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OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Box 4498
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September 12, 2002

Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Attention: Rulemakings and Adjudications Staff

Adverse Comments on Electronic Maintenance and Submission of Information
(RIN3150-AF61)

The primary focus of these comments below will be on technical issues associated with
statements made justifying this direct final rule that are material misstatements of fact.

There is one general comment that needs to be made prior to addressing the technical
matters:

> Contrary to the first paragraph under Section I, the aim of this rulemaking does
> not appear to be simply conforming the NRC's regulations to the GPEA. The
> actual reason for approaching the rulemaking in the form of this direct final rule
> approach appears to be trying to short-cut the debate about the agency's inability
> to properly deal internally with the necessary process changes required to
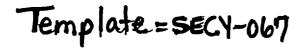> operate with having documents submitted electronically in formats other than
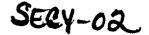> EIE.

Executive Summary

The CD-ROM and paper copies requirements for electronic documents submitted to the
NRC via the CD-ROM format are not justified by the arguments the agency is advancing
to support this rulemaking.

The NRC should specify a standard format for submission of documents by CD-ROM
that would allow for upload of the documents into NRC systems such as ADAMS.
There should be no different requirements for files submitted in this standard format on
CD-ROM than there are for files submitted to the NRC by EIE.

The NRC should specify a standard format for CD-ROM submittals that is an analogue
of the EIE process, develop internal programming and processes to accept these
standard submittals, and provide adequate training, and equipment to its staff to do the
work associated with electronic document submittals.

As formulated, this rulemaking is unnecessarily burdensome and costly to licensees,
and is not technically justified. This rulemaking and the backup proposed rule contain

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SECY-02

the same onerous and unwarranted restrictions on electronic submittals on CD-ROM and both should be withdrawn.

Technical Comments

1. Section III. Action

    A. Electronic Submission on CD-ROM Requiring Multiple Copies of CD ROM and A Paper copy

    Providing it meets other file type, format and size requirements, there is no technical difference between a file submitted via CD-ROM and one submitted by EIE, as far as processing options once it is entered into an NRC computer system. Yet, in the body of the rulemaking and in the attached guidance, the EIE submitted file does not require multiple copies nor submission of a paper copy along with it, while the same file submitted on CD-ROM does.

    The thrust of this requirement for CD-ROM submittals appears to be related to characterization of "Large Documents" being submitted via CD-ROM. It is precisely for large documents, and the amount of paper they utilize, that the GPEA was intended.

    Combined with another requirement, that page-replacement files cannot be submitted via CD-ROM (further discussed below), this set of requirements appears to intentionally increase the amount of paper submitted to the agency instead of decrease it. (Compared to the guidance of RIS-2001-05)

    If the technical problem is in handling 'large documents' submitted by CD-ROM, **that** should be addressed by specifying the allowable content, format and organization of the CD-ROM, not by requiring multiple copies of the CD-ROM and a paper copy. This requirement should certainly not stand for submittals of 'small' documents on CD-ROM. They should be treated similarly to an EIE submittal.

    The NRC should specify a standard format for submission of documents by CD-ROM that would allow for upload of the documents into NRC systems such as ADAMS. There should be no different requirements for files submitted in this standard format on CD-ROM than there are for files submitted to the NRC by EIE.

    I administer a FileNet Image Management system. The FileNet technology forms the basis for the NRC ADAMS system. FileNet's Panagon Capture software includes the capability to import collections of files (PDF and TIF) from external sources directly into FileNet with automatic indexing of the files. This is accomplished by providing a small file of specified format indexing information along with each file that is to be imported into the system.

For example, the NRC could specify that the CD-ROM include a standard-format (Excel spreadsheet or comma-separated value) file containing file names and indexing information in a specified order. Upon receipt of the CD-ROM, the NRC processing unit could read this file with a program that could add accession numbers and other NRC-required additional indexing data, and produce the required index information files. Copying the contents of the CD-ROM and the indexing files to the Panagon Capture import directory could be done in a short time, and then the rest of the import process would be automated within the Panagon product. We have done something similar with thousands of files produced by our information management system.

B. Viewing Documents

The statement is made that 'oversized' documents 'cannot be viewed easily on 'standard-sized monitors'. There are no specifications given for either of the terms 'oversized' or 'standard-sized'. There are no citations or references to back up these statements. Based on actual industry experience with distributed document management systems, they are specious.

I work with such a system that makes over 150,000 drawings, ranging in size from A-size to E-size, available on over 800 desktops. The standard-sized monitor is a 17" viewing area CRT, with some document-intensive workstations having 21" monitors, and some older workstations having 15" monitors. The documents are displayed with a navigation screen that allows for movement of the display area to any part of the document, and a practically infinite range of magnification for the displayed area. There is no problem viewing any size document on any size monitor.

Since I know the NRC has access to FileNet software, I can point out that the standard FileNet viewer provided with IDM Desktop provides all of these same features for viewing any size TIFF document. Adobe Acrobat Reader has the same features for PDF files of large documents.

There is no technical problem here. There would appear to be a problem, that has been common to many organizations, in getting the required change in staff attitude to accept electronic display of documents in lieu of the paper they have been accustomed to dealing with.

Transferring the onus of dealing with this internal problem to the licensees by requiring them to do extra and unnecessary work to send paper copies is not a proper response by a regulatory agency of the government, nor in the spirit of the GPEA.

C. Statements on Printing

In general, most of the statements on printing and printing technology made in this section are not true or supported with any factual statements.

A great percentage of the problems claimed as existing for the NRC with printing submitted electronic documents could be eliminated by two simple actions:

- Specifying a format for organizing CD submittals (see above) that includes identification and/or separation of files with larger than 8.5x11" pages
- The NRC obtaining appropriate printers to meet the requirements for to-scale printing.

For example, the Xerox 8830 Engineering printer is capable of containing three different sizes of paper rolls, and producing A, C and E-size pages on one printer. There are other similar units on the market. If there were a true need to "produce paper copies of CDs on a single machine", there is technology that has existed for years to do so. It is not something the NRC has to wait for. They simply have to procure it. The firm I work for has 7 or 8 of these printers scattered between 4 different buildings at two different physical locations, available to any PC on the network. They are primarily used to print C, D and E-sized engineering drawings on demand.

In all likelihood, the printers the NRC already has could reproduce 95-99% or better of all the documents received in a standard electronic format of TIFF or PDF. All of the pages would print, just some of them would not print to scale, or not in color or not in 3-D. If there was some reason why viewing the larger drawings electronically was not sufficient, the fix is to have printers available that print to the scale, the volume or the format desired.

Statements on where the cost of printing is most 'cost effective' in this section are self-serving, at best. Most efficient organizations are implementing electronic workflow for documents to minimize the interim and final generation of paper. The reason is that the cost of handling paper in a process is one of the largest cost generators in the process. Under these processes, documents can be created, reviewed, approved, archived and sent to the NRC without any paper copy ever being generated.

The FileNet system the NRC has is capable of establishing workflow queues that can route documents from workstation to workstation in this manner. It can even accept faxes directly into the system without printing any paper copies.

Once an electronic document is final, and in a standard format such as TIFF or PDF, there are no readily apparent cost savings in printing at the point of origin versus at the NRC. The real problem appears to be that the NRC does not have

the internal processes to handle getting the documents into their systems nor appropriate printers to print the documents if they were in the system.

Again, if the problem of getting a standard format for submittal of documents on CD-ROM that could be quickly processed into NRC internal systems were resolved, most of the so-called 'printing problems' involved with what is identified as the 'conversion process' could be eliminated from consideration.

D. 'Special Attributes' and EIE

Basically, 'special attributes' appears to be a euphemism for any document for which the NRC does not have an adequate printer on-hand.

There is no rational explanation of why a document with no 'special attributes' can be submitted by EIE in the form of 1 electronic copy, but if the same document is submitted on CD-ROM, multiple copies of the CD-ROM and a paper copy are being required.

It is apparent from the discussion of CD-ROM submittals being accompanied by paper, in the context of the GPEA and what is 'practicable', that the actual problem is that the NRC is not prepared to deal with files not directly piped to their systems by the already-developed EIE mechanism. This appears to be a failing in the IT infrastructure of the NRC.

This failure is unduly burdening every licensee with onerous reproduction requirements that are not justified by any problem that could not be solved by appropriate internal action by the NRC.

The NRC should specify a standard format for CD-ROM submittals that is an analogue of the EIE process, develop internal programming and processes to accept these standard submittals, and provide adequate training and equipment to its staff to do the work.

The low acceptance rate of the EIE process by licensees should also be a matter of concern to the NRC. If the EIE process were easy to use, able to deal with large documents and efficient for the licensees, it might be used more than the CD-ROM process.

E. Page Replacement Files

According to this rulemaking and guidance, I can submit a stack of replacement pages, together with a 'roadmap' to replacing the pages in the original document, as a set of piles of paper. I am not allowed to scan the same pages on to a CD-ROM, and send even the same number of CD-ROMS as piles of paper.

No, I have to create a CD-ROM of the entire revised document, put that on CD-ROM, and then send along with it a paper copy of the entire document, along with as many copies of the CD as I would have had piles of paper.

Let us say that I make a 5 page change to the FSAR. Instead of expecting the NRC to be able to print 6 pages from a CD, I have to send in 10 copies of the CD and 18 volumes of paper literally hundreds if not thousands of times greater in size than the actual change.

What is wrong with this picture? Nothing, if your real intent is to preclude the submission of documents on CD-ROM. This really appears to be a common thread in this rulemaking.

2. Appendix A

   A. Section 2.0. The version of Adobe product is not synonymous with the version type of the PDF file format. The specification should more clearly identify the PDF version, if that is what the actual problem is. If the compact searchable image is the problem, that should be specified simply as a prohibited format.
   B. Section 2.2(3). Specifying filenames with numeric prefixes may make it easier for the NRC to determine the 'correct order' on a single CD-ROM manually or visually, but generally complicate production of documents at the licensee because systems used in production do not accommodate file naming conventions of this type without major software or process changes. A spreadsheet or data file with correlation between file names and order would be more effective for process automation. Process automation is what is required to reduce overheads, not Band-Aids to deal with manual processes.
   C. Section 2.5 There is no frame of reference for notes a and b under the resolution table. Some of the wording could appear to contradict the acceptable format table under 2.0. The context of these notes needs to be clarified.
   D. The terms 'special attributes' and 'special equipment' are not used consistent with industry-standard understanding. Just because a drawing is large does not mean it has any 'special attributes', such as might be expected in a CAD system drawing file. It is just a larger file requiring larger paper to display to scale. Similarly, although the term 'plotter' is still used to describe some larger scale printers, because of historical precedence, they are simply large-format printers, and are not 'special equipment', just equipment the NRC has not yet purchased.
   E. Sections 2.12 and 4.3. There is no justification for shifting to licensees the burden caused by the NRC not having an adequate internal process for dealing with CD-ROM submittals. The NRC could have the capability to reproduce paper copies of these submissions if it had the will to do so and allocated adequate resources to make it happen.
   F. Section 4.3.3 The combination of this requirement together with the requirements for CD-ROM submittal with paper copies, and the file limitations on EIE transmittals make efficient and paperless submittals of FSAR updates practically impossible.

Submitted by

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