



DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND  
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IN REPLY TO  
NAVSEAINST 4855.32A  
Ser 04X/071  
28 Mar 06

NAVSEA INSTRUCTION 4855.32A

From: Commander, Naval Sea Systems Command

Subj: ACCREDITATION OF NAVAL SHIPYARD LABORATORIES

Encl: (1) General Requirements for Assessing the Technical  
Competence of Naval Shipyard Laboratories

1. Purpose. To define requirements and responsibilities relative to the NAVSEA Laboratory Quality and Accreditation Office (LQAO) and to provide general criteria for use in accrediting Naval Shipyard laboratories. Laboratory accreditation will serve to demonstrate capability to perform work correctly and provide assurance of technical competence in Naval Shipyard laboratories.

2. Cancellation. This instruction supersedes NAVSEAINST 4855.32 of 8 August 1985.

3. Scope. This instruction is applicable to all Naval Shipyard chemical, metallurgical, and materials engineering laboratories. It is not intended to supersede more stringent requirements that may be invoked by other documents or programs such as the Navy Occupational Safety and Health Program, the Nuclear Propulsion Program or existing Federal statutes, ordinances, and regulations that may be applicable.

4. Application. This instruction is to be used by those responsible for the evaluation, operation, or control of Naval Shipyard laboratories.

5. Background. The Naval Sea Systems Command has initiated a command-wide Quality Improvement Program to improve the quality and reduce the cost of products and services. Pursuant to this objective, this instruction establishes a laboratory quality and accreditation program for Naval Shipyard laboratories. The laboratories will be accredited on the basis of their conformance to the criteria set out in this instruction. Included are features of organization, facilities, resources, and operations, which by their selection and control affect the reliability and credibility of the data generated. This program

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will provide demonstrated capability to perform work correctly and provide assurance of the laboratory's technical competence and ability to provide reliable test results.

6. Policy. It is the policy of this command to assure the quality of support work performed by the Naval Shipyard laboratories through demonstrated compliance with the criteria of this instruction. When the testing laboratory's technical competence is acceptable, recognition will be granted through the LQAO (NAVSEA 04XQ (LABS)). Recognition should not be regarded as in any way diminishing the normal responsibilities between the laboratory and its users. While recognition will normally be a sound indicator of the technical competence of the testing laboratory, it cannot be taken to constitute a guarantee that the testing laboratory always maintains a particular level of performance.

7. Requirements

a. Naval Shipyard laboratories shall document and implement a Quality System in accordance with NAVSEAINST 4855.31A. Naval Shipyard laboratories shall demonstrate compliance with the criteria detailed in enclosure (1). These criteria are the basis for further development of specific criteria including restrictions, minimum requirements, and benchmarks of compliance.

b. Accreditation will be granted and renewed only when the testing laboratory complies with these requirements and other criteria, as specified. Documentation may be required to satisfy the LQAO that the laboratory complies with these requirements.

c. Laboratories shall perform their own testing. When a laboratory must sub-contract any part of their testing, this work shall be placed with another testing laboratory complying with these requirements. The testing laboratory shall ensure and be able to demonstrate that the subcontractor is competent to perform the services in question.

d. The testing laboratories will be assessed by the LQAO or its designated representative for conformance to requirements of this instruction. An assessment may include:

(1) Application for assessment.

(2) Completion of a questionnaire characterizing the

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laboratory.

(3) An on-site review for compliance with requirements.

(4) Verification of the testing capability of the laboratory by review of quality control documentation.

(5) Preparation, packaging and dispatch of test pieces, samples or other items.

(6) Participation in appropriate programs of proficiency or comparison testing with other laboratories.

(7) Review of the laboratory's own internal audit programs.

(8) Interviews with analysts, technical staff and management.

e. An accredited laboratory shall:

(1) At all times comply with these requirements and with other criteria prescribed by the LQAO.

(2) Pay such fees as applicable for assessment, surveillance and other services.

(3) Notify LQAO (NAVSEA 04XQ (LABS)) when a failure of proficiency is determined through prescribed proficiency test programs.

(4) Notify LQAO when a change of management or quality manager occurs.

(5) Upon failure to comply with accreditation criteria or specified proficiency test criteria, discontinue performing the services until competency and proficiency can be re-established.

## 8. Action

a. All Naval Shipyard Laboratories shall request recognition of proficiency as outlined in the Naval Shipyard Laboratory Accreditation Program Manual (S0005-AC-TED-010). The LQAO is tasked as the Director of laboratory accreditation, and is the designated point of contact.

b. The LQAO, with the assistance of the Interlaboratory

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Board of Directors, shall specify procedures by which application for recognition shall be made, the conditions for the granting, maintenance and renewal of recognition, and the conditions under which recognition may be refused or withdrawn.

c. The testing laboratory shall satisfy the LQAO that it meets the requirements as outlined in this instruction or as prescribed by the body granting recognition.

d. Naval Shipyard laboratories shall take the necessary actions to implement these requirements and request initial accreditation within two years of the date of issue of this instruction. Those laboratories holding current accreditation shall implement these requirements prior to their next scheduled accreditation review cycle.

9. Exceptions. This instruction shall not modify any existing requirements related to the Naval Nuclear Propulsion Program.



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**GENERAL REQUIREMENTS FOR ASSESSING THE  
TECHNICAL COMPETANCE OF  
NAVAL SHIPYARD LABORATORIES**

1. The Naval Shipyard Materials Testing Laboratories shall comply with the following criteria:

a. Management Requirements

(1) Organization. The laboratory shall have an organizational structure that allows it to perform satisfactorily and maintain testing capability in the areas of chemical, metallurgical, and materials engineering as required.

(2) Quality Systems. The laboratory shall provide a quality policy statement that includes objectives and commitments by top management and analysts to ensure the technical integrity of their work.

(3) Document Control. The laboratory shall have documented procedures that ensure all required records are retained. A document control system must be in place that ensures that all standard operating procedures (SOPs), manuals, or documents clearly indicate the time period during which the procedure or document was in force.

(4) Request Review. The laboratory shall have a documented policy for the review and control of requests and contracts for testing services and procedures for contacting the customer if accreditation is lost or suspended.

(5) Sub Contracting of Tests. The laboratory shall have a policy and procedure for subcontracting work. These procedures must include instructions for notifying the customer of planned subcontracted work. The laboratory shall have ultimate responsibility for all data generated by a subcontractor.

(6) Purchasing Services and Supplies. The laboratory shall have a policy and procedures for the selection and purchase of services and supplies that affect data quality.

(7) Service to Customers. The laboratory shall have a policy and procedures for reviewing all new work to ensure that it has the appropriate facilities and resources to complete such work. The laboratory shall have procedures for contacting affected customers of suspect data, including loss or suspension

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of accreditation.

(8) Complaints. The laboratory shall have a policy and procedure(s) for the resolution of complaints from data users.

(9) Control of Non-Conforming Testing Work. The laboratory shall employ procedures for feedback and corrective action whenever testing discrepancies are detected, or departures from documented policies and procedures occur. Management arrangements for allowing departures from policies, procedures or standard specifications shall be documented.

(10) Corrective Actions. The laboratory shall establish a policy and procedure(s) and shall designate appropriate authorities for implementing corrective action when nonconforming work or departures from the policies and procedures in the quality system or technical operations have been identified.

(11) Preventative Actions. The laboratory shall provide policy and procedure(s) to reduce the likelihood of nonconformance. Preventive action is a pro-active process to identify opportunities for improvement rather than a reaction to the identification of problems or complaints.

(12) Control of Records. The laboratory shall have documented procedures establishing the identification, collection, indexing, accessing, filing, storage, maintenance and disposal of records. This policy shall include protecting confidentiality (including national security concerns), and proprietary rights. The records for each test shall show traceability from submitted sample to completed report and contain sufficient information to permit satisfactory repetition of the test.

(13) Internal Audits. The laboratory shall provide policy and procedures for internal audits and data reviews. Internal audits shall address all elements of the quality system, including testing activities. Internal audits shall be performed at least annually.

(14) Management Review. The laboratory shall include policy for, at least, the annual review of the quality system by the laboratory's executive management. The policy shall include procedures for documenting the review, and any corrective actions that arise from the review.

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(15) Data Integrity. The laboratory shall establish and maintain data integrity procedures that include data integrity training and periodic monitoring of data quality.

b. Technical Requirements.

(1) General. The laboratory shall address those factors that determine the correctness and reliability of the test performed. Factors that contribute to uncertainty shall be included.

(2) Personnel. The laboratory shall have processes for establishing that personnel are adequately trained, experienced, skilled, and qualified in the duties they are expected to carry out. Personnel having technical supervisory responsibility shall be properly qualified for and have adequate experience in the testing work concerned. The proportion of the supervisory to the non-supervisory staff shall be such as to ensure adequate supervision.

(3) Accommodations and Environmental Control. The laboratory shall have procedures to ensure that environmental conditions do not invalidate the results or adversely affect the required quality of any measurement. The facilities and environmental controls must be adequate for the performance of the testing work concerned. Test equipment must be appropriately housed and maintained.

(4) Test Methods and Method Verification. The laboratory shall have a documented policy for the use of appropriate test methods and procedures. A list of all test methods under which the laboratory performs its testing and reference to any verification test procedures used shall be included. Reference to method verification practices, which may include interlaboratory comparisons, proficiency testing programs, use of reference materials and internal quality control schemes, shall be included. The laboratory shall ensure that tests are performed in accordance with the test method or established procedures, where applicable, and report and explain any deviations from the test method in the test report.

(5) Equipment. The laboratory shall have procedures for the calibration, verification, and maintenance of testing and support equipment. Reference to the major equipment and reference measurement standards used as well as the facilities and services used by the laboratory in conducting tests shall be included. Calibration of instruments shall be in accordance

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with the Navy Metcal Program, as applicable.

(6) Measurement Traceability. The laboratory shall have policy and procedures for achieving traceability of measurements. This shall include reference standards; reference materials; intermediate checks; transport and storage; and labeling of standards, reagents, solutions, and test media.

(7) Handling of Test Samples. The laboratory shall have policy and procedures for the transportation, receipt, unique identification, handling, protection, storage, retention and/or disposal of samples. The laboratory shall have procedures for determining proper aliquot size while minimizing heterogeneity.

(8) Assuring the Quality of Laboratory Test Results. The laboratory shall have policy and procedures for monitoring and assuring the quality and validity of all testing.

(9) Reporting Results. The laboratory shall have policy and procedures for reporting analytical results. The test performed shall be covered by a test report which accurately, clearly, and unambiguously presents the test results and all other relevant information.