to D. Risberg (ICF Kaiser Engineers) from D. Keller (ESH-20, LANL), January 15, 1999, Los Alamos, New Mexico. (Keller 1999, 62918)

Note: If an e-mail is used to support an argument or decision, you may need to get the author and/or the recipient to sign a hard copy of that e-mail before submitting it to the RPF.

5.5.4   ENV-ERS Documents

5.5.4.1   ENV-ERS: The IWP

Because the IWP used to be updated annually, portions of text, the content of figures and tables, and the letters of appendices may be subject to change. The most recent approved version of the IWP should always be cited. If portions of your document are prepared, for example, in May 1997 and your document is due in May 1998, the author should verify that any information based on the 1996 IWP is (1) still in the 1997 IWP and (2) that it is located in the same place. Each IWP bears its own LA-UR and ER ID numbers.

5.5.4.2   ENV-ERS: Laboratory Notebook

McInroy, D., 1988. "Vegetation Site Stabilization Activities at the DP Tank Farm," Laboratory Notebook No. Y-2252, HSE-8, May 10, 1988, to July 11, 1988, Los Alamos National Laboratory, Los Alamos, New Mexico. (McInroy 1988, 23455)

5.5.4.3   ENV-ERS: Record of Site Reconnaissance Visit

Roy F. Weston, Inc., May 11, 1990. "Site Reconnaissance Visit to TA-21, May 11, 1990," site reconnaissance performed for the Environmental Restoration Program at Los Alamos National Laboratory, Albuquerque, New Mexico. (Roy F. Weston, Inc., 1990, 23455)

5.5.4.4   ENV-ERS: SOPs, QPs, DIs, Administrative Procedures (APs)

Procedures and instructions are on the internal ENV-ECR web site at http://erinternal.lanl.gov/home_links/Library_proc.shtml. They are also on the external web site at http://erproject.lanl.gov/documents/procedures.html. Check there for current titles and revision numbers.

When writing/editing plans, list the numbers and titles of the procedures that will be followed. State that the most recent version will be used. After the work has been done, and the report is being written, add the revision number to be specific about the procedure that was followed.

The Compliance Order on Consent says we may "reference relevant SOPs as presented on the LANL website. . . .The reference should include the appropriate Internet address." Use the external web site's URL.

To cite procedures or instructions, put all information in running text, at first mention, including document number, full title (no quotation marks), and revision number (but see above). Later, you can use the shorthand of referring to DI-4.20, for example. Do not add these types of documents to a reference list.

ENV-ECR DI-4.20, Rev. 0, Assembling Reference Sets for ER Project Documents

ENV-ECR SOP-1.01, Rev. 2, General Instructions for Field Investigations

5.5.4.5 ENV-ERS: Other Documents

For other kinds of documents (such as work orders, minutes, structure logs, job requests), provide author (if any), date, title, number, location of organization (city and state), and organization.

5.5.5 EPA Documents

EPA (U.S. Environmental Protection Agency), April 1998. "Guidelines for Ecological Risk Assessment," EPA/630/R-95/002F. (EPA 1998, 59600)

5.5.6 Interviews

Ahlquist, A.J., R.W. Ferenbaugh, and L.S. Fritz, February 13, 1985. "Interview with Robert S. Fitzhugh, 2/13/85," Los Alamos National Laboratory Memorandum to File from A.J. Ahlquist, R.W. Ferenbaugh, and L.S. Fritz, Los Alamos, New Mexico. (Ahlquist et al. 1985, 75432)

5.5.7 Journal Article

Aldrich, M.J., Jr., February 10, 1986. "Tectonics of the Jemez Lineament in the Jemez Mountains and Rio Grande Rift," *Journal of Geophysical Research*, Vol. 91, No. B2, pp. 1753–762. (Aldrich 1986, 21497)

5.5.8 Laboratory Engineering Drawings

In running text, use the drawing number: . . . according to sheet 106 of 195, the engineering drawing (ENG-C 43943) . . .

Cite the sheet number as well, if appropriate.

In reference list:

LANL (Los Alamos National Laboratory), 1981. Engineering Drawing ENG-C 43943, sheet number 106, Los Alamos, New Mexico. (LANL 1981, 55609)

5.5.9 Laboratory Memorandum

Buckland, C.W., November 1, 1952. "Dumping Liquid Waste from the Incinerator Site TA-42," Los Alamos Scientific Laboratory memorandum to R.G. Merryman (Eng-4) from C.W. Buckland (H-1), Los Alamos, New Mexico. (Buckland 1952, 74939)

Note: Do not include to distribution.

5.5.10   Legal Documents

The Compliance Order on Consent is cited only in running text and does not appear in reference lists or reference sets:

> . . .the Compliance Order on Consent (hereafter, the Consent Order) signed by the New Mexico Environment Department, the Department of Energy, and the Regents of the University of California on March 1, 2005, states that the Laboratory must. . . .

It should not be referred to as the NMED Consent Order as it is an agreement between several parties. All other public legal documents (including all the ones below) do not get ER ID numbers and do not go in reference lists or sets; however, they should be cited in running text so that a reader can find the information. The URLs in the examples below are provided so that the editor can check titles and numbers related to the documents. At the Laboratory's Research Library web site, http://lib-www.lanl.gov/infores/stand/, there are links to online versions of many regulations and standards.

5.5.10.1   Legal: Code of Federal Regulations (CFR)

In running text:

> . . . according to 40 CFR 261 Subpart F, "Emissions Standards for Hazardous Air Pollutants,". . .

Note: Don't use periods for CFR; don't add CFR to the acronym list.

5.5.10.2   Legal: DOE Orders

In running text, you need state only

> . . . according to DOE Order 5400.5, "Radiation Protection of the Public and the Environment," . . .

to represent this DOE order issued June 5, 1990: "Radiation Protection of the Public and the Environment," DOE Order 5400.5 (Change 1).

5.5.10.3   Legal: Executive Orders

In running text:

> . . . according to Executive Order (EO) 11988, May 24, 1977, "Floodplain Management," . . .

5.5.10.4   Legal: Federal Register (FR)

In running text:

> . . . according to 10 FR 834, "Environmental Standards for the Management and Disposal of Spent Fuel, High-Level and Transuranic Radioactive Wastes,". . .

Note: Don't use periods for FR; don't add FR to the acronym list.

5.5.10.5   Legal: New Mexico Administrative Code

In running text:

. . . according to New Mexico Administrative Code (20 NMAC 4.1). . . .

where 20 NMAC 4.1 represents Title <u>20</u> Environmental Protection, Chapter <u>4</u> Hazardous Waste, Part <u>1</u>, Hazardous Waste Management.

For some documents, such as closure plans, citations may require more information:

20 NMAC 4.1, Subpart V, §265.112(d)

New Mexico's web site for environmental regulations:
http://www.nmenv.state.nm.us/Common/regs_idx.html.

5.5.10.6   Legal: Public Laws (PL)

In running text:

. . . according to the "Uranium Mill Tailings Radiation Control Act of 1978," PL 95-604 . . .

5.5.11   Letters

LANL (Los Alamos National Laboratory), July 16, 1998. "Request to Use Industrial Exposure Scenarios in Lieu of Residential Scenarios for Human Health Risk Assessment in 260 Outfall [PRS 16-021(c)] RFI/CMS Process (Former OU 1082, FU 3)," Los Alamos National Laboratory letter (EM/ER:98-237) to B. Garcia (NMED HRMB) from J. Canepa (ER Project Program Manager) and T. Taylor (DOE ER Program Manager), Los Alamos, New Mexico. (LANL 1998, 59173)

5.5.12   Maps

Dethier, D.P., and K. Manley, 1985. "Geologic Map of the Chili Quadrangle, Rio Arriba County, New Mexico," U.S. Geological Survey Miscellaneous Field Studies Map MF-1814, Washington, D.C. (Dethier and Manley 1985, 21506)

5.5.13   National and International Standards

To locate a standard, check the Laboratory's Research Library web site, at http://lib-www.lanl.gov/infores/stand/. If you locate a standard there, you should be able to download it for free. ASTM standards do not need to appear in reference lists, as long as there is enough information in running text for the reader to locate a copy: . . .follow "Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)," ASTM D 2487-00. . . .

5.5.14   Proceedings

Kaplan, P.G., 1991. "A Formalism to Generate Probability Distributions for Performance-Assessment Modeling," in High Level Radioactive Waste Management: Proceedings of the Second Annual International Conference, Vol. 2, published by the American Nuclear Society, Inc., La Grange Park, Illinois. (Kaplan 1991, 54347)

5.5.15   Report as Part of Compilation

Broxton, D.E., G.H. Heiken, S.J. Chipera, and F.M. Byers, Jr., June 1995. "Stratigraphy, Petrography, and Mineralogy of Bandelier Tuff and Cerro Toledo Deposits," in *Earth Science Investigation for Environmental Restoration—Los Alamos National Laboratory Technical Area 21*, Los Alamos National Laboratory report LA-12934-MS, Los Alamos, New Mexico, pp. 33–63. (Broxton et al. 1995, 50121)

5.5.16   Software Packages

MEPAS (Multimedia Environmental Pollutant Assessment System), ver. 3.1, Battelle Memorial Institute at Pacific Northwest National Laboratory, Richland, Washington: Integrated Risk Analysis Software Package, February 1995. (MEPAS 1995, 63179)

5.5.17   Technical Report of Work Done for the Laboratory

The Laboratory publishes three primary types of documents:

- LA-URs and Los Alamos Controlled Publications (LA-CPs)—LA-UR and LA-CP publication numbers follow the pattern of LA-UR-xx-xxxx and LA-CP-xx-xxxx. The first two numbers denote the year, and the following numbers are assigned sequentially during that year (e.g., LA-UR-05-3446)

- LA-series reports—LA-series reports have been numbered sequentially from their inception in 1943, and the series of numbers may include a one- to four-letter designator (e.g., LA-xxxxx-MS, for Manuscript, or LA-xxxxx-T, for Thesis).

- LALPs (Los Alamos Laboratory publications)—LALP numbers follow the pattern LALP-xx-xxxx. The first two numbers denote the year, and the following numbers are assigned sequentially during that year (e.g., LA-LP-05-1226).

IM-1's reference style calls only an LA-series report a report in a reference. An LA-UR, for example, is a *document* and an LA-LP is a *publication*.

Abeele, W.V., March 1984. "Hydraulic Testing of Crushed Bandelier Tuff," Los Alamos National Laboratory report LA-10037-MS, Los Alamos, New Mexico. (Abeele 1984, 65201)

Dunham, D., January 1996. "Biological and Floodplain/Wetland Assessment for the Stream Plant Replacement Project (TA-16 and TA-9)," Los Alamos National Laboratory document LA-UR-96-108, Los Alamos, New Mexico. (Dunham 1996, 52032)

Los Alamos National Laboratory (LANL), 1995. "Site Development Plan, Annual Update 1995," Los Alamos Laboratory publication LALP-95-113, Los Alamos, New Mexico. (LANL 1995, 57224)

5.5.18   Telephone Conversations

Janecky, D., February 25, 1992. Personal communication between K. Roberson and D. Janecky, IT Corporation Telephone Log, Los Alamos, New Mexico. (Janecky 1992, 21542)

5.5.19   Web Sites and Online Databases

HSDB (Hazardous Substances Databank). February 1999. "Online search results for 2,4,6-trinitrotoluene," http://toxnet.nlm.nih.gov/. (HSDB 1999, 63385)

EPA (U.S. Environmental Protection Agency). 1998. "Region 9 Preliminary Remediation Goals," June 1998. http://www.epa.gov/region09/waste/sfund/prg/intro.htm. (EPA 1998, 58751)

Note: Use the Word default for hyperlinks.

5.5.19.1   Online Databases: IRIS (Integrated Risk Information System)

The IRIS database is frequently cited in reports; http://www.epa.gov/iris/ takes you to the IRIS home page. It is a publicly accessible database maintained by EPA and is updated "continually." At no cost, you can download IRIS for easy access; however, that download will be out of date fairly quickly (the downloadable version is only updated quarterly). This means that an author can download the current version and print out information in order to reference it and get an ER ID number. The date of the version would be quite important.

5.6   Reference Sets

Read DI-4.20, Assembling Reference Sets for ER Project Documents, to learn when a set is required, how to compile it, who it goes to, and how it gets updated.

5.6.1   Types of Documents That Do Not Appear in Reference Sets

The documents listed below should not be included in reference sets (see DI-4.20).

- All RFI plans and reports, corrective measure study (CMS) plans and reports, voluntary corrective action (VCA) plans and reports, voluntary corrective measure (VCM) plans and reports, sampling and analysis plans (SAPs), interim measure (IM) plans and reports, interim action (IA) plans and reports, NOD responses, request for supplemental information (RSI) responses, current document types submitted to NMED (e.g., investigation work plans), compliance order responses that have been previously submitted to NMED, or any other non-ERS Program document known to have been submitted to NMED

- The Laboratory's Hazardous Waste Facility Permit, including Module VIII

- Groundwater Protection Management Program (GPMP) Plan

- Hydrogeologic Workplan

- Reach reports

- Environmental surveillance reports

- Core Document for Canyons

- MDAs Core Document

- IWPs

- ENV-ERS quarterly technical reports

- Requests for permit modifications

- Comprehensive Environmental Assessment and Response Program (CEARP) (vols. 1 and 2)

- NMED RCRA Permits Management Program (RPMP) Document Requirement Guide

- The Compliance Order on Consent

- The Laboratory's 1990 Site Development Plan and the 1995 Update to the Site Development Plan

- SWMU reports

- EPA documents that are publicly available (such as EPA SW-846)

- Compliance Order on Consent

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Appendix A

*Style Sheet for Environmental Stewardship–
Environmental Remediation and Surveillance Documents*

A-1.0 TEXT

Paragraphs are not indented; they are set flush left and ragged right. In Word, the space "before" is 0 points and the space "after" is 10 points. Line spacing is "at least" 13 points.

A-2.0 COLUMNS

Consider putting any long acronym list portion in Word's multicolumn format to save space.

A-3.0 COVERS

See section 4.2, Document Covers, to determine which documents get which covers and for information regarding available templates.

Note: The inside cover (page ii) should include the following disclaimers (in Arial, font size 8):

Disclaimer

This document contains data on radioactive materials, including source, special nuclear, and by-product material. The management of these materials is regulated under the Atomic Energy Act and is specifically excluded from regulation under the Resource Conservation and Recovery Act and the New Mexico Hazardous Waste Act. Information on radioactive materials and radionuclides, including the results of sampling and analysis of radioactive constituents, is voluntarily provided to the New Mexico Environment Department in accordance with U.S. Department of Energy policy.

Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by the University of California for the United States Department of Energy under contract W-7405-ENG-36.

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, nor any of their contractors, subcontractors or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the use of any apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors.

Los Alamos National Laboratory strongly supports academic freedom and a researcher's right to publish; as an institution, however, the Laboratory does not endorse the viewpoint of a publication or guarantee its technical correctness. By acceptance of this article, the publisher recognizes that the U.S. Government retains a nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or to allow others to do so, for U.S. Government purposes. Los Alamos National Laboratory requests that the publisher identify this article as work performed under the auspices of the U.S. Department of Energy.

A-4.0 FIGURES

Both partial-page and full-page figures should be centered on the page. Over-sized figures should be resized to fill the page (within the 1-in. margins), if appropriate.

A figure caption is made up of the figure number, a period, a tab, a short title, and a period (if caption is a complete sentence):

Figure 2.3-1.<tab>   Incomplete sentence requiring no period

A caption should be 10-point bold Arial, 6 points below the bottom of the figure, and aligned with the left side of the figure above it. If a caption runs beyond the width of its figure, consider shortening the caption width with a right-hand indent. Any caption turnover should be aligned with the first word in the body of the caption. Turned (landscape) figures and their turned captions should have upright (portrait) headers and footers.

See section 4.4, Figures, for more information about format and requirements for figures.

A-5.0   FONT

A-5.1   Text

The font should be 10-point Arial, with 13 points of leading (use the "at least" setting in Word), and 10 points after each paragraph. **Note:** you may want to use greater leading for drafts that will receive hard-copy markup.

A-5.2   Footers

The font should be 9-point Arial, italic, except for the page number, which is a centered arabic numeral in roman type (except in the front matter, where it is a roman numeral in roman type); no footers should appear on appendix cover sheets.

A-5.3   Headers

The font should be 9-point Arial, italic; no headers should appear on appendix cover sheets.

A-5.4   Table Column Heads

The font should be 10-point Arial Narrow bold (the narrow variation allows much more text to fit).

A-6.0   FOOTERS

Page footers need to include the ER Document Catalog Number (on the inside of a two-page spread) and the date (on the outside). The date can be month and year only. The page number is centered.

Page footers need to include Draft (see QP-4.9) under the document catalog number for all drafts including the peer review draft. Remove all draft notations when the report goes to the New Mexico Environment Department; and when the U.S. Department of Energy (DOE) is the administrative authority for a document, draft notations should be removed before going to DOE.

For very long documents, the page number may include a section number (e.g., ES-1 for the first page of the Executive Summary; or 3-1 for the first page of section 3).

No page footers appear on appendix and attachment cover sheets.

A-7.0   HEADERS

Use a 0.5-point rule beneath the page header. An abbreviated report title goes in the header (e.g., MDA G Investigation Work Plan). There may be no header in smaller documents, such as Requests for Supplemental Information or Notice of Disapproval responses; however, these smaller documents do need a footer. No page headers appear on appendix and attachment cover sheets.

A-8.0   HEADINGS

"Heading 1" is the first level (use at start of a new section). First-level headings are flush left, bold, all caps with a tab after the heading number. This left tab is set at 0.45 in. The hanging indent for Heading 1 is 0.45 in. Use a "Keep with next" so that the heading doesn't get separated from the first paragraph under that heading. Use 12 points of space before the heading, 10 points after. Delete the 12 spaces before the heading for first-level headings appearing immediately after a page break.

Second-, third-, and fourth-level headings ("Heading 2," etc.) are the same as above except that the case is initial caps ("title case" in Word) and the space is 6 points before and 10 points after. Third- and fourth-level headings have increased indent settings (0.55 in. and 0.65 in., respectively).

Fifth-level headings should not be numbered and are flush left and bold.

Sixth level headings are flush left, bold, and italics.

A-9.0   MARGINS

Top: 1 in.; Bottom: 1 in.; Left: 1 in.; Right: 1 in.

A-10.0 PAGINATION

All front matter, including the table of contents (TOC), is numbered with lowercase roman numerals. The cover page is i, the inside cover page is ii, etc. though these are only shown on the actual page starting with executive summary or the table of contents (see Table A-10.0-1).

A-11.0 TABLES

See section 4.7, Table Format, and the online Word templates at http://erinternal.lanl.gov/resources/outlines_templates.shtml for samples and details.

A-12.0 APPENDIXES AND ATTACHMENTS

Appendixes contain material that supports the document. Attachments contain separate, supplemental information.

Note that cover sheets (without headers or footers) appear before the body of an appendix or attachment. (The cover sheet to this appendix is an example.) An electronic version of this cover sheet can be found in the Word templates available at http://erinternal.lanl.gov/resources/outlines_templates.shtml.

Table A-10.0-1
Parts of a Typical Document and Pagination Sequence

Parts (in order)	Page Number	Notes
Cover page	i (not shown)	If the report goes into a binder, the binder cover should be the same as the cover page.
Inside cover	ii (not shown)	Should contain "rad" disclaimer, all Laboratory disclaimers, and "produced by. . ."
Title page with signatures	iii	Repeats the title and has lines for three signatures.
Blank	iv	
Executive Summary	v	If the report is very big and section numbering is used in the body, use ES-1, ES-2, etc. Executive summaries are typically no longer than one page. No header on the first page. Not in the TOC.
Blank	vi (not shown)	
TOC	vii	Begins a new right-hand page. No header on first page. After the main TOC is the list of appendixes ("Appendixes"). Lists of figures and tables should not include appendix tables and figures.
Body (main text)	1 (or 1-1)	Each section runs into the next unless the report is very large. Then section numbering is used (e.g., 3-1) and tabs are inserted. Then each section starts on a new right-hand page and no header is used on the first page of each section.
References	—	Last numbered section in report.
"This page intentionally left blank"	Even page number	If the main text ends on a right-hand page, this page must be added.
Figures	—	Begin figures without a heading but on a new right-hand page.
"This page intentionally left blank"	Even page number	If the figures end on a right-hand page, this page must be added.
Tables	—	Begin the tables section without a heading but on a new right-hand page.
"This page intentionally left blank"	Even page number	If the tables end on a right-hand page, this page must be added.
Appendix A cover page	None	New right-hand page
Blank page	None	
First text page of Appendix A	A-1	New right-hand page for text; restart numbering pages; no header on first page
"This page intentionally left blank"	Even page number	If the appendix ends on a right-hand page, this page must be added.
Attachment 1 cover page	None	Same as appendix cover page. Note that attachments are numbered; appendixes are labeled alphabetically.
First text page of Attachment 1	Use existing	New right-hand page; restart numbering pages; no header on first page.
CD	n/a	If only one, use a plastic sleeve attached to the inside back cover; if more than one, use a three-holed sleeve.

Structure for a set of facing pages in a draft document (note no line above or below the footer):

Abbreviated Title of Report

Abbreviated Title of Report

1/20/2005 2:07 PM   2   ER2005-XXXX
                                      Draft Information

ER2005-XXXX   3   0/0/0000 0:00 AM
Draft Information

Structure for a set of facing pages in a final document:

Abbreviated Title of Report

Abbreviated Title of Report

May 2005   2   ER2005-XXXX

ER2005-XXXX   3   May 2005

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Appendix B

Editing and Production Checklists

B-1.0   EDITING

Environmental Stewardship–Environmental Remediation and Surveillance (ENV-ERS) Program documents almost always require a "full edit." However, if you don't have time for that, do at least a "proofreading edit." (See Table B-1.0-1.)

Table B-1.0-1
IM-1's Amplified Editing Checklist

Document Error	Proof-read	Gram. Edit	Full Edit
Report structure/format			
Violations of Laboratory/U.S. Department of Energy (DOE) policy	X	X	X
Unprofessional acknowledgments			
Unjustified criticism or unprofessional statements			
Product endorsements			
Copyright infringements—lack of permission letter(s)			
LA-series report format—no abstract, abstract not labeled and clearly set off from text, author affiliation and/or address on p. 1, funding statement on p. 1			
Sequencing errors (figures, tables, references, pagination, equations, and appendixes not in numerical order)	X	X	X
Headings or headers/footers lack logical order and/or punctuation	X	X	X
Extraneous punctuation, no logical progression in headings (e.g., level 2 heads have more capitalization or a larger point size than level 1 heads)			
Headers/footers inconsistent with report format			
Report parts do not agree: figures/tables with one another or with text; text with text (refers to technical content)	Q	X	X
Inaccessible references	X	X	X
Not enough information given to find document			
At a Proofreading Edit, references should also be corrected for spelling errors; at a Grammar Edit, correct punctuation errors in references, too.			
References not in Lab format			X
Gratuitous font changes in text		Q	X
Includes similar changes in point size for text or for subscripts/superscripts			
Nonstandard pagination, leading, margins, or indents		Q	X
Errors in left/right placement of page numbers			
Inconsistent leading before and after headings			
Changes in justification			
Graphics (figures and tables)			
Misorientation	X	X	X
Graphics are upside down or skewed			
Poor reproducibility (usually because of multiple copies)	Q	X	X

Table B-2.0-1 (continued)

Document Error	Proof-read	Gram. Edit	Full Edit
Placement		X	X
Figures/tables cut into text inconsistently			
Landscape figure/table on right-hand page facing into gutter			
Poorly designed (problems affect technical clarity)		Q	X
Too large/small for data shown, similar data not shown similarly			
Extraneous information included			
Axes not labeled, misspelling/typos in figure callouts, elements of graphs not clearly labeled			
Inconsistent formatting			X
Boxed vs unboxed figures, multiple fonts and/or point sizes used, figures have viewgraph titles, inconsistent use of vertical and horizontal lines in tables			
Text			
Subject/verb disagreement	X	X	X
Misspelling/typos	X	X	X
Capitalization errors (includes errors in capitalizing abbreviations)			
Extra or missing characters, symbols, and spaces			
Misuse of roman vs italic type (et al. used instead of et al.; failure to italicize other foreign words, such as genus and species names)			
Misspelling (correcting secondary variants)			X
Sentence fragment/run-ons/no end punctuation	X	X	X
Run-ons include comma splices and fused sentences.			
Embarrassing dangling participles (i.e., that may elicit a chuckle)	X	X	X
Word choice (wrong word)	Q	X	X
Word errors that cannot be corrected as a misspelling			
Omitted words in text			
Ambiguous pronouns (unclear antecedent)	Q	X	X
Punctuation (except hyphens)		X	X
Hyphens (spelling errors only)		X	X
Check American Heritage and McGraw-Hill (non-linear and two dimensional model would be spelling errors).			
Follow Am. Her. Style and Usage Guide rules on hyphenation: (1) prefixes and suffixes are added without a hyphen unless the result is a double vowel or triple consonant or they are being added to proper nouns, (2) adv-adj compounds are not hyphenated if they follow the noun they modify (e.g., the book is well known or much improved), and (3) adv-adv-adj compounds are never hyphenated (e.g., a very much improved book).			
If unit modifiers would be hyphenated by *Chicago* rules, look them up in Mc-Graw Hill and hyphenate them only if the dictionary does.			
Do **not** add hyphens in modifiers involving units of measure unless technical clarity is at stake (e.g., 10-mm-thick targets vs 10 mm-thick targets).			
Hyphens (*Chicago* Manual of Style rules not followed)			X
Follow Training Manual's 45 rules for hyphenation (based on *Chicago*)			

Table B-2.0-1 (continued)

Document Error	Proof-read	Gram. Edit	Full Edit
Pronoun/antecedent disagreement		X	X
Sexist pronouns		Q	X
Undefined acronyms		X	X
Acronyms should be defined when introduced, but consistency in their use is not required.			
Acronym usage rule not followed			X
Rule: Define acronym when its full term is introduced and use acronym thereafter; if acronym is never used again, delete it.			
Use of English versus metric units			X
Wrong or ambiguous technical abbreviations/symbols (could affect technical clarity)		Q	X
Use of nonstandard measurement units (i.e., ones that are not defined in McGraw-Hill or that are used contrary to their dictionary definition)			
Wrong symbol is used based on context (e.g., mm versus µm or kV versus keV)			
At a Grammar Edit, spelling variants are **not** queried (e.g., sec versus s or pluralizing an abbreviation).			
Nonstandard or inconsistent technical abbreviations/symbols			X
Standard = our PBM list and lists in AIP, ACS, or CBE style guides			
Nonstandard number usage			X
Lab number usage guidelines are not followed.			
Inconsistent equation formatting		Q	X
Undefined terms in equations, misuse of italics and boldface, fence-pairing problems			
Inconsistencies in spacing, indentation, equation number placement, fraction format, breaking of equations			
Undefined technical jargon		Q	X
Word usage errors		X	X
Words used ambiguously (may affect technical clarity)			
Words used contrary to usage guidelines (e.g., use of comprised of or due to used as a preposition—see lists of usage problems in Training Manual and check Am. Her. usage notes)			
Verb tense problems that affect technical clarity			
Sentences that begin with a numeral or lowercase abbreviation			
Misplaced modifiers		X	X
May have to query author to fix			
Overly complex sentences		X	X
May have to query author to fix			
Paragraphing (length)		X	X
Divide long paragraphs, combine short ones			
Paragraphing (coherence)		Q	X
Incomplete comparisons			X
Faulty parallelism			X
Lack of subordination or emphasis			X

Table B-2.0-1 (continued)

Document Error	Proof-read	Gram. Edit	Full Edit
Wordiness			X
Overmodified nouns			X
Overuse of passive voice			X
Organization of report			X

X = Correct   Q = Query   10/98

B-1.1   Complete Edit

If you have all the time you need, do one read-through for organization, flow, and structure (following approved outlines); one for line-by-line editing; and one for mechanics (such as references, acronyms, etc., described below).

B-1.1.1   Acronyms and Glossary

If your document is going to have an acronym list, get a copy of the official list from the ENV-ERS internal web site. As you edit, put a checkmark next to each acronym in the list. Be sure that at its first occurrence an acronym is defined (even if the first occurrence is in a table). Write down the page number of where the acronym has been defined. Be sure the acronym is not defined more than once. Add any acronyms that are not on the list. Note that we do not define acronyms for terms only mentioned once (unless readers might be more familiar with the acronym than what it stands for). When you're done editing, delete all acronyms that were not used in the document (text or appendixes).

Follow a similar procedure for the glossary. If you have compiled a list of terms that need to be added to the glossary, ask the author to write the definitions. Submit any proposed change of this glossary to the current ENV-ERS document manager.

An appendix is a standalone document; therefore, acronyms need to be redefined. An executive summary is treated as a standalone document as well, but acronyms should not be used in this section.

B-1.1.2   References

Do a separate read-through just to check references in the text against the references list in the back of the document. Be sure the names, years, and ER IDs match up. Put a checkmark in the margin next to each reference in the "References" list. That way you'll know at a glance if all references are cited in text. Contact the author for missing reference information or ER IDs.

B-1.2   If there's less than a day . . .

Normally, the mechanical check below would be a quality check to do at the end of the process. If you're very short on time, it may be all there is time for (in addition to a spell check).

Print out a complete draft, lay it out on a big table and flip through all pages once for each of these items: Check the order of page numbers and that all pages are there.	
Check the order of heading numbering.	
Check the order of table numbering.	
Check the order of figure numbering.	
Check headers by flipping through and scanning headers to make sure no page is missing one, that the header info is the same on all pages, and that headers are flush left for left-hand pages and flush right for right-hand pages.	
Check footers to be sure no page is missing one, that they contain the same info, and that the date and title switch position.	
Check that each table that breaks across pages has its column headings repeated and its table number repeated with (continued).	
Check that the table number and title have been kept together (not separated by a page break).	
Check the spelling of every label on every map or photo.	
Read through the text and check that each reference to a datum or a location on a figure is accurate.	
Make sure that figures have not been incorrectly duplicated in the text (for example, that Figures 3.2-1 and 3.3-1 are not the same figure).	
Check that each reference called out in text (scan for parentheses in text AND in figure captions and table footnotes) has an ER ID number and that it appears in the references list for the entire document.	
Check that each footnote found in the body of a table has an appropriate letter and definition spelled out below the table.	
Check that the cover and spine (if there is one) have the correct title and LA-UR number.	
Check that the reference set update and data CDs have been produced (depending upon the type of report, these may not be needed).	

B-2.0   COMPOSITION AND PRODUCTION

Some of these steps will vary with the software package and type of document—this has been geared to Microsoft Word (Word).

B-2.1   Early On

Create a folder or subdirectory (on a backed-up server) for the document.	
Open each originally submitted file and do a "save as" (keep the original file as is from the preparer).	
Open the correct template file for the document; copy and paste the author's text into it. Or attach the current Word template so appropriate styles are updated, and check page setup, headers, and footers.	
Rename each file using the Document Catalog Number prefix (optional).	

B-2.2   Text Formatting

Change all appropriate instances of the letter x to multiplication symbols (×).	
Replace TA- with TA<nonbreaking hyphen>.	
Search and replace all double spaces with a single space.	
Fill in cover page and inside cover page information (and title/signature page if applicable).	
Make cover sheets for appendixes and attachments.	
Change hyphens to en dashes where appropriate.	
Search for and change all Canyon to Cañon in Cañon de Valle.	
Search for and change ug/L to µg/L.	

B-2.3   Headers and Footers

If working in Word, select View -> Header and Footer. Then scroll through all headers and footers in every file to make sure correct info is in there (especially if doing landscape pages or multiple sections in MS Word)	
Turned pages (landscape figures, for example) still need portrait headers, footers, and page numbers.	
Type in an actual date for the draft or final version (e.g., August 5, 1998) (do not insert the date field unless you know how to keep it from changing the date each time you print a page).	
Create an abbreviated title for the report; use it in the headers.	
Insert appropriate "draft" information and the Document Catalog Number in the footers.	

B-2.4   Pagination

For larger documents, consider the use of section number-page number in footers (e.g., ES-x for Executive Summary and A-x for Appendix A).	
Lowercase, roman page numbers should be used for all front matter.	

B-2.5   Figures and Photos

Numbering goes only to two heading levels, despite the subsection the figure is found in; therefore, the second figure found in section 2.1 is Figure 2.1-2.	
Photos are called Figures.	
Figure captions are initial cap for the first word only (except proper names); no period is used unless the caption is a complete sentence.	
Use Figure 2.3-1.<tab>Caption for captions.	
Even if figures are not inserted electronically, create figure captions so that numbering can be changed easily and so that a list of captions can be generated electronically.	
Insert figures and photos electronically without embedding (if file size is an issue).	
Convert color photos to grayscale if photos will be printed on noncolor laser printers; use color (but low resolution) for photos to go on the web.	
Depending upon software and time allowed for compositing, create a cross-reference from text callout to caption for figure so that each can be updated.	

B-2.6   Tables

Numbering goes only to two heading levels, despite the subsection the table is found in; therefore, the third table found in section 2.1 is Table 2.1-3.	
Table titles are in title case (caps and lowercase).	
Table titles have no periods at the end.	
Each table break needs (1) repeated column headings at the top of every following page and (2) a repeated table number at the top of every following page with (continued) after it.	
To insert a table electronically in Word, select Table -> Insert Table, or Insert -> File. Choose the table file if it's a table done in Microsoft Excel, or copy columns and rows from an Excel worksheet and do a Paste -> Special into Word.	

B-2.7   References

Format in running text should be as follows: (Smith 1998, 12345, pp. 34–35) or (Smith 1998, 12345, p. 35)	
For references listed at the end of the document, the paragraph style to use is References.	
Insert the boilerplate text at the beginning of each reference list in the document.	

B-2.8   Later Stage

Optional: create a master document in Word; use this master document to create cross-references, create a document-wide table of contents, and correct pagination.	
Create a spine, if needed; add the LA-UR number to the spine and cover.	
Check that the title on the cover page and the signature page match.	
Run a spell check.	
Check for the Document Catalog Number.	

B-2.9   Distribution and Archiving

Make one electronic and three paper copies for any deliverables to the New Mexico Environment Department (NMED). Two paper copies go to NMED and one is kept at Environmental Stewardship–Environmental Characterization and Remediation (ENV-ECR) with the project leader. The distribution list and letter are the responsibilities of the document manager, author, and project office.	
See that a hard copy of each document is filed with Records Processing Facility. (For more information, read Quality Procedure 4.4, Rev. 0, Record Transmittal to the Records Processing Facility.)	
Prepare a portable document format (PDF) file of the document for the virtual library. Check with the document manager if you're not sure that your document needs to go to that library.	
Prepare files for archiving. Delete draft files. Keep the original file format as well a PDF. In a separate folder, keep an exact copy of the files that went onto any CDs. Keep the CD label file.	
Copy the relevant files onto the Document Archive subfolder on Pubs (a shared area on an ENV-ECR server).	
During archiving, either the editor or compositor should write up any informative notes about the document and its history or issues. (Imagine a new person working on an update of the document—what would he or she need to know?) Save these notes as a .txt file in the folder to be archived.	
Prepare the reference set update, if required. (The editor or document production assistant can help.)	
Check with the editor and author to see if either one wants any old hard-copy drafts or markups. If not, recycle.	

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Appendix C

Spelling of Commonly Used Terms

Numbers/Symbols

[the] 260 outfall
1,2,3-trichloropropane
12,000 not 12 000
1200 not 1,200 or 1 200
2-DNT
24°C
300 Line
4-ADNT
90s Line
90s Line Pond, not 90s-Line Pond
6-in. vitreous clay pipe
1960s not 1960's
µg/L not ug/L

A

aboveground
Acid Canyon
after-hours
air lock
all-time
alluvial groundwater
alluvium, not alluvial aquifer
alpha-emitting radionuclide, not alpha-isotope or alpha-emitter
alpha spectrometry
analyte
Ancho Watershed
Ancho Canyon Aggregate
appendixes, not appendices
Aroclor
as-built
auger
auger hole (or hand-auger hole)

B

backfilled
background levels, not just background
backhoe
backlog
backup (adj. or n.)
Bandelier Tuff
bar code
base course
base line (generic noun) but ENV-ERS's baseline
base map
battery-operated
bedrock
bentonite
berms
beryllium
beta-emitting radionuclide, not beta-isotope or beta-emitter

Bicron Surveyor 2000 (also "pancake probe")
bimonthly
bis(2-ethylhexyl)phthalate (no spaces)
blacktop (n.) blacktopping (v.)
blasthole but blast mat
blow-down
blowoff tank
bomb bay
bootstrap
boracitol (lowercase)
borehole ("borehole CdV-R-15-3")
box plot
BTEX
buildup
bulldozer (not "dozer")
[a] burning ground but the TA-X Burning Ground (proper name)
bus bar
byproduct

C

caliche
call-out (n.) but call out (v.)
Cañada del Buey
canister
Cañon de Frijoles
Cañon de Valle
canyon floor (not canyon bottom)
canyonside
carryover
cast-iron
catch basin
catcherboxes
catchment
Cerro Grande fire (not Fire or Wildfire)
Cerro Toledo interval
Cerros del Rio basalt
cesium-137
chainlink
changeout
changeover
checklist
cinder block
Class III (not 3) permit modification
Class C carcinogens
clean up (v.) cleanup (n. and adj.)
closeout
coelution
cobalt-60
cold-testing (no quotation marks)
collocated

Compliance Order on Consent (on first mention, thereafter can be the Consent Order)
Consent Order
Consolidated Unit 16-021(c)-99, not consolidated SWMU
core hole
corrective measures [plural] study
cost-effective
counterindicates
coworker
Criterion 5
cross section (preferred to cross-section)
cross-contamination
cross-referencing
crosscheck
cut hole
cutback

D

data sets
database
daylight
deadline
deadlock
decision-making
desktop
dew point
document signature form
DOE-LASO should be DOE/NNSA-LASO
down drainage but down-drainage side
downdip
downgradient of is preferred to from
downhole
downslope
downtime (n.)
drain field
drainline
drainpipe
drill hole
drill rig
dropoff
dry run
D TECH TNT test
ductwork
dump truck

E

East Entry Site
elutes
En Core Sampler
endpoints

ENG-C 48195 (engineering drawing)
Eniwetok
EnSys TNT test
ENV-ERS Program
Envirocare
EPA's Region 6 (not VI)
EPA SW-846 Method 8260
et al. (no hyphen, no italics)

F

fallout
fanglomerate
feedback
fiber-optic (adj.)
field team
field-screening kit and field-screened samples but samples were sent for field screening
field-portable XRF
fieldwork
Figure, not Fig.
fire lookout tower
firebrick
fireproof
Fishladder Seep
fixed-site laboratory, not "fixed-site lab"
fixed-laboratory analysis
flashover
floodplain
flow chart
flowmeter
follow up (v.)
follow-on (adj.)
follow-up (n. or adj.)
footprint
forklift
forthcoming
front-end loader
ft (abbreviation for foot and feet)
full-time

G

gal. = gallon or gallons
gal./min, not gpm
gamma spectroscopy
geophysics
[the] General's Tanks
gross-alpha, -beta, and -gamma radioactivity (suspended hyphens)
groundmass
groundwater
Guaje Pumice Bed

H

half-life
hand auger (n., v.) but hand-augered (adj.)
hands-on
hay bale
Hazard Category 2 nuclear facility
Hazardous Waste Facility Permit (not "HSWA permit")
HE = high explosives, so don't add an s to HE
HE magazines
HE spot-test kit
high-risk
high-water mark
hillside
hillslope
hollow-stem auger
hookup (n.)
hot spot (no quotation marks)
HSWA module or Module VIII
human [no hyphen] health risk assessment
[the] "Hydrogeologic Workplan" (only in this title is workplan 1 word)

I

immunoassay
in situ (n. or adj.; no hyphen, no italic)
in. (abbreviation for inch and inches)
in-depth (adj.)
in-house
inpatient
intact
intakes
interim measures (plural) as in IM plan

J

J-qualified
judgment
jute matting

K

K-Site but MDA P Site
Kimwipes (brand)
King Bag (company name)
kV

L

L (not lowercase "l") = liter

[the] Laboratory (not "the Lab," meaning LANL)
Laboratory counsel
Laboratory-wide instead of LANL-wide
laborsaving
landfill
landholdings
lay down
lay off (v.) but layoff (n.)
lay out (v.)
leach field
leachate
life cycle (n.) but life-cycle (adj.)
life span
lifeline
lifestyle
lifetime
Line 170
LiquiNox
logbook
long-range
long-standing
long-term (adj.)
Los Alamos Canyon
Los Alamos County landfill

M

Main Site
mainframe
man-day; work day preferred
manhole; consider sewer hole, drain hole, etc. instead
man-hour; work hour or labor hour preferred
man-made; human-made preferred
manpower; human power preferred
MDA P not MDA-P
meantime
[a] mesa top (n.) but mesa-top site (adj.)
Mesita del Buey
Mexican spotted owl
midyear
mil bag
min (for minute and minutes, no period)
mockup
modeling (preferred to modelling)
Module VIII (also "the HSWA module") of the Laboratory's Hazardous Waste Facility Permit
mrem/yr
multiyear

N

NC not nc
neutron probe measurements
NFA Criterion 5
NMED HRMB became NMED
    HWB (2000)
noncarcinogenic
nonconforming
noncontact
nondetect (n.) and nondetected
    (adj.)
nonhazardous
nonradioactive
nonstandard
nontoxic
nonviable
North Slope (when it's a proper
    noun)
northeast
noteworthy

O

off-site
on-board
one-half mile
ongoing
on-line
on-site
on-the-job
on-time
O-ring
Otowi Member but Otowi tuff
outfall ("the TA-16-260 outfall")
overall
overbank
overlay
overshadow
overtime
overtops (v.)

P

P-Site but MDA P Site
P-qualifier
Pajarito Plateau
paperwork (n.)
part-time (adj.)
partition coefficient
pathways
paycheck
payday
payoff
pCi/g
pCi/mL
peregrine falcon
pH
Phase I (and Phase II RFI), not
    Phase One or Phase 1

phaseout
phthalate
pickup (n.)
pipeline
Pit 53
plutonium-239, -240 (note
    lowercase p)
PM-qualified
ponderosa pine
potassium-40
pothole
pore gas but pore-gas
    monitoring
pore water but pore-water
    characterization
ppm
precast
preconstruction
print out (v.) but printout (n.)
project leader
psi
pump house
Puye Formation

Q

quantitation
Qbt [space] 1v but Qbt 1v-c
Qbt 4
Qct
Quality Management Plan
Quikrete (brand name)

R

R-25 (well)
radiochemical
radiological waste not rad waste
    or radioactive waste
radionuclide, not radioisotope or
    rad
rainfall
rainwater
rank-and-file (n. or adj.)
reach CDB-4
reactivating
readjustment
readout (n.)
ready-mix
real-time (adj.) but realtime (n.)
    (computers)
reassignment
recertification
reevaluation
Region 6 (EPA)
reinstate
reinventory
Environmental Remediation and
    Surveillance project
request number 3321

reroute
rerun
rescheduled
resubmit
retest
retrofit
RFI (not RFI investigation or
    activity)
RFI report (generic sense)
RFI work plan, not workplan
    (generic sense)
right of way
riprap
roadway
rolloff
rough-in
runoff (n.) but run-on (n.)
runway

S

S-Site
SAL ~~value~~ (value is redundant)
sample location ID 04-02021, or
    just "location ID 04-02021"
sandbag
Santa Fe Group
semiannual (adj.)
semiarid
semivolatile, not semi-volatile
set up (v.) but setup (n.)
shake-testing but shake test
sheet metal
shot pad
shutdown (n.)
site work
sitewide
snowmelt
soil/tuff interface
soundsoak
South Site
southwestern
split-spoon sampler but a split
    spoon
spring 1996
standpipe
start-up (n.)
State Highway 4, not State Road
    4
stockpile
stormwater
straw bale
straw wattle
streamflow (n.)
subproject
substation
subsurface
surface water

SWSC [Sanitary Wastewater
  Systems Consolidation Plant]
  Spring
switch gear
switchyard

T

TA-33 (TA-03, -04, -05 not TAs-
  03, -04, -05)
tap water
team leader
Technical Area 03 (but 49
  technical areas)
tee sections
Ten Site Canyon
Ten Site Slope Subarea
tetryl (lowercase)
Threemile Aggregate
Threemile Canyon (per USGS)
tie line
tie-down area
tie-in (n.)
time frame
timekeeping
time-line
topsoil
townsite
trackhoe but track loader
transect (v.)
transection (n.)
triannual
troubleshooting
Tsankawi Pumice Bed
Tschicoma Formation
Tshirege Member
turnaround
turnover
Twomile Canyon (per USGS)

U

underground
underrun
unexcavated
unit 1g
unit 2 (e.g., of the Tshirege
  Member)
unit Qbt
upcanyon
upcoming
upgradient
upload
upper Bandelier Tuff
Upper Sandia Canyon (the
  aggregate) but upper Sandia
  Canyon (geographic area)
upslope
uptime
U.S.

usable
UTL ~~value~~ (value is redundant)

V

V-Site
vadose zone
vapor-phase contamination
viewgraph (not VUgraph or vu-
  graph)
vitrified-clay pipe

W

walk-through (n.)
walkway
wash water
wash-down water
waste characterization strategy
  form
waste line
Waste Management Program
waste pile
wastewater
Water Canyon
watercourse
well field
Wilcoxon-Rank Sum test
work force (n.)
work plan (two words except in
  "Hydrogeologic Workplan")
workday
workload
workplace
workshop
workweek
worldwide
WWII–era building (use en dash)

X

x-ray (n.)
x-ray machine

Y

yr for year, not y
yard = yd
year-end
year-round
year-to-date

Appendix D

Reference Information

D-1.0   REFERENCE BOOKS

D-1.1   Los Alamos National Laboratory (the Laboratory, or LANL) Requirements and Information Management–Communication Arts & Services Group (IM-1) Style

First, consult "Publishing at Los Alamos." This IM-1 publication is available internally at (http://int.lanl.gov/publishing/). (You can also contact the document manager for a copy.)

Second, consult the following IM-1-approved reference books:

- *Chicago Manual of Style*, 14th and 15th eds.

- *American Heritage Dictionary of the English Language*, 4th ed. (the Laboratory's official general dictionary)

- *McGraw-Hill Dictionary of Technical and Scientific Terms*, 6th ed. (the Laboratory's official technical dictionary)

Then, other style and production guides:

- *NY Public Library Writer's Guide to Style and Usage*, 1st ed. (Harper Collins Publishers, Inc., 1994)

- *Words into Type*, 3rd ed. (Prentice-Hall, Inc., 1974)

D-1.2   Chemistry

- *American Chemical Society (ACS) Style Guide*, 2nd ed., for questions of chemical notation, nomenclature, and abbreviations

- *McGraw-Hill Dictionary of Chemistry*

D-1.3   Environmental Science

- *Facts on File Dictionary of Environmental Science*, edited by L. Harold Stevenson and Bruce Wyman (*Facts on File*, Inc., New York, 1991) for environmental terms and definitions

- *Handbook of Environmental Analysis*, 3rd ed., by Roy-Keith Smith (Genium Publishing Corporation, 1997) for a good technical glossary

- *The Environmental Dictionary*, 2nd ed., compiled by James J. King

D-1.4   Mathematical Style

- *Mathematics into Type*, rev. ed., by Ellen Swanson (American Mathematical Society, 1987)

D-1.5   Geology

- *Suggestions to Authors of the Reports of the United States Geological Survey [USGS]*, 7th ed., USGS (U.S. Government Printing Office, 1991) describes and illustrates proper grammatical usage, elements of style, and methods of using scientific nomenclature (also available online at http://www.nwrc.usgs.gov/lib/lib_sta.htm)

- *Glossary of Geology*, 4th ed. (American Geological Institute, 1997)

- *Geowriting*, 5th ed. (American Geological Institute, 1994)

- North American Stratigraphic Code, *American Association of Petroleum Geologists Bulletin* (v. 67, no. 5, pp. 841–875), 1983 (the guide to what names have been officially recognized)

D-2.0   ONLINE RESOURCES

D-2.1   Laboratory Overall

Go to the Laboratory's Research Library, http://lib-www.lanl.gov/infores/style.htm, for links to style guides and information for authors from many publishers and societies.

The library should also have many Environmental Stewardship–Environmental Remediation and Surveillance (ENV-ERS) reports available online as portable document format (PDF) files. Search their database by LA-MS or LA-UR number.

For the Laboratory's master acronym list: http://www.lanl.gov/tools/acronyms/AML.html.

D-2.2   ENV-ERS

ENV-ERS has internal (the ENV-ECR web page at http://erinternal.lanl.gov/) and external (the ENV-RS web page at http://erproject.lanl.gov/) web sites.

Go to the ENV-ECR site for the latest procedures, desk instructions, and approved templates and outlines. The ENV-RS site has a "Virtual Library" of recent documents.

D-2.3   Solid Waste Regulatory Compliance (SWRC)

SWRC has a web page with many regulatory links, including one to the Laboratory's Hazardous Waste Permit: http://swrc.lanl.gov/RegulatoryRequirements/index.shtml.

D-2.4   IM-1

IM-1's "Publishing at Los Alamos" is available online: http://int.lanl.gov/publishing/. IM-1's levels of edit and various checklists are online: http://int.lanl.gov/orgs/im/im1/internal/edit/. Both of these are internal sites only.

D-2.5   New Mexico Environment Department (NMED)

NMED has a site for environmental regulations: http://www.nmenv.state.nm.us/Common/regs_idx.html.

D-2.6   Geology

The best general reference is the Glossary of Geology, 4th ed., J.A. Jackson and R.L. Bates, editors, published by the American Geological Institute.

The USGS has a Geographic Names Information System (database of geographic names) that can be accessed at http://geonames.usgs.gov/gnishome.html. The USGS Suggestions to Authors document is online at http://www.nwrc.usgs.gov/lib/lib_sta.htm.

The GEOLEX online database: http://ngmdb.usgs.gov/Geolex/ is a tool for finding lithologic and geochronologic unit names.

GeoRef (http://georef.cos.com/) is an online (subscription) service with access to articles, books, maps, conference papers, and reports covering the geosciences. In the past, the Laboratory's Research Library subscribed, and may still, which means that internal Laboratory computer users could access it.

D-2.7 Environmental Protection Agency (EPA)

Resource Conservation & Recovery Act online: http://www.epa.gov/rcraonline/.

Index to EPA test methods: http://www.epa.gov/epahome/index/.

SW-846 manual online: http://www.epa.gov/epaoswer/hazwaste/test/sw846.htm.

Glossary of environmental terms: http://www.epa.gov/docs/OCEPAterms/.

D-3.0 PROOFREADING MARKS

PROOFREADERS' MARKS

INSTRUCTION	MARK IN MARGIN	MARK ON PROOF	CORRECTED TYPE
GENERAL			
Delete	ℰ	the ~~good~~ word	the word
Delete and close up space	ℰ	the wo~~g~~rd	the word
Insert indicated material	*good*	the ⌃word	the good word
Let it stand	stet	the ~~good~~ word	the good word
Spell out	sp	②words	two words
PARAGRAPHING			
New paragraph	¶	"Where is it?"/"It's on the shelf."	"Where is it?" "It's on the shelf."
Flush paragraph	¶	"Where is it?"/"It's on the shelf."	"Where is it?" "It's on the shelf."
POSITION AND SPACING			
Transpose	tr	the word good	the good word
Move left	⊏	⊏the word	the word
Move right	⊐	⊐the word	the word
Move down	⊔	⌊the⌋word	the word
Move up	⊓	⌈the⌉word	the word
Align	‖	‖the word the word	the word the word
Straighten line	=	the word	the word
Insert space	#	theword	the word
Equalize space	eq#	the⌃good⌃word	the good word
Close up	◡	the wo◡rd	the word
en space	½N	⌃the word	the word
em space	½M	⌃the word	the word

(continued on next page)

PUNCTUATION

period	⊙	This is the word₍ᴧ₎	This is the word.
comma	⋀	words⌄words, words	words, words, words
hyphen	⹀	word⌄for⌄word test	word-for-word test
colon	⊙	The following words₍ᴧ₎	The following words:
semicolon	⋀	Scan the words/skim the words. ᴧ	Scan the words; skim the words.
apostrophe	ⱽ	John's words	John's words
double quotation marks	ⱽ/ⱽ	the word˅word˅	the word "word"
single quotation marks	ⱽ/ⱽ	the "good˅word˅"	the "good 'word'"
brackets	£/⅃	He read from the Word ₍ᴧ₎in the Bible₍ᴧ₎	He read from the Word [in the Bible].
en dash	≃	1964₍ᴧ₎1972	1964–1972
em dash	⊥/M	The dictionary₍ᴧ₎how often it is needed₍ᴧ₎ belongs in every home.	The dictionary—how often it is needed— belongs in every home.
asterisk	˅*	word˅	word*
dagger	✝	a word₍ᴧ₎	a word†
double dagger	‡	words and words₍ᴧ₎	words and words‡
section symbol	§	₍ᴧ₎Book Reviews	§Book Reviews
virgule (slash)	/	either/or	either/or
three ellipses	|⊙|⊙|⊙|	the₍ᴧ₎word	the…word
four ellipses	⌢⊙|⊙|⊙|⊙|	the word₍ᴧ₎	the word….

STYLE OF TYPE

uppercase	(uc)	the word	The Word
lowercase	(lc)	The Word	the word
small capitals	(sc)	the word	THE WORD
italic	(ital)	the entry word	the entry *word*
roman	(rom)	the entry word	the entry word
boldface	(bf)	the entry word	the entry **word**
lightface	(lf)	the entry word	the entry word
superior	˅2	2×=4	$2^2 = 4$
inferior	⋀2	H×O	H_2O

Figure D-3.0-1.   Proofreading marks, as shown in American Heritage Dictionary, 3rd ed., p. 1451