



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, DC 20460

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OFFICE OF
RESEARCH AND DEVELOPMENT

MEMORANDUM

SUBJECT: Clarification of Terminology for the EPA Quality System

FROM: Norine E. Noonan
Assistant Administrator (8101R)

TO: Assistant Administrators
Regional Administrators

I would like to resolve some confusion over terminology that has occurred from a revision to EPA's quality policy. EPA Order 5360.1 CHG 1 (July 1998), *Policy and Program Requirements for the Mandatory Quality System*, requires that all EPA organizations use a systematic planning process to develop acceptance or performance criteria for the collection, evaluation, or use of environmental data. In this revision, the phrase "acceptance or performance criteria" replaced the phrase "data quality objectives." This was done to eliminate the use of a phrase that has several meanings within EPA. A detailed explanation of this change is provided in Attachment 1. Further, a copy of the EPA policy on systematic planning is also attached (Attachment 2) for your reference.

Please distribute these attachments to your staff so that the change in terminology may be clearly understood. If you have any questions regarding this or any other components of the mandatory Agency-wide Quality System, please contact Nancy Wentworth, Director of the Quality Assurance Division, at (202) 564-6830.

Attachments

cc: Chief Financial Officer (2710)
Office of Inspector General (2310)

Attachment 1

Data Quality Objectives

vs. Acceptance or Performance Criteria

Agency Policy

Agency policy requires that all EPA organizations use a systematic planning process to develop acceptance or performance criteria for the collection, evaluation, or use of environmental data. This policy is defined in EPA Order 5360.1 CHG 1 (July 1998), *Policy and Program Requirements for the Mandatory Quality System*. A companion policy document, EPA Manual 5360, *The EPA Quality Manual for Environmental Programs* (Manual 5360, July 1998) provides program requirements for implementing EPA Order 5360.1 CHG 1. In particular, Section 3.3.8.1 of this manual defines criteria for systematic planning (see Attachment 2).

Terminology Change

The phrase “data quality objectives” originally represented generic quality criteria for environmental data. In 1994, EPA issued the document *Guidance for the Data Quality Objectives (DQO) Process* (EPA/600/R-96/055, 1996). The use of this document led to the confusion that “data quality objectives” only represent the outputs from the DQO Process. Since the DQO Process is not applicable to all Agency activities, organizations incorrectly believed that if the DQO Process did not apply, data quality objectives were not necessary. To eliminate this misconception, the phrase “data quality objectives” was replaced with “acceptance or performance criteria” when the quality policy was revised in 1998. The phrase “data quality objectives” was also redefined to solely represent the outputs from the DQO Process.

New Definition for Data Quality Objectives

Data Quality Objectives are qualitative and quantitative statements derived from the DQO Process that clarify study objectives, define the appropriate type of data, and specify tolerable levels of potential decision errors that will be used as the basis for establishing the quality and quantity of data needed to support decisions (EPA Manual 5360).

Use of the Data Quality Objectives (DQO) Process

The DQO Process is the Agency’s recommended planning process when environmental data are used to select between two opposing conditions. In this case, the outputs (the data quality objectives) define the performance criteria. When the DQO Process is not applicable (i.e, the objective of the program is estimation, research, or any other objective that does not select between two opposite criteria), a systematic method for defining performance criteria must be used.

Attachment 2
The EPA Quality Manual for Environmental Programs - Section 3.3.8.1
(EPA Manual 5360, July 1998)

3.3.8.1 Systematic Planning

Environmental data operations shall be planned using a systematic planning process that is based on the scientific method. The planning process shall be based on a common sense, graded approach to ensure that the level of detail in planning is commensurate with the importance and intended use of the work and the available resources. Elements of a systematic planning approach that shall be documented include:

- C Identification and involvement of the project manager, sponsoring organization and responsible official, project personnel, stakeholders, scientific experts, etc. (e.g., all customers and suppliers);
- C Description of the project goal, objectives, and questions and issues to be addressed;
- C Identification of project schedule, resources (including budget), milestones, and any applicable requirements (e.g., regulatory requirements, contractual requirements);
- C Identification of the type of data needed and how the data will be used to support the project's objectives;
- C Determination of the quantity of data needed and specification of performance criteria for measuring quality;
- C Description of how, when, and where the data will be obtained (including existing data) and identification of any constraints on data collection;
- C Specification of needed QA/QC activities to assess the quality performance criteria (e.g., QC samples for both the field and laboratory, audits, technical assessments, performance evaluations, etc.);
- C Description of how the acquired data will be analyzed (either in the field or the laboratory), evaluated (i.e., QA review, validation, verification), and assessed against its intended use and the quality performance criteria.