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POLICY ISSUE

(NEGATIVE CONSENT)

SECY-93-273

October 4, 1993

FOR: The Commissioners
FROM: James M. Taylor, Executive Director for Operations
SUBJECT: CONTINUATION OF THE "NUCLEAR SAFETY" JOURNAL

PURPOSE:

To inform the Commission of the staff's intent to continue the Nuclear Safety journal by providing full funding. DOE funding is discontinued. This publication had been jointly funded previously.

DISCUSSION:

The Journal

Nuclear Safety is a technical progress and review journal that covers significant developments in the field of nuclear safety. The material is put together at Oak Ridge National Laboratory; the production functions (composition, page make-up, reference checks, printing) are performed by the DOE Office of Scientific and Technical Information; sale and distribution are by the Government Printing Office. The journal is in the 34th year of publication. Since 1986 it has been published quarterly; most of the time before that, every two months. During its first 25 years the journal was primarily concerned with broad reviews of the state of the art in various safety-related areas. In recent years, it has, in addition to review papers, accepted papers describing new work, including papers from abroad judged to be of interest to the U.S. nuclear safety community, as well as reporting on general topics thought to be of interest.

Nuclear Safety functions as an independent technical journal that seeks to maintain high professional quality in its contents, relying to that end extensively on independent expert peer reviews of submitted papers.

CONTACT:
G. Sege, RES
492-3904

NOTE: EXCEPT FOR APPENDIX A, TO BE MADE PUBLICLY AVAILABLE WHEN THE FINAL SRM IS AVAILABLE. APPENDIX A IS TO BE WITHHELD.

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The number of copies printed is currently 3,115. Approximately one-half of these are sold through the Government Printing Office at a subscription price of \$20 per year. The rest are distributed free, 800 to the Depository Libraries and 795 to a Government distribution list (including NRC).

The journal's Editor-in-Chief is Ernest G. Silver, of Oak Ridge National Laboratory. Dr. Silver succeeded William Cottrell, the founding editor, in 1984, when Mr. Cottrell retired.

In Appendix B Dr. Silver provides additional descriptive detail about the journal and its processes. Appendix C is a reproduction of the tables of contents of the four 1992 issues. A copy of Nuclear Safety (Oct.-Dec. 1992) is enclosed for information.

Recent Funding

In FY 91 and 92 funding was \$361K and 366K. The FY 93 funding was \$334K. These funding levels, especially for FY 93, were insufficient for four issues a year. Publication dates slipped. It is estimated that four full issues would have cost about \$380K to 400K (in 1993 dollars).

The main source of funding has been DOE. NRC's contribution was about one-quarter of the total.

The editorial work takes up about 70% of the cost; the remaining 30% or so is for production (composition, page make-up, reference checks, printing). (These costs do not include the GPO distribution costs or recoveries through subscription sales.)

A more detailed recent cost history is presented in Appendix D.

Status

DOE funding of Nuclear Safety is being discontinued as of the end of September 1993. This move reflects the Department's reduction of its Nuclear Energy program. The consequence is that continued publication of the journal depends on NRC taking on the full funding.

Recent issues of the journal are behind schedule, partly as a result of funding problems. (The July-September 1992 issue came out in April 1993; the October-December 1992 issue, in July 1993. The first 1993 issue is expected to be ready for distribution in October 1993.)

Justification for Continuing Publication

Nuclear Safety is the only professional journal in the U.S. dedicated to the subject of nuclear safety, though many articles on topics related to nuclear safety appear in a variety of other refereed professional journals. Through its specialized concentration on nuclear safety topics and focus on both broad progress reviews and important new work, it can provide an efficient vehicle

for disseminating to the nuclear community information of a high quality on nuclear safety -- and especially on nuclear safety research. Assembly of this information in one periodical helps create context and perspective for the various aspects of the field. Beneficiaries of this information include the NRC and its contractors, the nuclear industry, DOE and its contractors, various segments of the public and the academic community with an interest in nuclear safety developments, and the international nuclear safety community. The journal can be a helpful adjunct to other means of dissemination of nuclear safety research information, whether of NRC-sponsored origin or from elsewhere, and could contribute to accomplishment of the NRC's safety objectives.

Of particular interest to the NRC is the benefit that continuing publication of Nuclear Safety could provide to NRC licensees in exercising initiative in ensuring safety in their plants beyond minimal compliance with NRC regulatory requirements. Ready access to up-to-date nuclear safety information, including new developments, is important for this purpose. The NRC should not forgo this benefit by allowing Nuclear Safety to cease publication.

The journal serves international as well as national objectives. U.S. results are disseminated abroad while articles from foreign contributors inform U.S. readers about developments in other countries. The journal's continued publication by the U.S. nuclear safety regulatory agency is appropriate to the United States' position as the country with the largest nuclear establishment and as world leader in nuclear safety research.

Plans

The staff plans to make arrangements with DOE, with Oak Ridge National Laboratory, and with the Government Printing Office, to continue publication of Nuclear Safety under NRC funding, for a two-year trial period. During this period we plan to develop and make adjustments in scope and format in recognition of NRC mission needs, evaluate the journal's usefulness and cost, and draw conclusions as to the merits of continuing publication beyond the trial period. If the benefits are as assumed and the costs as expected, we would expect to continue publication, budget permitting. We will also consider increasing the subscription price of the publication to collect a larger share of the cost.

We intend to complete the transition to full NRC funding for the trial period expeditiously, to avoid disrupting the continuity of this periodical publication.

Since the process of producing the second 1993 issue is well along, we plan to support its completion as had been planned under DOE-led auspices. It should come out in early 1994. (Time needed for the transition steps is likely to prevent December 1993 issuance.)

We are tentatively planning to schedule only two additional issues for CY 1994. Before preparation of these issues, we plan to review the current

scope and format and, in consultation with the Editor-in-Chief, make adjustments to enhance the benefits sought. This is not the first time for making adjustments; the journal's scope, format, and frequency have undergone evolution and adjustment in response to changing needs and conditions from time to time in its 34-year history. In the light of early experience, we plan to consider the need for possible further format adjustment and the appropriate longer-term publication frequency.

We envisage continuation of Nuclear Safety as a medium for publication and broadcasting of state-of-the-art knowledge bearing on reactor safety and nuclear safety in selected other areas. The focus would be broadly on nuclear safety research and technology and on dissemination of peer-reviewed articles of wide application and value. Safety in operation and maintenance would be encompassed, along with engineering and research with a safety focus. Coverage of current events and items of short-term interest would be minimized or eliminated. We will work with the Editor-in-Chief to assure that adequate mechanisms are available to ensure that the content remains neutral, safety based, and consistent with NRC's regulatory and regulatory research leadership role, without the need for NRC review of content.

During the trial period and beyond it, if continuation is warranted, it is our intention to continue to foster high professional quality and editorial independence for Nuclear Safety. Our aspiration for the journal is to support it as a first-class, independent technical journal, providing contributions of lasting value.

At the same time we plan to work with the Editor-in-Chief and groups involved in physical production of the journal to streamline the journal's format and processes so as to produce the desired professional and physical product quality with good economy of resources. The number and distribution of free copies will be reviewed.

The Office of Nuclear Regulatory Research will be the responsible NRC program office.

Resource Requirements

See Appendix A.

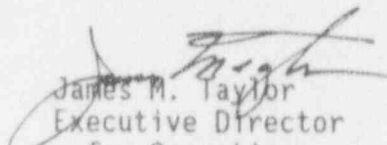
RECOMMENDATION:

That the Commission:

Note that, absent guidance to the contrary from the Commission, the staff will in approximately 2 weeks commit to continuation of Nuclear Safety through NRC funding only.

COORDINATION:

The Office of General Counsel has no legal objection.


James M. Taylor
Executive Director
for Operations

Appendices:

- A. Resource Requirements
- B. The Process of Creating the Nuclear Safety Journal
- C. Table of Contents of the 1992 Issues
- D. Recent Cost History

Enclosure:

Nuclear Safety, Oct.-Dec. 1992 issue

(Provided only for Commissioners, OGC & SECY. This and other issues available from Distribution Services.)

SECY NOTE: In the absence of instructions to the contrary, SECY will notify the staff on Tuesday, October 19, 1993, that the Commission, by negative consent, assents to the action proposed in this paper.

DISTRIBUTION:

Commissioners

OGC

OCAA

OIG

OPA

OCA

OPP

REGIONAL OFFICES

EDO

ACRS

ACNW

SECY

APPENDIX A

Resource Requirements

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of the rest of this paper

APPENDIX B

THE PROCESS OF CREATING THE NUCLEAR SAFETY JOURNAL

Ernest G. Silver
Editor-in-Chief, Nuclear Safety

November 12, 1992

The Process of Creating the NUCLEAR SAFETY Journal

INTRODUCTION

In order to inform the technical monitors of the *NUCLEAR SAFETY* Journal, on both the DOE and NRC sides, of the steps and activities involved in publishing this quarterly technical progress journal, this brief review attempts a step-by-step description of the tasks done by the Editor and his associates to bring the journal to its readers.

It should be noted that this description deals primarily with the "front end" work involved with bringing the finished and corrected manuscripts and graphics to the point where the material is sent to DOE's Office of Scientific and Technical Information (OSTI), although a brief description of OSTI's activities and their interactions with the editorial staff is also included. All page make-up, composition, printing, and distribution functions are done by OSTI with separate funding, and are not under the direct control of the Editor and his staff, although feed-back from the Editorial staff to OSTI about the finished product is part of the QA process.

From its very beginning, *NUCLEAR SAFETY* was prepared within what was then the Nuclear Safety Information Center (NSIC) in the Reactor Division of the Oak Ridge National Laboratory. Although the division is now called the Engineering Technology Division, and NSIC has evolved into the Operational Performance Technology Section (OPT), the journal continues to be based in its original home there, and its concerns still mesh very well with OPT's focus on all aspects of nuclear power operations and their safety.

BACKGROUND AND HISTORY

NUCLEAR SAFETY (NS) is currently in its 33rd year of publication. Originally, under its founding Editor, Wm. Cottrell, the publication was quarterly, but soon became semi-monthly and remained so until 1986 when budget constraints forced a return to the quarterly format still used today. (Volume 26, in 1985, had five issues.) Upon Mr. Cottrell's retirement in 1984, E. G. Silver became Editor-in-Chief. NS was originally part of an entire series of publications known as "the Rainbow Series" from the distinctive colors of the covers of each one. All the others have long since been discontinued, leaving NS, the "gold journal" as the only survivor.

Originally NS published mostly brief in-house reviews of AEC publications and reports, with one longer "Feature" review paper in each issue. The journal predates the emergence of commercial nuclear power, so early volumes dealt mainly with reviews of AEC-sponsored research. As nuclear installations began to be built and operated by non-governmental

entities, the emphasis of NS shifted accordingly, with more attention paid to the safety of commercial power plants.

Initially called a "Technical Progress Review," during its first 25 years of publication the journal was primarily concerned with broad reviews of the state of the art in various safety-related areas. At that time most articles were solicited by the journal's editors, and articles describing new work, rather than reviews, were not usually published. It became evident in the 80's that a somewhat more inclusive policy was called for, since there were no other publications with the stability and prestige of NS in which scholarly articles reporting new results of experiments or analyses from around the world could be published. Accordingly NS changed its masthead to read "Technical Progress Journal," and now accepts, in addition to review-type manuscripts, papers that describe new work.

As NS has become better known and established, and as the dominance of U.S. work in the nuclear safety field has progressively given way to a more internationally distributed mode, especially in the last decade, NS has increasingly received unsolicited manuscripts from both the U.S. and abroad. Since, in the Editor-in-Chief's view, such international participation in the field is highly beneficial to U.S. workers in nuclear safety, it is now the policy of the journal to accept and publish quality papers from abroad if they are judged to be of interest to the U.S. nuclear safety community. In general, the percentage of unsolicited contributed manuscripts has risen from essentially zero in the early days of the publication to about 60% today.

NS STRUCTURE

1. Sections:

NS is subdivided into eight sections along subject lines, with a Section Editor for each. These sections, and their Section Editors are:

- | | | |
|----------------------------------|---|--------------------------------|
| 1. General Safety | - | Gary Mays |
| 2. Accident Analysis | - | Rusi Taleyarkhan |
| 3. Instrumentation & Controls | - | Robert Kryter, C. Ray Brittain |
| 4. Design Features | - | Don Trauger |
| 5. Environmental Effects | - | Barry Berven |
| 6. Waste & Spent Fuel Management | - | Ernest Silver (interim) |
| 7. Operating Experience | - | George Murphy |
| 8. Recent Developments | - | Ernest Silver |

2. Types of Articles:

There are basically two types of material in NS:

- a) Technical papers, and
- b) Current-events columns.

The technical papers are the articles, usually written by outside authors, that make up the bulk of the journal. This category includes, in addition to regular articles, Technical Notes (briefer manuscripts, often in response to published articles), Book Reviews, and Letters to the Editor.

The current-events material is prepared in-house by the Editor-in-Chief, the Assistant Editor, and other Operational Performance Technology (OPT) Section staff members. It consists of regular columns that appear in each issue, including:

Operating U.S. Power Reactors,
Activities Related to Waste and Spent Fuel Management,
General Administrative Activities,
Reports, Standards and Safety Guides,
Reactor Shut-Down Experience, and
Proposed (NRC) Rule Changes

The "Operating U.S. Power Reactors" column includes a table that summarizes the operational experience of each US power reactor on a monthly basis. It lists for each reactor the name, location, owner, reactor type and designer, design power, date of first commercial operation, and monthly as well as life-time-cumulative percent unit capacity and percent forced outage rate. Industry-summed data are also listed, as well as a graphic representation of industry-averaged performance figures.

There is also an annual listing of nuclear power reactor performance world-wide, and occasional brief reports of safety-related events in the nuclear power field.

An additional regular column with reports of interest culled from the "Operating Experience Weekly Summary" published by DOE's Office of Nuclear Safety will be instituted starting with Issue 33(4), in order to achieve better balance in the coverage of safety-related events.

3. Size of the Journal

In principle, each quarterly issue of the journal contains 150 pages of printed material, which, experience has shown, translates into 364 typed double-spaced pages. (In this count, figures are each counted as one page, and tables are counted as they appear in their typed versions.) Of this

material, about 240 pages come from the articles, technical notes, letters, and book reviews, and the other 124 come from the current events columns and other special items.

Ideally every issue will contain one or two articles, each 20 double-spaced pages long, from each of the first seven sections named above, thus adding up to the 240 pages devoted to technical papers. (Section 8 is special in that it contains only ancillary material, but no technical articles.) Of course, this ideal is never attained; papers range in length from about 15 to more than 60 pages in extreme cases (if the Editor-in-Chief judges that special circumstances justify such length), and Technical Notes, Letters to the Editor, and book reviews usually are much shorter.

Also, the exigencies of scheduling often intervene, so that in any one issue, no articles may be available from one particular section, while another may compensate by contributing two or even three papers, or a paper of exceptional length. It is one of the Editor-in-Chief's more difficult tasks to compromise among these factors, in addition to considerations of the variety of subjects, to arrive at acceptable-length issues, with a suitable balance of articles within the time schedules necessary for periodic publication.

THE JOURNAL ARTICLES

In this section we shall describe how articles come to be included in NS, how they are peer-reviewed, the processing they undergo after peer review, and the other activities required to create the journal.

1) Sources of articles:

Originally all material in NS was solicited; in fact there was a stable of reviewers who periodically wrote reviews of specified topic areas for inclusion in the journal. During the 70s and 80s this approach changed, and writers of review articles were solicited on an *ad hoc* basis, by the Section Editors, based on their knowledge of who the active people were in their areas of expertise. This put great importance on the broad knowledgeability of the Section Editors; they generally performed very satisfactorily, but there was always a possibility that there might be lacunae in the coverage, since a small group of Section Editors could not be presumed to know everything going on in a very diverse subject area at all times.

In order to supplement the articles solicited by the Section Editors, NS began to accept unsolicited, contributed papers, initially mostly from within the United States, and still of the review type. Such papers often were of great importance because they opened up new areas which had not previously

been covered completely, and presented viewpoints differing from those commonly found.

During this period (the 70s and 80s) articles would frequently be submitted, both from the USA and from abroad, that were technically sound and of interest to the nuclear safety community, but nevertheless not acceptable because they were not reviews, but rather reports of new work. Once the current Editor-in-Chief took over the responsibility for NS in 1984, he tried to "salvage" such papers by trying to induce the author or authors to add an introductory section to the paper, setting it in context by reviewing the prior work in the same area. In many instances, of course, such a review already formed part of the paper, and only needed to be expanded. It became clear, however, that quite a few authors especially from abroad, had good papers on well-done work, but were not really in a position to do extensive searches for other work, or were doing work where there really was no other body of work to combine with theirs in a review-type article. It was therefore decided, starting with issue 32(1) (January-March 1991) to change the subtitle of the journal from "Technical Progress Review" to "Technical Progress Journal" and to relax the requirement that all articles be reviews so as to accommodate papers describing specific research or testing projects and activities. The result has been a significant number of high-quality papers, many from outside the United States, which have given US readers insights into work and thinking in other countries that should be highly valuable to the American nuclear safety program, and, similarly, insights into some American work outside the usual orbit.

2) Peer Review of Submitted Manuscripts:

NS encourages authors to submit their papers on PC diskettes as well as in hard copy, though this is not a firm requirement. Once papers are received a judgment is made whether a peer review is called for. Peer review is used with all manuscripts with the following exceptions:

1. Technical notes, book reviews, or letters to the editor,
2. Meeting reports, and
3. Summaries/ extracts of DOE, NRC, or other publications.

Technical notes and the like are judged in-house by the NS staff to assure adequate quality. Meeting reports are write-ups of technical meetings, such as the NRC Water Reactor Safety Information Meetings, American Nuclear Society Topical Meetings, and the like. They usually contain a list of all the papers presented and a brief review of the most interesting aspects of the meeting.

When technical reports, such as NRC NUREG reports or DOE technical reports are judged to be of particular interest to the nuclear safety

community, a review of the report is occasionally published in the journal, although this sort of paper is not as commonly published now than was the case in the past. The executive summary of such a report is often cited at length, or a succinct summary of the report's salient points is used, often written by an author of the report.

All other papers, whether solicited or not, are sent to a group of three to five (occasionally six) experts in the subject area for peer review. The reviewers are selected by the Section Editor to whose Section the paper has been assigned, and, since we request and usually get reviews in depth, we try not to ask anyone to review more than one paper a year. We hope for three to four reviews of each paper. Former practice was to send the manuscripts for review without prior communication with the prospective reviewer; this practice results in 60-70% success in getting usable reviews back, so that four or five reviews needed to be requested. More recently we have in many cases contacted prospective reviewers first by phone to ask whether they would be willing to do a review, and with this pre-review screening we get almost 100% success in obtaining reviews.

Reviewers are asked not only whether they consider the manuscript of suitable content and quality for publication in NS, but also ask them to make specific recommendations for improvements, or to raise questions about uncertainties and difficulties, and judge whether the paper, especially if it is a review, is complete, in the sense that no significant work is omitted.

In the great majority of cases we receive three or four excellent and thoughtful reviews; very rarely we have to find one or more additional reviewers after the first reviews have been received.

If the reviewers are unanimous as to either acceptance or rejection, there is no problem in making a decision. With "split" decisions, not an infrequent occurrence, the matter becomes a matter for judgment, generally discussed between the Editor-in-Chief and the appropriate Section Editor. As noted above, in rare cases an additional review is solicited. Authors are never made aware of the names of reviewers; any reviewer comments passed on to authors are "anonymized" to protect their identity. (The singular "author" is used in this discussion, even though a majority of papers have more than one author. The procedure is not affected by the number of authors.)

If a paper is clearly rejected (unanimously, or by a 2-to-1 or 3-to-1 majority) the author is so notified, and the reviewer remarks (in anonymized form) are sent to him by way of explanation. If, in the Editor-in-Chief's opinion, the subject matter is of sufficient importance and suitability to warrant it, the author may be encouraged to try again, taking the reviewer comments into account, and if he does so, the new paper is submitted to a new set of reviewers who are not told that a previous effort by the same author was rejected.

If the reviewers are unanimous, or nearly so (3-to-1 or 4-to-1 in favor) that a paper should be published, the author is notified that the paper is accepted. Even then, however, the peer reviewer's anonymized comments are

sent to the author, and he is encouraged to consider the comments carefully and make such revisions as he thinks will strengthen the paper. It is made clear to the author that he or she is not obliged to make any changes to an accepted paper, but in fact the vast majority of authors (more than 90%) do undertake at least some revisions to take the reviewer comments into account.

In some instances, where the reviewers are evenly, or nearly evenly split, it becomes a matter of the Editor-in-Chief's judgment what course to follow. Most usually in such cases there is one or more major deficiency in the paper that some of the reviewers have identified. In such a case the paper may be given a "conditional acceptance." This means the anonymized peer reviews are sent to the author with a letter stating what the perceived deficiencies are, and stating that the paper will be accepted without additional peer review if, he revises the paper to the point where, in the opinion of the Editor-in-Chief and Section Editor, the major objections have been adequately remedied. If the author follows this suggestion and the paper is sufficiently modified, it is accepted for publication.

Historically about 70% of papers submitted are eventually accepted, with a higher proportion of solicited papers than contributed papers being accepted.

3) Post-Review Processing of Articles

Articles that have been accepted by the reviewers and revised by the author upon their recommendations are ready for post-review processing. This includes:

1. reference checking
2. text editing
3. graphics preparation

Reference checking: Almost all papers have more or less extensive lists of references; these tend to be especially numerous in review-type papers that bring together the results from many workers. NS considers these references to be an extremely important and useful part of the contents of the journal, so all references are checked for accuracy and completeness by a librarian. Questions, or references not found for verification, are usually discussed with the author to make sure that they are correct or to obtain additional information.

Text editing: All papers, except current events columns and meeting reports written in-house by the editorial staff, are sent to a text editor for careful editing to make sure the material is grammatically, orthographically, and syntactically acceptable, and that it is comprehensible and clear. Nowadays the articles are often received in

magnetic-media form, i.e. on PC diskettes. This facilitates the editing process to a significant degree, since the text editing is done on a PC. Articles not on diskettes must be read in by an optical character reader (OCR) before being edited. The editing process often involves the raising of queries by the text editor with the Editor-in-Chief, who then resolves these with the Section Editor or author to clarify obscure passages, define acronyms, modify units (NS fundamentally used metric SI units to comply with ORNL requirements, but will add non-metric units in parentheses if these will serve as aids to American readers), or elicit additional information. The editing process tends to be especially needed, and especially difficult, for papers from abroad, for whose authors English is not their native language. The use of more foreign papers has significantly increased the cost, in both time and money, of the editing process.

The Editor-in-Chief reviews each edited paper to check that the editing process has not introduced distortions in the author's meaning or intent.

As noted above, not all material to be published undergoes this formal editing process. The current events columns and meeting reviews prepared by the Editor-in-Chief or skip this step in the processing.

Graphics: Most articles include figures, either graphs or drawings. In almost all cases these must be either completely redrawn or at least modified to adapt them to NS's style requirements and to make them readable in the size in which they will be printed. Here too, questions often arise as to units or undefined acronyms, and these are resolved either in-house or in consultation with the author. It is the journal's policy that drawings with their captions should be largely self-explanatory so that readers do not have to search through the text of the article to understand the figure. This also often means that ordinate and/or abscissa scales in SI units need to be created to conform to NS usage. All figures are reviewed in detail by the Editor-in-Chief after going through the graphic arts process, and any errors or problems are identified and dealt with at this stage.

Once the three steps above have been completed, a finished copy of the manuscript is prepared, including all its elements, and reproduced in multiple copies for the following purposes:

1. One copy is sent to the author (several if there are several authors) with a request for a careful review to make sure that the editing is acceptable to the author, and that no distortions of meaning have been introduced. Authors are generally given two to three weeks to return any changes or corrections to NS.

2. Copies are sent to both DOE and NRC for a review to make sure that their policies or positions have not been misinterpreted by the authors, and that sensitivity or classification matters are not a problem.
3. A copy, with a diskette in the appropriate word-processing language, is sent to OSTI for makeup and composition. Note that, in the interest of saving time, the return of author or DOE or NRC corrections is not waited for before the article goes to OSTI. Corrections are sent to OSTI as they come in.

4) Assembling the NS Journal

So far we have dealt with articles and current-events materials as separate units, and we have seen how finished articles are achieved. There is, meanwhile, another level of activities required to produce a finished product, and to keep the issues coming at the required rate of four per year:

Scheduling: In each Section the flow of manuscripts must be managed so that enough material is available for each issue, but not so much is at hand that authors need to wait unduly long to see their articles in print, or that articles become unduly out of date before publication. This requires careful attention to working with authors and Section Editors to achieve the desired "flow rates."

Tracking: A PC-based tracking system is used by the Editor-in-Chief to maintain up-to-date information about the status of each project, from first solicitation to final transmittal to OSTI, so that the flow can be managed. This data base is also used to prepare frequent print-outs by Issue or Section, of the status of the articles.

Issue Planning: Since papers differ greatly in length, and there are also shorter items, like book reviews, technical notes, and the like, to be included, it is necessary to make repeated page counts to achieve the desired printed page count of ~150 pages per issue. This often necessitates last-minute changes such as dropping an article to a later issue or bringing another paper forward as needed. It also includes considerations of content balance, for example not printing too many meeting reviews or too many other papers with similar content in a given issue.

Auxiliary Material: Auxiliary materials include the author biographies, the editorials, the front cover illustration, the "Future Articles" listing (on the back cover), the inside front cover material (usually "advertising" a new information product put out by the Operational Performance Technology Section), the annual indexes of articles including a "Kwik-Index" alphabetized by significant words in titles and an author listing, and an annual list of peer reviewers. All these items must be organized at the right time to be ready to make up each issue.

Staff Meetings: Quarterly the Editor-in-Chief convenes the entire NS staff, including Section Editors, text editor, graphics staff, secretary, and OSTI representatives, to discuss current status and problems and plan forthcoming issues.

5. OSTI Functions

OSTI receives the articles and other materials described above, and then takes these disparate materials and assembles them into camera-ready copy for transmittal to a contract printer selected by the Government Printing Office, who prints the journal. OSTI then receives the printed copies in bulk and mails them to the subscribers.

In the process of type-setting the articles the OSTI staff does a final editing check, which occasionally finds typographical errors or other flaws. The staff then contacts the Editor-in-Chief to have such problems resolved.

The OSTI work includes the page makeup, i.e. the placement of material on each page, the selection of appropriate type fonts and the placement of figures and tables. The table of contents is also created in this process.

OSTI takes about a month to perform these functions, and another month is occupied with the printing and mailing of the journal.

OSTI also maintains the subscription list, and deals with subscribers if problems arise. DOE and NRC staff get free copies of NS, while outside subscribers pay a subscription fee (currently \$20.00 per year domestic and \$25.00 per year foreign) which, by federal rules, covers only printing and distribution.

Ernest G. Silver
Editor-in-Chief, *NUCLEAR SAFETY*
November 12, 1992

APPENDIX C

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A quarterly Technical Progress Journal prepared for the U.S. Department of Energy and the U.S. Nuclear Regulatory Commission by the Nuclear Operations Analysis Center at Oak Ridge National Laboratory

Published by the Office of Scientific and Technical Information U.S. Department of Energy

NUCLEAR SAFETY

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January-March 1992

TPJ-NS-33-No. 1
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NUSAAZ 33(1), 1992
ISSN: 0029-5604

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RECENT COST HISTORY

Provided by Leota Kane, DOE Office of Scientific and Technical Information

RECENT COST HISTORY FOR THE *NUCLEAR SAFETY JOURNAL*

The amounts are the funds actually expended
except as otherwise noted

<u>FY:</u>	<u>87</u>	<u>88</u>	<u>89</u>	<u>90</u>	<u>91</u>	<u>92</u>	<u>93²</u>
<u>ITEM</u>							
Funds expended at ORNL:							
DOE \$	63,273	92,541	95,106	114,131	168,829	170,659	94,194
NRC \$ ³	<u>54,761</u>	<u>68,803</u>	<u>77,778</u>	<u>62,240</u>	<u>84,328</u>	<u>81,434</u>	<u>88,662</u>
ORNL Total	118,034	161,344	172,884	176,371	253,157	252,093	182,856 ⁴ (211,300)
Funds expended by OSTI:	11,788 ⁵	11,080 ⁵	92,549 ⁶ (114,500)	110,144	107,567	113,965	123,000 ⁷
GRAND TOTAL ⁸	-	-	287,400	286,515	360,724	366,058	334,300

1. The money actually spent for text editing and graphics in FY-93 through the Business Month of August 1993 (before overhead) was \$22,385 of NRC funds and \$ 20,781 of DOE funds; we multiply the NRC amount by 1.032 to account for the DOE "tax" on NRC projects at ORNL, thus getting a total of \$ 43,882. We multiply this by 12/11 to account for the 12th month, and by 1.465 to account for overhead to arrive at the total of \$70,130.
2. The numbers are for only approximately 45 weeks, since no money was available for several weeks in April and May 1993, and for 4 weeks in September 1993.
3. The NRC funds have been incremented by 3.2% to account for the "DOE Tax" on NRC work at ORNL.
4. This amount is through Business Month August 1993 only, and is also affected by the fact that work had to be stopped because of a fund shortage earlier in the year. It is estimated that this figure represents the expenditures during 45 weeks of the year. Multiplying by 52/45 yields an estimated full-year cost of \$ 211,300.
5. The amounts for FY-87 and FY-88 are for printing of OSTI's copies only. The makeup and composition in those years was done under DOE contract by the MAXIMA Corporation. The costs are not available to us.
6. OSTI did not begin makeup and composition until October 1988, and reference checking until March 1989. The estimated whole year cost would have been \$ 114,500.
7. The FY-93 figure is an estimate furnished by OSTI.
8. The totals include all estimated corrections as shown in the Table. No totals are shown for FY-87 and FY-88, since they would be meaningless without the unknown MAXIMA expenditures.

I N T E R O F F I C E M E M O R A N D U M

Date: 07-Sep-1993 05:05pm
From: Leota Kane
KANEL
Dept: Publication Mgmt Sec
Tel No: 615-576-3385

TO: Dr. Ernest Silver (PAPER MAIL)

CC: Janice M. Blanton (BLANTON)

Subject: Nuclear Safety Journal Information

In response to our telephone conversation of September 3, 1993, the following information is provided:

795 copies are printed of the Nuclear Safety Technical Progress Journal for distribution from Office of Scientific and Technical Information (OSTI). 350 of these copies are sent to Nuclear Regulatory Commission (NRC). The 795 copies are the **only** copies that NRC and the Department of Energy (DOE) are billed for printing.

Additionally there are 830 copies printed for the Government Printing Office (GPO) and provided to the Depository Libraries, 15 copies are provided to Library of Congress, 1,475 subscription copies through GPO Superintendent of Documents. The total number of copies printed is currently 3,115.

Nuclear Safety Costing History

FY86	Printing only done through OSTI	\$ 10,476
FY87	Printing only done through OSTI	11,788
FY88	Printing only done through OSTI	11,080
FY89	Composition, page make-up (added in October 88), (added reference checks in March 89), printing, also includes \$1,250 due prior contractor's typesetter	92,549
FY90	Composition, page make-up, reference checks, printing	110,144
FY91	Composition, page make-up, reference checks, printing	107,567
FY92	Composition, page make-up, reference checks, printing	113,965
FY93	Composition, page make-up, reference checks, printing	123,000 (Estimated)

FY94 Estimate based upon continued improvements in the use of electronic publishing, reference checks remaining at same level and printing rates continuing at the current rate

\$108,400

Additionally, we were approached by Office of Nuclear Energy (NE-70) earlier in the year to provide an estimate for a change in the scope of the work performed by OSTI. I am also including that estimate for your benefit. The additional scope included text editing and preparation of artwork from draft copy or relettering of artwork if not of sufficient quality for the Nuclear Safety publication. The estimate for the added scope was \$140,000 for the first year plus \$35,000 for the additional hardware/software that would be required. The second year estimate for the added scope would be based upon the first year experience and any funds not required during the first year would be refunded to client.

The estimate did not include the writing and technical editing of articles for Nuclear Safety or peer review and coordination of project (all was to remain at ORNL).

If the decision is made by NRC to fund the publication, OSTI would prefer to have an Interagency Agreement and would work out the details with NRC.

If you require any additional information please feel free to call at 576-3385 and in my absence Janice Blanton, 576-1323.