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MANAGED BY LOCKHEED MARTIN ENERGY RESEARCH CORPORATION
FOR THE U.S. DEPARTMENT OF ENERGY

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November 15, 1996

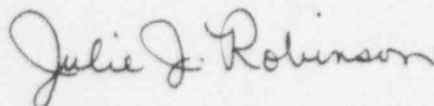
Dennis M. Sollenberger
U. S. Nuclear Regulatory Commission
Office of State Programs
OWFN, MS 3 D23
Washington, D. C. 20555-0001

Dear Mr. Sollenberger:

JCN E7044, Revised Task Order 5 Proposal

Enclosed is the subject proposal entitled "Agreement State Information Base." This estimate includes Subtask A.2 as requested by your letter dated May 23, 1996, and also reflects the modified Statement of Work dated November 11, 1996. As shown in Attachment B, our cost estimate totals \$442.4K. Questions about the proposal should be directed to Mary Francis at (423) 576-1750 or to Gloria Caton at (423) 574-7759.

Yours truly,



Julie J. Robinson
Program Manager

Enclosure

c: G. M. Caton
M. W. Francis
P. Y. Lu
S. R. Martin
J. H. Myers, NRC/OSP
C. E. Pugh - RC

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PROJECT TITLE: Task Order 5, Agreement State Information Base (Under Task Area 3)

1. OBJECTIVE OF THE PROPOSED WORK:

Background

The Office of State Programs (OSP) is required by the Atomic Energy Act of 1954 to review periodically Agreement State (AS) radiation control programs and confirm that they are adequate to protect the public health and safety and are compatible with NRC programs. Considerable information has been collected about the AS radiation control programs and is included in the formal radiation control program reviews. OSP performs about 15 AS reviews per year. Fifteen AS visits are conducted annually. OSP collects information on special topics from the states approximately five times a year. AS voluntarily provide information about the activities through cooperative exchange of information. AS also submit reports on specific activities when requested by OSP. OSP is responsible for reviewing all of the above reports and material and for consolidating the information from the 29 AS into topical reports that are provided to other NRC Offices, the Commission, Congress, or the public.

2. SUMMARY OF PRIOR EFFORTS:

Work is underway or completed on the following tasks of JCN E7044.

Task Order 1, *10 CFR Part 20 Review of Applicable Agreement State Regulations* under Task Area 1 is underway. Subtask 1a has been completed; Subtask 1b is on-going.

Task Order 2, *Compatibility Review of Agreement State Regulations* under Task Area 1 is underway.

Task Order 3, *Review of Agreement State Program Documents for Inclusion in the Commission Decision Tracking System* under Task Area 3 is completed.

Additional Information: Capability and Experience in Similar Projects

The Biomedical and Environmental Information Analysis (BEIA) Section is the information research and development section of the Health Sciences Research Division (HSRD) at Oak Ridge National Laboratory (ORNL). BEIA staff members are experienced in design and implementation of complex databases and computer tracking systems for technical documents, regulatory information, regulatory compliance, interpretation of regulations, and analysis of technical data. Because of these capabilities and skills, BEIA provides comprehensive and efficient technical information management service to the Department of Energy (DOE), Department Of Defense, Lockheed Martin Energy Systems and other governmental agencies. An extensive inventory of computer hardware and software is available to BEIA for immediate application to new work initiatives.

In addition to its own regulatory and scientific experience, the BEIA Section expands its staff to include needed expertise from other HSRD sections, including the following: health physics, geology, biology,

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radiation biology, radiation ecology, physiology, nuclear physics, nuclear science, theoretical atomic physics, chemistry, biochemistry, computer science, and engineering. Additional expertise is available from other divisions within ORNL as well.

The BEIA Section is currently working on or has completed several related projects which include the following:

- *Health Physics Positions Database. (HPPOS)* (NRC JCN L-1960), D. Carter, Technical Manager. HSRD produced and published NUREG/CR-5569 (ORNL/TM-12067) and associated software under JCN L-1960 for the NRC. This project required summarizing 247 Health Physics Positions (HPPOS) documents based upon the "old" 10 CFR Part 20 and categorizing the summaries by topic, subject code, and applicability. The 247 HPPOS documents that were summarized under the "old" 10 CFR Part 20 were reviewed to reflect the revised standards for protection against radiation codified at 10 CFR Part 20.
- *Update of HPPOS Database and Software.* (JCN L-2416), D. Carter, Technical Manager. HSRD staff provided technical assistance to NRC/NRR/NMSS in updating the NRC's health physics positions on inspection, enforcement, and licensing issues. ORNL staff assisted the NRR staff in updating the HPPOS database, modifying the software to maximize usefulness of the information to the user, and documenting the database information for users in the form of a NUREG document based upon the revised standards for protection against radiation which became effective for NRC licensees on January 1, 1994.
- *Questions and Answers Project.* (JCN L2416) (NUREG 6204), D. Carter, Technical Manager. HSRD staff provided technical assistance to NRC/NRR/NMSS in developing a report that contains questions and answers concerning the major revision of 10 CFR Part 20 (10 CFR Part 20, Sections 20.1001-20.2402) and its implementation. The questions and answers were compiled by NRC Headquarters Radiation Protection staff for use in training NRC inspection staff members. HSRD staff also developed software for the project which allows an electronic version to be searched by key words of interest. This allows the user to locate topics rapidly and view NRC responses to the questions.
- *National Profile on Commercially Generated Low-level Radioactive Mixed Waste.* (NRC JCN L1647), D. A. Orlando, Technical Manager. This project was managed by the Chemical Technology Division at ORNL. BEIA task team members provided assistance with the survey, statistical analysis, technical reports, and computer resources. The results of this project were published as NUREG/CR-5938, ORNL-6731.
- *Review of Agreement State Program Documents for Inclusion in the Commission Decision Tracking System.* (NRC JCN E7044) K. Schneider, Technical Manager. BEIA staff reviewed and compiled documents that contained significant information on identified issues which were candidates for inclusion in the Commission Decision Tracking System.

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Related Projects underway within HSRD:

- *General License Inventory System* (NRC J5053). C. Barnes, Technical Manager. BEIA provides database and information management; performs quality assurance and control; and handles company confidential information for NRC and their branch offices from information received from vendors and general licensees via quarterly and transfer reports. This information is incorporated into the General License Database (GLDB). BEIA will also analyze the existing NRC computer system and information/data handling procedures for GLDB and provide recommendations for improving the efficiency and accuracy of current procedures.
- *Review of Terminated Licenses, Parts 30, 40, and 70* (NRC L1596). P. F. Goldberg, Technical Manager. The processing and evaluating of over 30,000 licenses required the development of an in-house database system at ORNL. The usefulness of this system has been proven and is sufficient for BEIA to prepare a system for general distribution at NRC. BEIA will create a system readily available to a broader range of users, with sufficient documentation and testing to provide backup for a more general distribution.

3. WORK TO BE PERFORMED AND EXPECTED RESULTS

The proposed effort will consist of one (1) Task Order with two (2) Subtasks as described below.

Approach

Task Order 5: ORNL will provide assistance to OSP in creating and maintaining an information system that will provide prompt retrieval of Agreement State information.

Subtask A - Develop an Information System for Agreement State (AS) Information

A.1 - Demonstration Model Information System

The Demonstration Model Information Base using a FoxPro type database is no longer required, as stated in the modified Statement of Work, dated December 29, 1995. Subtask A.1 is to be replaced by the following, described in the modified Statement of Work, dated May 23, 1996.

A.1 - AS Letters and Documents

OSP letters since late 1991 are available electronically and average about 275 per year (conversation with OSP personnel), and are an average length of 5 pages, some with attachments. These letters will not have "signatures" or diagrams or other material requiring them to be scanned. ORNL will convert new and existing AS letters, review letters and related documents from their present electronic format into searchable, retrievable full-text files and will organize these files into a system that will make the documents available for reading or downloading

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electronically from the Internet. This product will provide a full text electronic document, not a document summary as is presently done in NRC's Bibliographic Retrieval System (BRS) or in NUDOS system.

The letters will be accessible via Internet through a link on the OSP Home Page. Documents will be "searchable" and "retrievable" using WAIS, or similar technology, which will eliminate the need to develop a traditional database. Some indexing will be necessary, however, to provide the indexes to the WAIS, or similar technology. Information to be searchable would include the letter ID number, the subject line, and other information categories to facilitate specific retrieval. OSP will provide assistance to ORNL in the selection of the file names in order to maintain uniformity with other NRC systems. After preparation of the application, review and approval by the OSP Technical Monitor, the application will be linked to the OSP Home Page.

Since 1992, the AS Program Reviews of about 30 to 40 pages have been generated in electronic format at the rate of about 15 per year. They will be incorporated in the applications developed for the Internet. Search terms suitable for specific retrieval such as State, date, subject, sources, device names, and others as approved by OSP will be prepared by ORNL for the application.

After all of the electronic letters have been converted into this system consideration may be given to scanning in those letters that were prepared before late 1991.

A.2 - Requirements Analysis, Analysis of Alternatives, and Implementation plan for an On-Line Accessible Database for AS Information.

The original Subtask A.2 is replaced by the following as requested by the modified Statement of Work, dated May 23, 1996 and further modified by a letter dated November 11, 1996.

A.2 - Electronic Sealed Source and Device Registry

NRC's reference collection of sealed source and device (SS&D) registration sheets exists mainly in hard copy with some sheets converted into electronic form. NRC will provide the existing collection of registration sheets to ORNL. ORNL will scan the hard copy sheets into an electronic format that includes the entire text and graphics. The number of electronic registration sheets is unknown; if they are complete and in good condition they will be converted and included in the developed application. Both the scanned hard copy registration sheets and the electronic registration sheets will be accessed through the OSP Home Page and will be searchable. Documents will be available in a "PDF" format which could be read and downloaded by the user with a free Adobe Acrobat Reader or in some other comparable format. Access to this reader will be provided through a link on the OSP Home Page.

The information base will include in addition to the text, all diagrams, blueprints, and reviewer's notes. This product will differ from an existing SS&D electronic resource in a database format which contains only partial information about each source and device.

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NRC will deliver the SS&D catalog to ORNL for electronic reproduction. The documents in the SS&D catalog are contained in approximately 10 to 12 linear feet of 3 inch, 3-ring notebooks. OSP estimates that there may be as many as 16,000 pages of the SS&D catalog, based on approximately 30 notebooks (3.75 inches outside measurement) of up to 500 pages per notebook. These documents are estimated to be from 3 to 15 pages long, averaging between 6 to 8 pages, and contain at least one or two diagrams. Poor quality graphics in the documents will be noted and reproduced as such. The majority of the text portion of the documents are estimated to be of good quality and therefore can be scanned in with minimal errors. A minority of the documents, due to age or poor quality, will require more time for proofing or retyping. The number, or percentage, of poor copy pages requiring special attention is unknown, but for the basis of this proposal, will be estimated at 5,000. If the number of poor quality pages exceeds this number ORNL will notify the NRC. The financial impact will be assessed and renegotiated if necessary. Very poor quality documents will be scanned and linked to a retyped and converted document. These retyped files will not include handwritten comments from the margin or other notations written by hand. ORNL will ensure that the scanned-in version of each sealed source and device sheet is accurate and reliable. OSP will provide a system for naming files to maintain consistency with other NRC systems.

OSP will provide ORNL a list of AS contacts and the NRC's "best" list (an index of the catalog) of AS SS&D sheets. ORNL will identify any discrepancies between the "best" list and the received documents and will notify the OSP technical monitor. ORNL will contact the relevant agreement states, if so directed by OSP, for clarification/validation of the discrepancy.

ORNL will provide a copy of the Quality Assurance and Quality Control (QA/QC) procedures for A.2 to the technical monitor. ORNL will be prepared to maintain the electronic SS&D system and backup files and to incorporate any newly created sheets into the system. It is anticipated that most new sheets would be provided to ORNL in an electronic format, although some documents may require scanning. OSP estimates that there are approximately 60 new sheets and 150 revisions to existing sheets which would be added to the existing registry each year.

ORNL will suggest cost effective methods for providing NRC copies of the electronic files for other projects.

A.3 - Telecommunications Plan for Internal and External Access to the Online Accessible Document and Information Databases

At the request of OSP, Subtask A.3 is modified as follows:

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A.3.A - Develop an OSP Home Page

ORNL will develop an Internet Home Page for OSP. The OSP Home Page will be a fully compatible sub-page of the NRC Home Page and will meet agency requirements that are effective at the time of implementation. OSP will provide ORNL with the agency requirements during the planning phase of the home page development.

ORNL will analyze and determine the most cost effective of two options: to develop, install and maintain the OSP Home Page on a server at NRC Headquarters or to develop the OSP Home Page that would be installed, operated and maintained on a server at ORNL. OSP will provide ORNL specific information on system requirements and procedures for installation on the NRC server, and assist in coordination between NRC's appropriate computer personnel and ORNL's personnel.

At the minimum, the OSP Home Page would have links installed to the following applications:

- AS Letters (discussed in A.1); ORNL will develop an AS Letters page, from which the AS Letters can be accessed, and will link the OSP Home Page to the AS Letters page.
- AS Program Addresses, Telephone Numbers and Internet Addresses; ORNL will establish a link from the OSP Home Page to a file created by ORNL from information provided by OSP, in electronic format, that includes AS Program Addresses, Telephone Numbers and Internet Addresses. ORNL will prepare this application in searchable format (WAIS or similar technology) so that names and/or states and/or regions can be specifically retrieved.
- OSP Office Addresses, Telephone Numbers and Internet Addresses (to be provided in electronic format by OSP); ORNL will establish a link from the OSP Home Page to a file created by ORNL. This will be provided in searchable format (WAIS or similar technology) so that names and/or office names can be specifically retrieved.
- AS Program Reviews are reports (as discussed in A.1), about 15/year since 1992, of about 30 to 40 pages and will be provided by OSP in electronic format. Search terms suitable for specific retrieval such as State, date, subject, sources, device names, and others as approved by OSP will be prepared by ORNL for the application.
- Sealed Source & Device Registry, discussed in A.2.
- Other NRC Applications, e.g., Regulations, NUREGS, Regulatory Guides, etc., that are maintained by other NRC Offices on other servers. (discussed in A.3.C and A.3.D); ORNL with the cooperation of OSP would identify the appropriate sources located on other WWW servers and would provide links to them from the OSP Home Page with the agreement of OSP.

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- Other applications as may be identified by OSP in the future, as funding permits.

A.3.B - Develop and Maintain List Server

No longer required.

A.3.C - Inspection Manuals, Enforcement Manuals, and Other Products

NRC currently has the above resources, among others, available on FEDWorld, on an NRC Bulletin Board System or on the developing NRC Home Page. ORNL will develop links on the OSP Home Page to these existing NRC resources. OSP will assist in the coordination of this project with the individuals at NRC Headquarters who are responsible for these products.

A.3.D - Regulations, Regulatory Guides, NUREG's, Technical Assistance Requests, Policy and Guidance Directives, Information Notices, Bulletins, and Administrative Letters

NRC has plans to make these documents available in an electronic suite of resources to be used under the developing Business Process Re-engineering (BPR) for the material licensing process. ORNL will develop links on the OSP Home Page, as these resources become available. OSP will assist in the coordination of this project with the individuals in NRC Headquarters who are responsible for this project.

A.4 - Hardware and Software Requirements Listing for OSP AS Assessment Information Base

This Subtask has been modified to apply to the modified Subtasks A.1, A.2, and A.3 described above.

The Internet applications will be designed to meet NRC agency requirements in advance of development of any of the applications so that adequate planning can assure that no further structural work will be necessary whether the decision is to operate on servers either at NRC or at ORNL. Internet access will require use of suitable Web browser software such as Netscape or Mosaic. ORNL will prepare files at ORNL and if the OSP decides to maintain them at ORNL an estimate of such costs will be provided to OSP. If OSP decides to migrate them to the NRC servers, the necessary agency requirements for the migration will be provided to ORNL. Estimated costs of maintaining and providing the OSP home page and the applications developed by ORNL at ORNL or migrating to NRC's own servers will be provided after sufficient development has occurred for reliable cost estimates.

A.5 - System Implementation

At the request of OSP, this Subtask has been modified by ORNL to apply to the modified Subtasks A.1, A.2, and A.3 described above.

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Document entry procedures will include Q/A steps to assure that documents received from NRC are properly accounted for and that document files are complete and accurate. The procedures will be documented so that a follow-on contractor could continue the work.

A.6 - System Installation

At the request of OSP, this Subtask applies to the modified Subtasks A.1, A.2, and A.3, described above.

When, in the judgement of the Technical Monitor, sufficient data have been entered into the new system to make it useful to OSP staff, the announcement for the location of the OSP home page will be prepared, any necessary additional information provided, and comments solicited for adjustment. Any changes suggested would need to be approved by the OSP Technical Monitor. Internet access would depend on provision of space and maintenance service on an Internet server; these facilities could be made available on the ORNL Internet server either on a temporary basis for implementation and testing or on an on-going basis as agreed by NRC and ORNL, depending on decisions made under A.3.A. ORNL will coordinate as necessary with the End User Support Services Branch, Technology Infrastructure Branch, Systems Development and Integration Branch, and the Information and Record Management Branch of the Office of Information Resources Management with the OSP providing access to these branches.

A.7 - Develop Tracking Log

This Subtask applies to the modified Subtasks A.1, A.2, and A.3, as described above. A system to log and track the NRC documents received at ORNL under the above Subtask will be maintained.

Subtask B - Provide Ongoing Technical Support and Data Entry

B.1 - System Support

ORNL will be responsible for system and data maintenance for tasks A.1, A.2, and A.3 for the period of one year after system implementation or until the end of the current agreement, December 31, 1996. An extension of this time can be separately negotiated between ORNL and NRC. This includes maintenance of software, remote access, and data quality control. Substantial alterations or improvements to the system are not included in Subtask B, but could be provided if additional funding is available. At the completion of Subtask A, a visit to NRC will be made by ORNL staff involved in Subtask B.

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B.2 - Ongoing Data Entry

ORNL will continue to be responsible for data entry from both newly generated and archived documents for A.1, A.2, and A.3 for up to one year after the system is operational or until the end of the current agreement, December 31, 1996. For the individual subtasks, A.1 is anticipated to have approximately 275 letters added per year and 15 Program Reviews of 30 to 40 pages, A.2 is estimated as adding 60 new sheets and 150 revisions to existing sheets each year, and A.3 would require constant adjustment to provide changes in newly available resources at NRC and as the resources are developed at ORNL.

B.3 - Other Technical Support

Upon request by OSP, ORNL staff will prepare and distribute diskettes containing program management information to address lists provided by OSP. The frequency of such requests is anticipated to be six per year. With good coordination between OSP and ORNL, a mailing can be completed within 24 hours from receipt of all required information. This time to completion is dependent on ORNL receiving up-to-date electronic mailing lists and documents from OSP via Internet or other electronic media such as diskette, and electronic mailing list. Advance notice of several days of an impending mailing will allow ORNL to prepare disks and mailers and assure staff has time available when the file arrives at ORNL. Statistics on numbers of mailings, diskettes sent per mailing, percentage of responses to the return information sheet, or other information, will be made available upon request. ORNL will consider the option of making available on the Internet the information that is currently being mailed under this Subtask. Markers or pointers to link this information into the OSP Home Page would automatically access the OSP server for this information. Materials for the mailings are estimated at \$5/recipient.

Management Structure and Staff Availability

The proposed project will be managed in the BEIA Section of HSRD and staffed by personnel from that section. The BEIA staff has all of the required expertise for this project, as well as the ability to expand the capabilities of its staff with any needed expertise from other sections of the HSRD Division or other ORNL divisions. Staff have been identified for this project primarily on the basis of familiarity and experience with tracking system and database design and management. Mary W. Francis will serve as the Project Manager. In this capacity, she will be principal contact with the OSP PM and the OSP TM, coordinate the activities of other project participants, and be responsible for administrative matters. The proposed team for Task 5 is listed below:

- G. M. Caton will serve as the Principal Investigator and thus have primary responsibility and oversight of Task Order 5. She, along with Mary W. Francis, will attend formal meetings with OSP staff at the start and end of the project. She will develop and prepare a procedure, design and implement the information base, supervise scanning and data entry, and prepare the reports to be submitted to the OSP.

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- R. T. Haas will assist in the analysis and planning and the system implementation sections of Subtask A. She will attend formal meetings with NRC staff where those activities are discussed.
- K. H. Mavournin will assist in the development of the internal tracking system, and develop the applications necessary to efficiently convert the scanned information files into formats for the Internet servers.

4. DESCRIPTION OF ANY FOLLOW-UP EFFORTS:

Should maintenance of this information system on ORNL servers be desired by OSP, discussions will occur as the system evolves. Follow-on agreements may be considered.

5. RELATIONSHIP TO OTHER PROJECTS:

Not determined.

6. PROJECT SCHEDULE AND REPORTING REQUIREMENTS:

Attachment A lists reports and time allocations to accomplish milestones and completion target dates for Task Order 5. A Monthly Letter Status Report (MLSR) will be delivered to NRC PM by the 20th of each month according to the description and as shown in Exhibit 12 of the NRC Handbook 11.7.

7. SUBCONTRACTOR INFORMATION:

BEIA has an agreement with Midwest Technical, Inc., and with the University of Tennessee to provide professional staff on-site to ORNL as needed. This cost-effective arrangement provides competent personnel, whom the BEIA staff will utilize as needed on this project. Routine assistance with mailing, scanning, copying, and some data entry is planned. These on-site subcontractors are known as "leased" employees, and are not considered subcontractors in this proposal.

8. LIST NEW CAPITAL EQUIPMENT REQUIRED:

None.

9. DESCRIBE SPECIAL FACILITIES REQUIRED:

None.

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10. CONFLICT OF INTEREST INFORMATION:

There are no known relationships between this organization or its employees with industries regulated by the NRC and suppliers thereof that might give rise to an apparent or actual conflict of interest regarding the work described in this proposal.

11. NRC FURNISHED MATERIAL:

NRC will furnish ORNL in a timely fashion the following:

- OSP letters since 1991, in WordPerfect format
- AS Program Reviews since 1992, in WordPerfect format
- Sealed Source and Device (SS&D) registration sheets, in paper and some electronic files
- NRC's "best" list of AS SS&D sheets
- List of reviewers names of SS&D sheets
- OSP system for naming files (of SS&D sheets) to maintain consistency
- NRC's keywords for SS&D sheets
- NRC requirements for OSP Home Page development
- NRC system requirements and procedures for installation on NRC server
- AS Program Addresses, Telephone Numbers, and Internet Addresses in electronic format
- OSP Office Addresses, Telephone Numbers, and Internet Addresses in electronic format
- Assistance in interactions with appropriate NRC personnel concerning links between the NRC and the OSP Home Page.

12. ADDITIONAL INFORMATION:

Travel

From one to three ORNL staff will attend meetings with NRC staff at the beginning of Subtask A, midway through Subtask A for technical review of Subtask A, and at delivery of the final product for Subtask A. Additional travel and meetings with NRC staff may be required to discuss and review work completed under Subtasks A and B. Funds for domestic travel have been specified in attachment A.

Budget

The attached budget estimate (Attachment B) shows the anticipated expenditures in each Subtask area.

Additional activities

No additional activities are to be considered a part of this task or cost structure. Other activities that may be useful will be negotiated separately and as needed.

Other: Abbreviated resumes of proposed staff (attached)

VITA

GLORIA M. CATON

Biomedical and Environmental Information Analysis Section
Health Sciences Research Division
Oak Ridge National Laboratory

EDUCATION:

Ph.D., Analytical Chemistry, 1968

Iowa State University, Ames, Iowa

B.S., Chemistry, minor in Mathematics, 1962

Juniata College, Huntingdon, Pennsylvania

PROFESSIONAL EXPERIENCE:

Present Position: Coordinator of Information Management Technology Group

Twenty-five years experience at ORNL in scientific and technical information management in the energy and environmental areas. Physical sciences background in chemistry and physics. Significant expertise in analysis of information needs, database design and development, and management of computer-assisted scientific information activities. Experienced in interacting with users, managers, scientists, ADP specialists, and sponsors.

EXPERIENCE RELEVANT TO NRC PROJECT:

Principal investigator of several large, long-term computer applications on marine pollution R&D, energy R&D, acid precipitation, and coal liquefaction components.

Coordinator of Information Management Technology Group that prepares several award-winning newsletters, booklets, and brochures. Two newsletters have also been prepared and disseminated on the World Wide Web (WWW) for increased distribution. Managed and developed several WWW Homepages for projects, divisions, and talks.

VITA

MARY W. FRANCIS

Biomedical and Environmental Information Analysis
Health Sciences Research Division
Oak Ridge National Laboratory

EDUCATION

M.S., Physiology, 1966

Florida State University, Tallahassee, FL

B.S., Zoology, 1963

Florida State University, Tallahassee, FL

Professional Experience:

ORNL Staff 28 years

Present Position: Group Leader, Environmental Regulations and Remediation

As leader for the Environmental Regulations and Remediation Group, focused staff efforts on developing superior documents for regulatory analysis for Environmental Restoration, Decontamination and Decommissioning, Environmental Compliance, and Environmental Guidance programs. Interacts with public, sponsors, managers, and product users. Experience includes fourteen years in scientifically-based information development including data base development and design, and information management. Extensive laboratory research experience, twelve years at ORNL, and ten years prior to ORNL appointment is applied to enhance information projects.

Experience Relevant to NRC Proposal:

Managed the data base design and development, and the telephone follow-up procedures for the National Profile on Commercially Generated Low-level Radioactive Mixed Waste (NRC FIN L1647-0), a recently completed project.

Currently managing effective group with numerous regulatory applications under development, including regulatory overview documents, specific regulatory analysis for individual problems, and data bases for regulations. The group has projects underway for the Department of Energy, the Department of Defence, and Martin Marietta Energy Systems. Group currently consists of 26 ORNL staff and contract staff, including a broad spectrum of scientific expertise as well as five attorneys experienced in interpreting the environmental regulations. The scientific/legal team approach to projects has provided an effective resource for the analysis of regulations in usable language and scientific methods for non-legal scientific clients.

BIOGRAPHICAL SKETCH

Roswitha T. Haas

Biomedical and Environmental Information Analysis
Health Sciences Research Division
Oak Ridge National Laboratory

Education

M. S., Computer Science, 1986
Ph. D., Organic Chemistry, 1960

University of Tennessee, Knoxville, TN
University of Muenster, Muenster, Germany

Professional Experience

1977-Present	Technical Information Specialist, Biomedical and Environmental Information Analysis, Health Sciences Research Division, Oak Ridge National Laboratory.
1964-1986	Assistant Professor and Associate Professor of Chemistry, Knoxville College, Knoxville, Tennessee.
1963-1965	Postdoctoral Investigator, University of Tennessee, Knoxville, Tennessee.
1961-1963	Staffwriter for the Beilstein Institute of Organic Chemistry, Frankfurt, Germany.

Activities in Present Position

Database design and management, programming interfaces for searching and updating databases and programming reports from databases; quality control of database content that relates to the field of chemistry - environmental chemicals, genotoxic chemicals, and analytical methods.
Member of a group that maintains several databases on Internet-accessible servers.

Experience Relevant to NRC Proposal

Experience in the design, development, and maintenance of databases as described above.

Current participation in NRC J5053. This project provides assistance in managing the General License Database (GLDB) for the Office of Nuclear Material Safety and Safeguards. The GLDB on the present Ramis-based system is updated with the information obtained from the quarterly reports received from vendors and general licensees.

Scientific background in chemistry includes the study of radioactive substances; also took a 1-month course on Radioisotopes in Research at Oak Ridge National Laboratory.

VITA

Kathleen H. Mavournin

Biomedical and Environmental Information Analysis
Health Sciences Research Division
Oak Ridge National Laboratory

Education

Ph.D. 1979, Molecular genetics	University of Tennessee, Knoxville, Tennessee
M.S. 1966, Molecular biology	Purdue University, Lafayette, Indiana
B.A. 1962, Biology	Tufts University, Medford, Massachusetts

Professional Experience:

ORNL Staff 16 years.

University Research and Teaching Assistant 10 years

Coauthor of 10 Research or Review Publications

Experience Relevant to NRC Proposal

Advanced training and four years' experience in computer application development with FoxPro software, including tracking systems for environmental remediation programs and for environmental and health and safety audits, personnel files and miscellaneous other data management needs. Technical editing of Human Genome Programs publications. Information gathering and analysis in genetic toxicology, especially mammalian micronucleus assay and aneuploidy, for both research and regulatory programs. Laboratory experience in mammalian and bacterial molecular genetics, hematology and endocrinology research, and plant biochemistry prior to ORNL employment.

Other Computer Database Experience:

System 1022; PC Oracle; Inquire; Basis Plus

Attachment A (Task Order 5, E7044)**PROJECT SCHEDULE AND REPORTING REQUIREMENTS**

The nature of Task 5 makes it necessary for the project deliverables to be out of sequence with the subtasks. The basic structure of the OSP Homepage will be planned and implemented first, after receipt of agency requirements (Phase I). The AS letters, the AS Program Reviews, and the AS Program and OSP Office Names and Addresses Applications will be developed in Phase II. Links will be identified and added to the OSP Homepage concurrently with these other efforts.

PROJECT SCHEDULE AND REPORTING REQUIREMENTS		
Project Deliverables	Phase	Date
A.1. AS Letters and Documents		
Preparation of AS letters for the OSP Internet Homepage.	II	6 months after receipt of electronic letters; most recent letters delivered first
Link letter application to OSP Homepage.	II	2 days after OSP approval of application
A.2. Electronic Sealed Source and Device Registry		
Scanning, reviewing, & converting, of good documents into PDF files & indexing.	II	7 months after OSP approval of prototype test of 50 documents
Retyping of poor quality documents and conversion.	II	1 month after completion of good documents
Link SS&D application to OSP Homepage.	II	2 days after OSP approval of completed application
A.3. Telecommunications Plan for Internal and External Access to the Online Accessible Document and Information Databases		
Preliminary Report of Server Options for OSP consideration.	I	1 month after receipt of agency requirements
Draft Plan and design for OSP Homepage.	I	3 weeks after receipt of agency requirements
Test structure of OSP Homepage on ORNL server for review and testing.	I	1 week after OSP approval of draft plan

Attachment A (Task Order 5, E7044)

PROJECT SCHEDULE AND REPORTING REQUIREMENTS		
Project Deliverables	Phase	Date
Test and link NRC information sources as they are prepared for the OSP Homepage.	II	3 days after URLs of appropriate sources are identified
Develop a searchable application for the AS Program Addresses, Telephone Numbers, and E-mail Addresses, link to OSP Homepage.	II	1 month after receiving electronic file with names, addresses, telephone numbers, and E-mail addresses
Develop a searchable application for OSP Office Names and Addresses and link to OSP Homepage.	II	1 month after receiving electronic file with names, addresses, telephone numbers, and E-mail addresses
Convert AS Program Reviews into searchable application, link to OSP Homepage.	II	6 months after receiving electronic documents; most recent documents delivered first
Each application will undergo review by OSP. After OSP approval of each application, access will be implemented on the OSP Homepage.	II	3 days after OSP approval of each application
A.4. Hardware and Software Requirements Listing for OSP AS Assessment Information Base		
Hardware and software listing in sufficient detail for follow-on contractor.	II	2 months after A.3 is completed and A.1 has been implemented
A.5. System Implementation		
Documentation for tracking and document preparation procedures will be prepared for NRC.	II	2 months after A.3 is completed and A.1 has been implemented
A.6. System Installation		
After the OSP Homepage has been reviewed and approved by the OSP, an announcement will be prepared and provided as directed by the OSP.	III	1 week after OSP Homepage has been approved by OSP

Attachment A (Task Order 5, E7044)

PROJECT SCHEDULE AND REPORTING REQUIREMENTS		
Project Deliverables	Phase	Date
A.7. Develop Tracking Log		
Develop and implement tracking log of all material sent by the OSP. The materials will be logged-in as received.	II	2 days after receipt of some of the material

PROJECT SCHEDULE AND REPORTING REQUIREMENTS	
Project Deliverables	Date
B. Provide Ongoing Technical Support and Data Entry	
Monthly Log Report listing all documents received during the previous month.	Listed in monthly reports.
Reports on diskette distributions.	Within 15 working days of receipt of material to be distributed
Regular updates of the OSP on-line information base on a schedule to be determined.	To be determined

Attachment B (Task Order 5, E7044)

	Effort (Staff-Days)			
	FY1995 & prior	FY1996	FY1997	Total Effort
Task 5:				
Proposal Prep., Administrative Time, & Scoping	56	12	19	87
Task A (excludes Task A.2)				
Labor	—	43	63	106
Task A.2				
Labor	—	54	186	240
Labor for retyping documents	—	—	211	211
				—
Task B				
Labor	28	45	30	103
Total Days	84	154	509	747
	(16.8 weeks)	(30.8 weeks)	(101.8 weeks)	(149.4 weeks)

Projected Cost Schedule

Projected Tasks	FY1995 & prior (\$K)	FY1996 (\$K)	FY1997 (\$K)	Total Cost (\$K)
Proposal Prep., Administrative Time, & Scoping	22.6	5.3	8.2	36.1
Task A (excludes Task A.2)				
Labor	—	18.3	28.1	46.4
Travel	—	3.8	2.0	5.8
Materials/Supplies	—	5.0	—	5.0
Task A.2				
Labor	—	22.9	82.6	105.5
Labor for retyping documents	—	—	36.6	36.6
Materials/Supplies	—	3.0	—	3.0
Task B				
Labor	12.4	19.1	13.3	44.8
Travel	—	—	—	—
Materials/Supplies	1.0	1.0	—	2.0
Subtotal	36.0	78.4	170.8	285.2
NRC Program Office	2.0	3.0	6.3	11.3
General & Administrative Expenses	16.7	36.2	74.8	127.7
Total Estimated Laboratory Project	54.7	117.6	251.9	424.2
DOE Added Factor	2.3	5.1	10.8	18.2
Total	57.0	122.7	262.7	442.4