

## OPERATING PLAN 414.1-01E

Title:	<b>QUALITY MANAGEMENT SYSTEM PROGRAM PLAN</b>
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**ATTACHMENTS**

There are no attachments to this operating plan.

**FORMS**

There are no forms in this operating plan.

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1. **PURPOSE**

- a. To document the quality management system (QMS) for the National Energy Technology Laboratory (NETL) and to create the framework for the QMS.

2. **APPLICABILITY**

- a. This plan is applicable to all organizational elements, employees, locations, and operations of NETL.

3. **GUIDING PRINCIPLES AND CRITERIA**

- a. The NETL QMS conforms to the requirements of DOE Order 414.1, Quality Assurance, and fosters processes within the organization that:
- Achieve, maintain, and improve quality.
  - Minimize environment, safety, and health risks and impacts while maximizing reliability and performance.
  - Ensure planning, organization, direction, control, and support to achieve the objectives of the program.
  - Review, evaluate, and improve overall performance, including that of site-support contractors, using an assessment process based upon approved quality policies.
- b. The QMS consists of 10 criteria categorized into three separate functional areas as recommended by DOE Guide 414.1-2, Quality Assurance Program Guide. The functional areas are management, performance, and assessment, which are further explained in Sections 4, 5, and 6 of this plan.
- c. While this plan primarily addresses the QMS, the integrated safety management system (ISMS) is also mentioned throughout as NETL recognizes the necessary integration of these two programs to ensure the efficiency and effectiveness of both.

4. **MANAGEMENT FUNCTION**

a. **Criterion 1 – Program**

(1) Introduction

The NETL organizational structure shows how authority flows from the director down through the various offices as shown in Figure 1. NETL management retains the responsibility and accountability for the scope and implementation of all programs including the QMS.

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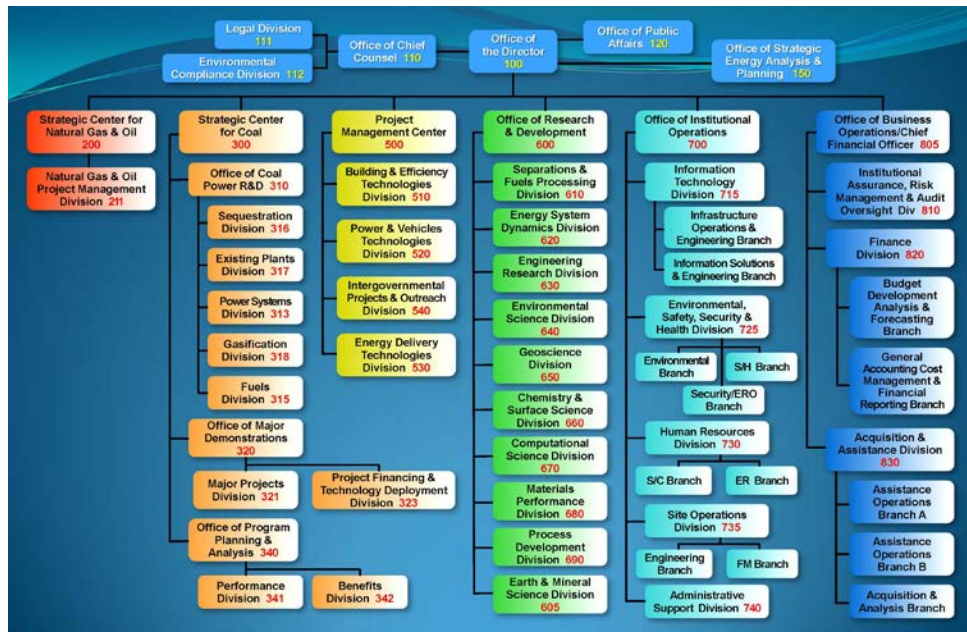


Figure 1: NETL Organization Chart

NETL’s mission is to deliver research and development (R&D) services and products; therefore, the goal of this quality assurance program is the delivery of these products and services that meet the programmatic goals of the laboratory and stakeholders. This requires planning, performing, and assessing the adequacy of work, including work assigned to site-support contractors. Order 414.1, Quality Management System, provides the policy and requirements for the QMS.

Work is defined to ensure that it is controlled, conducted safely, on schedule, and meets customer requirements, departmental policies, other government agencies’ regulations, and internal requirements. Work processes are documented that define how NETL translates these requirements into products and services. These work processes are periodically reviewed to ensure they remain updated, useful, and effective.

Implementing this QMS ensures that work is done properly and safely.

(2) Responsibilities

The organizational structure shown in Figure 1 describes the internal structure and functions of NETL. Each office is further divided into divisions and branches. Each organizational element has a manager who is responsible for the operations within their element including the site-support contractors that maintain these operations. More information about each of the offices and the site-support contracts is available on the NETL intranet.

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The executive board provides organizational leadership, strategic direction, planning, scheduling, and resources to accomplish the mission. Each office director is responsible for communicating the direction provided by the executive board to their organization and ensuring their functions are implemented according to that direction.

The executive board also establishes high level metrics that measure the effectiveness of the organization's mission.

(3) Graded Approach

A graded approach to implementing the QMS ensure that NETL complies with requirements, rules, and regulations, and does not compromise public, employee, or facility safety or adversely impact the environment. NETL has chosen the appropriate standards and created processes to implement quality and environment, safety, security, and health (ESS&H) requirements efficiently and effectively.

(4) Integrating the Safety Management and Quality Assurance Program

NETL's ISMS is documented in Order 450.4, Integrated Safety Management Program. The ISMS is considered part of the quality program in that it applies many of the same management principles as the QMS. This integration is demonstrated in various ways such as the requirement for policies, documented plans and procedures, identification of standards, operational control, training, emergency response, internal auditing, and management review. The two programs share the same management systems to accomplish their goals.

(5) Integration of QA Criteria into DOE Order 226.1, Implementation of DOE Oversight Policy

As with ISMS, the QMS shares many of the same processes with oversight of site-support contractors, offsite contractors, and DOE programs. This integration results in more efficient operations and more effective oversight.

(6) Use of Technical Standards and Other Appropriate Quality Program Guidance

NETL adheres to the departmental philosophy of applying national and international consensus standards. Procedure 251.1-00.01, Directives and Forms, requires each directive to identify relevant laws, DOE directives, and consensus industry standards. The list of laws, regulations, and standards that form the basis for NETL's operations is listed on the Focused Standards List, which is available on the intranet.

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NETL is certified to by ISO 14001, Environmental Management Systems, and OHSAS 18001, Occupational Health and Safety Management Systems.

b. Criterion 2 – Personnel Training and Qualifications

(1) Introduction

To effectively accomplish the mission, all employees must be capable of performing their assigned tasks. Order 360.1, Federal Employee Education, Training, and Development, provides the policy and requirements for personnel training and qualification for federal employees. Training requirements for site-support contractor employees are included in the site-support contracts.

(2) Responsibilities

NETL management commits resources to provide the training and qualification processes for personnel in the organization and to ensure that personnel hired or transferred into positions meet the specified requirements. Management always has the responsibility for ensuring that employees are appropriately trained. Employees have the responsibility to implement the training they have received.

NETL implements ESS&H training through Order 436.1, Departmental Sustainability, and Procedure 450.4-01.08, ESS&H Training Process.

(3) Qualification of Personnel

Each working position at NETL has a written job/position description. Before personnel are allowed to work independently, employees must have the necessary experience, knowledge, skills, and abilities for that position. Personnel are qualified based on factors such as: previous experience, education, and training; performance demonstrations or tests to verify previously acquired skills; completion of training or qualification programs; and/or on-the-job training.

(4) Training

NETL identifies its training needs and documents the training through the processes described Order 360.1, Federal Employee Education, Training, and Development and in Procedure 450.4-01.08, ESS&H Training Process. All new DOE employees undergo an orientation that includes environment, safety, and health (ES&H) information and their roles and responsibilities with respect to achieving conformity with the requirements of the environment, safety, and health management system (ES&HMS) as described in Procedure 320.1-00.02, New Federal Employee Orientation. Contractor employees undergo similar orientations as required by Procedure 540.8-00.01, Non-Federal Employee Inprocessing and Outprocessing, as well as contractor company procedures.

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NETL's Safety Analysis and Review System (SARS) processes provide a means for identifying and documenting training needs specific to the R&D; support operations; and construction, maintenance, and modification of facilities through the following procedures: Procedure 421.1-00.01, R&D Safety Analysis and Review System; Procedure 421.1-00.02, Support Operations Safety Analysis and Review System; and Procedure 421.1-00.03, Facility Safety Analysis and Review System, respectively. The SARS training analysis includes defining requirements to indicate competency on the basis of appropriate education, training, and/or experience, as well as understanding the interface of NETL's environmental, safety, and health aspects, hazards, and risks with project design and operation.

For offsite contractors working at the NETL site, Procedure 436.1-03.36, ES&H Requirements for Offsite Contractors Working at NETL, contains specific requirements for ensuring that employees of offsite contractors are appropriately trained, as well as being required to provide plans for how their employees will address potential environmental, safety, and health impacts.

NETL's ISO 14001/OHSAS 18001 refresher training is typically provided on an annual basis, unless changes in the ES&HMS require it more frequently. This training is provided to all employees through DOE's Online Learning Management System (OLC2). In addition, NETL utilizes a job hazard survey, based on the types of potential hazards or responsibilities associated with the various tasks of a specific job, to generate both general and specific ES&HMS training courses that employees must complete. Information regarding ES&H training resources can be found on the ESS&H training page.

ESS&H training records are managed in a number of ways depending on the audience and the type of training. For federal (DOE) employees, all training records are archived in the Corporate Human Resources Information System (CHRIS). For all NETL employees (DOE and contractor), training records related to courses identified by the job hazard survey are managed through NETL's computer-based training system. Training records for specialized ES&H training and operational training requirements identified through the SARS process are maintained by the responsible person as part of the SARS file. Any additional training records generated for contractor personnel reside with the contractor.

(5) Training Plans

As required by Order 360.1, Federal Employee Education, Training, and Development, NETL provides training plans and procedures that provide for organizational needs analysis, needs assessment, resource allocation, design, delivery, evaluation, and reporting for employee training. These plans and procedures will meet the requirements of this order and the requirements documents.

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Site-support contractors use internal procedures to develop needed training plans in accordance with their quality assurance plans.

c. Criterion 3 – Quality Improvement

(1) Introduction

Internal and external assessments and feedback from customers, employees, and stakeholders are used to improve items, services, and the processes that produce them. Using this input NETL, identifies the cause of problems and makes needed changes to prevent recurrence of problems through corrective and preventive actions.

NETL management encourages employees to:

- Identify and report problems
- Identify opportunities for improvement
- Identify best management practices
- Develop alternative approaches for addressing problems and recommend improvements (e.g., reducing process variability or cycle time)
- Implement the approved solution
- Evaluate the improvement
- Provide lessons learned to other organizations

(2) Quality Improvement Process

Nonconformance and opportunities for improvement are discovered in various ways at NETL. The following are the primary processes that enable NETL to develop findings: Procedure 450.4-01.02, ES&H Assessments Process, and Procedure 414.1-01.01, Quality Assessments Process. In addition to these procedures, other procedures require specific assessments and corrective action such as the SARS procedure, emergency response procedures, and injury/illness investigation and occurrence reporting procedures. None of these procedures preclude any employee from bringing forth any quality-related issue to management.

The corrective and preventive action tracking system is used to track ESS&H-related issues, while quality issues are tracked through the action tracking system (ATS). Occurrence reports and injury/illness reports are tracked through departmental systems as required by DOE directives.

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d. Criterion 4 – Documents and Records

(1) Introduction

Documents and records are required to effectively manage, perform, and assess work. Documents and records will include applicable requirements to indicate that work has been properly specified and accomplished. Order 243.1, Records Management Program, provides the policy and requirements for the NETL Records Management Program.

(2) Document Control System

Order 251.1, Directives Program, outlines the system for document control.

NETL recognizes four tiers of documents that must be controlled.

- Tier 1 – Orders (policy)
- Tier 2 – Operating plans and procedures
- Tier 3 – Standard operating procedures for R&D projects and support operations
- Tier 4 – Records (see section 4.d.3)

Tier 1 and Tier 2 documentation are controlled through Procedure 251.1-00.01, Directives and Forms, which provides for approvals, revisions, periodic updates, identification of changes and revisions, and removal of obsolete directives from use.

Tier 3 documents are controlled through Procedure 414.1-01.02, Document Control, and Procedure 420.3-00.01, Operating Procedures and Operator Aids. This also addresses the use and control of external documents that are used for operational purposes such as equipment manuals.

(3) Records Management System

Order 243.1, Records Management Program, provides the policy and requirements for the NETL Records Management Program and provides for procedures for the handling, storage, disposal, and retrieval of records. Also, each NETL procedure requires the identification of records and their disposition and documents this in the records section of the procedure.

Tier 4 documentation and principal written work products are stored and controlled through Order 243.1. Likewise, forms that are used to collect data are controlled by Procedure 251.1-00.01, Directives and Forms.

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5. **PERFORMANCE FUNCTION**

a. Criterion 5 – Work Processes

(1) Introduction

Each work process consists of actions planned and carried out by qualified workers using specified procedures and equipment under administrative, technical, and environmental controls approved by management to achieve an end result. It is vital that the work is performed in accordance with procedures and controls that ensure quality and safety goals are met.

(2) Work Performance

Work processes are documented per Procedure 251.1-00.01, Directives and Forms, and Procedure 414.1-01.02, Document Control, and Procedure 420.3-00.01. Other directives are maintained to implement these requirements as well.

Supervisors ensure that employees are trained for the work they are performing, that hazards analyses have been completed and all permits obtained. Control of processes, skills, hazards, and equipment is clearly specified, understood, and fully documented per Order 421.1, Safety Analysis and Review System, and Order 422.1, Conduct of Operations.

While management is responsible for providing the resources and direction, workers are responsible for the quality and safety of the work.

(3) Identify and Control of Items

NETL is an R&D facility, not a manufacturing facility. The control of property is important however, and is managed through Procedure 580.1-00.03, Personal Property Management, which ensures that the purchased items have been received and property handled. Procedure 414.1-01.14, Evaluation of Suspect/Counterfeit Items, is used to control suspect/counterfeit items.

(4) Item Protection

Procedure 580.1-00.03, Personal Property Management, provides for the handling and storage of items that require special handling such as computers, precious metals, and sensitive equipment.

(5) Equipment Control

Procedure 414.1-01.22, Measuring Instruments and Test Equipment (M&TE) Calibration, is the procedure that governs which equipment requires calibration

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and describes the calibration process. Procedure 436.1-03.16, Calibration and Maintenance of Instruments that Monitor and Measure Key ES&H Characteristics, is the process for controlling ES&H equipment that measure ES&H factors that influence the ES&H management system.

b. Criterion 6 – Design

(1) Introduction

Understanding customer requirements and providing controls to ensure those requirements are met are part of the design phase. Through documented processes, NETL ensure that customer requirements are designed into our products and services.

NETL provides R&D services, program/project management services, and acquisition services to our external customers.

(2) Design Inputs

Inputs to the design process come from both external and internal customers. External customers provide funds to accomplish work and internal customers provide specific design criteria. Criteria from external customers come in the form of funding documents that specify for which what work the funds are to be used. Internal criteria can come through requirements documents, drawings, safety reviews, and other sources.

(3) Design Process

For internal R&D functions, NETL maintains formal design processes implemented through the 414.1 series of directives that provides control of design inputs, outputs, verification, configuration, and changes, as well as technical and administrative interfaces appropriate to the importance of the design. Design work is based on sound engineering judgment and scientific principles, as well as on approved industry codes, standards, and guidelines. NETL also uses the SARS processes (421 series of directives) to ensure that projects and operations are done safely.

For program/project management and acquisition services (see criterion 7), the offices responsible for these functions maintain the processes to ensure that customer needs are met.

NETL directives provide for policies and processes for ensuring that customer requirements are implemented. Supplementing internal directives are a wide variety of external documents such as a code of Federal requirements, Federal Acquisition Regulations (FAR), and Office of Personnel Management guides.

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(4) Design Output

Technical design output is governed by Procedure 414.1-01.02, Document Control, which provides the process and requirements for controlling the output of the design process. Order 413.3, Program and Project Management for the Acquisition of Capital Assets, and its implementing procedures provide the process for managing large construction activities.

For non-technical requirements such as project management and acquisition service, the Project Management Center maintains its own set of processes and the Acquisition and Assistance Division adheres to FAR requirements.

(5) Design Verification

Design verification is part of the procedures previously mentioned.

(6) Design Changes

Design changes are managed through Procedure 414.1-01.13, Work Process for Engineering Design Changes, which provides for engineering and design changes.

Document control changes are managed through the appropriate document control process such as directives, standard operating procedures, contract changes, etc.

c. Criterion 7 – Procurement

(1) Introduction

The NETL procurement process implemented via the procurement desktop available through the Intranet ensures those items and/or services provided by vendors meet the requirements and expectations of the end-user. The procurement process is planned and controlled to ensure that the end-user's requirements are accurately, completely, and clearly communicated to the supplier; supplier, designer, and end-user requirements are met during the production phase; and the proper product is delivered on time and maintained until use. The selection of NETL procurement requirements is commensurate with the importance of the purchased items or services.

(2) Procurement Documents

Procurement documents include any specifications, standards, and other records referenced in the design documents. Critical parameters and requirements—such as submittal, product-related documentation, problem reporting, administrative documentation, personnel or materials qualifications, tests, inspections, acceptance criteria, and reviews—are clearly specified.

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(3) Supplier Qualification

Potential suppliers are identified early in the design and procurement process to determine their capabilities. Prospective suppliers are evaluated to verify their capability to meet performance and schedule requirements. An effective evaluation method is an assessment of personnel and processes conducted at the supplier's facilities (a quality assurance program evaluation). This method may be used in combination with:

- A review of the supplier's history for providing identical or similar items or services.
- A review of shared supplier quality information.
- An evaluation of certifications or registrations awarded by nationally accredited third parties.
- An evaluation of documented qualitative and quantitative information provided by the supplier.

(4) Supplier Performance Monitoring

The qualified supplier's performance is evaluated periodically. Suppliers are monitored to ensure that acceptable items or services are produced and schedule requirements are met. Examples of this periodic monitoring include:

- Surveillance of work activities
- Inspection of facilities and processes
- Review of plans and progress reports
- Processing of change information
- Review and disposition of non-conformances
- Selection, qualification, and performance monitoring of sub-tier suppliers

(5) Inspection of Procured Items

The procurement process helps to identify the need for inspections and tests. Requirements for inspections and tests are obtained from design documents. Inspections ensure conformance with purchase requirements, including verification that specified documentation has been provided by the supplier. The inspection verifies that items were not damaged during shipment. Inspection may include the following methods:

- Inspection of materials or equipment at the supplier's plant
- Receipt inspection of the shipped items
- Review of objective evidence such as certifications and reports
- Verification or testing of items prior to or following shipment

(6) Supplier Documentation

Supplier-generated documents are accepted through the procurement system and controlled and processed by NETL. These documents may include certificates of conformance, drawings, analyses, test reports, maintenance data, non-conformances, corrective actions, approved changes, waivers, and deviations.

(7) Multisite Procurement

Since NETL resides at four geographic locations, multisite procurement is used to gain cost savings. However, procurement is all done through the Acquisition and Assistance Division, which controls the procurement processes. Responsibilities for procuring items through site-support contracts are defined in the contracting documents.

d. Criterion 8 – Inspection and Acceptance Testing

(1) Introduction

NETL conducts inspections and tests to verify that physical and functional aspects of items, services, and processes meet requirements and are fit for use. Inspections and tests are identified early in the design process and specified in the design output documents. Directives contained within the 414.1 series of directives provide specific details and processes for inspection and acceptance testing.

(2) Process

Procedure 580.1-00.03, Personnel Property Management, is the government procedure for accepting personal property that is received by NETL. Procedure 414.1-01.22, Measuring Instruments and Test Equipment (M&TE) Calibration, provides for acceptance testing of relief devices, suspect/counterfeit items, and calibration. Procedure 436.1-03.16, Calibration and Maintenance of Instruments that Monitor and Measure Key ES&H Characteristics, also provides for the calibration and maintenance of equipment used to collect environmentally related data.

(3) Control of Measuring and Test Equipment

Measuring and test equipment (M&TE) used for inspections, tests, and monitoring or data collection are calibrated and maintained using a documented process. M&TE is also checked prior to its use to ensure that it is of the proper type, range, accuracy, and precision and that it is uniquely identified and its calibration data are traceable.

Procedures within the 414.1 series are maintained for testing, retesting, adjusting, and recalibrating the M&TE. M&TE is calibrated to standards traceable to the National Institute of Standards and Technology (NIST) or to other nationally recognized standards, when available and appropriate. If no nationally recognized calibration method exists, the basis for calibration is approved by NETL line management and documented.

(4) Records

The procedures provide for the control of records according to the DOE and National Archives and Records Administration (NARA) records schedules and include the following information:

- Name and property number of the instrument/equipment
- NETL property tag number
- Name of the user
- Maintenance schedule
- Organization/person performing maintenance
- Calibration schedule (date of calibration)
- Organization/person performing calibration
- Method used for calibration
- Calibration tolerances, ranges, and/or allowable limits
- Results of calibration, including calibration outcome (e.g., “within tolerance,” “acceptable,” “out-of-tolerance,” or “unacceptable”)
- Any other pertinent information

6. **ASSESSMENT FUNCTION**

a. **Criterion 9 – Management Assessment**

NETL assesses the performance of offices and their functions to determine compliance with NETL requirements and expectations and mission objectives, so that improvements can be made. This assessment addresses the use of human and material resources to achieve NETL’s goals and objectives. The assessment can take the form of project reviews, ES&H inspections, informal reviews and observations, budget reviews and planning, or other management functions that serve as assessment tools.

Several procedures contribute to the management assessment function. Procedure 414.1-01.01, Quality Assessments Process, provides the procedure for conducting quality related assessments and Procedure 450.4-01.02, ES&H Assessments Process, provides for the internal auditing function for ES&H functions. SARS procedures (421 series) provides for periodic review of projects, support operations, and facilities. Assessment functions are also built into many of the 440 (Safety and Health), 450 (Environmental), and 454 (Integrated Safety Management (ISM)) procedures. NETL Order 224.2,

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Auditing of Programs and Operations, states that management assessments will be conducted in accordance with departmental requirements.

Procedure 414.1-01.01 provides for the handling of corrective/preventive action and their tracking for quality related findings from assessment and audits. Procedure 450.4-01.04, Corrective Action and Preventive Action Process, provides the process for tracking ES&H related findings to closure.

b. Criterion 10 – Independent Assessment

NETL maintains a process to obtain an independent assessment of NETL’s offices, programs, projects, contractors, and suppliers. The purpose of this type of assessment is to evaluate the performance of work processes with regard to requirements and expectations of customers, as well as efforts required to achieve NETL’s mission and goals. The results of independent assessments provide an objective form of feedback to NETL management that is useful in confirming acceptable performance and is used for identifying improvement opportunities. Procedure 414.1-01.01, Quality Assessments Process, provides the basis for conducting many types of assessments of site support contractors and internal processes.

As NETL is both ISO 14001 and OHSAS 18001 certified, these certifications require external, independent audits to maintain these certifications. A registrar, which provides NETL’s certifications, conducts these surveillance audits every 6 months. The same process for internal findings is used to handle findings from external audits/assessments.

Site-support contracts, which provide support to NETL operations, are assessed every 6 months to ensure that the work is being performed in accordance with the contract/task order requirements. The performance evaluations are used to establish the award fee for the specific contractor and help to ensure that the contractor is continually improving.

7. RESPONSIBILITIES

a. Chief Operating Officer

- (1) Serves as the quality manager for NETL and ensures that directives are developed to implement the requirements of this plan.
- (2) Maintains this operating plan.
- (3) Acts as liaison with DOE quality assurance points of contact.

b. Director, Office of Institutional Operations

- (1) Acts as or appoints the NETL directives manager, who oversees the development and maintenance of—and recordkeeping associated with—NETL’s directives.

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c. Director, Office of Research and Development (ORD)

- (1) Acts as or appoints the manager for ORD's SARS, who oversees the development and maintenance of—and recordkeeping associated with—all SARS studies as well as all ORD-specific directives.

8. **REQUIREMENTS**

- a. DOE Order 414.1, [Quality Assurance](#).
- b. NETL Order 414.1, [Quality Management System](#).
- c. Fossil Energy Headquarters Quality Assurance Program Plan.

9. **REFERENCES**

- a. DOE Guide 414.1-1, [Management and Independent Assessments Guide](#).
- b. DOE Guide 414.1-2, [Quality Assurance Program Guide](#).
- c. NETL Order 224.2, [Auditing of Programs and Operations](#).
- d. NETL Order 243.1, [Records Management Program](#).
- e. NETL Order 251.1, [Directives Program](#).
- f. NETL Order 360.1, [Federal Employee Education, Training, and Development](#).
- g. NETL Order 421.1, [Safety Analysis and Review System](#).
- h. NETL Order 422.1, [Conduct of Operations](#).

10. **DEFINITIONS**

- a. Audit/Assessment — A planned and documented activity that is performed to determine by investigation, examination, or evaluation of objective evidence the adequacy of and compliance with established procedures, instructions, drawings, and other applicable documents. An audit/assessment should not be confused with surveillance or inspection activities performed for the sole purpose of process control or product acceptance.
- b. Corrective Action — A measure taken to rectify conditions adverse to quality and, where necessary, to preclude repetition.

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- c. Certification — The act of determining, verifying, and attesting in writing to the qualifications of personnel, processes, or items, in accordance with specified requirements.
- d. Preventive Action — An action that helps ensure—through appropriate design, inspection, procurement, and other process controls and assessment activities—that a quality problem does not occur.
- e. Suspect/Counterfeit Items — An item is suspect/counterfeit when visual inspection or testing indicates that it does not conform to established government or industry-accepted specifications or national consensus standards, or whose documentation, appearance, performance, materials, or other characteristics may have been misrepresented by the supplier or manufacturer.

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11. **REVISION HISTORY**

<b>VERSION</b>	<b>DATE</b>	<b>SUMMARY OF CHANGES</b>
Original	11/1/06	To document the quality assurance program plan (QAPP) for the National Energy Technology Laboratory (NETL) and create the framework for the NETL quality management system.
A	9/11/07	Changes made include changing the subject matter expert from Dan McCollum to Robert Reuther, updating the text to ensure it reflects actual practice, clarifying several paragraphs of the plan, updating responsibilities, and other minor changes for clarification.
B	3/25/09	Minor grammatical corrections were made.
C	4/21/10	Changes made include minor grammatical corrections and some minor rewrites of sections for clarification.
D	2/8/13	Major rewrite of the plan to bring it into alignment with actual practices and new procedures.
E	11/25/14	The operating plan owner and approving official were updated; no other changes were made.

The most recent and official controlled hard copy version of this directive resides with the directives manager. An electronic version of the controlled directive has been placed on the NETL intranet for employee use. Printed hard copies of this electronic version are considered noncontrolled documents.