AUG 15 1991

2345 General

MEMORANDUM

SUBJECT: Data Quality Objectives and Survey Design at DOE Sites

FROM: Allyn M. Davis, Director
Hazardous Waste Management Division (6H-PS)

TO: Nancy W. Wentworth, Director
Quality Assurance Management Staff (RD-680)

Thank you very much for the memo pertaining to Data Quality Objectives (DQO) process as it relates to Total Quality Management (TQM). I agree that the DQO process should be beneficial to both the Region and DOE/Los Alamos National Laboratory and could set a precedent for Federal Facility remediation work. Therefore, I will encourage my staff to actively participate with your staff on the LANL DQO project. However, I would request that meetings involving the LANL DQO process be held in Dallas, if possible, due to competing priorities for travel funds.

When you begin the DQO process for LANL, please contact me or have your staff contact William Gallagher at FTS 255-6775.

cc: Russell Rhoades, 6E

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6H-PS Gallagher BG 8/13/91

6H-P Honker WKH

6H-X Geiser 8/14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 31 1991

SUBJECT: Data Quality Objectives and Survey Design At DOE Sites

FROM: Nancy W. Wentworth, Director
Quality Assurance Management Staff (RD-680)

TO: Allyn M. Davis, Director
Hazardous Waste Management Division, Region 6

I have been following Region 6's activities to foster Total Quality Management (TQM) as part of its routine approach to business. I commend you on these efforts, and I would like to encourage their expansion to additional programs.

Over the past several years, we in the Quality Assurance Management Staff (QAMS) have been advocates of increased emphasis on upfront planning and communication between data users and data collectors in environmental data collection activities. We have collaborated with Regions 4 and 7 in the successful application of the Data Quality Objectives (DQO) process at several Superfund sites. QAMS acted as a facilitator in the discussions between data collectors in the Environmental Services Divisions and the data users in the Waste Management Divisions.

I am very pleased with the outcomes of these efforts, as each has resulted in the savings of significant study time, staff time and dollars. The Piazza Road (Region 7) DQO application saved the Fund almost $6 million, while the Carolina Transformer (Region 4) DQO application demonstrated the suitability of contaminant-specific quick-turnaround analytical methods to support more timely site decision-making. Each of these site planning efforts provided regional decision-makers with a statistically-based survey design that enhanced the defensibility of their site decisions; decisions were based on explicit uncertainty criteria, not just on the judgment of the staff. Most of the time savings came from the prevention of false starts with their resultant rework and need to collect additional data.

The key to the success of our DQO process is the participation of the data "customer" (typically the data user and decision maker) at key times during the planning stage. Typically, the customer in the Agency's data collection programs merely reviews the plan for data collection, and does not have

the opportunity to provide input to the upfront establishment of the design constraints upon which the survey will be designed. Getting this valuable input from the data user prevents rework and often produces a better focused survey design.

We shared the results of the DQO efforts in Regions 4 and 7 with the Department of Energy (DOE) Office of Environmental Restoration and Waste Management. As a result, DOE has entered into an interagency agreement with EPA to embrace the DQO process. By doing so, DOE hopes to ensure that it takes the most efficient approach to its waste remediation activities.

We suggest that one of the Los Alamos National Laboratory mixed waste sites be selected as a DQO effort. This joint EPA (Region 6 and QAMS)/DOE effort can set a precedent for collaboration on Federal Facility remediation work, and show Region 6's leadership in innovative approaches to reducing the time and cost of cleanups. The DQO process application that I am proposing has been discussed with Bill Honker of your staff. I recognize the intense workload faced by your staff; the time required by them in this effort will be carefully planned to assure that it is used efficiently. The staff's primary role would be to review experimental design constraints in order to provide feedback on their acceptability. The specification of the constraints, or DQOs, is crucial to the development of the site data collection survey, and even small changes may have significant impact on survey costs.

QAMS has found that most of the necessary discussions can occur by phone/fax. Any face-to-face discussions may be held in Dallas to reduce the need for Region 6 travel time and funds. I do not expect the reviews/comments to take more than 2-3 person days per site. The early investment of time pays a significant return in reduced review/rework.

I anticipate that DOE will begin their site planning as early as September 1991. Application of the DQO process will provide Region 6 the opportunity to direct in a very positive way the initial planning at the DOE waste site. QAMS will act as a facilitator for the application of the DQO process by the DOE technical and management site team, and will be a resource to Region 6 in understanding the implications of various design constraints chosen by DOE.

This is an important opportunity to save the taxpayers significant money and more quickly remediate real environmental risk. If you would like to discuss this further, please give me a call at 202/382-5763. I recognize the important lead Region 6 is taking on TQM, and I want to help you go further.

cc: Russell F. Rhoades, ESD
Bill Honker, WMD