



DIRECTIVE NUMBER: 9242 6-08

TITLE: TQM and Quality Assurance in Superfund

APPROVAL DATE: DEC 5 1990

EFFECTIVE DATE: DEC 5 1990

ORIGINATING OFFICE: Office of Solid Waste

☒ **FINAL**

☐ **DRAFT**

STATUS:

REFERENCE (other documents):

OSWER OSWER OSWER
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EPA		United States Environmental Protection Agency Washington, DC 20460		1. Directive Number 6242.6-08
OSWER Directive Initiation Request				
2. Originator Information				
Name of Contact Person Duane Geuder	Mail Code OS-240	Office OERR/OPM	Telephone Code 245-4027	
3. Title <p style="text-align: center;">TQM and Quality Assurance in Superfund</p>				
4. Summary of Directive (include brief statement of purpose) <p style="text-align: center;">States management commitment to the TQM concept as applied to the Quality Assurance Program and development of data quality objectives. Outlines principles for applying TQM procedures.</p>				
5. Keywords <p style="text-align: center;">QA/QC; analytical support; data management; TQM</p>				
6a. Does This Directive Supersede Previous Directive(s)? <div style="display: inline-block; margin-left: 10px;"> <input checked="" type="checkbox"/> No </div> <div style="display: inline-block; margin-left: 20px;"> <input type="checkbox"/> Yes </div> <div style="display: inline-block; margin-left: 10px;"> What directive (number, title) </div>				
b. Does It Supplement Previous Directive(s)? <div style="display: inline-block; margin-left: 10px;"> <input checked="" type="checkbox"/> No </div> <div style="display: inline-block; margin-left: 20px;"> <input type="checkbox"/> Yes </div> <div style="display: inline-block; margin-left: 10px;"> What directive (number, title) </div>				
7. Draft Level <div style="display: flex; justify-content: space-between; align-items: center;"> <div> <input type="checkbox"/> A - Signed by AA/DAA </div> <div> <input checked="" type="checkbox"/> B - Signed by Office Director </div> <div> <input type="checkbox"/> C - For Review & Comment </div> <div> <input type="checkbox"/> D - In Development </div> </div>				

8. Document to be distributed to States by Headquarters? <div style="display: inline-block; margin-left: 10px;"> <input type="checkbox"/> Yes </div> <div style="display: inline-block; margin-left: 10px;"> <input checked="" type="checkbox"/> No </div>
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This Request Meets OSWER Directives System Format Standards.	
9. Signature of Lead Office Directives Coordinator <p style="text-align: center;">Betti C. VanEpps, OERR Directives Coordinator</p>	Date <p style="text-align: center;">FEB 12</p>
10. Name and Title of Approving Official <p style="text-align: center;">Henry L. Longest II, Director, OERR</p>	Date <p style="text-align: center;">FEB 12</p>

EPA Form 1315-17 (Rev. 8-87) Previous editions are obsolete.

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

DEC 5 1990

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

OSWER Directive #9242 6-08

MEMORANDUM

SUBJECT: Total Quality Management (TQM) and Quality Assurance (QA) in Superfund

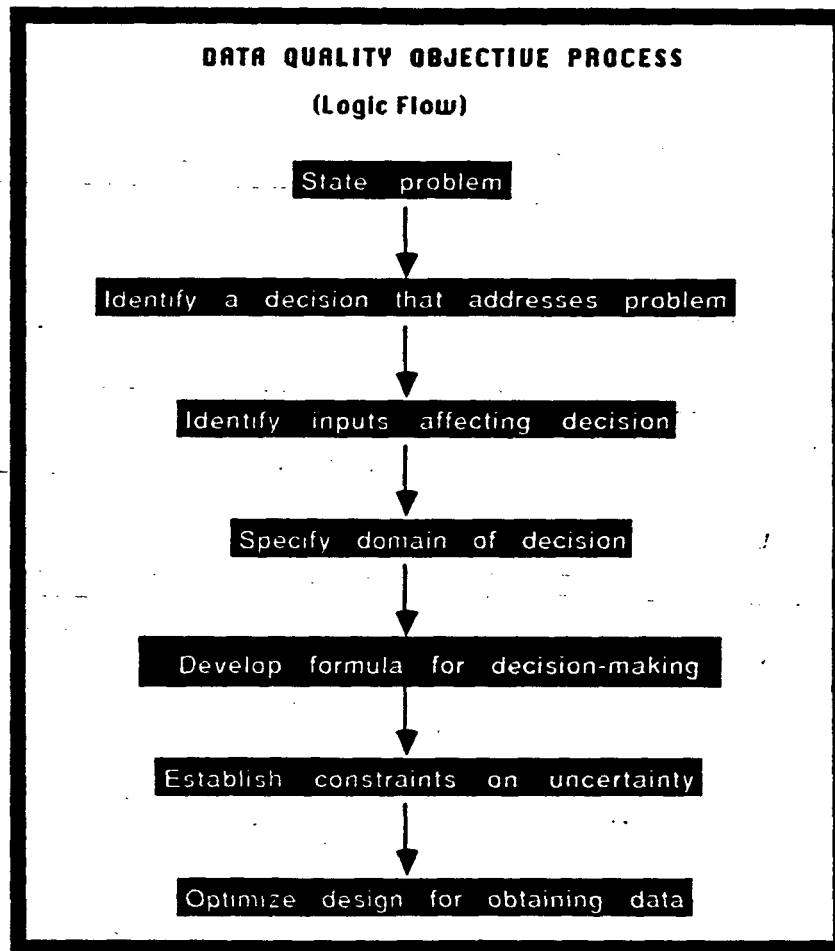
FROM: Henry L. Longest II, Director *HL*
Office of Emergency and Remedial Response

TO: Director, Waste Management Division
Regions I, IV, V, VII, and VIII
Director, Emergency and Remedial Response Division
Region II
Director, Hazardous Waste Management Division
Regions III and VI
Director, Toxics and Waste Management Division
Region IX
Director, Hazardous Waste Division
Region X

PURPOSE: The purpose of this memorandum is to reemphasize my support of the TQM concept especially as it relates to our QA Program and the development of Data Quality Objectives (DQOs) for the RI/FS and RD/RA processes.

BACKGROUND: Collecting and analyzing samples at Superfund sites prior to initiating actual clean-up activities is time consuming and expensive. The Quality Assurance Management Staff (QAMS) and Superfund have been pursuing new ways to assist in streamlining the procedures used to plan Superfund data collection operations for informed decision making. A Total Quality Management approach based on the familiar principles of Customer-Supplier communication of needs, understanding of program process, and specification of requirements has been developed, and applied to the DQO process. The DQO process has been reduced to the logic flow illustrated in the diagram below, and forces the decision maker to address three basic questions.

- 1) What decision does the customer need data to resolve?
- 2) Why does the customer need a specific type and quality of data?
- 3) How does the customer plan to use data to make a defensible decision?



This TQM approach to DQOs has been implemented and proven to be beneficial at National Priorities List (NPL) sites in Regions IV and VII. (See attachments.)

The following benefits associated with this approach to the DQO process were observed:

- o helps Remedial Project manager (RPM) (customer) communicate effectively with data collector (supplier) by organizing key planning issues in a thoughtful sequence;

- o helps RPM (customer) establish objective, quantitative criteria for knowing when to stop sampling;
- o helps insure that the Remedial Investigation (RI) will produce the type and amount of data an RPM needs to decide which course of action to take, with an acceptable, pre-specified measure of risk of incorrect decisions; and
- o reduces overall time for the RI by decreasing the likelihood of false starts and minimizing rework.

Regional implementors found this approach to the DQO process to be responsive to and consistent with Superfund's streamlining initiatives.

OBJECTIVE: My objective is to suggest each Region consider utilizing the QAMS TQM approach for the development of DQOs and related sampling and analysis plans, and afford it further evaluation at a variety of Superfund sites. Since the RPMs/OSCs are ultimately responsible for the quality of the work done, application of TQM and appropriate QA at every Superfund site must be their aim in concert with continuous optimization of the processes applied to Superfund cleanup. I am confident that this can be accomplished by the WMD/ESD teams in the Regions.

IMPLEMENTATION: Please have your staff contact Duane Geuder (OS-240) at FTS 245-4027 for additional information or to discuss potential sites and timeframes. The QAMS contact is Dr. Dean Neptune (RD-680) at FTS 475-9464. Thank you for your continued support of our QA program.

Attachments

cc: Superfund Branch Chiefs
 Superfund QA Forum Members
 Regional ESD Directors
 Regional QA Managers
 Nancy Wentworth
 Larry Reed
 Paul Nadeau
 Stephen Luftig
 Superfund Documents Coordinator