

The Honorable Stephen Horn  
Chairman, Subcommittee on Government  
Management, Information and Technology  
Committee on Government Reform and Oversight  
United States House of Representatives  
Washington, DC 20515-6143

February 10, 1997

Dear Mr. Chairman:

In response to your request of January 14, 1997, I am providing the enclosed information regarding the ability of the Nuclear Regulatory Commission's automated systems to properly process date fields in the Year 2000. This is an update to material submitted to you by letter dated June 17, 1996.

As indicated previously, NRC makes frequent use of interagency agreements to satisfy its data processing requirements. These agreements have permitted us to take advantage of the experience and resources of larger Federal agencies, including the Departments of Treasury, and Health and Human Services. In addition, a number of our in-house systems have been scheduled for replacement with Year 2000 compliant software prior to the end of the century.

The Commission appreciates the guidance and coordination provided by the Subcommittee on Government Management, Information and Technology. We will continue to work through the Office of Management and Budget (OMB) in resolving this issue. In consultation with OMB, the NRC recently selected Anthony J. Galante as its first Chief Information Officer. I have included the announcement of Mr. Galante's appointment in the enclosure.

As Director of the Office of Information Resources Management, I will continue to have overall responsibility for Year 2000 activities. I can be reached by telephone (301-415-7585) or electronic mail (gfc@nrc.gov), should you have any questions regarding our submission.

Sincerely,

/s/  
Gerald F. Cranford

Gerald F. Cranford  
Deputy Chief Information Officer  
and Director, Office of Information  
Resources Management

Enclosures:  
Response to Committee Questions

cc: Ed Springer, OMB  
John Pfeiffer, OMB  
Ranking Member

Distribution:

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*Committee & Board*

U. S. Nuclear Regulatory Commission Response to the  
Subcommittee on Government Management, Information and Technology  
Committee on Government Reform and Oversight's  
Questions Regarding Preparing Automated Systems for Year 2000

QUESTION 1. Describe your agency's "Year 2000" activities.

ANSWER.

The U. S. Nuclear Regulatory Commission is concerned about problems that may be encountered by computer systems and software as a result of the change to the new century. We are examining computer software used to support agency functions. Some problems have already been identified and are being corrected.

NRC makes frequent use of interagency agreements to satisfy its data processing requirements. These agreements have permitted us to take advantage of the experience and resources of larger Federal agencies, including the Departments of Treasury, and Health and Human Services. In addition, a number of our in-house systems have been scheduled for replacement with Year 2000 compliant software prior to the end of the century.

Because of the U. S. Nuclear Regulatory Commission's concern that the impact of the Year 2000 issue extends beyond agency computer systems to those used by the nuclear industry, we wish to respond to this question by providing the Subcommittee on Government Management, Information and Technology with a copy of NRC Information Notice 96-70 (Exhibit 1), issued to all NRC licensees on December 24, 1996. [Per your request, this exhibit is also provided on 3.5" computer diskette.]

QUESTION 2. Provide a copy or an executive summary of your agency "Year 2000" plan.

ANSWER.

A copy of the Nuclear Regulatory Commission's Year 2000 Action Plan is provided as Exhibit 2. This document supersedes the NRC Year 2000 Action Plan provided by NRC Chairman Shirley Jackson to the Subcommittee on Government Management, Information and Technology via letter dated June 17, 1996.

QUESTION 3. Does your "Year 2000" plan contain specific timetables and milestones?

ANSWER.

Yes, the NRC Year 2000 Action Plan contains timetables and milestones for its major components.

a. What performance indicators are being used to determine the progress of subordinate units?

In addition to the completion dates provided in the plan, NRC is using the number of program units examined, the number of program units converted, and the planned versus actual costs.

b. What is the frequency with which progress reports are received?

The NRC Year 2000 Action Plan is updated quarterly.

c. Does the plan provide specific dates when recoding for specific systems will be substantially complete and testing will begin?

No, the NRC Year 2000 Action Plan does not provide specific dates when recoding for specific systems will be substantially complete. However, the Action Plan does recognize Federal recommendations that reprogramming efforts be completed by December 31, 1998. Overall, NRC anticipates completion of reprogramming efforts by the end of the second quarter, Fiscal Year 1999.

QUESTION 4. Provide a summary of your inventory of major computer programs, systems, platforms, and languages. If your agency is using an alternative metric to track its "Year 2000" effort, provide information for it.

ANSWER.

An inventory of agency computer programs and systems is contained in the NRC Enterprise Model Application Inventory, provided as Exhibit 3.

a. Does the inventory include the total number of lines of programming code at your agency and the number of lines required to be converted?

No. As indicated in our June 17, 1996 submittal to the Subcommittee, NRC's inventory does not contain this type of information. We use other parameters (e.g., disk storage requirements or run time) to establish our resource needs. A typical agency system at NRC consists of the operating system on a time-shared computer, a commercially-available data base management system, and auxiliary coding and data files. Because some of the application components may consist of commercial off-the-shelf software, NRC may not have access to the source code and would be unable to estimate the number of lines of code involved. We do, however, intend to confirm Year 2000 compliance of all components.

b. What office(s) has responsibility for preparing and maintaining your agency major systems or software inventory?

The NRC's Office of Information Resources Management (IRM), and ultimately the CIO, has overall responsibility for preparing and maintaining the agency's major systems and software inventory.

c. Does your inventory estimate the cost-per-line of converting software to be year 2000 compliant?

No, as indicated in response to Question 4.a, NRC does not track lines of code or the cost-per-line of converting software.

d. How often is the inventory being updated to reflect additional information, such as changes in the status of individual information systems?

The inventory of major systems and software is updated quarterly.

QUESTION 5. Have you developed a process for the prioritization of your information systems in order to avoid an adverse impact on the public? If so, describe it. Have you prioritized any applications and determined ones which can be discontinued prior to the year 2000? Please provide a list of those major applications that have been designated secondary and the activity with which they are used.

ANSWER.

No, we have not developed a process for the prioritization of our information systems in order to avoid an adverse impact on the public. However, our action plan includes completion of risk assessment as part of our Strategy for Correction, to be completed this fiscal year. No applications have yet been identified that should be discontinued solely on the basis of Year 2000 issues. However, a number of systems are scheduled for replacement prior to Year 2000 with systems performing the same or similar function.

QUESTION 6. Provide an organization chart for your "Year 2000" project, indicating the reporting arrangements for personnel, including names, titles and grade levels. (Where appropriate, include the activities of constituent components of your agency).

ANSWER.

Exhibits 4 and 5 are organizational charts depicting the senior management structure of the agency and Chief Information Officer organization, respectively. The reporting chain for the Year 2000 project is from Head of Agency (Chairman of the Commission), through the Chief Information Officer, to the Director of the Office of Information Resources Management. With the exception of the Commissioners, who receive presidential appointments, these individuals are career members of the Senior Executive Service.

QUESTION 7. Who at your agency is your project manager?

ANSWER.

The NRC Year 2000 Project Manager is Gerald F. Cranford, Director, Office of Information Resources Management.

a. Who has overall responsibility for the "Year 2000" issue?

Gerald F. Cranford, Director, IRM.



b. Who has day-to-day responsibility?

John C. Voglewede, Assistant to the Director, IRM.

c. What other responsibilities does the day-to-day manager perform?

Mr. Voglewede is responsible for coordinating the office-level activities within NRC's Office of Information Resources Management.

QUESTION 8. If your agency has delegated responsibility for its "Year 2000" project to a subordinate level within your agency, describe the delegation and how your office is monitoring their performance.

ANSWER.

The Year 2000 Project Manager, Gerald F. Cranford, reports directly to the NRC Chief Information Officer. The day-to-day manager, John C. Voglewede, reports directly to Mr. Cranford. Although overall responsibility has not been further delegated, participation in the NRC's Year 2000 program include representatives from each of the agency's Offices and Regions. These individuals are identified on Page 16 of Exhibit 2.



QUESTION 9. Provide a copy of your resume. Also, are you responsible for any other duties, in addition to being your agency's Chief Information Officer?

ANSWER.

The requested information (Exhibit 6) is provided for Gerald F. Cranford, who serves as Deputy Chief Information Officer for the Nuclear Regulatory Commission as well as Director, Office of Information Resources Management.

QUESTION 10 What resources are being devoted or are planned to be devoted to the "Year 2000" issue?

ANSWER.

The Nuclear Regulatory Commission projects a total resource expenditure of \$9.3 million for Year 2000 activities over the period FY-1996 through FY-2000.

a. What are your cost estimates, by fiscal year? What are the components of those cost estimates?

The components of the cost estimates by fiscal year are provided in Exhibit 7.

b. Have you made or do you anticipate making any "new needs" requests for your "Year 2000" project, as opposed to providing for it through budget reallocations? If so, provide the details of the request.

NRC anticipates that its needs will be met by reprogramming existing resources or incorporation of Year 2000 requirements into existing projects. No new funding requirements are anticipated.

c. How many person-work years do you estimate will be devoted to your "Year 2000" project?

As indicated in Attachment 7, NRC anticipates approximately 29 person-work years will be devoted to our Year 2000 project during the period FY-1996 through FY-2000.

d. What proportion of the "Year 2000" work will be done in-house, and how much will be outsourced?

NRC anticipates approximately 25 percent of the Year 2000 work will be done by agency staff as opposed to contracted work.

e. Do any existing or anticipated maintenance, support, task-order or similar contracts involve a substantial component of "Year 2000" work? If so, list by fiscal year, the total dollar value of these contracts.

NRC has one major software maintenance activity, amounting to \$2176K per year. Most of these resources are expected to be placed on Year 2000 related work.



## UNITED STATES NUCLEAR REGULATORY COMMISSION

**ANNOUNCEMENT NO. 7**

**TO:** ALL NRC EMPLOYEES

**DATE:** January 30, 1997

**SUBJECT:** APPOINTMENT OF ANTHONY J. GALANTE AS CHIEF INFORMATION OFFICER

I am pleased to announce the selection of Anthony J. (Tony) Galante as Chief Information Officer, effective February 2, 1997.

The Chief Information Officer (CIO) position was established in accordance with the Information Technology Management Reform Act of 1996. The CIO is responsible for agency-wide planning and implementation of information management and information technology and reports directly to the Chairman.

As Chief Information Officer Mr. Galante will serve, with the Executive Director for Operations and the Chief Financial Officer, on the Executive Council. The Executive Council, established as part of the recent management restructuring, will provide an integrated framework for NRC decisionmaking.

Mr. Galante's career with Mobil Corporation spanned 28 years in New York and Virginia, beginning in tax administration and progressing through a series of executive level information systems positions. His upward career path resulted from successfully managing the opportunity, investment, and technical staff associated with information technology in a large, complex, international environment.

From 1994 to 1996, Mr. Galante was Acting General Manager of Mobil's information systems with worldwide functional responsibility for all of information systems and direct responsibility for the corporate information systems portfolio. Earlier positions with Mobil provided him with the opportunity to create and manage a centralized planning and technology/architecture unit and direct worldwide information systems activities in exploration, producing, refining, and marketing.

Mr. Galante is a native of northern New Jersey. He graduated from Fairleigh Dickinson University with a B.S. in accounting and an MBA. He has been a member of the American Petroleum Institute Information Systems Committee, the Hewlett-Packard Global Advisory Board, and IBM's Information Systems Customer Advisory Council.

Mr. Galante and his wife Carol have two daughters, Kimberly and Gina. Mr. Galante will be located in T-6E2 and can be reached on 301-415-8700.

A handwritten signature in cursive script, reading "Shirley Ann Jackson", is positioned above the typed name.

Shirley Ann Jackson  
Chairman

## UNITED STATES NUCLEAR REGULATORY COMMISSION

The U. S. Nuclear Regulatory Commission is concerned about problems that may be encountered by computer systems and software as a result of the change to the new century. We are examining computer software used to support agency functions. Some problems have already been identified and are being corrected.

NRC makes frequent use of interagency agreements to satisfy its data processing requirements. These agreements have permitted us to take advantage of the experience and resources of larger Federal agencies, including the Departments of Treasury, and Health and Human Services. In addition, a number of our in-house systems have been scheduled for replacement with Year 2000 compliant software prior to the end of the century.

Because of the U. S. Nuclear Regulatory Commission's concern that the impact of the Year 2000 issue extends beyond agency computer systems to those used by the nuclear industry, we wish to respond to this question by providing the Subcommittee on Government Management, Information and Technology with a copy of NRC Information Notice 96-70 (Exhibit 1), issued to all NRC licensees on December 24, 1996:

## NRC INFORMATION NOTICE 96-70: YEAR 2000 EFFECT ON COMPUTER SYSTEM SOFTWARE

## Addressees

All U.S. Nuclear Regulatory Commission licensees, certificate holders, and registrants (hereafter referred to as licensees).

## Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice to alert addressees to the potential problems their computer systems and software may encounter as a result of the change to the new century. It is expected that recipients will review the information for applicability to their facilities and consider actions, as appropriate, to avoid potential problems. However, suggestions contained in this information notice are not NRC requirements; therefore, no specific action nor written response is required.

## Description of Circumstances

Earlier this year, the U.S. House of Representatives held hearings on an issue known as the "Year 2000" software problem. These hearings identified that some of the most important computer software used by the Federal government may not work correctly starting in the year 2000, because the software can only use single years or decades in performing calculations; it will not be able to recognize a change to the new century. Many computer systems will potentially fail to recognize this change to a new century and will misread "00" or the year 2000, as 1900, and thus may cause the system to fail or generate faulty data. The NRC, along with several other Federal agencies, is currently examining computer software used to support Agency functions that may be affected. Specific problems have already been identified and will be corrected. In some instances where future dates are used to schedule actions, problems have already occurred -- well before the end of the century.

## Discussion

The Year 2000 issue affects everyone. It will have an impact on State and local governments, NRC licensees, and businesses. The magnitude of the Year 2000 issue poses a challenge to all those potentially affected. Dates are involved in many facets of computer systems and software. Neither industry nor the Federal government has yet identified the scope of the situation.

This issue may affect NRC licensees in many different ways. For example, computer software used to calculate dose or to account for radioactive decay may not recognize the turn of the century, which could lead to incorrectly calculated doses or exposure times for treatment planning. Other examples of software that may be affected include security control, radiation monitoring, technical specification surveillance testing, and accumulated burn-up programs. Also, equipment that licensees have purchased may contain computer software susceptible to the Year 2000 problem. The problem could occur not only in computer software or data that have been acquired from external sources, but also in programs developed by licensees or consultants. For many licensees, this issue may not prove to be a significant health and safety concern. However, to prevent any other potential problems this issue may precipitate, licensees are encouraged to examine their uses of computer systems and software well before the turn of the century. In assessing computer software, licensees may want to consider reviewing those programs that are used to meet licensing requirements or those that have safety significance.

To facilitate the exchange of information among licensees, NRC, and the public, information related to the Year 2000 problem is posted on NRC's World Wide Web server ([www.nrc.gov](http://www.nrc.gov)) under the "News and Information" option. An example of information that has already been posted is contract language developed by the Federal government for acquisition of new information technology to avoid the Year 2000 problem. In addition to the information presented on NRC's homepage, an Internet list server has been established to encourage discussion of Year 2000 issues. To subscribe to this list, Internet e-mail may be sent to [listproc@nrc.gov](mailto:listproc@nrc.gov) with the message: subscribe year-2000 username, where the username is the first and last name of the individual making the request (e.g., John Doe).

Licensees may wish to consider what actions may be appropriate to examine and evaluate their software systems, and whether to designate an individual to monitor the continuing activities in government and industry to determine the extent of potential problems and proposed solutions. Any additional contact regarding the Year 2000 problem between NRC and licensees will be made through the addressee of this information notice, unless a separate point of contact is designated by the licensee. Licensees who wish to designate a separate point of contact should provide the contact name and address, including telephone and fax number and email address if available, to the appropriate technical contact of this information notice. Holders of Title 10 of the Code of Federal Regulations (CFR) Part 50 licenses are requested to provide this information to the appropriate Office of Nuclear Reactor Regulation (NRR) project manager (courtesy copy to the NRR technical contact listed below).

This information notice requires no specific action nor written response. If you have any questions about the information in this notice, please contact the technical contacts listed below or the appropriate regional office.

signed by

Donald A. Cool, Director  
Division of Industrial and  
Medical Nuclear Safety  
Office of Nuclear Material Safety  
and Safeguards

signed by

Thomas T. Martin, Director  
Division of Reactor Program  
Management  
Office of Nuclear Reactor Regulation

Technical contacts: Mark A. Sitek, NMSS  
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