JEFFERSON LAB EDITORIAL STANDARDS



Owner: Jefferson Lab Communications Office

Updated: April 2020



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BEFORE WE START: THE INS AND OUTS OF THIS GUIDE

"...readers are giving you some of their time, which they'll never get back. You owe it to them to make it time well spent."

> "Why Writing Will Make You a Better Person" B. Fischer and N. Nobis The Chronicle of Higher Education

1. WHY THIS GUIDE EXISTS

Muddied writing in government documents is illegal. True story!

The Plain Writing Act, signed into law in 2010, requires federal executive agencies to – as the title implies – use plain writing in all publications, forms and any other publicly distributed documents. They must be "clear, concise and well organized."

TWO REASONS

Jefferson Lab is operated by Jefferson Science Associates as an Operations and Maintenance contractor to the Department of Energy. Because of this relationship, we do our best to comply with their standards.

Additionally, we have over 700 employees who do at least some formal writing in their work. That's a lot of writing styles and interpretations to collectively steer in a clear and consistent direction.

We developed this guide as a resource for just about any writing type at the lab (reports, plans, web content, news features, etc.).

OUR GOAL

The goal of this style guide is to enable all lab writers to adopt clarity, consistency, coherence and organization in all laboratory communications. This applies for external communications – any public-facing product, from news articles to web content, as well as internal communications – the writIN OR OUT? External communications refers to any public-facing product.

Internal communications are writings for lab-only audiences.

ings for lab-only audiences, from Weekly Briefs to email memos to quarterly reports for the DOE Thomas Jefferson Site Office.

Callout boxes, like the one above, were designed to help you to both absorb and put into practice what's in this guide. Additionally, you will find writing tips throughout, in their own callout boxes (see next page) along with a few additional surprises.

Just as English is a living language – perpetually changing – so is this living document, subject to periodic updates as additions or alterations arise. Questions, concerns and suggestions are always welcome and can be sent to jlabinfo@jlab.org.

"Any list of standards, of course, is an ideal, and must not be followed slavishly. The criteria must be organic, subject to review, and moderated by the editor's gut feelings."

> – Arthur Plotnik, The Elements of Editing: A Modern Guide for Editors and Journalists

2. WHAT'S IN THE GUIDE - AND HOW TO USE IT

This Editorial Standards Guide presents guidelines for compelling writing, offering solutions for the most pressing writing issues confronting Jefferson Lab's content writers (be they writers, contributors, developers, etc.). Here's how we suggest you use it.

• Identify the audience for your writing. This will dictate which section of the guide you'll use the most, whether external or internal communications (Parts I and II, respectively).

• Note that there's some overlap in Part I, External Communications, and Part II, Internal Communications. That's intentional, strategically used to help you find the information you are seeking quickly.

• The A-Z sections, which include key JLab-specific terms (Part III) and key grammatical notes (Part IV). These sections are designed as quick-reference guides to capitalization, punctuation, DOE-related names and much more.

• When in doubt about the use of a term – after consulting this guide, the AP Stylebook and the dictionary, in that order – ask us at jlabinfo@jlab. org! We are here to help you navigate through these uncertain waters.

"The calm, declarative 'voice' of technical speech is something we must make anew, every time, through a host of choices, a number of which are actually quite flexible. If we look closely enough, we can find many avenues where personal eloquence may be put to practical use."

> Scott L. Montgomery Communicating Science

For example, you'll note the term radiofrequency (one word) in here, which DOE uses proprietarily...despite it being two words per the dictionary. Therefore, Jefferson Lab follows the DOE guidance for the use of that word. When in doubt, ask.

• Take a deep breath whenever your writings overwhelm you. Because they will. We get it. We get it because we strive every day to be better writers and editors – because the English language is, as one grammarian put it, "complex and weird."

"An entirely adequate description of English grammar is still a distant target and at present seemingly an unreachable one, the complications being what they are.'"

3. HOW THIS GUIDE WAS DEVELOPED

In general, the lab follows the Associated Press Stylebook first. Second to that, we use the Chicago Manual of Style (particularly where AP is silent on certain items) in tandem with assorted federal government style guides. For a dictionary, we consult Merriam-Webster.

Here following are the details on those along with that of other additional guidance. Separate articles that served as sources are also quoted individually in the guide.

- Associated Press Stylebook, 35th ed. (2018).
- Chicago Manual of Style, 16th ed. (2010).
- Communicating Science by Scott L. Montgomery (2003).
- Department of Energy Office of Science Communications Style Guide (2017).
- Department of Energy Office of Energy Efficiency & Renewable Energy, EERE Style Guide (online only).
- Eats, Shoots & Leaves, Lynne Truss (2003).
- The Elements of Editing: A Modern Guide for Editors and Journalists, Arthur Plotnik (1982).
- The Elements of Grammar, Margaret Shertzer (1986).
- Federal Plain Language Guidelines, March 2011 (rev. May 2011).
- Hidden Worlds, Timothy Paul Smith (2003).
- Merriam-Webster's Collegiate Dictionary, 11th ed.
- U.S. Energy Information Administration EIA Writing Style Guide (April 2015).

All this is to say, we've striven for a style here that (1) appears widely accepted, (2) makes sense in view of our primary nuclear physics-related and public audiences and (3) remembers the global nature of our website visitors.

May it serve you well.

The JLab Communications Office Team

PART I: EXTERNAL COMMUNICATIONS

"An important part of writing for your audience is addressing separate audiences separately."

The Federal Plain Language Guidelines

PART I: EXTERNAL COMMUNICATIONS

Writings done for public audiences – for anyone outside of or external to the lab – must be as clear, consistent and coherent as anything we do for audiences within the lab, such as for the DOE Thomas Jefferson Site Office.

Putting our best foot forward begins with our being on the same page. Literally.

Here follows key guidelines for our external communications, from news articles to web content, posters to fact sheets, letters to emails. Our internal communications—from policies to plans, memos to letters and more—follow, in Part II.

1. WHAT YOU NEED TO KNOW UP FRONT

The following writing guidelines for external communications have proved so integral – some of them critical – to achieving compelling writing, we're putting them up front.

See Part II for similar details tailored to internal communciations (worth perusing by all, no matter your role at the lab).

• AVOID THESE SUBJECTS. Steer clear of the following, no matter the reason or context. If in doubt about these subjects or a related one that you may have to write publicly about, contact the Communications Office to seek advice.

o **Political Messaging:** Our communications should always be non-partisan.

o **Endorsements:** Avoid endorsing or disapproving one over the other among companies, service providers, technologies, etc. As a DOE lab, our work supports basic research that is foundational to a number of different technologies. We can discuss how our research may benefit certain technologies, but we shouldn't paint them as superior. See our Administrative Manual, Sec. 102.01 (C), "Public Information...."

o DOE Policy Discussion: If a mention of a DOE

TUNING THE TONE Use a professional, enthusiastic tone of voice. Being too casual can reduce trust in the science we are describing. Being too academic or bureaucratic may cause many readers to skip our content.

policy is absolutely needed, check with the Jefferson Lab Communications Office first. This does not apply to work policies in place at Jefferson Lab (ES&H Manual, Admin Manual, etc.).

• **SPEAK (I.E., WRITE) IN ACTIVE VOICE.** Use active rather than passive voice. Writing in active voice is more powerful and usually requires fewer words than passive voice. Make the performer of the action the subject of the sentence.

Examples:

Passive: The meeting was conducted by Chris. Active: Chris conducted the meeting. • HONE THE TONE. Use a professional, enthusiastic tone of voice. Being too casual can reduce trust in the science we are describing. Being too academic or bureaucratic may cause many readers to skip our content.

Finding the right balance is difficult, but worthwhile.

• **INTRODUCE ABBREVIATIONS AND ACRONYMS** in this manner. If you must use an abbreviation, use it on second reference later in the text – preferably in the next sentence or that paragraph, so the connection is intuitive for the reader. (Do not place one in parentheses directly behind the writing out of the term or name, a la "Department of Energy (DOE).") Use as few abbreviations as possible to keep those terms and the narrative itself as clear as possible.

Example:

For that activity, the Department of Energy released a request for proposals. The only time that DOE would not release such a request for that is....

• AVOID OR MINIMIZE AND EXPLAIN JARGON. Jargon has three forms: (1) gibberish, (2) technical terms of a particular area or activity (i.e., that only people there involved would know), and (3) lofty, vague language.

Using plain language – writing in a clear, understandable way for your audience – gets you around #s 1 and 3. Explaining or clarifying technical terms that you must use, but that people in your audience wouldn't know, keeps you away from #2.

• **REMEMBER: CONTEXT IS KEY.** Give context for scientific accomplishments or, say, pieces of equipment. What makes it unique? What can you compare it to? How does it benefit or otherwise further our mission?

• VISUALIZE DIFFICULT DATA. Put statistics in a relatable context. For example, when describing the energy of an X-ray, you could describe it as "[x number of] times stronger than the X-rays that the dentist's office uses."

• **SHORTEN PEOPLES' NAMES** by using last names on second reference for all external communications. Do not use middle initials, except for those who go by their

Be creative in explaining jargon. Rather than dedicate a full sentence to it (e.g., "Nucleon refers to the..."), you could use a footnote. Or use parentheses to weave it into an existing line, such as "...further research into nucleons (meaning either a proton or neutron)...."

initials only - or when needed to differentiate between people with the same name.

• **OBSERVE: SINGLE SPACING RULES.** Single, not double, spacing after a period or a colon is now the new norm. While many were taught to double space between sentences in typing class, the extra space serves no purpose, in print or on the web, in today's world of proportionally spaced fonts.

Further, most web browsers render only one space after the period anyway.

• **BEWARE VAGUE OR AMBIGUOUS WORDING.** Be careful with words like robust that may have different denotations or connotations in science and technology compared to everyday usage.

• ADHERE TO THE SAME FORM OF TIMES, DATES AND YEARS. Write time as follows: 10 a.m., 1 p.m., 2-4 p.m., 10:30 a.m.-7 p.m. and noon-4 p.m. Do not write times as AM or PM.

DATES in full should be in month, day, year order, with the months Jan., Feb., Aug., Sept., Oct., Nov. and Dec. abbreviated (e.g., Sept. 12, 2019). Spell out when using the full month using alone, or with just the year (e.g., September 2019).

See Parts III and IV for more on these, applying to both internal and external comms.

• LINK SOURCES WHERE POSSIBLE. When referring to a scientific article, hyperlink a resource to provide the reader further information. Prioritize resources that are the least technical and/or most related to the lab. If linking to a scientific paper in a journal, try to link to the article from a free source over a paywall-protected one.

2. HOW TO WRITE OUR NAME (AND REFER TO THOSE WORKING HERE)

"...the editing itself is an excruciating act of selfdiscipline, mind-reading, and stable-cleaning. If it seems like a pleasure, something is probably wrong."

> Arthur Plotnik, The Elements of Editing

Jefferson Lab is no doubt our most common name to the public. Our official name, Thomas Jefferson National Accelerator Facility, can therefore be seen – in external communications – as synonymous with Jefferson Lab, which can also be abbreviated to "JLab" in certain public-facing materials, particularly for branding purposes. (See Part II, Internal Communications, about the use of our name in those materials.)

Also, our name is never to be written as Jefferson Labs, Jeff Lab, Jeff Labs, or Jefferson Laboratory (or Laboratories).

Naming hierarchy in external publications: First reference: Thomas Jefferson National Accelerator Facility Second reference: Jefferson Lab Limited reference: JLab

The following breaks down proper public references to those working here at the lab.

• Employees: Use the division or area of expertise when referring to JSA personnel on social media, through the www.jlab.org website and in news releases.

Examples:

Eleanor Rigby, the lab's Hall A work coordinator, is passionate about her job.

The team of Hall A physicists is excited for Jefferson Lab's next beam run.

• Users: Identify a User's university or institution affiliation, if possible, when referring to them. If you refer to the work of a collaboration involving multiple groups or Users, attribute the specific lab collaboration, or simply say Jefferson Lab.

Examples:

Brian Wilson, a professor at Northeastern University, led the Cherenkov detector construction effort for the GlueX collaboration at Jefferson Lab.

The GlueX collaboration at Jefferson Lab constructed the Cherenkov detector.

A Jefferson Lab collaboration of more than 100 scientists and students built the Cherenkov detector.

3. HOW OUR WEB CONTENT SHOULD LOOK

As the web is our "face" to the public (hence the term external or "public-facing" communications), we address it first. Consistency and unity in web content go a long way in conveying that we are a professional, high-quality organization.

The varying styles among the lab's many authors and publishers can be problematic in print publications. But it is even more problematic on the website. Visitors view numerous pages quickly and so notice more easily – even if subconsciously – style differences.

These differences are typically not major but even the minor things can undermine the Jefferson Lab image.

One way we ensure consistent, unified content is to highly discourage changing the default font type and size throughout the website. If you're considering such changes, consult the webmaster by emailing webmaster@jlab.org.

This also brings up additional items to consider when creating web content:

• Do not use hit counters, blinkers, spinners, scrolling marquees, highlighted text or background colors on webpages.

• Avoid endorsements of specific browsers, as in "This site is designed for x browser, at x resolution...." Web pages should look acceptable in all major browsers.

• Stay away from 25-cent words when a 5-cent word will do. Avoid utilize when use will do. Ditto for facilitate when lead, guide, assist or enable is better.

• Proofread your site; have at least one colleague check it. Your text reflects the lab's professionalism, your attention to detail and our commitment to excellence.

4. HOW TO CREDIT OUR PHOTOS AND USE OUR IMAGES

Jefferson Lab photos may be used for nonprofit purposes - with permission from the Communications Office. Credit photos as either "Photo courtesy of Jefferson Lab" or "Jefferson Lab photo."

As to the jlab.org website, Jefferson Lab is prohibited from using copyrighted or trademarked images, graphics or other intellectual properties. For assistance in identifying acceptable graphics for use on the web, contact graphics@jlab.org.

Here are a few more related guidelines:

• JEFFERSON LAB-OWNED MULTIMEDIA is permitted for use on lab-owned webpages without photo credit. If using multimedia that Jefferson Lab does not own, obtain permission from the source and credit them in the photo caption.

• FREE-SOURCE MULTIMEDIA may only be used when no other source exists – and must be cited.

• **UNCREDITED MULTIMEDIA** materials are prohibited, with the exception of multimedia that Jefferson Lab produced and owns.

PART II: INTERNAL COMMUNICATIONS

"A certain amount of copyediting has very little to do with how great a writer you are."

Chicago Manual of Style, 16th Ed.

PART II: INTERNAL COMMUNICATIONS

1. FIRST THINGS

The following guidelines for internal communications were adapted or revised from the same list in Part I (which is still worth reviewing even if your work deals solely with internal communications).

• **SPEAK (I.E., WRITE) IN ACTIVE VOICE**. Use active rather than passive voice. Writing in active voice is more powerful and usually requires fewer words than passive voice. Make the performer of the action the subject of the sentence.

Examples:

Passive: The meeting was conducted by Chris. Active: Chris conducted the meeting.

• HONE THE TONE. Use a professional, confident tone of voice as appropriate to your audience. The first-person voice "We" can complement multiple references to Jefferson Lab, the lab etc., as well as enhance lab-wide communications – where a more conversational voice is often appropriate.

Examples:

Jefferson Lab met or exceeded all DOE goals for the national laboratories this year. (Appropriate use for a letter to the Site Office)

We did extremely well this year in all that we were tasked to do. (Appropriate use for a lab director memo to the JSA employees) NEBULOUS WORDS "Consider using better synonyms or rewording altogether to avoid robust, *leverage* and such terms whose meanings may seem nebulous in science vs. policy and so on – possibly because of overuse."

Finally, knowing that English is a second language for many at the lab compels us to take care not to complicate our writing unwittingly with slang, idioms, etc.

• USE SUBHEADINGS. Subheadings help to break up text – especially in long narratives – and increase readability.

• MAKE THE DATA POP VISUALLY. Don't sacrifice your reader's absorption of statistics and other key data by leaving it alone in text; rather, where possible, provide illustrations to help convey the message. Tables, graphs and charts – when used well – convey the merit of that great data.

• WIELD JARGON CAREFULLY. Jargon has three forms: (1) gibberish, (2) technical terms of a particular area or activity (i.e., that only people there involved would know), and (3) lofty, vague language. Of these three forms, gibberish has no place in internal communications any more than it does for external audiences. However, lofty, vague language may arise in the language of brainstorming – in trying to articulate new theories, for example. Still, use plain language wherever possible to clarify both the text and context of those new articulations.

Watch for verbs hidden in noun-driven phrases – and pull them out: "in accordance with," for example, becomes simply according to. "Make reference to" becomes refer. Seems small, but the impact on a document's flow and even page count can be huge! Otherwise, use necessary technical terms sparingly, with as little explanation, if any, according to your audience. For example, the term embargo has specific editorial meaning between the lab's Communications Office and DOE for articles due to be released in public magazines. Using the word "embargo" in public materials, however, can convey a very different meaning (e.g., international politics).

Finally, beware the conversational or shorthand way with terms among colleagues—a form that has no place in formal writing.

Example: "Cryotarget" is shorthand for cryogenic target. You might get away with the former in informal internal communications, but you should use the latter in formal writing.

See further below for more on using jargon with care, and when it comes to internal vs. external communications.

• **OBSERVE:** SINGLE SPACING RULES. Single, not double, spacing after a period or a colon is the new norm. While many were taught to double space between sentences, the extra space is out of place in to-day's business-related arenas.

• STRIKE THE SUPERFLUOUS, REPLACE THE NEBULOUS. Beware extra words, such as piling up adjectives that say essentially the same thing. Further, consider using better synonyms for (or rewording to avoid) words like robust and leverage – the meanings for which may seem nebulous in science vs. policy and so on because of competing meanings or plain overuse. Ditto for ambiguous words and phrases such as "going well."

Examples:

"Clearer, more consistent and effective methodologies are called for in..." could become simply "Effective methodologies are called for..." because the word effective can imply the words clear and consistent.

"Jefferson Lab leveraged the tremendous physics exposure in local schools to..." could instead be "Jefferson Lab arranged events involving local schools where physics is becoming a popular subject...." That removes leverage and crispens the action that the sentence is highlighting. THE DATE DILEMMA When a month is used with a specific date, abbreviate the months Jan., Feb., Aug., Sept., Oct., Nov. and Dec. Spell out when using alone, or with just a year.

• ADHERE TO THE SAME FORM OF TIMES, DATES

AND YEARS – **INCLUDING FISCAL ONES.** Write time as follows: 10 a.m., 1 p.m., 2-4 p.m., 3:30 a.m.-7:30 p.m. and noon-4 p.m. Do not use AM or PM in formal writing.

DATES in full should be in month, day, year order, with the month abbreviated (e.g., Sept. 12, 2019) – unless the day is absent, then it's written out (September 2019).

One exception to that here, for internal comms: It's appropriate to write out the month in a full date when used in posters, brochures and the like, where it enhances not only readability but also the aesthetic.

Also, it's okay to abbreviate fiscal years and their quarters as "FY19, Q1" (i.e., fiscal year 2019, first quarter) for internal documents; however, in external communications those references should be written out clearly, a la "first quarter of FY 2019."

See Parts III and IV for more on these, applying to both internal and external comms.

• ABBREVIATE UNITS OF MEASUREMENT COMMON TO YOUR AUDIENCE. The term "square foot" can be reduced to the acronym "SF" so long as (1) the term is used five or more times in your document, and (2) your reader is acquainted with areas (e.g., architecture-engineering) where that acronym is common.

Ditto for "M" for millions (e.g., "\$25M") in financial-related writings, "K" for Kelvin in scientific writings, "MB" for megabyte in any of our writings and so on.

See further below—and Part III—for more on care with such acronyms.

• **CITE SOURCES** (but don't link them unless absolutely necessary). Formal papers such as the PEMP are no place for either linked sources or website URLs. Also, use DOE sources such as the Basic Energy Sciences Advisory Committee or other formal federal materials for statistical references, when possible.

2. HOW TO USE OUR NAME (AND REFER TO THOSE WORKING HERE)

Unlike external communications, we must distinguish here between "TJNAF" and "Jefferson Lab." In certain formal internal writings, such as facilities management documents, Thomas Jefferson National Accelerator Facility refers to only the lab's property and facilities entire. In those business-operations contexts, Jefferson Lab refers only to the integrated team of JSA employees, DOE Site Office and scientific Users.

Know your audience, and these distinctions will fall into place.

That includes the occasional use of the term "JLab" in internal communications, as done in external. The Weekly Briefs and the subject lines of certain memos addressing all lab employees are two examples. In formal documents to the Site Office however, avoid JLab. "I think unsure writers... feel the passive voice somehow lends their work authority, perhaps even a quality of majesty. If you find instruction manuals and lawyers' torts majestic, I guess it does."

Stephen King, On Writing

Naming hierarchy in internal publications: Facility, first reference: Thomas Jefferson National Accelerator Facility Facility, second reference: TJNAF Lab, first reference: Thomas Jefferson National Accelerator Facility Lab, second reference: Jefferson Lab Lab, limited reference (casual): JLab

The following breaks down proper internal references to those working here at the lab. You can also find these in a helpful chart at Appendix B for quick reference on the proper uses of our names in their contexts, plus related names such as JSA and SURA.

• **EMPLOYEES:** When a JSA employee performs a procedure, process or action, refer to that as an accomplishment of JSA staff at Jefferson Lab (vs. just Jefferson Lab).

Example:

Leroy Brown, a JSA staff member at Jefferson Lab, implemented a system that cut the average purchase order approval time by three hours.

• **SUBCONTRACTORS:** Use the phrase JSA team member when referring to their work.

GOING PUBLIC Consider public audiences when excerpting or "repackaging" internal writings for external comms purposes – to prevent accidental confusion.

Example: Bobby McGhee is a JSA team member and chef at the lab's Quark Café.

• USERS: When referring to scientific Users at Jefferson Lab, use the phrase Jefferson Lab User community. Users may include JSA employees who are also registered members of the Jefferson Lab Users Group.

Example:

Billie Jean, a physics professor at Jackson University and member of the Jefferson Lab User community, worked on the experiment while she was a grad student.

• USERS AND STAFF: When referring to scientific Users at Jefferson Lab and JSA staff that are not members of the Jefferson Lab Users Organization, use the phrase Jefferson Lab community or Jefferson Lab team.

Example:

Two members of the Jefferson Lab community, Maggie May, an engineer in the RF group, and Georgia Brown, a grad student, worked on the detector technology for the experiment.

3. ABBREVIATIONS AND ACRONYMS FOR INTERNAL USE (A DEPARTURE FROM EXTERNAL COMMUNICATIONS)

The following departs from the AP-driven instruction in Part I on introducing abbreviations and acronyms in the body of writings. For most internal communications, from plans to policies—namely those going to the Department of Energy—introduce abbreviations in parentheses immediately following the first use of the term.

Example: Today is the anniversary of the creation of the Department of Energy (DOE). This change in internal vs. external communications stems primarily from federal government documents, which routinely introduce abbreviations and acronyms in that manner. The DOE website, for example (i.e., their external communications) does this throughout.

Also, consider public audiences when excerpting or "repackaging" internal writings for external comms purposes — to prevent accidental confusion. Say you're turning a scientific paper into a journalistic article. To public audiences, "K" is more readily interpreted to mean thousands (e.g., \$20k) rather than Kelvin, "SF" means science fiction (vs. square foot), "PD" is police department instead of program director, etc.

Don't take any acronym for granted in this regard. Take "PDF" for example. To most public audiences, that would read as Adobe's portable document format. In nuclear physics, though, it's parton distribution function. Even lengthier terms like "EVMS" can confuse—read by the public as Eastern Virginia Medical School versus the lab's "Earned Value Management System."

4. HANDLING THE TITLES OF WRITINGS AND MORE: CAPITALIZE? ITALICIZE? QUOTE-MARKS?

The great number and variety of document types we handle at the lab warrant specific guidance regarding the titles of such writings—for the sake of clarity and consistency among them. Placing them all in Headline-Style Capitalization Such as This Here won't do the trick.

ITALICS

Just as we italicize the titles of books, magazines and related works, so we'll italicize manuals, book-length reports and any other book-like writings.

Examples:

- Hidden Worlds, Timothy Paul Smith
- EIC Conceptual Design Report (400 pages)
- ESH&Q Manual

Note: Experiment and collaboration names are not italicized, but headline-style capitalized.

CAPITALIZATION

Headline-style capitalize the names of plans. Their number behooves this move, as does the frequency of reference to them – wherein their full names are often abbreviated anyway (thereby discarding italics if we were using those for the full plan names!).

> Examples: CEBAF Reliability Plan Emergency Management Plan

Address tables and figures in your narrative. Don't let them speak for themselves—even though many readers jump to absorb the graphics before the text around it.

And always put the explanatory words before the graphic—not after. That helps keep your reader moving forward, not jumping around in re-reading!

Note: This also applies to experiment names, like GlueX or Fermilab's SeaQuest—no italics.

Some notable exceptions here to AP include applying this headline-style capitalization to prominent authorities such as the Commonwealth of Virginia and the City of Newport News.

QUOTATION MARKS

In addition to putting quote marks around the titles of journal articles, use them as well for the names of policies, orders, directives and other short matter, just as done with articles, pamphlets, etc. This also applies for subject lines of letters and memos as well as PowerPoint presentations and decision papers.

Examples:

- Policy #137, "Staff Adjustment," October 2019
- DOE Order 413.3B, "Program and Project Management...."
- "Human Performance Improvement" PPT, November 2019
- "Science Transcends the Silence" article

See Part III for special cases of capitalization for titles of places, etc., at the lab. Also see Part IV for more external-vs.-internal communications distinctions, such as the use of fiscal year.

5. DOCUMENT TYPES AND THEIR TEMPLATES

Most documents related to internal communications should have a template. Using approved templates not only helps keep those writings generally consistent (no matter who's doing the writing), but also enhances continuity in such important writings.

The following are main document templates currently available for use in internal communications. [Those currently with a template are so linked to it.] Also, see the "Resources" page in the Communications Office section of the lab's website for more of such internal comms.

- Assessments
- Decision papers
- Letters
- Manuals
- Memos
- Plans

- Policies
- Procedures? [same as plans?]
- Program descriptions
- PowerPoint presentations
- Reports
- Spreadsheets

Guidance on making OUO (Official Use Only) determinations as well as Freedom of Information Act exemptions for our DOE-related documents can be found here – in addition to training on that subject that we provide here at the lab.

Further important details lie ahead in the A-Z index in Part III, Fantastic Terms and How to Use Them, as well as Part IV, Grammar – Key Notes. The entries in both stem directly from observed challenges, significant details and more in JLab writings.

PART III: FANTASTIC TERMS AND HOW TO USE THEM

Vizzini: "Inconceivable!"

Inigo Mantoya: "You keep using that word. I do not think it means what you think it means."

> The Princess Bride 1987

PART III: FANTASTIC TERMS AND HOW TO USE THEM

The following apply to both external and internal communications, except where noted. Not only do we crossreference a lot in here, but also some overlap occurs – so you can reach what term you need, when and where you need it.

First, a quick discussion on abbreviations and acronyms. An abbreviation turns, say, an entity's name into pronounced letters ("CIA"). An acronym abbreviates a term or phrase into initial letters pronounced as one word ("laser"). For brevity here, though, "abbreviation" will apply to both.

Abbreviations have been called a "menace to prose." Introduce them only as necessary for your audience. Here are some specifics about using them including the distinction between their use for public audiences vs. internal ones.

ABBREVIATIONS AND ACRONYMS "Do not use an abbreviation or acronym unless you refer to the term five or more times. Otherwise, it adds unnecessary clutter." • In external communications, write out the first reference ("superconducting radiofrequency") then use the acronym in the next sentence or thereafter ("The scientists who first developed SRF technology...").

In internal communications, however, introduce the abbreviation parenthetically immediately after the first use of the term: "The Nuclear Physics (NP) program...."

• Do not use an abbreviation or acronym for a term you use five or fewer times. (In long reports, use them only for terms you use ten or more times.) Otherwise, it adds unnecessary clutter. One possible exception: using an abbreviation, even once, for keyword-search purposes. That depends on your audience.

• In lengthy documents – say, 50 or more pages, with multiple major sections – consider repeating in each major part or section the writing out of key abbreviations, to enhance reader retention.

• Some organizations are so widely recognized by their initials that they need not be spelled out on first reference – such as ATM, CIA, FBI, IBM and NASA.

See Appendix A For a list of common DOE abbreviations.

• Never abbreviate Jefferson Lab as Jeff Lab. Use "JLab" only in certain brand-focused collateral in publicfacing communications. Ditto for some internal comms materials such as the Weekly Briefs – but never for official documents like those going to the Site Office. See Names of Jefferson Lab.

Remember your audience. When in doubt, spell it out.

"...[abbreviations] should make it easier for your [readers]. If they make it harder, you have failed to write for your audience."

- Federal Plain Language Guidelines

Finally, while a handful of sources fed this largely common-knowledge compilation, some sources are directly attributed. One in particular, Timothy Paul Smith's excellent primer on nuclear physics and the great "quark hunt" called Hidden Worlds, fed many of the atomic element definitions and more below.

A

ACCELERATOR

A machine that pushes or accelerates particles such as electrons (or protons or neutrons) to nearly the speed of light (HW).

The accelerator safety envelope refers to the bounding conditions and limitations within which the lab must operate the accelerator to assure the safety of workers, the environment and the public. The ASE not only informs the procedures that operators follow to run the machine but also serves as input against which the halls and the LERF conduct experimental reviews. See CEBAF.

ARC

A turn in the racetrack-shaped CEBAF – as opposed to the linear accelerators or linacs.

ARTIFICIAL INTELLIGENCE

The correct reference – contrary to AP, but per the DOE Headquarters Public Affairs Office – is A.I. (note the periods). Not AI or ai.

В

BARYON

A particle, such as a proton or neutron, built out of three quarks (HW).

BEAM

Shorthand for the particle beam, whether electron or photon, that the CEBAF puts on targets (i.e., into the experimental halls). The phrase "taking beam" refers to the experiment halls' activity when the accelerator is operating.

Related terms: Beam permit refers to the safety-system state for the CEBAF that allows beam to be generated. Beam dump refers to a radiologically protected location to terminate beam. Beam switchyard refers to the place in the accelerator enclosure (i.e., tunnel) where the accelerator splits to send beam to Halls A, B and C.

BOTTOM QUARK

One of the six different masses or "flavors" of quark, along with top, down, up, strange and charm.

C CALORIMETER

A detector that measures the total energy of a particle. Typically made of heavy crystals, which stop the particles, the detector's lead glass and scintillating plastic allow the produced light to be collected in a light detector (HW).

CAVITY

A fabricated device at the "heart" of the accelerator that carries the superconducting radiofrequency fields needed to accelerate the particle beam. At Jefferson Lab, such cavities are typically made of niobium, a silvery metal that becomes superconducting at temperatures near absolute zero, thereby enabling it to harness and sustain the aforementioned high-energy fields.

See accelerator and cryogenics.

CHARM QUARK

One of the six different masses or "flavors" of a quark, along with strange, top, bottom, up and down.

CHL

Central Helium Liquefier, the cryogenics plant located above ground in the center of the accelerator site, that stores and pipes liquid helium down into the accelerator's cryomodules. See cryogenics.

CLAS | CLAS 12

The CEBAF Large Acceptance Spectrometer surrounds the target in Hall B, permitting researchers to measure simultaneously many different reactions over a broad range of angles. The term CLAS12 refers to the 12 GeV Upgrade version of the detector systems.

COLD BOX

See Kelvin.

unappealing, and give the impression your document is difficult to understand," says the Federal Plain Language Guidelines. Write short sections: They're easier to comprehend and afford more places for helpful subheadings.

"Long, dense sections with

no white space are visually

COLLIDER

A particle accelerator in which two beams of particles moving in opposite directions are made to collide at a chosen point.

CONFINEMENT

A term referring to a quark never being detected outside of a macroscopic particle, such as a proton – hence the full term "quark confinement" (HW).

CONGRESS

Capitalize U.S. Congress and Congress when referring to the U.S. Senate and House of Representatives. However, lowercase congressional, congresswoman, etc. – unless paired with a proper name.

Examples: Congressman Robert C. Scott arrived with another congressman from Newport News.

CONTINUOUS ELECTRON BEAM ACCELERATOR FACILITY.

Use that term to refer to the accelerator and the experimental halls, on first reference. CEBAF, thereafter.

Refer to the accelerator alone as either the CEBAF Accelerator or the accelerator.

EMAIL (NOT E-MAIL): "As words become more common they tend to lose their hyphen and close up to become one word." Example:

The Continuous Electron Beam Accelerator Facility at DOE's Jefferson Lab consists of a recirculating electron accelerator and four experimental halls.

The CEBAF Accelerator is located 25 feet below ground in a one-kilometer, racetrack-shaped tunnel.

COUNTING HOUSE

The "operations center" for an experimental hall that includes collecting the computer data from that hall's experiments, central to which is the literal counting of subatomic events of beam colliding with the target.

CRYOGENICS

The branch of physics related to the production and effects of very low temperatures. The cryogens we use at Jefferson Lab include liquid helium in the cryomodules, to keep the niobium cavities at -456 degree Fahrenheit (or 2 Kelvin) – colder than deep space – to enable the superconducting radiofrequencies that help accelerate the beam. We also use liquid helium and nitrogen for both the magnets and targets.

CRYOMODULE

A modular unit housing eight SRF accelerator cavities—one among scores of such units that make up the linear portions of the accelerator. Liquid helium is piped into the modules to maintain the near-absolute zero temperatures needed for the niobium cavities to "superconduct." See accelerator.

CYBERSECURITY

One word. Not cyber security.

D

DEPARTMENT OF ENERGY

Spell out on first reference. It's not necessary to include DOE in parentheses after first reference as it will be understood.

Aside from our using "U.S. Department of Energy" in news releases and web features, adding "U.S." there in other materials is unnecessary if understood in context.

Same applies to Department of Defense and Department of Homeland Security.

DETECTOR

Shorthand for a particle detector, of which there are different systems for such detections, which serve to observe subatomic particles emitted from the collision of the particle beam with a target.

DEUTERON

A particle made up of a neutron and a proton. It can exist on its own, or as the core of deuterium, an isotope of hydrogen (HW).

DOWN QUARK

One of the six different masses or "flavors" of quark, along with top, bottom, up, strange and charm.

DR.

Use "Dr." in front of a name only if the person is an actual medical doctor.

Е

ELECTRON

The smallest of the leptons or light particles, which do not participate in the strong (i.e., nuclear) interaction as protons and neutrons do. Negatively charged – and containing no quarks – they orbit the nucleons (i.e., protons and neutrons) (HW).

EMAIL

No hyphen. (This is one of the latest examples of words that, as they become more common, tend to lose their hyphen and close up to become one word.) Also, lowercase. However, e-newsletter, e-book, e-commerce, etc.

EVENTS

Be sure to distinguish in text whether "events" referred to are natural, subatomic, safety, educational, recreational, vocational, financial or even accelerator in nature. All have appeared in Jefferson Lab communications. Without a descriptor, the generic word events could prompt great confusion.

Read your writing aloud when done. You'll hear holes and errors you didn't notice while staring at your own writing. Examples: INCORRECT Second call for subsequent events in 2018. (Instead, this would better read "...subsequent financial events....")

CORRECT Scheduled Accelerator Down Pre-Event Meeting

The 30 incidents reported to ESH&Q did not trip the Notable Event threshold. (The "ESH&Q" descriptor implies the "Notable Event" is safety in nature.)

EXASCALE

Refers to software and supercomputers that are capable of executing a billion-billion calculations per second.

EXPERIMENTS

Names of experiments and collaborations such as GlueX or LHCb do not need to be written out on first reference in certain internal communications materials – where the unique monikers are well known in the nuclear physics community. However, for audiences – especially external ones – that may not know what a "GlueX" is, explain them simply as need be.

EXPERIMENTAL HALL

The location of the target and all related equipment (detector systems, etc.) for the target to take beam including the above-ground counting house, where the resulting computer data is collected for study. Jefferson Lab has four halls: the original three, dubbed A, B and C, plus the fourth – D – added in the 12 GeV Upgrade.

EXPERIMENTAL EQUIPMENT LAB

The EEL includes Jefferson Lab's shipping and receiving and the property department.

F

FEDERAL

Never capitalize federal in the body of a sentence, unless it refers to an agency that includes "federal" in the name, such as the Federal Trade Commission.

FISCAL YEAR

Write out on first reference in lowercase (e.g., "fiscal year 2020"; note that there's no need to hyphenate the phrase). Abbreviate thereafter as "FY" but write out the full year, with a space between them (e.g., "FY 2020" not "FY2020") Where necessary, as in a report with a multiplicity of FY references, it's okay to abbreviate the year too and close it up ("FY20").

Only in certain internal communications is it okay to abbreviate fiscal years and their quarters as "FY19, Q1" (fiscal year 2019, first quarter). However, in all external communications, write those out clearly, a la "first quarter of FY 2019."

G gev

The unit of measurement for billions of electron-volts, versus MeV (millions). CEBAF was originally built to operate at up to 4 GeV. The 12 Gev Upgrade has enabled experiments up to that energy.

"Suggesting that a writer delete his words is excruciating for some, and the excision must be made with delicacy. Sometimes this means the use of subtle queries in the margins: awk? right word? believable?...transition?.... Of course, what the editor means is: totally awkward, terrible word, completely unbelievable...how the he** do you expect the reader to transition when you haven't...."

> Betsy Lerner, The Forest for the Trees: An Editor's Advice to Writers

GLUEX

The Gluonic Excitations Experiment is designed to produce and study hybrid mesons – specifically the strong force or "glue" binding those quarks together.

H hadron

Any particle, such as a proton or neutron, that is made up of quarks and participates in strong (i.e., nuclear) interaction. These include all baryons and mesons (HW). Once "freed" by a CEBAF's beam hitting a hadron, quarks immediately combine with others of their kind, giving rise to not only the term hadronization but also one of the great mysteries yet to be solved in the nuclear physics community: that is, why a lone, unpaired quark is yet to be observed.

HALL

See experimental hall.

HEADQUARTERS (DOE REFERENCE ONLY)

Capitalize "Headquarters" (but do not use "HQ") when referring to the proper noun of the two buildings that DOE operates in the D.C. region. Lowercase other references.

INJECTOR

The injector or "gun" produces beam for experiments by shining laser light onto a metallic material, energizing its electrons and causing them to fly off their atoms and into the magnets that form them into the beam.

INTERNET

The internet is, to quote AP, "a decentralized, worldwide network of computers" and other communicative devices. Always lowercase. Ditto for the web, which is a subset of the internet.

ISOTOPE

An atom with a number of neutrons that is different from other atoms of the same element. Hydrogen, for example, with an extra neutron is deuterium—making it an isotope of hydrogen .

J

JEFFERSON LAB

Not Jefferson Labs, Jeff Lab or Jeff Labs; neither is it Jefferson Laboratory or Laboratories. To the public, Jefferson Lab encompasses the entire campus and all of its people, equipment and resources – so, to most, in any context, "Jefferson Lab" is synonymous with Thomas Jefferson National Accelorator Facility, or TJNAF.

In certain formal internal communications, however, TJNAF sometimes refers to the physical site alone, and Jefferson Lab refers to the integrated team there – all the DOE staff, JSA employees and scientific Users. See Names of Jefferson Lab for more.

"LAB" USE "Capitalize 'Lab' only when used with the proper noun of 'Jefferson Lab.' Lowercase all other references."

> From "Terms to Know – and How to Use Them"

Examples:

"Jefferson Lab is conducting several major experiments this year that have the eye of the nuclear physics world on them." CORRECT

"The EPA will confirm whether the new addition to Jefferson Lab can proceed as planned, on the southeast portion of the Thomas Jefferson National Accelerator Facility, in 2020." CORRECT

Naming Hierarchy:

In internal publications: Facility, first reference: Thomas Jefferson National Accelerator Facility Facility, second reference: TJNAF Lab, first reference: Thomas Jefferson National Accelerator Facility Lab, second reference: Jefferson Lab Lab, limited reference (casual): JLab

In external publications: Lab, first reference: Thomas Jefferson National Accelerator Facility Lab, second reference: Jefferson Lab Lab, limited reference: JLab

JSA

Jefferson Science Associates is a partnership between the Southeastern Universities Research Association, Inc., or SURA and PAE. Spell out on first reference and use JSA thereafter as need be. See Names of Jefferson Lab and Appendix B.

Look for adverbs to get rid of by using the verb. So, "work collaboratively" becomes "collaborate." That will help tighten your document (as every word counts!).

K KAON

An unstable meson that occurs in both charged and neutral forms – and is about 970 times more massive than an

KELVIN

electron.

A thermometric scale on which the unit of measurement equals the Celsius degree and absolute zero is 0 K – the equivalent of -273.15 degrees C. The cryogenics equipment at Jefferson Lab includes "4 K cold boxes," for example.

LAB, LABORATORY

Capitalize "Lab" only when used with the proper noun of "Jefferson Lab." Lowercase all other references (e.g., "... inside the lab complex" not "the Lab complex").

The lab and laboratory are acceptable secondary references to Jefferson Lab. "JLab" can be used on second reference in some public-facing materials (e.g., for branding), and in informal internal communications, but is never used in formal internal communications. See Jefferson Lab.

Latin and other foreign terms Do not hyphenate foreign phrases used as modifiers, such as "ab initio calculation," "in vivo reactions" or "in situ operations."

LATTICE QCD

See quantum chromodynamics.

LCLS

Linac Coherent Light Source was the first laser in the world (and one of just two now in operation) to produce "hard" or very high energy X-rays, to take snapshots of atoms and molecules at work. The process involves – and the particle accelerator resides at – SLAC (Stanford's LINAC). The upgrade has been dubbed LCLS-II.

LDRD

Jefferson Lab launched the Laboratory Directed Research and Development program in 2013 to foster the innovative spirit, encourage individuals research initiatives, find new strategic directions, and support such directions already established.

LEPTON

Based on the Greek for "light particle," leptons include electrons and muons – particles that do not participate in strong interactions (as protons and neutrons do).

LINAC

Pronounced "lin-ack," this acronym for linear accelerator applies to the two straight sections of CEBAF – the north and south linacs (as opposed to the turns or arcs).

LOW ENERGY RECIRCULATOR FACILITY

When it was called the Free-Electron Laser, this facility housed the world's highest-power tunable infrared laser, which primarily produced laser light in the Terahertz, ultraviolet, visible and infrared spectra. The new name encompasses future missions with potentially broader scope – the development of which includes the LERF's unique ability to generate electrons' energy then recover it using a superconducting energy recovering linac or ERL.

LIFE CYCLE

Two words. Not lifecycle.

Μ

M&O CONTRACT

Refers to the so-called Management and Operating Contract that each of the 17 U.S. national labs has with the Department of Energy. For Jefferson Lab, our M&O Contract is between DOE and Jefferson Science Associates, a limited liability company. See Appendix B.

MEASUREMENT

See units of measurement.

MESON

Consisting of a quark and an antimatter quark (or "antiquark"), this particle can travel between nucleons to carry the nuclear force – and can exist beyond the nucleus. The most common meson is the pion. GOOD FISCAL YEAR Write out on first reference in lowercase (e.g., "fiscal year 2020")" and then use FY. "Where necessary, as in a report with a multiplicity of FY references, it's okay to abbreviate the year too and close it up ("FY20")....

MOLLER

The Measurement of a Lepton-Lepton Electroweak Reaction Experiment proposes to measure the parity-violating asymmetry in electron-electron scattering.

MONTE CARLO (ANALYSIS)

A computer-based method of analysis developed in the 1940s that uses statistical sampling techniques to obtain a probabilistic approximation to the solution of a mathematical equation or model.

N NAMES OF JEFFERSON LAB

While each of our formal names have their own entries, we assembled them all here – starting with their use in one sentence:

"The Continuous Electron Beam Accelerator Facility or CEBAF resides at the Department of Energy's Thomas Jefferson National Accelerator Facility, known more widely as Jefferson Lab."

To be clear and consistent in using each of those, adhere to the following (which Appendix B presents even more fully in a chart):

• THE DEPARTMENT OF ENERGY'S THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY. To

the public, the names TJNAF and Jefferson Lab are likely synonymous – the latter being the more popular name. TJNAF can therefore be used to refer to the entire lab, with all of its people and parts – with Jefferson Lab as the second reference – in public-facing writings.

However, a real distinction between the two terms exists in internal communications here at the lab, where TJNAF means the physical site but Jefferson Lab encompasses the employees, DOE staff and Users. See Part II.

Other acceptable second references are the lab, the laboratory, or the User facility.

Examples

"The CEBAF is located at TJNAF." CORRECT (or "...located at Jefferson Lab") "TJNAF produced these reports last year." INCORRECT (rather, to be accurate, "Jefferson Lab produced...")

• JEFFERSON SCIENCE ASSOCIATES. JSA is the managing and operating contractor of TJNAF/Jefferson Lab for the Department of Energy's Office of Science. Employees of Jefferson Lab are employees of JSA. JSA is composed of SURA and PAE.

• JEFFERSON LAB. As noted above, in public communications this name refers to everything and everyone here on campus (including the physical site) – from the JSA and DOE employees to the scientific Users, the postdocs and interns to the subcontractors. See Part I for more.

In formal internal communications, however, the name Jefferson Lab encompasses only the team of JSA employees, DOE site-office employees and the scientific Users. See Part II for more.

Examples

Brian Wilson, a professor emeritus at William and Mary, led the Cherenkov detector construction effort for the GlueX Collaboration at Jefferson Lab.

The GlueX Collaboration at Jefferson Lab constructed the Cherenkov detector.

A Jefferson Lab collaboration of more than 100 scientists and students built the detector.

NATIONAL SCIENCE FOUNDATION

An independent federal agency that Congress created in 1950, the NSF strives to promote the progress of science and national health. It is second only to DOE as the major source of funding for nuclear/high energy physics research in the U.S.

NIOBIUM

A silvery metal that becomes superconducting at temperatures near absolute zero, thereby enabling it to, in the form of cavities within cryomodules, harness and sustain the high energy fields. Also see SRF.

NEUTRON

One of the three basic particles that, along with protons and electrons, may make up an atom. Neutrons carry no charge (vs. positively charged protons and negatively charged electrons). See nucleus.

NUCLEAR PHYSICS

Generally refers to the global community involved in nuclear physics. Specifically refers to DOE's NP program, which supports three scientific user facilities, including CEBAF. Also, DOE NP distinguishes between nuclear physics and high-energy physics – the latter having its own High-Energy Program. In HEP materials, therefore, one might come across reference to nuclear versus particle physics.

NSAC

The Nuclear Science Advisory Committee is an advisory committee providing official advice to DOE and the NSF on the national program for basic nuclear science research.

NUCLEON

This frequent reference to both the proton and the neutron as a single type of particle stems from their similarities in many respects.

NUCLEUS

The positively charged central part of an atom. The nucleus is composed of at least one or more nucleons, such as protons and neutrons.

0

OFFICE OF SCIENCE

Write out on first reference and, if referring more than once to the office, introduce "SC" parenthetically directly behind the first reference, for the subsequent references. This is an exception to the AP rule we're using for abbreviations in external communications (see Part I).

Contractions (e.g., turning phrases like "it is" into "it's") are okay. In fact, they can make your writing more accessible – more readable (notes the Federal Plain Language Guidelines). Use them discretely. "Don't use them wherever possible, but wherever they sound natural." Ρ

PAC

The Program Advisory Committee consists of distinguished members from the nuclear physics community who offer guidance on the lab's experimental program.

PAE

PAE partnered with Southeastern Universities Research Association to form Jefferson Science Associates LLC, the managing and operating contractor of Jefferson Lab for the U.S. Department of Energy's Office of Science. See Appendix B.

This acronym can be used for first reference to Pacific Architects and Engineers.

PARTICLE ACCELERATOR

See accelerator.

PENTAQUARK

Exotic, short-lived particles that consist of five quarks.

PH.D., PH.D.S

Per AP, the preferred form is to say a person holds a doctorate in... (then name the specialty), but the abbreviation is perfectly acceptable in any form of writing. Note that it's never PhD; always use the periods.

Also in AP, only actual medical doctors are referred to by the title doctor – not holders of Ph.D.s.

PHOTON

A "particle" of light. The photon in the visible range of

light will have a few electron volts (eV) of energy. A photon with approximately 200 million eV (MeV) has a wavelength of about the diameter of a proton or neutron. Higher-energy photons, such as those directed into Hall D at TJNAF, are needed to probe the quark structure within these particles.

PION

The most common subatomic particle, this meson travels between nucleons to carry the nuclear force and is also observed outside the nucleus.

POLARIMETER

A scientific instrument used to measure the polarization of light, especially for determining the effect of a substance in rotating the plane of the polarization. (Not to be confused with polarized, which in nuclear physics can refer to the state of a beam or target, if the spin axis of the particles within it are aligned in some direction.)

PRESIDENT

Capitalize the title either when paired with a proper name (e.g., President Truman) or when used alone (e.g., "... from the President himself...") in formal internal communications.

In most cases, the first name of a current or former U.S. president is not necessary on first reference. Lowercase the first president of the United States and presidential.

Don't trust MS Word's spellcheck for every catch. For one, it doesn't discern context when we use a right word that's used wrongly. Examples are using "their" for "there" or "angel" for "angle." Careful reading and even keyword searching on the troublesome ones will help you check all of your text. This also applies to vice president and other civil titles.

PROTON

This positively charged particle – one of the three (along with electrons and neutrons) that make up an atom – may combine with neutrons to make up the atom's nucleus.

Q

QUANTUM CHROMODYNAMICS

QCD describes the particles and forces—namely quarks and gluons—that give rise to our visible universe. It is the most widely accepted theory of strong (i.e., nuclear) interactions, built on the principle that such interactions – which hold nucleons and the nucleus together – result from the color charges of the quark.

QUARK

A subatomic particle that makes up protons, neutrons and all other hadrons and mesons. The six known quarks – strange, charm, top, bottom, up and down – are called the basic building blocks of our universe. That no quark has been found alone (i.e., they always appear in pairs, even when "pulled apart") is one of the great mysteries that the nuclear physics community has long been attempting to solve. Up, down, strange and charm quarks may be studied at Jefferson Lab.

"One of the most profound things ever said about punctuation came in an old style guide of the Oxford University Press in New York. 'If you take hyphens seriously,' it said, 'you will surely go mad....'"

> Lynne Truss, Eats Shoots & Leaves

R

R&D/RESEARCH AND DEVELOPMENT

Eliminate spaces on either sides of the ampersand. "R&D" as a collective noun should be paired with a singular verb, a la "R&D last week found that...."

RADIOFREQUENCY

One word, stemming from DOE and Jefferson Lab's coining of the term "SRF."

S

S&T/SCIENCE AND TECHNOLOGY

Eliminate spaces on either ends of the ampersand. "S&T" as a collective noun should be paired with a singular verb.

SCINTILLATOR

An organic material – sometimes liquid, sometimes plastic – that produces light when a particle passes through it.

SOLENOID MAGNET

The magnet surrounding the Hall D target that draws the photon beam into the "coil" of detectors there.

SOLID

A large acceptance detector that can handle high luminosity, for fully exploiting the 12 GeV upgrade.

SPECTROMETER

A broad term for instruments designed for forming and examining optical spectra. A mass spectrometer measures atomic elements, such as ratios of isotopes. At Jefferson Lab, Hall A has two High Resolution Spectrometers, Hall B contains the CLAS and Hall C holds both a High Momentum Spectrometer and a Super High Momentum Spectrometer.

STANDARD MODEL

The theory that describes the fundamental particles, such as protons and neutrons, and their interactions.

STEM

The acronym for "science, technology, engineering and mathematics" is acceptable on first reference; however, write it out shortly thereafter for audiences that may not know the term. Only use in the context of education.

strange quark

One of the six different masses or "flavors" of quark, along with top, bottom, down, up and charm.

ON THE USE OF "DR." ...avoid titles such as 'Mr.,' 'Ms.,' etc. – and 'Dr.' unless directly referencing an individual in the medical profession.

SURA

Southeastern Universities Research Association partnered with PAE to form Jefferson Science Associates LLC, the managing and operating contractor of Jefferson Lab for the Department of Energy's Office of Science. See Appendix B.

Spell out on first reference—unlike PAE, which can be used on first reference.

SUPERCONDUCTING RADIOFREQUENCY

SRF, a term that DOE and Jefferson Lab coined, refers to the radio frequencies used in the supercooled cavities of the cryomodules through which passes the electron beam of a CEBAF. Such "super speeds" allow for pure energy and hence pure data (no energy lost through heat, for example, to be accounted for in the data).

T target

The destination – be it liquid nitrogen, a metallic particle, etc. – for the beam in any one of the four experimental halls. The collision of beam and target produces subatomic-level events that detectors capture and convert into computer data.

TECHNOLOGY TRANSFER

Jefferson Lab's work with university and industry partners to leverage the lab's investments in scientific research to move technologies to the market – to address a problem (environmental, medical, homeland security, etc.).

12 GEV UPGRADE

The upgrade to the CEBAF – going from 4 to 12 Gev – included adding 10 new cryomodules, upgrading the three existing halls and adding a fourth (Hall D). It took more than a decade to plan, build and install, and became operational in 2017.

TOP QUARK

One of the six different masses or "flavors" of quark, along with bottom, down, up, strange and charm.

U UNITS OF MEASUREMENT

The abbreviations mm (millimeter) and cm (centimeter) are widely recognized and do not need to be spelled out. Also, do not use periods with those. Other UOMs not requiring periods are mpg, mph, hp, rpm. See Parts II and IV for more on basic treatment of these.

UNITED STATES/U.S.

Spell this out as a noun. As an adjective, the term is abbreviated with no space between the letters, as shown above and below. Use periods in the abbreviation U.S. within texts. In headlines, it's US (no periods).

Examples: U.S. nuclear arsenal U.S. military

UP QUARK

One of the six different masses or "flavors" of quark, along with top, bottom, down, strange and charm.

URL

Uniform Resource Locator - written in all caps, no periods.

USER

In external communications, lowercase the term user when referring to the scientific users from all over the country and the world who participate in the lab's R&D and experiments. In internal communications, however, always capitalize User when referring to the scientific User community at Jefferson Lab – even when calling the lab a scientific User facility.

One exception here: Per DOE Public Affairs, we will capitalize that reference for news releases, to read "DOE Office of Science User Facility" (or "Facilities").

See Names of Jefferson Lab as well as Appendix B.

V

WEB (AND WEBPAGE, ETC.)

Shorthand for the World Wide Web – note the capitalization only when written out; otherwise, it's web. Regardless, it's a subset of the internet.

Neither should we confuse it with an intranet or internal website (e.g., "Put it on the web") – whether for an organization's intranet or their external website. Be sure the distinction is clear in the text or context of your writing.

Lowercase web within a sentence even when referring on second reference to the World Wide Web. Also, note the one-word terms webmaster, website, webpage, etc. – except web address and web browser.

Long paragraphs can incite readers to either read the first line and skip the rest—or skip it entirely. Keep your paragraphs to at least three lines, no more than eight (depending on their length), and you'll stimulate readers to read more of your work!

X X-RAY (N., V., AND ADJ.)

Use the term for both the photographic process and the radiation particles themselves.

Y

Ζ

PART IV: GRAMMAR – KEY NOTES

"Grammar, spelling and punctuation represent your outward image to the world, and the person reading it is getting a message about you, your authority and your attention to detail."

MarketWatch article on making an epic typo at work

PART IV: GRAMMAR – KEY NOTES

Complex and weird as the English language is – and changing every week, it seems – we must adhere to certain key elements of grammar for clarity, consistency and coherence in our writings. From capitalization to bullets to punctuation, all the high points are here.

To keep these need-to-know bits manageable, we assembled them in alphabetical order and, where possible, grouped "like" details – such as putting the apostrophe and quotation marks in the same entry.

1. CAPITALIZATION

• Lowercase titles when used after a person's name; however, capitalize official titles when preceding a name.

Example (of both, rolled into one): "Tyler Durden, staff scientist" vs. "Staff Scientist Tyler Durden"

o It is OK to capitalize titles, whether before or after a person's name, in a photo caption. o Capitalize, on first reference, the Lab Director title and the lab's top executive positions with a direct reporting relationship to the Lab Director – Chief Operating Officer, Associate Director for Physics, Chief Planning Officer, etc. – even if mentioned after their names. Lowercase on second reference and thereafter unless used with the name (e.g., Lab Director Stuart Henderson). For positions not directly reporting to the lab director, typical capitalization standards apply as reviewed above.

• Avoid unnecessary capitalization (e.g., National Laboratory). Unless something is a proper name, it probably shouldn't be capitalized.

A good way to remember which vs. that – which one to use? – is to delete the phrase that follows the word and see if the sentence still makes sense. If it does, use which—which takes a comma (always!) before it. Another angle: could you take what you deleted and turn it into another sentence? That's a which line.

• Names of fellowships are capitalized, but generic terms are not.

Examples:

JSA Fellowship; JSA Fellow; the fellowship; a fellow

• Capitalize the full, proper name of academic departments – including the word department only when it's part of that official name. Lowercase unofficial, informal, shortened or generic names.

Examples:

The College of Engineering; the engineering school. Old Dominion University Department of Physics; or the physics department. • Lowercase academic subjects or disciplines unless (1) they are part of a department name or official course name, or (2) they include a language name.

Examples:

He is majoring in computer science. She is enrolled in Computer Science 101. They all took a class on Russian before leaving the country. The new hire in the Nuclear Physics Department has a bachelor's in physics.

• Lowercase academic degrees and use an apostrophe: bachelor's or master's; a master of science in chemistry, etc.

Also, use abbreviations with periods (e.g., B.A., M.A., and Ph.D.) after a full name or in bios. When used after a name, such abbreviations are set off by commas. Example: Stuart Henderson, Ph.D., spoke. See Dr. regarding that honorific.

• Capitalize the first initial letter of each word except for pronouns like "of" and "that" (a style of capitalization called "headline style" – as opposed to sentence style).

Examples: One Hundred Years of Solitude Entertainment Weekly Seinfeld Avengers: Civil War

2. PUNCTUATION AND SPECIAL SYMBOLS (E.G., AMPERSAND)

The purpose of punctuation is to eliminate ambiguity and clarify the thought being expressed in writing. If punctuation doesn't do that, it shouldn't be there. The basic guideline is to use common sense.

Here are the most common pieces of punctuation we deal with - and how to deal properly.

AMPERSANDS

Avoid ampersands in-line unless they are part of a company or department name or a commonly used abbreviation (e.g., R&D). They are fine for tabular matter if it helps with brevity without sacrificing clarity. Otherwise, write out the "and" wherever possible.

APOSTROPHES

Use apostrophes in master's degree, bachelor's degree (and lowercase). Use apostrophes to indicate omitted characters:

- For omitted letters: it's, don't, 'tis the season
- Omitted figures: the class of '62, the '80s

Also see Plurals and Possessives.

COLONS

Capitalize the first word after a colon only if it is a proper noun or the start of a complete sentence.

Examples:

The politician had a single message: Vote for me and all your problems will be solved.

The committee had three considerations: employee overtime, employee burnout and budget overruns.

COMMAS

In general, do not use a comma before "and" or another conjunction in a list of items in a sentence unless it is necessary to clarify the meaning. In grammatical lore, this is called the "serial comma."

Example:

The accelerator is primarly composed of one injector, one central helium liquefier, two linacs, two sets of recirculation magnets and four experimental halls.

If the absence of that comma before the and might cause confusion or ambiguity, then use that comma (which in further grammatical lore is called the "Oxford comma").

Example:

A Human Resources employee discussed certains benefits, timesheets and payroll, and health and wellness. [If that last comma were absent, this could confuse the reader.]

Note that, in most if not all external communications, we use the serial comma (no comma before the and in a list of items). In some internal communications, though, we use the Oxford comma – because DOE Headquarters, for example, requires it in certain products.

Herewith, a few more specifics about comma usage:

- Use one to set off degrees or titles after a name: "Stuart Henderson, Lab Director, spoke at the forum."
- Use them in numerals 1,000 and greater.

Beware long sentences fooling you into making the subject and verb disagree. When you hit a long line, visually remove every word in it to see only subject and verb.

Example: "The enormous contours of the solenoid magnet in Hall D is eye-catching in part because of the bright colors used to paint it and related equipment."

Strip all that away and you get the contours *are* (not *is*) eye-catching.

• Use a comma to separate the elements of full dates and addresses.

Examples:

On Friday, Jan. 2, 1998, we went on vacation. (Note that usage vs. "The weather in June 1997 was unusually warm." No need for a comma with just month-and-year.)

12000 Jefferson Ave., Newport News, VA 23606

In closing, punctuation is hard. In one book about grammar , the author addresses 31 rules about this punctuation mark alone. Chicago Manual's latest only addresses 28—but takes more than 13 pages to explain them.

DASHES

Long or em dashes are often used to denote an abrupt change in thought—such as this—in a sentence. They can also be used to set off a series within a phrase, or to emphasize a phrase.

While it's common to see em dashes without spaces on either side of the dashes (as Chicago Manual promotes), Jefferson Lab does use spaces – as shown here – per AP. Without that spacing, such dashes appear shorter on the web than in print and tend to look crowded.

Finally, AP does not acknowledge the short or en dash, which is shorter than an em dash but longer than a hyphen (e.g., often used in ranges like 3–4 pm.). So neither do we.

HYPHENS

Not to be confused with dashes, hyphens have warranted multiple (and sometimes a tad confusing) guidelines — and we need them. Why?

"Because a small-state senator is not the same as a small state senator." - Energy Information Administration Writing Style Guide

Here below we've gathered the hyphenation guidance most pertinent to JLab writings and listed them in somewhat descending order of importance.

THE WILY HYPHEN(S) Use of the hyphen is far from standardized. It can be a matter of taste, judgment and style sense.... If a hyphen makes the meaning clearer, use it. If it clutters and distracts...don't use it. • Compound adjectives (i.e., more than one word used to describe a noun): Use hyphens if needed to prevent ambiguity. Also note: For that reason, some terms—like state-of-the-art—need hyphens even when standing alone as a noun (like just now).

Examples: state-of-the-art laboratories world-class scientists and engineers

• Compound adjective ending in –ly: DO NOT hyphenate.

Examples: commercially available technologies an easily remembered rule illegally parked cars

• Compound phrases: When the second part of a hyphenated phrase is omitted, the hyphen is retained, followed by a space – even if the word is a solid compound.

Examples: five- to ten-minute intervals under- and overworked employees Some encouraging instruction in closing:

"Use of the hyphen...can be a matter of taste, judgment and style sense. Think of [them] as an aid to readers' comprehension. If a hyphen makes the meaning clearer, use it. If it just adds clutter and distraction to a sentence, don't use it."

- AP Style Guide, 2019

"There are people who embrace the Oxford [or serial] comma and people who don't, and I'll just say this: never get between these people when drink has been taken."

> Lynne Truss, Eats Shoots & Leaves

PERCENT, PERCENTAGE

Always use numerals and—per AP—always use the symbol. It's 3% not three percent.

• When writing out a range of percentages, write "2% to 5%," "2%-5%" or "between 2% and 5%."

• Use numerals for all numbers accompanied by a percent, including those below 10.

Example: Use 0.3, not .3.

PERIODS

Do not double space after a period. (See Formatting.) Use periods in "U.S., Ph.D.," etc.

QUOTATION MARKS

Such marks always go outside periods and commas.

Use single quotation marks in headlines and subheads. (That's an odd one, but, hey, it's AP.)

SEMICOLONS

Semicolons separate two complete sentences that are closely related. As a general rule, if a period will not work, neither will a semicolon. A few more guidelines regarding this mark:

- Use semicolons to separate items in a series if the items contain internal commas.
- Place a semicolon outside the closing quotation mark. Always.

Example:

He says, "I will mail them today"; however, that was a week ago, and they haven't arrived.

SLASHES

No space belongs either before or after a slash, a la "pass/fail basis."

3. NUMBERS: ADDRESSES, FRACTIONS, PERCENTAGES, MONEY, ETC.

For general, nontechnical writing, spell out numbers below 10; use numerals for 10 and above. However, for consistency's sake, choose one style or the other if a sentence or paragraph contains two or more of those numbers (e.g., "...in 9 of the 20 cases...").

Avoid beginning a sentence with a number. Either write out the number or reword to move the numeral away from the sentence's start. If absolutely necessary to provide information clearly, you may start a sentence with a number if it is spelled out. Also, never use "#" for a number in a narrative.

Examples:

Twenty-three firefighters responded to the campus fire alarm. (CORRECT) 23 graduate students attended the conference. (INCORRECT) Fifteen scientists collaborated in writing that article. (CORRECT) The European physicists now in our User community are 15 strong. (CORRECT)

Always use numerals (one, two...) – not ordinals (1st , 2nd...) – with units of measurement. Spell out ordinals up to ninth; use numerals after that (10th time, 20th century, etc.).

A few more specifics – on addresses, fractions, money, percentages, phone numbers and ranges – here follow, in that order:

• Only with a numbered address do we use the abbreviations Ave., Blvd. and St.

Example: 1600 Pennsylvania Ave.

o Spell out addresses and capitalize when part of a formal street name without a number. Ditto for referring to more than one street in the same phrasing.

Example: Pennsylvania Avenue. Massachusetts and Pennsylvania avenues.

Ditto as well for similar street words: alley, drive, road, terrace, etc.

o Spell out and capitalize first through ninth when used as street names; use figures for 10th and above.

Examples: 7 Fifth Ave. or 100 21st St.

o Abbreviate compass points indicating street ends or city quadrants in a numbered address, but do not so abbreviate if the location number is omitted.

Examples: 2 E. 42nd St., 56 W. 43rd St., or 600 K St. NW. East 42nd Street, West 43rd Street.

No periods are needed in quadrant abbreviations such as NW, SE.

• Write fractions not as "1/2" or "3/4" but as "one-half" or "three-quarters." Also a half hour vs. half-hour meeting.

• Money in millions or billions should read "\$12 million" (not "\$12M" – unless internal communications dictate that in, say, financial-related documents, for brevity with many monetary references). Ranges will be like that given above for percentages: "\$12-\$14 million."

- Use numerals (and the % symbol) for percentages: It's 5% not five percent.
- Always use 10-digit phone numbers, with dashes for the area code: 757-269-7689.

4. DATES AND TIME

Dates in full should be in month, day, year order, with the month abbreviated (Sept. 12, 2019) – unless the day is absent, then it's written out (September 2019).

We easily string together three or more words that are ordinarily separate nouns, such as "safety protection procedures development." Once you get past three, such noun strings become "unbearable," says the Federal Plain Language Guidelines. Rewrite to clarify: "Develop procedures to protect the safety of...." • March, April, May, June and July are the only months not abbreviated when writing a full date (month, day, year). The others: Jan., Feb., Aug., Sept., Oct., Nov. and Dec.

• Commas should set off the year, both before and after.

Example:

The attacks of Sept. 11, 2001, will always be seared into our memories.

• Do not use st, nd, rd, or th, as in March 1st, April 2nd, etc.

• On fiscal year: Remember that an external, global audience does not know when our fiscal year begins and ends, so references like FY 2018-19 should be avoided for external documents and webpages.

See Part II for more on dates including FY details, for internal communications.

Time is always written out as 11 a.m. or 3:45 p.m. – not am, AM, A.M., or 11:00. Use "noon" to denote 12 p.m.

Examples: 7-9 a.m. 7-9:30 a.m. 7:30 a.m.-3:30 p.m. Noon-2 p.m.

See Part II for additional exceptions in internal communications use.

5. LISTS: BULLETS, NUMBERING, ETC.

Neither commas nor semicolons are necessary at the end of items in bulleted lists on the web, contrary to the rules for more formal documents. Periods, however, must now end all bulleted phrases, lines or data, per AP.

Be consistent in so punctuating all bullet lists throughout the document and/or webpage.

In most cases, bullets are preferred; however, use numbered lists to explain a sequence of events or steps.

Keep numbering and bulleting hierarchies to no more than three levels.

6. THE APOSTROPHE (')—FOR PLURALS—PLUS QUOTATION MARKS ("")

Plural nouns ending in the letter s need only an apostrophe to show the possessive.

Examples:

The churches' needs (note the plural; the singular would be "the church's needs") The girls' shoes (note the plural; singular would be "the girl's shoes")

Nouns that are plural in form but singular in meaning – like General Motors – need only an apostrophe – such as, "General Motors' profits."

For singular proper names ending in s, use only an apostrophe: take "Newport News' tourist attractions" or "Hampton Roads' economy," for examples.

Descriptive phrases are an exception: Do not add an apostrophe to a word ending in s when it is used primarily in a descriptive sense. For example, a "writers guide."

QUOTES / QUOTATION MARKS

Partial quotes that are only a phrase, not a full sentence, are acceptable as long as the article provides sufficient context. Quotes from academic journal articles are also acceptable if you provide a link to the article. Be judicious about the use of quotes. If it is clearer or more interesting to paraphrase the text, then do that instead.

7. WORDS WITH PREFIXES SUCH AS NON- OR PRE-

Most words composed of a common prefix such as non- or multi- or pre- are spelled without a hyphen. The exceptions are when the second word is a capitalized word (non-American) or when words like re-cover and un-ionized need the hyphen to distinguish them from a different meaning (i.e., recover and unionized).

Here are a few examples of common hyphen-less ones. Consult your dictionary to confirm others like these.

antinuclear	nonunion
coauthor	nonproliferation
coworker	nonsmoker
multicolored	nontoxic
multidisciplinary	postdoctoral or postdoc (not post-doctoral or post doctoral)
multifunctional	postgraduate (not post-graduate or post graduate)
multinational	reentry
multiyear	reexamine
nondestructive	reengineering

However, use a hyphen if a proper noun follows the prefix: non-Newtonian non-Euclidean post-Cold War

8. PRONOUNS

Be careful to clearly connect all pronouns (we, they, their, etc.) to the content they are referring to in a sentence or nearby in the paragraph.

Examples:

The red group will go first and the blue group go last, because their time ran out.

Note how the pronoun their could refer to either red or blue – or both.

Here's a clearer use of that pronoun:

Example:

The red group will go first; however, the blue group will go last because their time ran out.

The word their now clearly connects to the blue group.

9. TROUBLESOME WORDS AND PHRASES

Some words cause trouble, no matter how long we've been using them. Words that are so closely similar in spelling as to sound like the same word – and some in fact do sound the same – sometimes give even the most veteran of editors pause. "Which one is the right one?"

This assortment of the most troublesome will help narrow down that trouble.

ACCOMMODATE

Note the two "m" letters in that - as it's often misspelled with one "m."

AFFECT, EFFECT

Affect, as a verb, means "to influence." Example: The wind will affect the spread of the smoke plume.

Effect, as a verb, means "to cause." Example: The new policy will effect many changes in procedures. However, as a noun, it means "result." Example: The effect of the recycling program...

AFTERWARD

Not afterwards. ALL RIGHT Never alright or allright.

COMPOSE, COMPRISE

Comprise means "to include or contain."

Using "e.g." (meaning for example) is more effective if you stick to one example. Listing more than one takes it from an "e.g." to an "etc." (And never use both together!) Also, don't confuse it with "i.e.," meaning "that is," which is a great way to define jargon mid-sentence. Example: The exhibition comprised several rare paintings.

Avoid comprised of.

To compose is "to make up, to form the substance of something."

Example: The parts compose the whole.

(Whereas "The whole comprises the parts" - if that makes sense!)

COMPOUND WORDS

Two or more words helping describe – that is, "compound modifiers" for – a noun usually require hyphens, as follows:

- DOE-funded consortium
- High-temperature reactor
- Large-scale tests
- State-of-the-art technology
- Black-and-white photo

Typically, moreover, those phrases are written without hyphens when used alone in a sentence, such as "That technology is state of the art."

Use hyphens, though, even in those instances, to prevent ambiguity: "That method is tried-and-true to form the proper...." (Without the hyphens, "true to form" might confuse!)

The purpose of the hyphen really is to eliminate ambiguity:

- "Small state senators" (i.e., the senators are short) vs.
- "small-state senators" (i.e., senators from small states)
- Same thing in, say, "fast sailing ship" vs. "fast-sailing ship"

PRONOUNS LIKE US Be careful to clearly connect all pronouns (we, they, their, etc.) to the content they are referring to in a sentence or nearby in the paragraph.

Keep in mind: Do not hyphenate a compound adjective ending in -ly.

Example:

The Smiths are, in a continuously easygoing manner, keeping up with the Joneses (not "continuously-easygoing manner").

CONTINUOUS(LY), CONTINUAL(LY)

Continuous or continuously means without interruption; continual or continually means occurring again and again.

Example: The sound of the lawnmower droned outside her office continuously for two hours, continually interrupting her train of thought.

COWORKER

Not co-worker.

EFFECT, AFFECT

See affect, effect.

E.G.

Always use a comma after this abbreviation for exempli gratia (meaning "for example"). Always place it and the words following it within parentheses. Also, no italics are needed.

Example

The moment that a hazard appears (e.g., cryogen-leak plume), be sure to....

Also see "i.e."

ENSURE, INSURE

Ensure means to make sure something will (or won't) happen. Reserve insure for matters relating to insurance. To ensure that we would have no problems resulting from lost baggage, we took out extra travel insurance for our trip.

ET AL.

When using this abbreviated form of et alii, meaning "and others," the period is required because "al." is an abbreviation. Also, as with "e.g.," no need to italicize this.

EVERY DAY (ADV.), EVERYDAY (ADJ.)

Distinguish between the two as follows.

Example: You can wear your everyday clothes every day.

FARTHER, FURTHER

Use farther for a physical distance and further for a figurative distance.

FEWER, LESS

Use fewer to mean a smaller number of individual things. Use less to mean a smaller quantity of something.

"The editor deletes jargon, redundancies, and irrelevancies never ideas, unless the author consents. Sometimes the author's voice is an integral part of a thought and must be preserved, even if it is loathsome to the editorial ear."

Arthur Plotnik, The Elements of Editing

Example:

The less money he makes, the fewer dollars he spends.

I.E.

When using the abbreviation for id est ("that is"), use a comma after it. The "i.e." is for saying "in other words" whereas e.g. is for saying "for example."

INSURE

See ensure.

ITS, IT'S

Its is the possessive form of it (e.g., "Don't give up on its merit"). However, it's is the contraction for "it is."

A clever way to remember the difference: "Possessive its never splits."

MYRIAD

Means "numerous or a great number of." Avoid the phrase a myriad of.

OFF-SITE, ON-SITE

Note the hyphens. These are never offsite or onsite.

ONLINE

One word is the proper use; not "on-line."

PRINCIPLE, PRINCIPAL

Principal: most important; chief: The principal investigator is my pal. Principle: fundamental law, assumption: A first principle is one that cannot be deduced from any other.

REGARD/REGARDS

The singular regard is correct in phrases like with regard to and in regard to – where these phrases mean with reference to. On the other hand, the plural regards means "good wishes expressing respect, affection, or condolences."

SPINOFF

Write as one word, whether as a noun or adjective.

Examples:

The latest spinoff technology from JLab is medical-diagnostic in nature. (adjective) Our society will beneft from Jefferson Lab's latest technological spinoff. (noun)

STARTUP

Write as one word, whether as a noun or adjective. See related spinoff, above, for examples.

THAT

Use that in clauses that the sentence depends on (i.e., where what follows is required for the meaning of the sentence), a la, "...in the corner that exposes the drywall." See which vs. that.

TOWARD

Note the lack of an "s" -that is, it's not towards.

WHICH VS. THAT

These two words are not interchangeable; the choice is not a matter of style, but a right-or-wrong. Use which – preceded always by a comma – for information that is not essential to that sentence.

Example:

Place the broom in the corner, which faces southeast.

If the corner is the only critical info about the broom, and southeast is an optional detail, then this is correct. However, if facing southeast is critical info too, then rewrite to say Place the broom in the corner that faces southeast. Note the swap of that for which.

The word that introduces critical info in a sentence. And a comma never precedes it.

BEFORE WE FINISH: A BETTER VIEW

"Writing is hard work. A clear sentence is no accident. Very few sentences come out right the first time, or even the third time. Remember this in moments of despair. If you find that writing is hard, it's because it *is* hard."

> William Zinsser On Writing Well



THE PICTURE ON THE COVER OF THIS GUIDE ...

...was intended to analogize the writing processes here. Down in the small spaces of our offices, bent like worshippers toward our keyboards and screens, we can so easily drift into the atmosphere of our work—our words and numbers and models and charts—and forget why we're doing what we're doing. Or whom we're doing it for.

Like seeing Jefferson Lab from that panoramic view, may we always keep the big picture in view. Part of that is, the federal government is paying us a lot of money to use a lot of words to – among many other things – describe and discuss, as best we can, what we do. And why.

Here's to always improving our writings, in whatever form, for the sake of our mission.

APPENDICES

"...much academic writing is countereducational because its dullness insulates information from nearly everybody."

Sol Stein, Stein on Writing

APPENDIX A: COMMON DOE ABBREVIATIONS AND ACRONYMS

Spell out the following names on first reference, followed by their respective abbreviation according to your audience. For external communications, introduce the abbreviation in the sentence or paragraph following the first reference. For internal communications, introduce the abbreviation in parentheses immediately following the full name.

The only exception to that is the Office of Science, the abbreviation for which (SC) should be introduced immediately in parentheses, in any context.

The list is broken down by national labs, SC and other program offices, DOE-SC User facilities, and other related organizational abbreviations and acronyms (e.g., CERN).

NATIONAL LABORATORIES

The Ames Laboratory (Ames): Note that "the" is always included on first reference, "the Ames Laboratory."

Argonne National Laboratory (Argonne)

Brookhaven National Laboratory (Brookhaven or BNL)

Fermi National Accelerator Laboratory (FermiLab or Fermi)

Idaho National Laboratory (INL): not an SC laboratory

Lawrence Berkeley National Laboratory (Berkeley Lab)

Lawrence Livermore National Laboratory (LLNL): not an SC laboratory

Los Alamos National Laboratory (LANL): not an SC laboratory

National Energy Technology Laboratory (NETL): not an SC laboratory

National Renewable Energy Laboratory (NREL): not an SC laboratory

Oak Ridge National Laboratory (ORNL)

Pacific Northwest National Laboratory (PNNL)

Princeton Plasma Physics Laboratory (PPPL)

Sandia National Laboratories (Sandia): not an SC laboratory

Savannah River National Laboratory (SRNL): not an SC laboratory

SLAC National Accelerator Laboratory (SLAC)

Thomas Jefferson National Accelerator Facility (TJNAF): "Jefferson Lab" may be used on first and subsequent references.

SC AND OTHER PROGRAM OFFICES

Advanced Scientific Computing Research (ASCR)

Basic Energy Sciences (BES)

Biological and Environmental Research (BER)

Fusion Energy Sciences (FES)

High Energy Physics (HEP)

Nuclear Physics (NP)

Workforce Development for Teachers and Scientists (WDTS)

Small Business Innovation Research and Small Business Technology Transfer (SBIR and STTR)

DOE OFFICE OF SCIENCE USER FACILITIES

Accelerator Test Facility (ATF)

Alcator C-Mod (no acronym)

Advanced Light Source (ALS)

Advanced Photon Source (APS)

Argonne Leadership Computing Facility (ALCF)

Argonne Tandem Linac Accelerator System (ATLAS)

Atmospheric Radiation Measurement Climate Research Facility (ARM for Atmospheric Radiation Measurement; ACRF for full facility name)

Center for Functional Nanomaterials (CFN)

Center for Integrated Nanotechnologies (CINT)

Center for Nanophase Materials Sciences (CNMS) Center for Nanoscale Materials (CNM) Continuous Electron Beam Accelerator Facility (CEBAF) DIII-D National Fusion Facility (DIII-D) Energy Sciences Network (ESnet) Environmental Molecular Sciences Laboratory (EMSL) Facility for Advanced Accelerator Experimental Tests (FACET) Fermilab Accelerator Complex (no acronym) High Flux Isotope Reactor (HFIR) Joint Genome Institute (JGI) Linac Coherent Light Source (LCLS) National Energy Research Scientific Computing Center (NERSC) National Spherical Torus Experiment (NSTX) National Synchrotron Light Source (NSLS): former facility, now closed National Synchrotron Light Source II (NSLS II) Oak Ridge Leadership Computing Facility (OLCF) Relativistic Heavy Ion Collider (RHIC) Spallation Neutron Source (SNS) Stanford Synchrotron Radiation Light Source (SSRL) The Molecular Foundry (TMF)

OTHER RELATED ORGANIZATIONAL ABBREVIATIONS AND ACRONYMS

Cooperative Research and Development Agreement (CRADA)

Community College Internships (CCI)

Critical Materials Institute (CMI)

European Council for Nuclear Research (CERN) Faculty and Student Teams (FAST) Hispanic-Speaking Institutions (HSI) Historically Black Colleges and Universities (HBCU) Jefferson Lab User Organization (JLUO) National Science Bowl (NSB) Oak Ridge Institute for Science and Education (ORISE) Oak Ridge Associated Universities (ORAU) Research Experience for Undergraduates (REU) Science Undergraduate Laboratory Internships (SULI)

APPENDIX B: TJNAF VS. JEFFERSON LAB – USING OUR NAMES PROPERLY

TERM	PROPERLY USED WHEN	EXAMPLES OF USAGE – BOTH CORRECT AND INCORRECT	
Thomas Jefferson National Accelerator Facility (TJNAF)	Referring to the physical site or location (in certain internal communications); can be synonymous with Jefferson Lab in some public-facing materials (i.e., external communications)	CORRECT	"The CEBAF is located at TJNAF."
		INCORRECT	"TJNAF produced the following reports last year" ¹
Thomas Jefferson National Accelerator Facility Management and Operating Contract (or TJNAF M&O Contract)	Referring to the contract between JSA and DOE	CORRECT	"Under the TJNAF M&O Contract, JSA is responsible for the safety of all employees, Users, and visitors while on the facility."
		INCORRECT	"JSA's M&O Contract with certain local subcontractors will enable new phases of construction here at TJNAF." ²
Jefferson Science Associates (or JSA³)	Referring to the contractor and its responsibilities, employees, or accomplishments	CORRECT	"JSA submitted its latest round of contractually obligated quarterly reports to the DOE Site Office."
		INCORRECT	"The Users among Jefferson Science Associates have yielded some astonishing work this past year." ⁴
Jefferson Lab	Referring to the integrated team of DOE staff, JSA employees, and Users (in internal communications). Also used as general reference to the entire lab, the property included (external communications).	CORRECT	"Jefferson Lab is conducting several major experiments this year that have the eye of the nuclear physics world on them."
		INCORRECT	"The EPA will confirm whether the new addition to Jefferson Lab can proceed as planned, on the south- east portion of the site, in 2020." ⁵

1. In internal communications such as this, the facility did not do the reports; the people did. See "JSA" and "Jefferson Lab."

2. The M&O Contract enables JSA to set up contracts with such subcontractors, but the M&O Contract is specifically between JSA and DOE – not JSA and any others. So this would better read, "Jefferson Lab's M&O Contract...."

3. JSA is a limited liability company of the Commonwealth of Virginia. The LLC designation will be used in certain formal business, legal, and contractual documents. See Rhonda Scales for further guidance.

4. The User community are not employees of JSA and are therefore referred to as an entity outside of JSA – yet working with JSA. See "Jefferson Lab."

5. For internal communications such as this, the physical site where the "integrated team" of Jefferson Lab does all of its work is TJNAF. (See "TJNAF.") On the chance that external communications (such as a local news article) features a line like this, Jefferson Lab works fine, but TJNAF would be more to the point.

TERM	PROPERLY USED WHEN	EXAMPLES OF USAGE – BOTH CORRECT AND INCORRECT	
"JLab," ^₅ "Jeff Lab," "Jeff Labs," "Jefferson Laboratories" or even "Jefferson Laboratory"	Never use in internal communications (e.g., reports to the Site Office). Jefferson Lab is one among the 17 U.S. national labs – so it's never a plural labs. *"JLab" In external (i.e., public facing) comms, "JLab" is acceptable in casual communications as a second reference to Jefferson Lab—especially in branding materials, but never used in official docs for TJSO/DOE.	ALWAYS INCORRECT *See the exception, explained at left, regarding "JLab."	
Southeastern Universities Research Association (or SURA)	Referring to the managing member of the JSA joint venture	CORRECT	"SURA published their association's annual report."
		INCORRECT	"SURA approved committing additional DOE funds to" ⁷
Pacific Architects and Engineers (or PAE®)	Referring to the minority member of the JSA joint venture	CORRECT	"PAE continues to work with SURA in operating JSA."
		INCORRECT	"PAE submitted Jefferson Lab's annual lab plan to DOE." ⁹
User community	Referring to the 1,600+ scientific users who annually participate in research and experiments at Jefferson Lab, whether on-site or remotely	CORRECT	"The Users played a key role in JSA's isotope production report to the Site Office."
		INCORRECT	"The Users submitted their report to the Site Office." ¹⁰

6. See "External Communications" in the Editorial Style Guide for guidance on the use of "JLab" as an acceptable secondary reference to Jefferson Lab.

7. JSA collectively, not SURA singly, handles the DOE funds.

8. PAE is a holding company composed of 20+ affiliated businesses. PAE Applied Technologies LLC is the affiliated business that is a minority member of the JSA LLC joint venture. Some formal business, legal and contractual documents may require use of "PAE Applied Technologies LLC" but for most internal and external communication simply Pacific Architects and Engineers or PAE is adequate. See Rhonda Scales for further guidance.

9. JSA employees, not PAE itself, handles such documents.

10. JSA employees, not the Users, answer to the Site Office.

APPENDIX C: WRITING/EDITING, REVIEW AND APPROVAL PROCESS DIAGRAM SAMPLE

