

Reporting Improvements to the Annual Savannah River Site Environmental Report - 15313

Michael Griffith*, Amy Meyer*, Gail Whitney**, Drew Grainger**,

*Savannah River Nuclear Solutions, LLC

**DOE-Savannah River Operations Office

ABSTRACT

The Savannah River Site (SRS) began publishing the yearly SRS Environmental Report over 50 years ago. The report was first made available to the public in 1959. SRS has always tried to be very clear about the impact of its operations on neighboring communities. However, environmental reporting depends on public understanding for its success. The scientific nature of environmental information often makes it difficult to communicate information in lay terms and a meaningful manner.

Over the past two years, SRS has focused its efforts on improving the readability of these documents using plain language techniques. In the 2013 report and summary, the goals were to:

- Organize information so the most important message comes first;
- Break complex information into understandable chunks;
- Use simple language and define technical terms; and
- Use appealing formats, including graphics and ample white space, to engage and hold readers.

SRS also used plain language guidelines and techniques such as using short sentences and active voice as suggested by feedback from our readers. Plain language is not a simplified style of writing. It involves more than replacing jargon and complex language with shorter sentences and familiar words. Plain language examines at the whole message – from the reader’s point of view. Clear writing, effective organization, and inviting presentation are all keys to creating readable and informative documents.

INTRODUCTION

SRS began publishing the yearly SRS Environmental Report over 50 years ago. The report was first made available to the public in 1959. SRS tried to be very clear about the impact of its operations in neighboring communities and on the environment. The report is meant to:

- Provide summary information to show our accomplishments, as well as areas where we could improve
- Demonstrate compliance with applicable environmental laws, regulations and Department of Energy orders
- Highlight important programs and efforts.

In the past, the primary audience for the SRS environmental report was Site personnel and others in the DOE complex, people with scientific training and familiarity with data collection and

analytical techniques. As DOE has become more open, and with the advent of Citizen's Advisory Boards and Environmental Justice forums, the audience has expanded to include individuals with little or no scientific or technical training. Over the past several years, SRS has focused its efforts on improving the readability of these documents for the general public using plain language techniques.

SRS has implemented these improvements to a larger degree in the report summary. SRS has produced a report summary for the past several years. These reports typically extracted information from the environmental report and in some cases included some of the details. Although SRS greatly improved the summary report in 2012, we recognized that using more plain language guidelines would greatly increase the readability and usefulness of the 2013 summary report.

A number of general features distinguish plain language documents from traditional styles of government writing. These features include:

- Organizing for easy reading,
- Using words effectively,
- Using clear, simple sentences, and paragraphs, and
- Designing for visual appeal.

From this list, we found that plain language is not simply about words. It is equally about organization, document design, and sentence and paragraph style. Consideration was given to all of these features to write or revise these documents in plain language. One of the most popular plain language myths is that you have to "dumb down" the content so that everyone everywhere can read and understand the content. That is not true. The first rule of plain language is *write for your readers*. Use language your readers know and feel comfortable with. Take your reader's background and level of knowledge into account.

What is Plain Language?

In spite of its name, plain language is not a way of writing that uses short, simple words. It is an approach to writing that puts the needs of the reader first—what is sometimes called a "reader-centered" approach. Using a plain language approach, documents are written and designed so that your readers will understand the information the first time they read it. In the words of the Plain Language Institute, it is "writing and design that successfully communicates a message to a specific audience."

DESCRIPTION OF OUR APPROACH

Assembling a Team

The team consisted of the following:

A team leader who has the authority to make decisions that keep the project moving forward and bring it to a successful conclusion.

A technical editor who ensures the document uses a logical structure and simple, clear language. Because more than one person drafted sections of the document, the lead writer made sure the final draft had a consistent tone and the individual parts formed a coherent whole.

Technical experts or scientists who can provide information for each subject area and can review the final product to ensure technical accuracy. For the SRS ASER team this included representatives from Department of Energy program offices and prime contractors.

Communications experts who are attuned to the terminology that our readers can readily understand and will know which questions the public may ask and where past documents have failed to make information clear.

An information designer who is a graphic designer trained to work closely with the writers and to think about how to present complex information visually.

Knowing Our Readers

SRS has worked closely with its Citizens Advisory Board (CAB) over the years on a variety of environmental issues. We also recognized that CAB members use the environmental report as their primary source to gain an understanding of the environmental impacts from SRS operations. In addition, SRS gives an annual presentation to the CAB that provides an overview of the results of annual environmental monitoring. The SRS CAB is representative of the diverse population of the Central Savannah River Area, and therefore of the readership of the environmental report. SRS conducted interviews and discussions with members of the CAB and persons residing in the communities adjacent to SRS and along the Savannah River. These interviews provided valuable feedback that was incorporated into the *SRS Environmental Report for 2013*.

IMPLEMENTING IMPROVEMENTS

Writing in Active Voice

For most of us, speech and informal writing flows naturally. When it comes to more formal writing, however, we frequently choose passive voice. Both the active voice and passive voice are correct grammatically, but active voice is preferred because it is often simpler and more straightforward

Writing in a Visually Appealing Style

Writing short sections: Short sections break up the material into easily understood segments. Short sections can look less intimidating.

Using vertical lists: Vertical lists highlight a series of items in a visually clear way. We used vertical lists to help readers focus on important material. Bullets were used to clarify individual entries and concepts.

Using graphics and tables: The use of figures such as charts, tables, and other illustrative materials as examples to explain complex information. We limited graphs and illustrations to one page. It is important to make sure all graphs and illustrations have informative headers, row/column/axis labels, units of measurement, citations of data sources, relevant dates associated with data, and any other assumptions of which readers should be aware. Here are two effective illustrative examples:

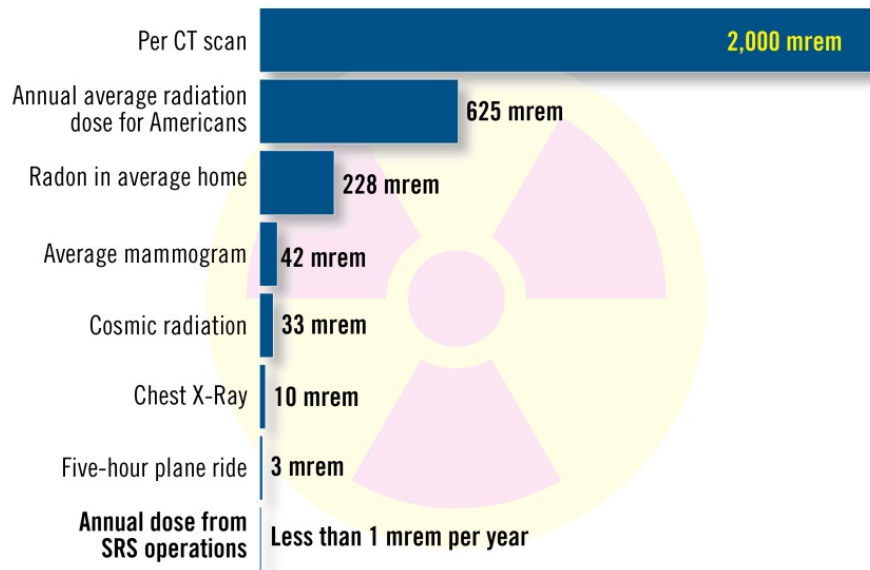


Figure 1 – Illustration Used to Compare Radiation Doses

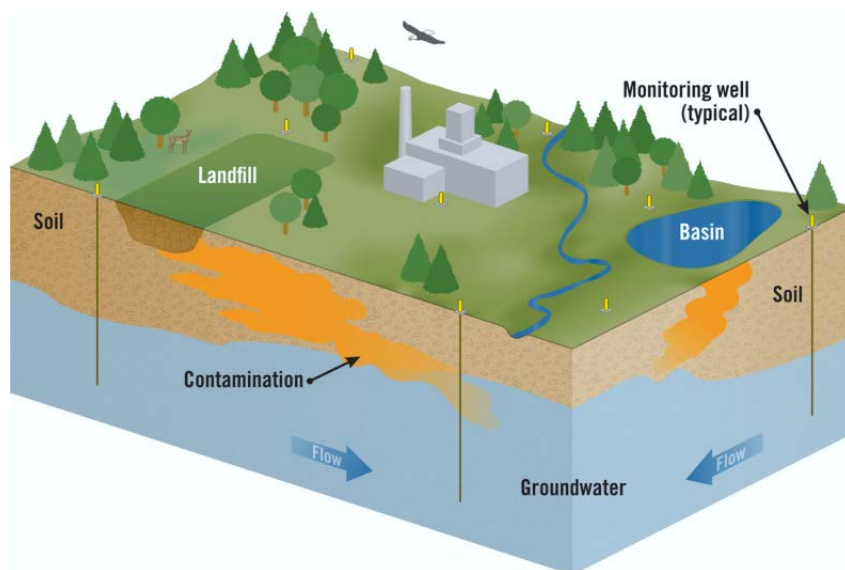


Figure 2 – Illustration Used to Describe Contaminant Transport in the Environment
Defining Acronyms and Technical Terms

Throughout the reports, text boxes were used to identify commonly used terms in a section or chapter. This allowed readers convenient access to the definitions of technical terms in that section or chapter.

Organizing for Readability

First, draft an outline to help logically organize the document logically organized and make it easy to follow. Use bullets, white space, one-inch margins, and short paragraphs. Design the document so the reader can quickly ascertain the most important pieces.

Second, present the big picture before the details. In the past, the reader may have read pages before finding the purpose for providing the information. It is hard for a reader to absorb the details if they do not know how they fit into the big picture.

Third, descriptive headers and sub headers were used to break the document into manageable sections. These documents impart a lot of information. If you present the information into bite-sized pieces, it is easier to digest. We used headings that told the reader what the upcoming sections would cover.

Headings in the form of a question are the most useful. They help the reader focus on the things that are important to them. Careful selection of the header topics also help the authors to focus on topics they feel are important for their readers. Using the question and answer format is intended to help readers scan the document and find specific information.

In the report summary, we used question headings such as:

- How Are We Exposed to Radiation?
- What is a Radiation Dose?
- How Are We Exposed to Chemicals?

CONCLUSIONS

SRS implemented the use of plain language, which has resulted in a number of benefits. The redesign of the *SRS Environmental Report Summary for 2013* alone reduced the report from a document of 29 pages to 16 pages. The revised document includes shorter sections, use of white space, improved document organization, and use of effective illustrations. We believe it does a better job of telling readers what they want to know. As with any repetitive process, this conclusion must be confirmed with additional feedback from our readers.

Our team learned five things about using plain language.

1. Plain language is language that your readers can understand. When designing and writing a document, you need to know your readers.
2. Writing in plain language requires you to know the material to be communicated.

3. Plain language is more than simple words and short sentences. Plain language documents give you the information you need in a simple, concise fashion. Plain language documents are logically organized, nicely formatted, and understandable the first time you read them.
4. Plain language is not “dumbing down” the information. Plain language documents make the reader feel intelligent and empowered. People rarely complain that a document was too easy to read and understand.

The best way to find out if plain language documents will work for intended users is to test the documents with those users. This is called usability testing. Usability tests will help us determine if plain language techniques helped writers and document designers communicate clearly with the residents of our surrounding communities. SRS conducted informal usability test with a selected individuals and plans to conduct additional usability test to determine if our efforts have been successful and to implement improvements for the coming year.

For more information on the principles and use of plain language, see the federal government’s website on plain language: <http://www.plainlanguage.gov>. The *SRS Environmental Report for 2013* and the *SRS Environmental Report Summary for 2013* can be found at <http://www.srs.gov/general/pubs/ERsum/er13/index.html>.