

OVERVIEW OF EPA QUALITY PROGRAM

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IMPORTANCE OF ENVIRONMENTAL DATA COLLECTION ACTIVITIES

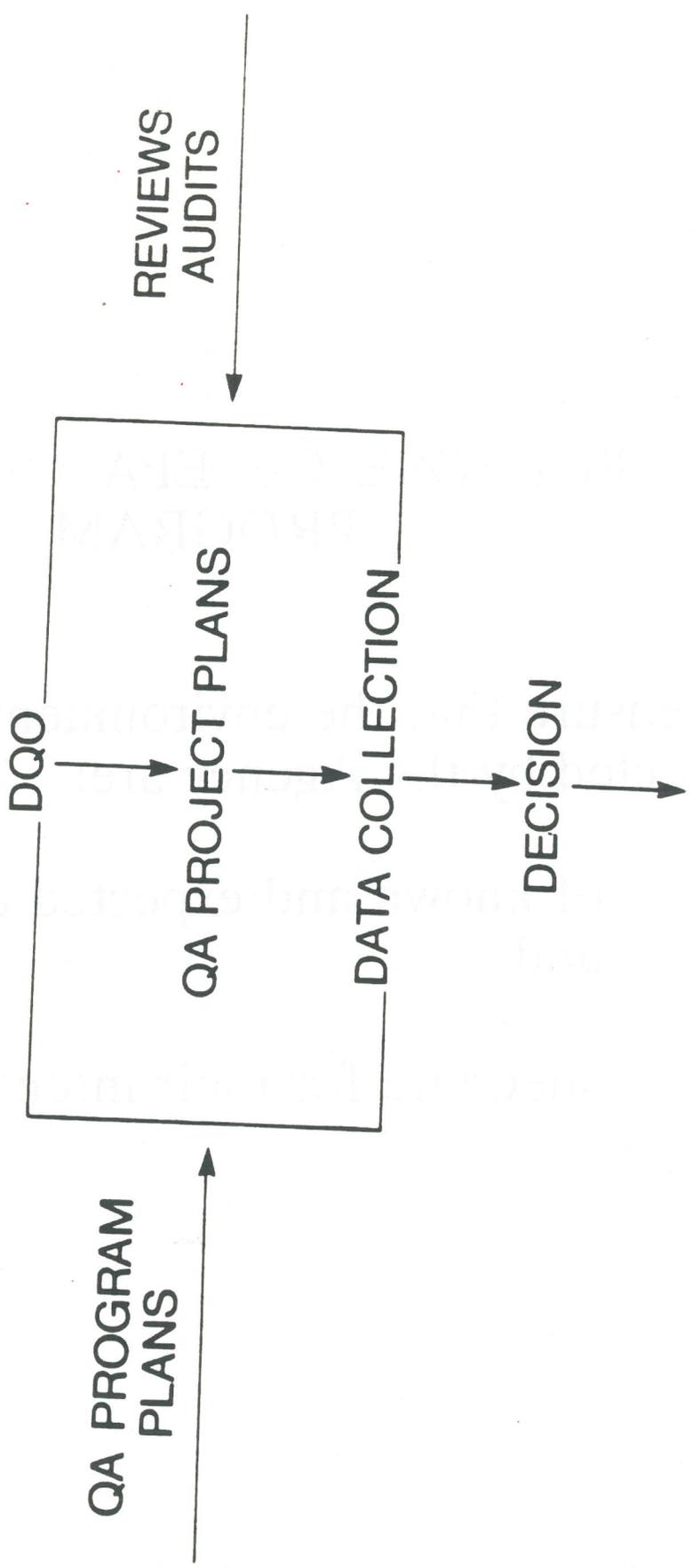
- Environmental data form basis for nearly all policy, technical, and regulatory decisions.
- Cost of incorrect decisions may be high for EPA and regulated community.
- Regulatory agency decision-making process is very complex and highly variable.

PURPOSE OF EPA QUALITY PROGRAM

To ensure that the environmental data collected by the Agency are:

- of known and expected data quality, and
- adequate for their intended use

EPA QUALITY ASSURANCE PROGRAM



BASIS OF EPA QA PROGRAM

- EPA ORDER 5360.1 - outlines roles and responsibilities for carrying out mandatory Agency QA program
- Regulations - extend QA requirements to recipients of EPA funds for grants, contracts, cooperative agreements
 - 40 CFR 30 and 31
 - 48 CFR 15
- Guidance - provides additional detail about QA and QC implementation

WHAT IS QA? WHAT IS QC?

QUALITY ASSURANCE

QA is a *management function* whose purpose is to establish, implement, and evaluate quality control (QC) activities and procedures.

QUALITY CONTROL

QC is the routine collection, analysis, and documentation of data for the specific purpose of evaluating and assessing the uncertainties associated with a given measurement, method, or procedure, and the application of appropriate corrective action.

COMPONENTS OF THE EPA QUALITY MANAGEMENT PROCESS

- Quality Assurance Management Plans
- Management Systems Reviews
- Data Quality Objectives
- Quality Assurance Project Plans
- Technical Audits and Reviews
- Human Resource Development --
Training, Communication, and
Recognition

EPA QUALITY MANAGEMENT PROCESS

- Focus on institutionalization of Quality Consciousness in Planning, Implementation, and Review.
- Two-tiered approach:
 - at the Organizational Level
 - at the Program Level

QUALITY MANAGEMENT AT ORGANIZATION LEVEL

Quality Assurance Management Plan

- Blueprint for Quality Management Process and Structure
- Identifies mission and customers
- Defines roles and responsibilities
- Defines how measures of effectiveness will be established

Management Systems Review

- Assesses effectiveness of QA process and structure
- Focus on specific data collection programs cutting across organizational boundaries

QUALITY MANAGEMENT AT PROGRAM LEVEL

Data Quality Objectives

- Statement of quality standards or goals for environmental data used in decision-making
- Systematic process dependent on customer input

Quality Assurance Project Plans

- Blueprint for implementing data collection adequately to achieve the DQOs
- Requirements may vary among organizations.
- General guidance given in QAMS-005/80
- Specific guidance defined by individual organization's QA Management Plans.

QUALITY MANAGEMENT AT THE PROGRAM LEVEL

Technical Audits

- Technical Systems Audits
 - Qualitative assessment of the total measurement system used to collect the data
- Performance Evaluation Audits
 - Quantitative assessment of the effectiveness of the measurement system
- Audits of Data Quality
 - Assessment of how well the data collection activity is achieving its DQOs

VALUE AND BENEFITS FROM QUALITY MANAGEMENT PROCESS

- Supplies needed training and tools for all facets of QA/QC operations
- Provides process and structure for successful implementation of program activities with active participation and involvement of management
- Provides systematic approach to assess planning, implementation, and review of data collection activities, through reliance on measures of effectiveness
- Focuses on customer needs and satisfaction