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MR Knapp  
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PJustus  
MNataraja  
JTGreeves  
TCJohnson  
JStarmer  
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GTAnkrum, IE  
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JUN 29 1984

Mr. J. William Bennett  
Acting Associate Director  
Office of Geologic Repository  
Deployment  
Office of Civilian Radioactive  
Waste Management  
Department of Energy  
Washington, DC 20555

Dear Mr. Bennett:

Your letter of June 14, 1984 described a number of actions which you are taking to address quality assurance in the high level waste repository program. We believe these steps will be helpful to DOE in avoiding the types of problems encountered in the design and construction of power reactors. The purpose of this letter is to forward to you the completed NRC staff Review Plan for Quality Assurance Programs during Site Characterization and to describe the next steps we consider should be taken to establish early agreement on what constitutes an adequate quality assurance program.

10 CFR Part 60 requires DOE to describe in each Site Characterization Plan the quality assurance program to be applied during site characterization. The attached Review Plan identifies how the staff will review these QA program descriptions. In general, it will be the basis for our discussions and reviews during the prelicensing phase. In preparing the final version of this plan, we published a Notice of Availability in the Federal Register of July 21, 1983, and solicited public comments. Meetings between the NRC and DOE were held on May 12 and June 21, 1983 to discuss the plan and formal DOE comments were considered in developing the final positions in the plan.

Our approach in developing the Review Plan has been to provide a sufficient level of guidance that NRC and DOE can hold productive prelicensing consultation on quality assurance and identify issues which will require resolution prior to licensing. A number of activities are underway, however, to identify more specifically what are essential elements of an acceptable quality assurance program for HLW repositories. The Commission is in the process of completing a Congressionally-mandated study of power reactor quality assurance problems that may have some applicability to waste disposal work. (In this connection, we are forwarding for your review the NRC staff report to Congress entitled "Improving Quality and the Assurance of Quality in the Design and Construction of Nuclear Power Plants" (NUREG-1055).) In addition, NRC waste management staff is examining QA programs of other Federal agencies to determine if alternative approaches can enhance the assurance of quality in the waste management program. Also, the ANS and ANSI/ASME are developing consensus

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standards to address repository QA. As the results of these efforts become available in the next several years, and with the experience of interacting on your specific programs, it is likely that some revisions to the Review Plan will be necessary. We encourage your staff and other interested parties to work closely with us in these efforts.

As we agreed in our telephone conversation of March 2, 1984, the next step in attaining agreement on what will be needed in the QA area is to conduct a round of site visits by NRC QA specialists. Recognizing that quality assurance programs are still being developed, these site visits would be "fact-finding" in nature and would provide DOE repository program managers and staff opportunity to consult with NRC's QA experts. From previous experience, we have learned that most quality assurance issues are difficult to settle in the abstract and require consideration of site- or program-specific implementation problems to resolve. Following a general session at Headquarters, the proposed site visits should provide the proper forum for getting down to such specifics.

Consistent with the principles established in the interagency procedural agreement on the repository program, there have been many technical meetings and site reviews over the past several years aimed at identifying issues early enough to be resolved without avoidable impact on DOE program schedules. While these interactions have focused on the quality of technical work being done, there has been little or no review of quality assurance programs per se. Our technical reviews, however, indicate that there are potential problems with current quality assurance programs and we consider it would not be prudent to put off consultations. We believe high priority should be given to such visits for several additional reasons:

- (a) as discussed in your letter, DOE quality assurance programs are now in the crucial, formative stage, and
- (b) presumably, DOE intends to use data collection and design work which is now under way in support of licensing.

We believe that early consultation on DOE's site characterization quality assurance program will help ensure that the problems which have arisen in power reactor licensing will not be repeated.

We propose that the site visits be conducted in July and August. In recent discussions with your staff, (M. Frei and C. Newton), they stated that site visits should not occur until after both the Headquarters and project specific QA program plans outlined in your June 14 letter are in place. However, given the potential for slippage in the schedules for completing these documents, and

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the missed opportunities for consultations during the important formative stages of these plans, this will be too late.

We look forward to meeting with your staff in the near future to discuss plans for reviews of QA programs at the sites. Please contact either H. Miller (427-4177), J. Kennedy (427-4786) or myself (427-4069) for establishing a schedule for a meeting.

Sincerely,

"ORIGINAL SIGNED BY"

Robert E. Browning, Director  
Division of Waste Management  
Office of Nuclear Material  
Safety and Safeguards

Enclosures:

1. Quality Assurance Review Plan
2. NUREG-1055, "Improving Quality and the Assurance of Quality in the Design and Construction of Nuclear Power Plants"

RECORD NOTE: This is a true copy of that which was sent to DOE on 6/29/84. Original concurrence copy lost by clerical staff.

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