

ANSI/ASQC E2-1996

# AMERICAN NATIONAL STANDARD

## *Guide to Inspection Planning*



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## *Guide to Inspection Planning*

*[Reaffirmation of ANSI/ASQC E2-1984]*

*Prepared by  
American Society for Quality  
Energy Division Standards Committee*

*An American National Standard Approved on January 12, 1996*

*Guide to Inspection Planning* describes the significant elements that should be considered in the development of inspection activities. The standard is intended to provide generic guidelines for a product/process inspection system.

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ASQ Mission: To facilitate continuous improvement and increase customer satisfaction by identifying, communicating, and promoting the use of quality principles, concepts, and technologies; and thereby be recognized throughout the world as the leading authority on, and champion for, quality.

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# Contents

	Page
1.0 Scope .....	1
2.0 Applicability .....	1
3.0 Definitions .....	1
4.0 Determination of Organizational Responsibilities and Information Sources as Bases of Inspection Planning ...	1
4.1 Responsibilities and Interface .....	1
4.2 Information Accessibility .....	2
5.0 Planning for Inspection Resources .....	2
5.1 Files and Records .....	2
5.2 Inspection Facilities .....	2
5.3 Inspection Personnel .....	2
5.4 Inspection Procedures .....	3
5.5 Preplanning Considerations .....	3
5.6 Scheduling and Revising Inspection Plans .....	3
6.0 Contents of Inspection Plans .....	3
6.1 Identification .....	4
6.2 Inspection Conditions .....	4
6.3 Characteristics .....	4
6.4 Acceptance Criteria .....	4
6.5 Inspection Methods .....	4
6.6 Extent of Inspection .....	5
6.7 Witness and Hold Points .....	5
6.8 Tests .....	5
6.9 Special Processes .....	5
6.10 Surveillance Inspection .....	5
6.11 Reporting Results .....	5
6.12 Inspection Release .....	6
7.0 Other Related Functions .....	6

# Foreword

(This Foreword is not part of the American National Standard ANSI/ASQC E2-1996, *Guide to Inspection Planning*.)

This standard was developed to provide guidance to industrial organizations in planning for and applying inspection to construction, manufacturing, operating, or service functions.

The standard is presented in a typical project time sequence, giving the organizational basics, project inspection planning elements, and then details of planning for direct inspection. It is presented as guidance, to be utilized as the applying organizations determine to be most appropriate. As such, it is not directly applicable to individual products or industries, but must be tailored to each specific case. The primary objective of the standard is to assist in making the inspection planning process most efficient and thus contribute to better quality of items/services provided and to better productivity.

ANSI/ASQC E2-1996 is a reaffirmation of ANSI/ASQC E2-1984. The Energy Division Standards Committee of ASQC included the following personnel during preparation of the 1984 version of this standard:

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**Suggestions for improvement of this standard will be welcome. They should be sent to the standard's sponsor, American Society for Quality Control, c/o Standards Administrator, 611 East Wisconsin Avenue, Milwaukee, WI 53202.**

## Guide to Inspection Planning

### 1.0 SCOPE

This standard provides guidance for an inspection planning system, identifies elements of the inspection planning process, and includes a section which presents techniques for the preparation of inspection plans for specific tasks and projects.

### 2.0 APPLICABILITY

This standard describes methods of planning for the inspection of products and services. The inspection covered by this planning activity includes that performed at source of supply, during receiving, storage, in-process, and at completion of work. The methods and techniques for inspection planning described in this standard are applicable to manufacturing, construction/installation, and operational activities.

The extent to which individual elements of this standard are applied can best be determined by the user, consistent with the intended end use, complexity of the item(s) and activities inspected, and contractual requirements. Where elements are contained as standard policy in a company's quality assurance manual or related documents, they need not be repeated.

### 3.0 DEFINITIONS

**inspection planning:** The function of evaluating and determining inspection requirements, preparing for inspection, and defining methods and means, including facilities, equipment, personnel, procedures, and plans, for fulfilling those requirements.

**inspection plan:** A document identifying methods and sequence for inspection including frequency of inspection, characteristics to be inspected, data to be recorded, tools, facilities, and referencing or otherwise defining acceptance criteria. The plan identifies a system for identifying and disposing of inspected items and activities. The inspection plan may be referenced as an integral part of the process control plan.

**inspector:** A person who, through examination, measurement, or test, determines conformance of a product or service to preestablished requirements, and then

records or otherwise acts upon the decision of acceptance or rejection.

**NOTE:** The inspection performed by the inspector may be a verification of checks made by personnel who performed the work activities on products/services.

**surveillance inspection:** An overview of selected activities as they are being performed to ascertain and verify conformance to requirements, often with special emphasis on materials, processes, and processing parameters.

**witness point:** A notification point in a function or process sequence where notification of the inspector is required for his or her option of observing or visually examining a specific work operation or test. Work may proceed beyond a witness point with or without inspection action following notification to the inspection organization.

**hold point:** Hold points are mandatory verification points identified within the inspection plan beyond which work should not proceed until mandatory verification is performed, acceptance established, or written release granted by the inspector.

### 4.0 DETERMINATION OF ORGANIZATIONAL RESPONSIBILITIES AND INFORMATION SOURCES AS BASES OF INSPECTION PLANNING

This standard presents guidance on inspection planning, based upon the existence within the organization of appropriate management controls and resources, or a quality assurance program. Inspection planning provisions should be documented as part of the quality assurance program. These provisions may be included in a manual, in a procedure(s), or instruction(s), and should include assignment of inspection planning responsibilities.

#### 4.1 Responsibilities and Interfaces

Responsibility within the organization for the inspection planning activity should be established. As part of inspection planning, responsibility for inspection activities and functions of supporting and interfacing organizations should also be determined. Typically, supporting and interfacing organizations include manufacturing, engineering,