



CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES QUALITY ASSURANCE SURVEILLANCE REPORT

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PROJECT NO.: 20-5708-159

REPORT NO.: 96-17

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SURVEILLANCE SCOPE: In process surveillance on development of 1996 CNWRA Annual Report

REFERENCE DOCUMENTS: Majority of chapters in progress in the 1996 CNWRA Annual Report, including CNWRA Document Review Request and Transmittal Control forms, Instructions to Technical Reviewers forms, and Report Review/Comment Resolution Record forms; QAP-002, Review of CNWRA Documents, Reports and Papers; QAP-004, Surveillance Control Procedure.

STARTING DATE: 10/25/96

ENDING DATE: 11/8/96

QA REPRESENTATIVE: B. Mabrito

PERSONS CONTACTED: J. Stamatakos, Y. Lozano, P. Lichtner, B. Long, C. Connor, L. Hearon, G. Cragnolino, E. Cantu, J. Russell, L. Gutierrez, A. Chowdhury, B. Caudle, A. Ramos, B. Garcia, L. Mckague, C. Garcia, L. Selvey

SATISFACTORY FINDINGS: Of the 10 chapters of the CNWRA Annual Report, the following chapter packages were checked to determine whether they met the QAP-002 requirements and to ascertain answers to questions pertaining to poor editorial quality, "rough reading," and lack of cohesiveness of technical material, etc.: Igneous Activity KTI, Chapter 2; Structural Deformation & Seismicity KTI, Chapter 3; Evolution of the Near-Field Environment KTI, Chapter 4; Container Life & Source Term KTI, Chapter 5; Thermal Effects on Flow KTI, Chapter 6; Repository Design & Thermal-Mechanical Effects KTI, Chapter 7; Total System Performance Assessment & Integration KTI, Chapter 8.

Objective evidence reviewed included all data in the individual packages (which typically measured from 2.5 to 3 inches of paper thickness, typically in folders with large rubber bands around each one). In several cases, the Instructions to Technical Reviewers form specified that computations should be checked and documented, however it was confirmed with the Technical Director that such checking should have been accomplished in other product deliverables and not in the CNWRA Annual Report. The forms were either changed by the Element Manager during the surveillance, or, if the reviewer had checked the computations, he was asked to so note on the Report Review/Comment Resolution Record. In the cases of this surveillance, the Document Review Request and Transmittal Control AP-6 form accurately reflected the status of the review process and status could be ascertained without the Element Secretary or Element Manager having to describe the progress.

Although this is the first Annual Report in which NRC staff have participated in the review process, those reviews, in most cases, are fully documented and will stand up to audit. In a few cases, final signatures are still required and are being obtained. Not all NRC staff used the TOP-3 form, however, their comments were readable in numbered text form and were responded to in that matter (as long as the comments are documented and validated by a signature/date, and the response and "acceptance closure" by the reviewer are validated, they are admissible as a QA Record). Fax and FedEx transmittals have provided objective evidence of the closure of the review process in the packages, and CNWRA Support Staff appear to have been diligent in obtaining such signatures/initials/dates.

From a strictly compliance perspective, those document packages checked in this surveillance met QAP-002 in providing objective evidence of meeting the formal process.

Other information related to this surveillance is included on the attached pages.

UNSATISFACTORY FINDINGS: None

NONCONFORMANCE REPORT NO.: None

ATTACHMENTS: Text describing potential reasons for reduced document quality.

RECOMMENDATIONS/ACTIONS: See attached pages for recommendations.

APPROVED: 
CENTER DIRECTOR OF QUALITY ASSURANCE

DATE: 11/12/96

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ADDITIONAL INFORMATION:

Interviews were conducted with several CNWRA Management, Technical, and Support Staff to ascertain why they believe the following quality problems exist in documents being presented for programmatic review (which is late in the review process), or, are being noticed by our sponsor: poor editorial quality (including grammar, tense, subject-verb agreement, and spelling errors), "rough" reading and lack of cohesiveness of the technical material, technical errors persisting through to programmatic review, etc.

The following statements, given in no particular order, were provided.

1. Author final documents usually are not really "final." The thrust of the document may substantially change after the secretary formats the document.
2. After technical review, the document may appear completely different, therefore benefits of the editorial review may be lost.
3. Maybe we need two editorial reviews, once at the beginning and another after technical review; most of the programmatic changes are editorial markups.
4. If there are extensive changes made throughout the review, the EM can determine whether it should go back to the editor.
5. Deadline crunch - no time for the secretary to actually read through the document - too busy making editorial corrections at the last minute.
6. New text does not go through editorial review, but goes directly into technical review. Does the respective EM view/approve this new text prior to technical review?
7. The CNWRA does not include the opportunity (usually because of time constraints) to allow for a final editorial review immediately prior to printing documents. This final "look-see/read-through" could catch some of those pesky errors that diminish overall document quality.
8. Common computer "drives" makes "diddling" with the document by the author possible (in this surveillance, the QA specialist noted that most, if not all, of the Element Secretaries do NOT allow access by the author to the document once it has passed the author final stage).
9. Last minute changes by the author. If they are major, the document should go back through the cycle, or at least through the EM and programmatic review, or through editorial again.
10. Author's discretion still reigns (but everyone also agrees that this should not change), and the Support Staff has great trouble when the author is rewriting IN BETWEEN the technical and programmatic reviews. Also, the changes put in by the author often go far beyond the reviewer comments, which can radically modify the document.
11. No one is checking to ensure the author has incorporated the editorial review comments.

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- 12. Not all the support staff are as careful as others regarding format reviews or final editing.
- 13. Software incompatibility.
- 14. No time to do a thorough job on the document. We don't go to editorial as much as we need to. We take on too much and the production level is too high.
- 15. Perhaps a cursory editorial review should be first after author final, then, after programmatic review, go back through the editorial review.
- 16. Very little time is allowed for the reviews, and therefore editorial and technical reviews suffer. Technical reviews of a journal article are typically a month and based on that, the CNWRA should have more time for its reviews.
- 17. There is no management reward to the Technical Staff for doing a detailed and comprehensive technical review. Could the annual evaluation include the number of technical reviews accomplished? Time is very important and there should be a mechanism to log in reviews as a valid CNWRA activity.
- 18. There is no faith at all in our editorial review process. The CNWRA staff member doesn't believe the editorial reviews are substantial. Why not have the editorial review at the end of the process?
- 19. Author final copy is often "a bit loose."
- 20. The technical writing is very difficult, because we are sharing the writing with NRC staff who sometimes simply do not agree with us.
- 21. One statement that the CNWRA staff member does not believe we have poor editorial quality. The fact that we are working with NRC staff on a wide variety of issues means that we are going to be faced with a great diversity of philosophies which makes the writing more difficult.
- 22. Key, important points do not jump out at the reader. Some sections of documents are very poorly written and even after being passed through editorial, technical, and programmatic reviews, the writing is not to the point and not hard hitting.
- 23. The system is backwards, editorial should be last. We should do EVERYTHING electronically and should not give it to the Element Secretary until it is ready for final formatting.
- 24. Remember that journals give three or more months for reviews.
- 25. Many paragraphs are often added to a document, and they simply do not go back to editorial for review.

26. The authors have free reign to make changes. Why are we doing an editorial review if the author disregards what is said? Plus, the support staff gets careless.

NOTE: There were additional comments, however, the above points cover the majority of opinions.

DETERMINATION OF FACTORS CONTRIBUTING TO POOR DOCUMENT QUALITY AND RECOMMENDATIONS:

1. Based on this surveillance and the objective evidence reviewed, it is apparent that what is generally considered "author final" is seldom that. Although the phrase "author final" is not in QAP-002, Review of CNWRA Documents, Reports and Papers (and perhaps it should be defined in the procedure), it is evident that what often emerges from the agreement between the Element Manager (EM) and the author of a document is seldom "the best document by those two individuals ready for publication." By releasing into the document review cycle a product that is not fully prepared causes more changes to be required and therefore contributes to lower final product quality. Bear in mind that when an EM is on travel and someone is delegated authority to perform the Element duties, a less efficient, less thorough review of the product may be submitted at the "author final" step.

Recommendation: Hold EMs fully responsible for the "author final" product. Verification of this can be determined by the CNWRA management staff.

2. The CNWRA editorial review produces a marked up copy, however, we have gotten away from having author/editor discussions to resolve comments (or even implement the comments made by the editor because of our general culture that "the author is the final authority in a document"). It clearly reduces the quality of the document to not have the editor interface, either directly or by telephone, with the author.

Recommendation: Make mandatory a telephonic or face-to-face meeting between the editor and the author to ensure the editorial comments are understood and that major comments are resolved. Perhaps adding a sign off block to the AP-6 indicating the meeting has taken place.

3. Following the technical and programmatic reviews, additions can be made (and sometimes are) by the author which go far beyond the reviewer's comments. This presents an opportunity to continue to write the document after the "author final" version has been agreed to by the EM and the author. When the technical/programmatic reviewers check the document to ensure his/her comments have been either incorporated or considered (but rejected with justification), subsequent input by the author beyond the reviewer comments may not be reviewed.

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Recommendation: This is a particularly difficult problem to address because most of the technical reviewers check only for inclusion of their comments or to read from the TOP-3 form why their comments were not incorporated. As an organization, the CNWRA could require technical reviewers to re-read the entire document, but that would not necessarily address the editorial problems we are attempting to cure. An editorial review at the completion of the document review cycle is another approach, as has been scheduled for this CNWRA Annual Report. Any extensive changes made by the author not recommended by the reviewer, should be cited by the author to the reviewer before final sign off is accomplished.

4. Feedback to reviewers/CNWRA staff as to exactly why the sponsor felt a document was of insufficient (or not high) quality does not occur on a regular basis. For instance, when our sponsor states that a document was of poor quality, often our technical staff and support staff do not know exactly why it was determined to be lacking. Feedback to staff appears to be lacking, so that corrective action can be taken the next time around.

Recommendation: Suggest one of the following methods to let CNWRA staff know about editorial errors: (i) circulate to staff the error(s) that have been identified by our sponsor; (ii) have the EMs present the issues during their section meetings; (iii) discuss the items during the CNWRA Quarterly Staff Meeting.

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MEMORANDUM

November 20, 1996

TO: CNWRA Staff

FROM: Bruce Mabrito, Director of Quality Assurance 

SUBJECT: Efforts to Improve Document Quality

REFERENCE: CNWRA Management Staff Meeting of 11/18/96

Following an in-process surveillance on the development of the 1996 CNWRA Annual Report, several recommendations were made in an effort to improve CNWRA document editorial quality. The points were listed in Surveillance Report 96-17 and are provided below, as modified by input from the management staff meeting attendees 11/18/96. The following augments existing CNWRA policy and procedures regarding document review and are effective immediately.

- 1. AUTHOR FINAL:** Element Managers are fully responsible for the "author final" product that is transmitted for internal reviews. This important component of our system was confirmed by the CNWRA management staff.
- 2. EDITORIAL REVIEW:** In the resolution of editorial comments, a telephonic or face-to-face meeting between the editor and the author is mandatory to ensure the editorial comments are understood and that major input/comments are fully resolved.
- 3. TECHNICAL/PROGRAMMATIC REVIEW:** Technical and programmatic reviewers must read the responses made to their comments and read the changed, affected portions of the document to ensure their concerns have been fully addressed. The authors must indicate on the comment resolution sheet whether they have made modifications/additions elsewhere in the text in response to the reviewer's comments or for other reasons.
- 4. SECOND EDITORIAL REVIEW:** It was reaffirmed that if the Element Manager or Technical Director determine that a second editorial review is required of a document in progress, such a review can be conducted without any other approvals.
- 5. FEEDBACK TO STAFF:** Errors identified by our sponsor should be circulated to CNWRA staff or be presented in Element/Section meetings so that our level of concern matches the sponsor's expectation of our products.

This policy requires no change to QA Procedure-002, "Review of CNWRA Documents, Reports and Papers," but does target certain steps where additional emphasis is needed during document preparation, editorial review, and technical review.

cc: W. Patrick
R. Brient

QA Memos Folder