

SANDIA NATIONAL LABORATORIES
WASTE ISOLATION PILOT PLANT
QUALITY ASSURANCE PROCEDURE (QAP)
QAP 2-2

QUALIFICATION AND TRAINING PROGRAM

Revision D

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1.0 SCOPE

This Quality Assurance Procedure (QAP) defines the process by which Sandia National Laboratories (SNL) ensures that personnel, working on the Waste Isolation Pilot Plant, have the necessary training and qualifications to successfully complete their assigned activities.

2.0 APPLICABILITY

This QAP applies to all SNL and SNL contract personnel whose primary work responsibility is the WIPP Project. Other SNL personnel and contractors supporting the project will be required to comply with this procedure at the discretion of the responsible supervisor.

3.0 REFERENCES

ASME NQA-1, latest revision and applicable addenda, Supplement 2S-4.

Sandia National Laboratories, WIPP Quality Assurance Program Description.

4.0 IMPLEMENTATION

This procedure will be applied using a phased approach. The Department Manger will oversee the implementation of this procedure.

5.0 FORMS

SNL #209, Field Training Log, most recent revision;

SNL #211, SNL personnel Qualification, most recent revision.

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6.0 DEFINITIONS

- **Management** - a formal recognized classification at SNL. For this procedure, it is at the project manager, department manager level, or above.
- **Related Activity** - active participation in an activity that would be beneficial to this project or is directly related to the employee's tasks. Included is experience in: waste management, engineering, geosciences, computer and electrical sciences, quality assurance, or formal management and responsibility for a large project.
- **Primary Work Responsibility** - an employee's main job function and associated responsibilities.

7.0 RESPONSIBILITIES

7.1 Project Manager

- has the overall responsibility to see that all SNL WIPP staff comply with this procedure;
- resolves all conflicts regarding this procedure.

7.2 Department Manager

- has the responsibility to correctly assign job areas for employee's under his direction;
- ensures that qualification and training requirements for respective employees are met;
- evaluates the job assignments annually during merit review to ensure that they are current and are being met;
- revises and reissues the job assignments if they are no longer correct;
- ensures that resources are available to allow employees to acquire the necessary training and experience to meet their job requirements.

7.3 Quality Assurance

- has the responsibility to maintain associated QA records and databases in accordance with project procedures;
- periodically perform surveillances on this process to verify compliance;

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- review training requirements for adequacy;
- maintain a database to track the implementation of this procedure;
- frequently distribute the database to staff and management to assist them in fulfilling their requirements.

8.0 PROCEDURE

8.1 Background

- Activities to be performed at WIPP are addressed in Program Plans, Test Plans and related documents. Using these, management identifies the types of work that need to be accomplished. This process is beyond the scope of this procedure.

8.2 Employee Designation

- Upon hiring, an employee will be given a classification, such as Member of Technical Staff, based on previous education and experience. The requirements for these classifications are maintained by the laboratory.

8.2.1 Management will assign a job area to each employee under his supervision.

8.2.2 Management will complete the top half of SNL Form 211 to document these designations.

8.2.3 The employee will complete the second half, documenting how the qualification requirements are met.

8.2.4 Management will verify the information is correct and approve the form. By signing, management is confirming that the employee has met the training, education and experience requirements and may perform the assigned activity. A resume or other related documents may be attached to Form 211, as a supplement.

8.2.5 The approval of the Gage Coordinator (Cognizant Engineer) is required on Form 211, for all Gage Instrumentation and Gage Calibration Job Areas.

8.2.6 The completed form is considered a QA record and is maintained in the WIPP Notebook System.

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8.3 Job Area Summary

- 8.3.1** This aspect of the training and qualification program, focuses on specific training requirements. These are identified by the person responsible for the activity, such as a procedure's author, the PI or management. Each employee's category is documented on Form 211. The job area requirements and status are maintained by SNL QA.
- 8.3.2** The core of the requirements is procedure reading. Each area carries with it specific procedures that must be read. QA maintains a database that lists the requirements for each area. This database is called the WIPP Procedure Qualification List.
- 8.3.3** Each employee is expected to have a working knowledge of his or her required procedures. The training database tracks the completion of training requirements.
- 8.3.4** The author of the procedure identifies to QA which job areas should read the documents. Each revision to a procedure must also be read if required by the author. Every time procedures are distributed, QA notifies staff of the resulting changes in the job area requirements.
- 8.3.5** If staff are assigning or technically approving work, they must have read all procedures used to complete the tasks and complete any associated training. Training confirmation sheets are used to document the reading of procedures by staff.

8.4 Job Area Descriptions

The following categories will be modified as the experimental program evolves.

- **Data Acquisition System (DAS) General** - this category includes all those who have a supporting role in the DAS. They are not responsible for sheds, B49, equipment calibrations, thermocouples (TC's) or cabling.
- **DAS B49 Trailer** - this includes all those whose primary work responsibility is the operation and maintenance of the B49 Trailer. This includes hardware and software.
- **DAS Sheds** - this includes those whose primary work responsibility is the design, operation and maintenance of the DAS instrumentation sheds.

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- **DAS Equipment Calibrations and Inventory** - this includes all those whose primary work responsibility is the coordination of the calibration of the DAS instrumentation. This also includes maintaining an inventory of that instrumentation.
- **Thermocouples** - this includes all those whose primary work responsibility is the fabrication, installation and operation of experimental TC's.
- **Cables** - this includes all those whose primary work responsibility is the fabrication, installation and associated database management of all experimental cabling.
- **Drilling** - this includes all those whose primary work responsibility is the coordination of all borehole drilling and coring activities.
- **Gage Instrumentation, Removal and Readings** - this includes all those whose primary work responsibility is all post calibration experimental gage activities related to fielding, operations and in situ maintenance.
- **Gage Calibration and Repair** - this includes all those whose primary work responsibility is laboratory calibration and repair of experimental gages.
- **Plugging and Sealing** - this includes all those whose primary work responsibility is the development, fielding and monitoring of experimental activities in the Plugging and Sealing Program. Room Q and the Small Scale Seal Performance Test are examples of this category.
- **Brine Transport** - this includes all those whose primary work responsibility is the development, fielding and monitoring of experimental activities under the Brine Transport Program. Included in this category are Room D and Room Q access brine studies.
- **QA** - this includes staff whose primary work is to support this quality assurance program.
- **Principal Investigators** - this includes researchers and scientists who are responsible for in situ experiments.

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- **General** - this includes all those not listed above, such as; safety, CAD and administrative support.

8.5 Addition and Deletion of Requirements

- 8.5.1** Management may add and delete requirements by stating so on the qualification form.

8.6 Contract Support

- 8.6.1** Contractors supporting SNL's role at the WIPP Project, also fall under this procedure. Their management has the responsibility to assign equivalent Job Areas and complete Form 211, as outlined, above. It is the contractor management's responsibility to verify that the employee meets the necessary qualification requirements. SNL personnel sponsoring the contract sign the form to approve the assignments.

8.7 Supplemental Training

- 8.7.1** Management and the PI may identify additional training needs. The party identifying the need has the responsibility for developing, conducting and documenting the training.
- 8.7.2** Documentation from these training sessions may be in the form of summaries with attendance sheets, formal certification, SNL Form 209, or some other similar method.
- 8.7.3** These documents will be considered QA records and be maintained in the notebook system.

8.8 Formal Design Reviews

- 8.8.1** When a formal design review is done, as stated in SNL Procedure 388, Design Reviews, the qualifications of the formal design team must be documented. Form 211 must be completed for all members of the formal design team, both internal and external to SNL.

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9.0 QA RECORDS

- 9.1** The following records/forms shall be submitted to, and maintained by the SNL WIPP Notebook System:
- SNL Personnel Qualification form;
 - Training Confirmation Sheets;
 - Any other training evidence.