

**United States
Nuclear Waste Technical Review Board
Quality Assurance Panel**

STATE OF NEVADA QA PROGRAM

Presentation by

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What is a Quality Assurance Program?

- A combination of management systems to consistently produce a product or service to meet an intended need.

Characteristics of an Effective QA Program

- Clear definition of project requirements (intended need)
- Organization structured to meet project requirements
- Clear definition of activities to carry out project objectives
- Complete plans and schedules to accomplish project objectives
- Sufficient qualified resources to accomplish plans and schedules
- Early and complete training and indoctrination
- Management understanding and dedication to quality achievement
- Effective use of peer reviews and readiness reviews to optimize quality
- QA management responsible for ensuring that management systems are (a) adequate to accomplish project objectives, (2) understood by project personnel, and (3) implemented as designed
- Independent assessment of management system's effectiveness
- Management dedication to meeting overall project objectives as opposed to just meeting QA requirements

STATE OF NEVADA
QUALITY ASSURANCE PROGRAM

Objective

To ensure that all technical data and interpretations performed by the State and its contractors/subcontractors comply with established nuclear quality assurance requirements.

- o 1985 9th Circuit Court of Appeals decision that State of Nevada has right to perform independent technical study of the site
- o Nevada decision to establish quality assurance program to govern technical program
- o Selected Sargent & Lundy Engineers to assist in development of QA program
- o July 1987 the State submitted QA program manual to NRC for acceptance review
- o March 1988 NRC accepted Nevada's QA program

QA Program Conforms to Applicable Requirements of:

1. 10 CFR 60 Subpart G
2. 10 CFR 50 Appendix B
3. ANSI/ASME NQA-1

Definition of Quality Assurance

10 CFR 50 App. B and ANSI/ASME NQA-1 (1989)

"All those planned and systematic actions necessary to provide adequate confidence that a structure, system, or component will perform satisfactorily in service."

State of Nevada

"All those planned and systematic actions necessary to provide adequate confidence that activities significant to NWPO's goals have been satisfactorily performed by qualified persons."

Differences in Application of Requirements

- No differentiation between quality-related activities and non-quality-related activities
- Technical activities do not directly address waste isolation and public safety

Nevada's QA Program

1. QA Plan and Implementing Procedures
2. Technical Procedures

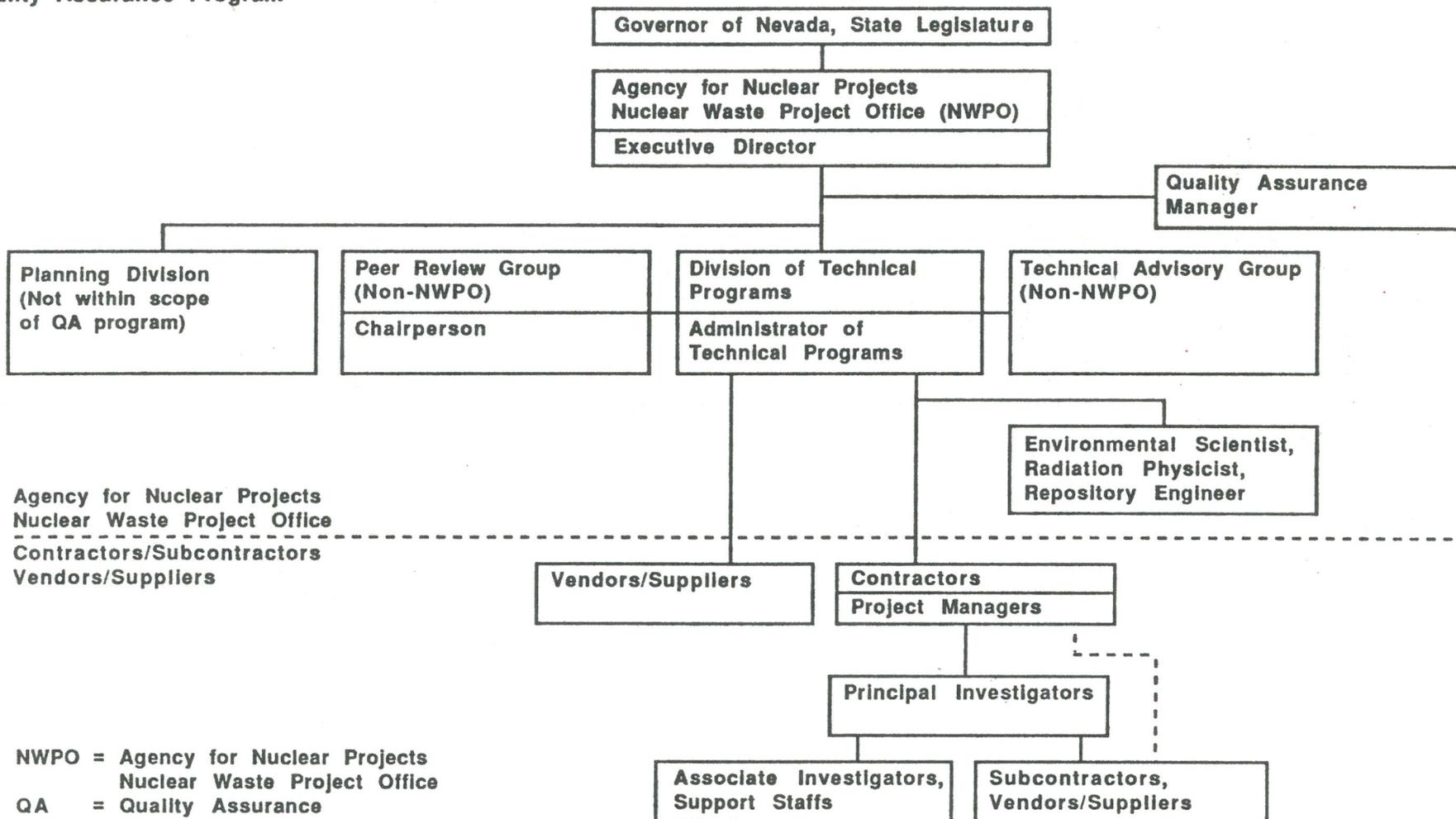
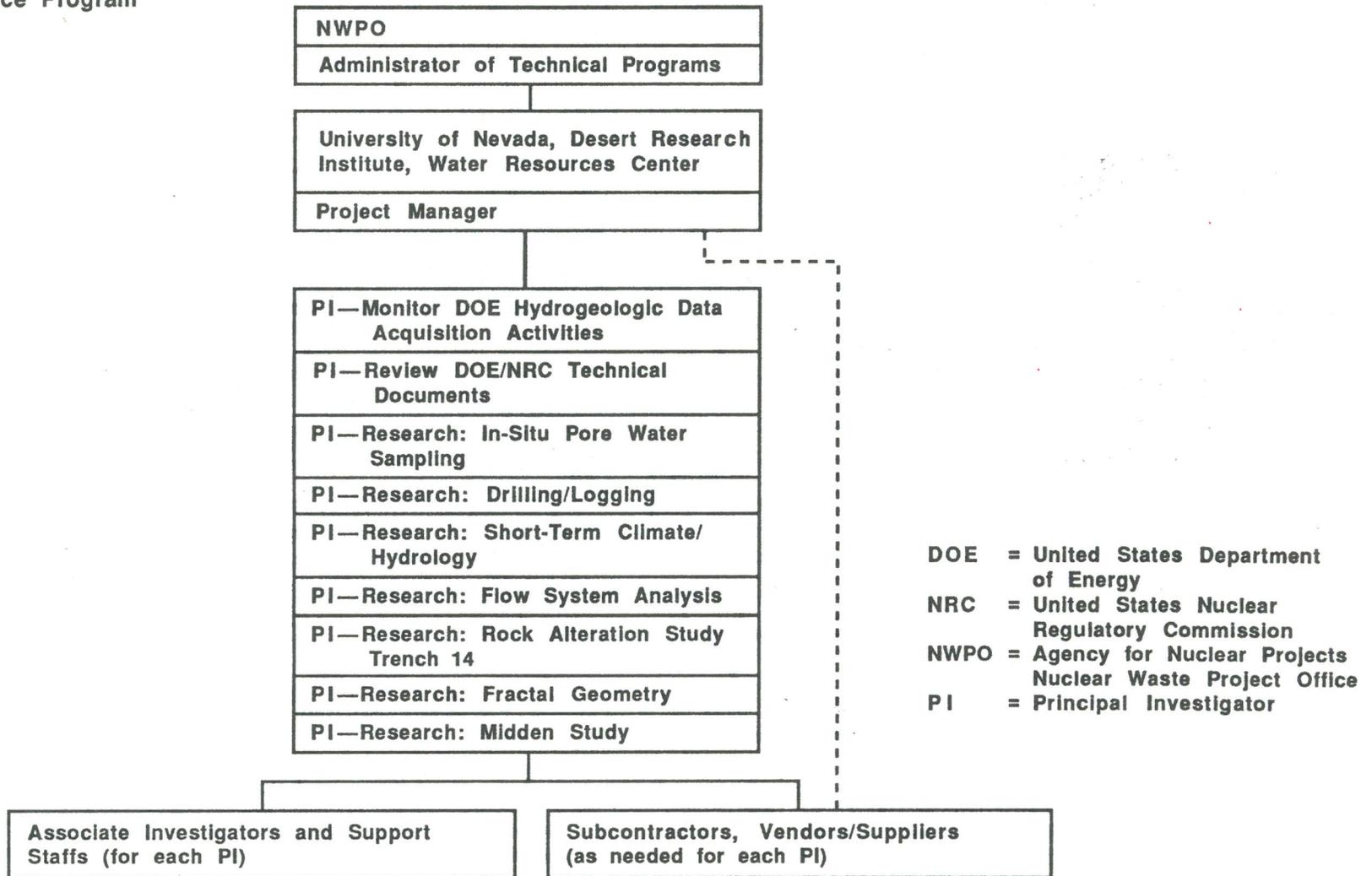


Figure 01-1, General Project Organization Chart



01-3

Figure 01-2, Contractor Organization Chart for Desert Research Institute, Water Resources Center, University of Nevada

01-4

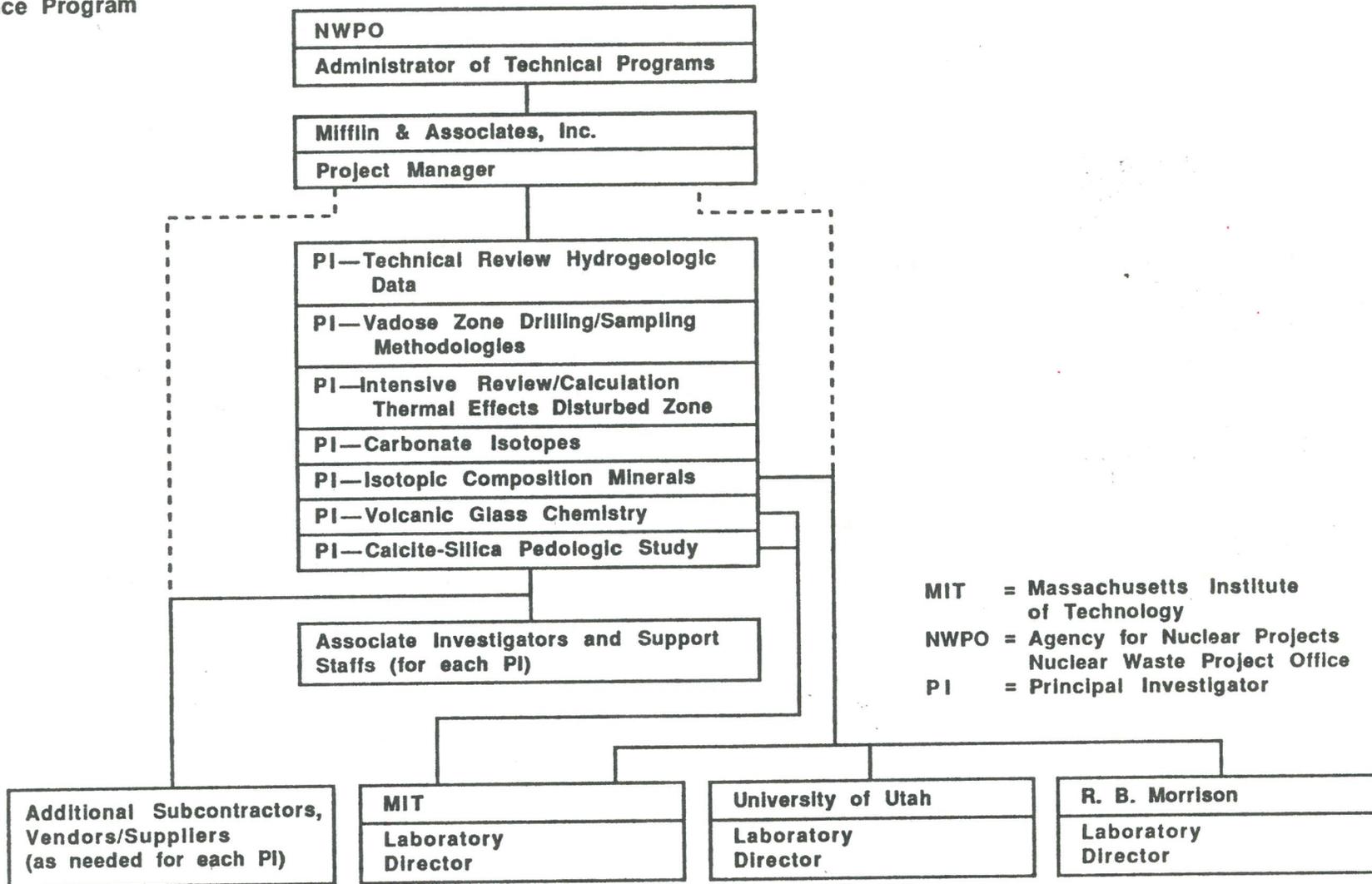


Figure 01-3, Contractor Organization Chart
 Mifflin & Associates, Inc.

10 CFR 50 App. B "Quality Assurance Criteria"

Applicable
to Nevada
Program

Criteria

01	Organization	Yes
02	Quality Assurance Program	Yes
03	Design Control (*Analysis of Site Characterization Data)	Yes*
04	Procurement Document Control	Yes
05	Instructions, Procedures, and Drawings	Yes
06	Document Control	Yes
07	Control of Purchased Materials, Equipment, and Services	Yes
08	Sample Identification and Control	Yes
09	Control of Special Processes	No
10	Inspection, Surveillance, and Monitoring	Yes
11	Test Control	No
12	Control of Measuring and Test Equipment	Yes
13	Sample Handling, Storage, and Shipping	Yes
14	Inspection, Test, and Operating Status	No
15	Nonconformances	Yes
16	Corrective Action	Yes
17	Quality Assurance Records	Yes
18	Audits	Yes

Quality Assurance Procedures

PROCEDURE

NUMBER

PROCEDURE TITLE

- QAP-2.1 Position Titles, Position Descriptions, Employee Experience Records, and Qualification Statements
- QAP-2.1 Preparation, Control, and Distribution of the Agency for Nuclear Projects/Nuclear Waste Project Office Quality Assurance Manual
- QAP-2.2 Preparation and Control of Technical Procedures
- QAP-2.3 Indoctrination and Training in the Agency for Nuclear Projects/Nuclear Waste Project Office Quality Assurance Manual
- QAP-2.4 Management Assessment of the Agency for Nuclear Projects/Nuclear Waste Project Office Quality Assurance Program
- QAP-2.5 Review of Documents and Technical Information for Impact on the Agency for Nuclear Projects/Nuclear Waste Project Office Quality Assurance Manual
- QAP-3.1 Calculations
- QAP-3.2 Technical Reports

Quality Assurance Procedures (continued)

PROCEDURE
NUMBER

PROCEDURE TITLE

QAP-3.3 Peer Reviews

QAP-3.4 Review of DOE/DOE-Contractor Technical Reports and Data

QAP-4.1 Procurement Contract Control and Contractor/-Subcontractor
Qualification

QAP-6.1 Document Distribution List and File Index

QAP-6.2 Progress Reports and Master Document Lists

QAP-15.1 Nonconformances

QAP-16.1 Corrective Action

QAP-17.1 Quality Assurance Records

QAP-18.1 Audits

**EMPHASIS OF NEVADA QA PROGRAM
IS ON DOCUMENTATION AND
TRACEABILITY OF QUALITY WORK**