



**ACTON ENVIRONMENTAL
TESTING CORPORATION**

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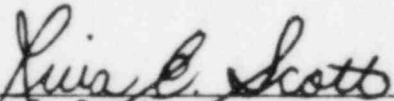
Put us to the test.

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ACTON ENVIRONMENTAL TESTING CORPORATION

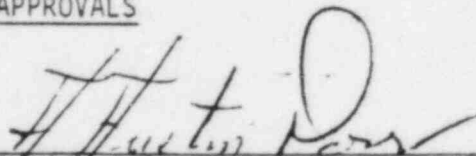
QUALITY ASSURANCE MANUAL

REVISED BY:

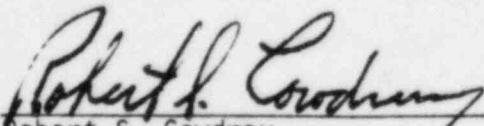


Riva E. Scott
Quality Assurance Representative

APPROVALS



A. Austin Dorr
Quality Assurance Manager

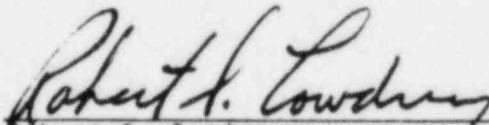


Robert S. Cowdrey
President

INTRODUCTION

The selection of an environmental testing laboratory must be based on an assessment of a combination of factors which generate confidence in the facility and its personnel. Acton Environmental Testing Corporation (AETC) is constantly striving to achieve the maximum professionalism and technical competence in all of its capabilities.

It is the policy of the Management of AETC to maintain the highest standards of Quality Control throughout all its operations. This Manual is designed to ensure compliance within Military Specifications MIL-Q-9858A, MIL-STD-45662 and Nuclear Qualification Title 10, Code of Federal Regulation Part 50, Appendix B and Part 21. Compliance with this Manual is mandatory on all "Q" stamped programs and any deviations from its procedures must have the approval of the Quality Assurance Manager and the President of Acton Environmental Testing Corporation.


Robert S. Cowdrey
President

CONTROL PAGE

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on June 30, 1983

By Richard D. Scott
(Quality Assurance)

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Revisions to this manual will be distributed to registered holders of controlled copies who shall be responsible to keep their manual up-to-date.

A. Austin Dorr
A. Austin Dorr
Quality Assurance Manager

REVISION PAGE

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CONTENTS

TITLE PAGE

INTRODUCTION

CONTROL PAGE

REVISION PAGE

CONTENTS

CROSS INDEX

	<u>PAGE</u>
533-1 ORGANIZATION AND RESPONSIBILITY	1
533-2 PERSONNEL QUALIFICATION	3
533-3 PROCUREMENT DOCUMENT CONTROL	4
533-4 DOCUMENT CONTROL (Instructions, Procedures and Drawings)	5
533-5 CLASSIFIED ITEMS	8
533-6 QUALITY ASSURANCE RECORDS	9
533-7 AUDITS	10
533-8 CALIBRATION	20 ✓
533-9 RECEIVING AND SHIPPING	27
533-10 STORAGE	32
533-11 IN-PROCESS CRITERIA	33
533-12 SURVEILLANCE	37
533-13 MATERIAL REVIEW BOARD (MRB)	38
533-14 FINAL TEST REPORT	42

CROSS INDEX

AETC SECTION

10CFR50, APP. B

533-1

I

533-2

II

533-3

IV, VII

533-4

V, VI

533-6

XVII

533-7

VII, XVI, XVIII

533-8

XI, XII, XIV ~~XVI~~

533-9

VIII, X, XIII, XIV

533-10

XIII

533-11

VIII, X, XI

533-12

X

533-13

XV, XVI

533-14

?

ORGANIZATION AND RESPONSIBILITY

1.0 FOREWORD

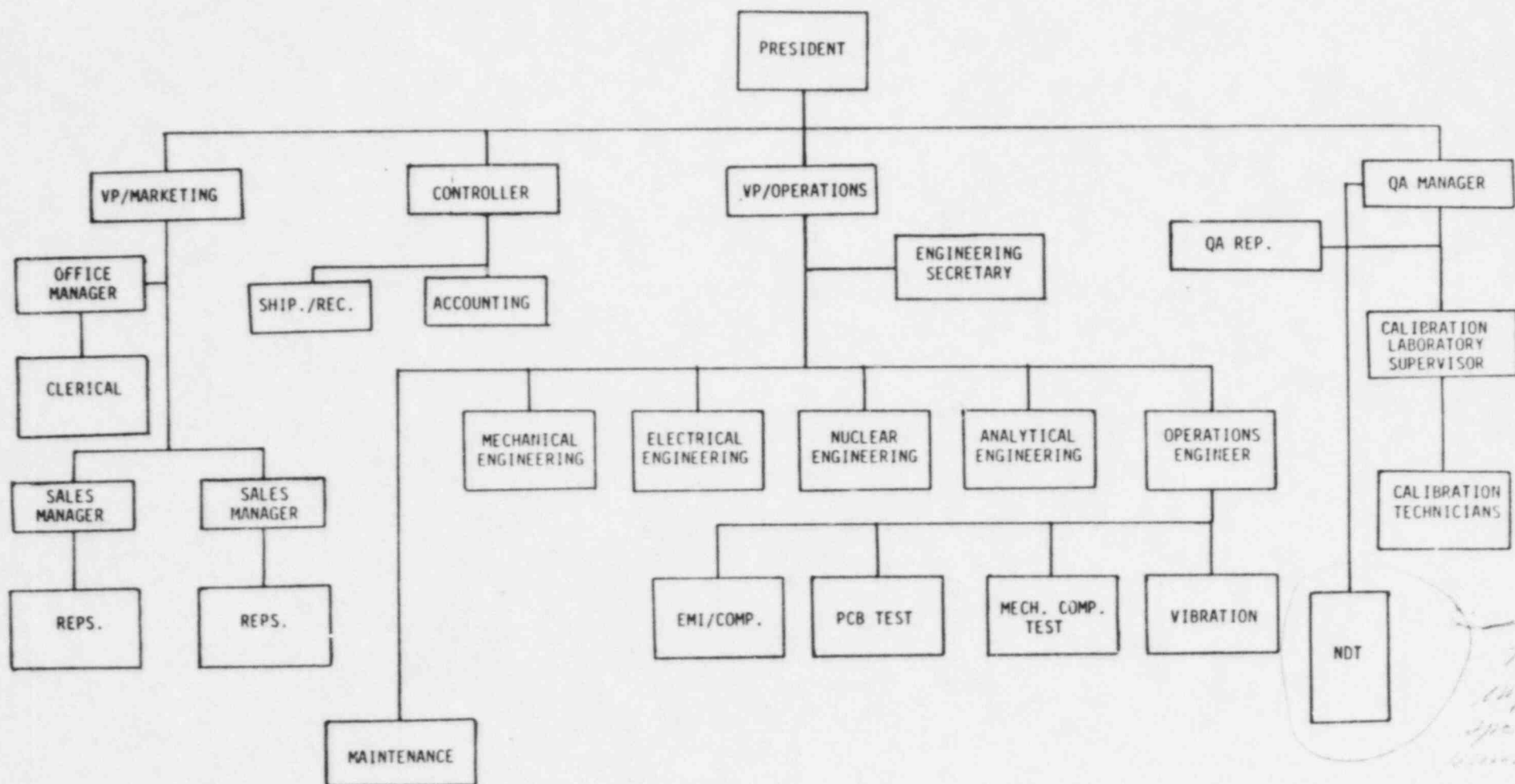
- 1.1 The QA/QC Department is responsible for developing and controlling systems which effectively control service quality in an efficient manner. These systems cover the areas of testing, calibration, quality assurance, and quality control.
- 1.2 The QA/QC Department, under the direction of the Quality Assurance Manager, has primary authority in matters concerning the quality and reliability of AETC services.
- 1.3 The Quality Assurance Manager reports directly to the President. All personnel who are directly concerned with control of quality, report directly or indirectly to the Quality Assurance Manager.
- 1.4 The Quality Assurance Manager, or his designee, will review customer purchase orders and/or contracts to identify Quality Assurance functions applicable to the program requirements.
- 1.5 Quality Assurance will assure that necessary documents showing compliance will be signed-off by the appropriate person.
- 1.6 The Quality Assurance Manager is responsible that qualified personnel are assigned to perform activities affecting quality.
- 1.7 The Quality Assurance Manager has responsibility to identify quality system problems, initiate action which results in solutions, and verify implementation of the solutions to those problems.
- 1.8 The Quality Assurance Program is subject to continuous review by the management and adjustments are made when considered necessary.
 - 1.8.1 A management review of the Quality Assurance Program will be conducted annually.

2.0 REPORTING OF DEFECTS UNDER 10 CFR 21

- 2.1 When defects and/or noncompliances occur, they shall be reported to the responsible officer (the Quality Assurance Manager).
 - 2.1.1 Upper management is responsible for notifying the proper authorities in order that corrective action can be implemented.

Revision No. 28

ACTON ENVIRONMENTAL TESTING CORPORATION ORGANIZATIONAL CHART



PERSONNEL QUALIFICATION

- 1.0 Personnel performing engineering or quality assurance activities under this Quality Assurance Program will be technically qualified to the degree necessary to perform the applicable functions.
- 1.1 These personnel will be adequately trained in the applicable sections of the Quality Assurance Manual.
- 2.0 Training will be documented and documentation will be maintained on file in the Quality Assurance Office.

PROCUREMENT DOCUMENT CONTROL

1.0 RESPONSIBILITY

- 1.1 The Purchasing Agent or designated alternate is responsible for administering the proper procurement techniques consistent with customer requirements, procurement procedures and company policies, as referenced in 10 CFR 50, Appendix B. The Purchasing Agent coordinates with the Quality Assurance Department when necessary.
- 1.2 The Quality Assurance Department reviews all purchase requisitions.
- 2.0 To the extent necessary, procurement documents shall require contractors or subcontractors to provide a quality assurance program consistent with the applicable requirements of 10 CFR 50, Appendix B.
 - 2.1 Items/services purchased by AETC shall show evidence and traceability to the National Bureau of Standards, when applicable.
 - 2.1.1 These items/services shall be purchased from vendors appearing on AETC's "Approved Vendor List."
- 3.0 In the case of a sole-source procurement, the requisitioner must provide the Quality Assurance Group with appropriate technical justification or rationale for a sole-source procurement. In this case, a vendor audit is not required.
- 4.0 When purchasing test equipment or calibration services directly from the manufacturer, the vendor may be evaluated after the completion of AETC's "Vendor Audit Report" and reviewed by AETC's quality assurance personnel.

DOCUMENT CONTROL
(Instructions, Procedures, and Drawings)

1.0 SCOPE

- 1.1 This procedure provides for the establishment and maintenance of a Document Control System to control instructions, procedures, and drawings used in the testing of customer property.
- 1.2 NO departure from the drawing and/or specification shall be made unless authorized by the customer. (AETC SOP7/82)

2.0 RESPONSIBILITY

- 2.1 Quality Assurance will assure that necessary documents showing compliance will be signed-off by the appropriate person.
- 2.2 The responsible individuals authorized to prepare, revise, review and approve test procedures are designated in AETC SOP10/83.

3.0 DOCUMENT SPECIFICATIONS

- 3.1 All documents, such as instructions, procedures, and drawings, pertinent to the job, shall be logged into the Job Folder using the "Document Receipt Log" (AETC Form 533-4-1), by the Project Engineer. The drawings and documents shall be annotated with information such as date, job #, and if nuclear related, will be "Q" stamped.
- 3.2 The Project Engineer will maintain the log of documents in the Job Folder.
 - 3.2.1 A superseded document will be stamped, "DO NOT USE, SEE REVISION # _____," to assure use of only current documents.
 - 3.2.2 Current revisions will be noted in the "Document Receipt Log" and on applicable documents.
 - 3.2.3 All obsolete documents related to the project shall be kept isolated from use or destroyed.
- 3.3 The issuance of documents, such as instructions, procedures, and drawings, shall be recorded on the "Document Transmittal Log" (AETC Form 533-4-18).

Revision No. 28

DOCUMENT RECEIPT LOG

533-4
Page 2 of 3

CUSTOMER: _____
JOB NO: _____

QUOTE NO: _____
ENGINEER: _____

DOCUMENT NUMBER ASSIGNED	DATE RECEIVED	BY:	DISCRIPTION OR TITLE	REVISION AND DATE	ASSIGNED TO: WHERE MAINTAINED

DOCUMENT TRANSMITTAL LOG

Page 3 of 3

JOB NO. _____ ENGINEER _____

[illegible]

CLASSIFIED ITEMS

- 1.0 The Security Officer shall order necessary security measures and assign "Cleared" personnel to Classified Projects.

QUALITY ASSURANCE RECORDS

1.0 RESPONSIBILITY

- 1.1 The responsible designee for quality assurance records is the Vice President of Operations.

2.0 LOCATION

- 2.1 All inspection records, i.e., in-process, audits (internal and vendor), surveillance, training and qualification, test reports, shipping, receiving, etc., shall be maintained on file at AETC.

- 2.1.1 The storage of such records are located at AETC and are stored in an environment suitable to prevent damage or loss.

- 2.2 All records shall be identifiable and retrievable.

3.0 RECORD RETENTION

- 3.1 All records pertaining to Military Specifications shall be kept on file for a period of seven (7) years. All records pertaining to Nuclear Specifications shall be kept on file for seven (7) years at which time a letter shall be sent to the customer requesting information as to the disposition of the records for the remaining thirty-three (33) years.

AUDITS

1.0 RESPONSIBILITY

- 1.1 The Quality Assurance Manager is responsible for implementing audits on all quality related functions.
- 1.2 Auditors are independent of the area that is being audited.
- 1.3 The Quality Assurance Manager is responsible that personnel performing audits have sufficient training/experience relating to the audit area.
- 1.4 Department Supervisors affected by a Quality Audit are responsible for necessary corrective action and that it is implemented in an adequate manner.
- 1.5 Management shall review internal audits.

2.0 INTERNAL AUDITS

- 2.1 Internal audits will be conducted on an annual basis.
- 2.2 A random unscheduled audit will be conducted whenever one or more of the following conditions exist:
 - 2.2.1 when significant changes are made in functional areas of the Quality Assurance Program, including significant reorganizations and procedure revisions
 - 2.2.2 when it is suspected that safety, performance, or reliability of the item is in jeopardy due to deficiencies and nonconformances in the Quality Assurance Program
 - 2.2.3 when a systematic, independent assessment of program effectiveness or both is considered necessary
 - 2.2.4 when it is considered necessary to verify implementation of required actions

3.0 PROCEDURE

- 3.1 An Internal Audit Report (AETC Form 533-7-3) will be used to document all audit findings.
- 3.2 A deficiency noted during an audit will be documented for corrective action and follow-up on AETC Form 533-7-2.

3.0 PROCEDURES (continued)

- 3.3 All audit records are maintained on file in the Quality Assurance Office.
- 3.4 An annual review of the Quality Assurance Department shall be performed by the management to determine if satisfactory compliance with the operational parameters of AETC has been maintained.

4.0 VENDOR AUDITS

- 4.1 Vendor audits are performed to determine whether or not the vendor's program is capable of meeting the contractual and quality requirements of AETC.
 - 4.1.1 Audits shall be conducted on vendors supplying services that are related to, and affect quality assurance.
 - 4.1.2 Prior to the purchase of rental equipment and calibration services, applicable vendors shall be audited by AETC quality assurance or designated alternates.
 - 4.1.2.1 These vendors shall be reviewed or audited annually with a maximum of three (3) years between audits.
 - 4.1.3 When purchasing test equipment or calibration services directly from the manufacturer, the vendor may be evaluated after the completion of AETC's "Vendor Audit Report" and reviewed by AETC's quality assurance personnel.

5.0 RESPONSIBILITY

- 5.1 AETC Quality Assurance is responsible for:
 - 5.1.1 audits of Vendor Quality Assurance Programs,
 - 5.1.2 "Approved Vendors" meeting contractual and quality assurance requirements, and
 - 5.1.3 that "Approved Vendors" are in accordance with the National Bureau of Standards, when applicable.

6.0 PROCEDURE

- 6.1 Vendor audits will be reported on AETC Form 533-7-4.
- 6.2 Upon completion of the audit, the Quality Assurance Manager, or his/her designee, will advise the vendor of the audit results and any deficient areas which must be corrected. The vendor will notify AETC when corrective action will be implemented and written confirmation will be sent to AETC within a reasonable period of time (30 days).
- 6.3 Only when corrective action has been addressed in an acceptable manner shall the vendor be placed on AETC's "Approved Vendor List."

ACTON ENVIRONMENTAL TESTING CORPORATION

INTERNAL AUDIT REPORT

Audit Area: _____ Pre-Audit Notification: _____
Date

Date of Audit: _____ Post-Audit Conference: _____
Date

Purpose of Audit: _____

Persons Contacted: _____

Person Responsible for Area: _____
Name/Title

Person(s) Performing Audit: _____
Name/Title

Name/Title

Audit Report Submitted to: _____ /
Date

by: _____ /
Date

Audit Report Reviewed by: _____ /
Signature Date

INTERNAL AUDIT REPORT

PROCUREMENT, RECEIVING & SHIPPING

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
1. Is a Shipping & Receiving Log maintained with the necessary information that meets the requirements of AETC's Quality Assurance Program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Are all test items issued a Receiving & Inspection Report?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Are the Receiving & Inspection Reports distributed to the appropriate people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are all test items issued a Receiving Tag?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are all purchase requisitions reviewed by Quality Assurance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Are Quality Assurance Requirements included on all applicable purchase orders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Does the Purchasing Department maintain a current copy of AETC's "Approved Vendor List?"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS: _____

ENGINEERING

8. Is the "Document Receipt Log" maintained and kept up-to-date?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Are superseded documents and drawings clearly stamped? (DO NOT USE, SEE REVISION #_____)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Are Master Test Data Reports kept on file?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Is the "Receiving & Inspection Report" filled out completely and filed in the Job Folder?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Is customer approval of the test procedure documented?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

AETC Form 533-7-3
Revision No. 28

ENGINEERING (continued)

- | | <u>YES</u> | <u>NO</u> | <u>N/A</u> |
|---|------------|-----------|------------|
| 13. If a "Material Review Board" had been required, is AETC Form 533-13-13 completed and filed in the Job Folder along with any applicable documents? | [] | [] | [] |
| 14. Are "Customer Product Failure Notification" forms, when applicable, being filed in the Job Folder? | [] | [] | [] |
| 15. Is the Job Folder maintained in an orderly manner? | [] | [] | [] |

COMMENTS: _____

CALIBRATION

- | | | | |
|--|-----|-----|-----|
| 16. Is a list of standards, and proper certification traceable to the National Bureau of Standards, available for all equipment calibrated by an outside source? | [] | [] | [] |
| 17. Has the monthly recall schedule been kept up-to-date? | [] | [] | [] |
| 18. Is all equipment used for testing or monitoring identified appropriately and located in the Calibration History Records? | [] | [] | [] |
| 19. Do Calibration Procedures include: | | | |
| a. a cover page and revision record, | [] | [] | [] |
| b. a list of recommended standards and/or equivalent used in the calibration, including model, manufacturer, accuracy and purpose, and | [] | [] | [] |
| c. a block diagram of the method used for calibration, where applicable? | [] | [] | [] |
| 20. Are calibration report forms available for each item calibrated? | [] | [] | [] |
| Are they filled out completely? | [] | [] | [] |
| 21. Is a separate recall schedule maintained for all rental/leased equipment? | [] | [] | [] |

CALIBRATION (continued)

YES NO N/A

- | | | | |
|--|-----|-----|-----|
| 22. Are files up-to-date and arranged in an organized manner? | [] | [] | [] |
| 23. Are items appropriately shelved and tagged appropriately, when applicable? | [] | [] | [] |
| 24. Is lab work area kept clean and organized? | [] | [] | [] |

COMMENTS: _____

LABORATORY (Test Areas)

- | | | | |
|--|-----|-----|-----|
| 25. Are approved test procedures being used to conduct tests? | [] | [] | [] |
| 26. Are hydraulic test setups labeled showing the type of hydraulic fluid utilized? | [] | [] | [] |
| 27. Do technician log books include the technicians name, date, job number and company? | [] | [] | [] |
| 28. Are model and serial numbers of the item under test traceable in the technicians log book? | [] | [] | [] |
| 29. Does all test equipment have the appropriate calibration stickers? | [] | [] | [] |
| 30. Is all test equipment used to conduct tests within current calibration limits? | [] | [] | [] |
| 31. Is test setup arranged in a well organized manner? | [] | [] | [] |
| 32. Are log books appropriately stamped with the required signature? | [] | [] | [] |

COMMENTS: _____

QUALITY ASSURANCE/CONTROL

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
33. Is there evidence that management reviews the Quality Assurance Department?	[]	[]	[]
34. Is an up-to-date AETC QA Manual distribution list of controlled and uncontrolled copies maintained on file in the Quality Assurance Office?	[]	[]	[]
35. Is a personnel file maintained in the Quality Assurance Office with necessary information pertaining to "Personnel Qualification?"	[]	[]	[]
36. Are all audit records maintained on file in the Quality Assurance Office? (Internal and Vendor)	[]	[]	[]
37. Is there evidence that all subcontractors have been audited prior to the purchase of materials and/or services, where applicable?	[]	[]	[]
38. Have all purchase requisitions for equipment requiring calibration been reviewed by Quality Assurance personnel?	[]	[]	[]
39. Is there evidence that quality personnel assures the test procedure in use has been verified for approval by the customer?	[]	[]	[]
40. Are Material Review Boards conducted as outlined in Section 533-13 of the QA Manual?	[]	[]	[]
Are they signed-off by appropriate personnel?	[]	[]	[]
41. Are Quality Assurance files maintained in a well organized and efficient manner?	[]	[]	[]

COMMENTS: _____

ACTON ENVIRONMENTAL TESTING CORPORATION

Internal Audit Report

FINDINGS AND CORRECTIVE ACTION

Response assigned to: _____ / _____
Date

Audit Date: _____

Audit Area: _____

FINDINGS

CORRECTIVE ACTION

1. Steps taken that have been or will be taken to correct (this) (these) item(s):

2. Steps taken to prevent recurrence: _____

3. Dates corrective action & preventive measures were or will be completed:

FINDINGS AND CORRECTIVE ACTION (continued)

Corrective Action taken by: _____ / _____
Signature Date

Corrective Action submitted by: _____ / _____
Date

Corrective Action: Acceptable _____ Unacceptable _____

Corrective Action verified by: _____
Auditor Date

QA Manager Date

CALIBRATION

1.0 CALIBRATION SYSTEM

1.1 SCOPE

This procedure provides for the establishment and maintenance of a Calibration System to control the accuracy of the Measuring and Testing Equipment used to assure that the services presented to the Customer are in conformance with prescribed technical requirements.

- 1.2 All outside calibration services used by AETC shall require a National Bureau of Standards Certificate stating traceability to the National Bureau of Standards.

1.2.1 All standards used in Calibration will be traceable to the National Bureau of Standards as designated by this Certificate.

2.0 MONTHLY RECALL SCHEDULE

- 2.1 This form (computer read-out) shall designate the test equipment due for calibration during its designated month. The schedule can disclose the item nomenclature (AETC inventory no.), model no., and due date. This schedule shall remain on file in the Calibration Department.

3.0 EQUIPMENT NOMENCLATURE SYSTEM

- 3.1 ALL Equipment used for testing or monitoring purposes shall be identified by Class Code followed by a number in sequential order of availability to be located in Calibration History Records. This complete identification shall be affixed to each instrument in the form of a Plastic Label, and shall be permanent and legibly seen.

4.0 INTERVALS OF CALIBRATION

- 4.1 Measuring Test Equipment and Measurement Standards shall be calibrated at Periodic Intervals established on the basis of stability, purpose and degree of usage by the Calibration Supervisor coordinated with the Quality Assurance Manager. Intervals shall be shortened as required to assure continued accuracy as evidenced by the results of previous calibration data and may be lengthened only when the results of previous calibration provide definite indications that such actions will not adversely affect the accuracy of the system.

5.0 CALIBRATION PROCEDURES

- 5.1 Calibration Procedure Numbers shall be assigned to each equipment nomenclature class where applicable.
- 5.2 Written Calibration Procedures shall include:
 - 5.2.1 a cover page and revision record,
 - 5.2.2 a list of recommended standards and/or equivalent used in the calibration, including model, manufacturer, accuracy, and
 - 5.2.3 a Block Diagram of the method used for calibration, where applicable.
- 5.3 Traceability to Equipment used in Calibration Procedures, Standard Certificates, Reports, and Instrumentation Manuals, are maintained on file in the Calibration Department and are located via the AETC Nomenclature System.
- 5.4 Calibration Procedures shall be reviewed when significant equipment changes require an updating of the present calibration procedures.
- 5.5 The Calibration Supervisor shall be responsible for keeping all Calibration Procedures up-to-date.
- 5.6 Review and approval of Calibration Procedures shall be made by the Quality Assurance Manager or his designee. Upon approval, signatures of the reviewing body shall be made on the cover sheet of the procedure.
 - 5.6.1 The accepted procedure shall then be kept on file in the Calibration Department for use.
- 5.7 In the event a piece of test equipment is found to be out of specification upon calibration, AETC Form 533-8-5 shall be completed by the Calibration Supervisor and distributed to the Quality Assurance Office and to all Department Supervisors for review and corrective action. A statement of action taken and a signature is required. AETC Form 533-8-5 shall be returned to the Quality Assurance Office.

Revision No. 28

5.0 CALIBRATION PROCEDURES (continued)

- 5.7.1 Upon receipt of AETC Form 533-8-5, the Department Supervisor shall determine if the "out of tolerance" measurement would have adversely affected any test data taken during that time period. If any results are discovered to have been affected, an MRB shall be convened, *at which time the test results will be reviewed.*

6.0 CALIBRATION REPORT

- 6.1 A Standard Calibration Report Form shall be used, which shall include item, model, serial number, manufacturer, AETC inventory number, calibration interval, temperature, relative humidity, and whether accepted or rejected. AETC Form 533-8-6 shall be filled out in its entirety and shall remain on file with the Calibration Department to serve as a Calibration History Record.

- 6.1.1 Upon completion of the calibration report, the appropriate calibration label will be affixed to the unit stating date calibrated, whom calibrated by, and due date for next calibration. (See Label Sheet, AETC 533-8-7.)

7.0 MEASURING STANDARDS

- 7.1 A list shall be maintained of all standards used in the calibration system that are certified by an outside source. It shall contain name of the item, model, serial number, manufacturer, AETC inventory number, calibration interval, accuracy and by whom calibrated.
- 7.2 All Measuring Standards used in the calibration system shall show traceability to the National Bureau of Standards.
- 7.3 Nomenclature of definitions used in the calibration system is referenced in MIL-STD-45662.

8.0 CALIBRATION DOCUMENT CONTROL

- 8.1 Requests for equipment requiring calibration, including rental equipment, will include a statement requesting traceability to the National Bureau of Standards on the purchase order. This request shall read as follows:
TO BE CALIBRATED TRACEABLE TO THE NATIONAL BUREAU OF STANDARDS. CERTIFICATION AND WORK REPORTS, INCLUDING NBS TRACEABILITY NUMBERS, REQUIRED AT TIME OF SHIPMENT.

8.0 CALIBRATION DOCUMENT CONTROL (continued)

- 8.2 Equipment will not be released from the Calibration Department until all applicable documents are received and verified traceable to the National Bureau of Standards.
- 8.3 All requisitions for equipment requiring calibration will be reviewed by the Quality Assurance Department.

9.0 ENVIRONMENTAL CONTROLS

- 9.1 Measuring and test equipment and measurement standards shall be calibrated and utilized in an environment controlled to the extent necessary to assure continued measurements of required accuracy.

10.0 CALIBRATION EXTENSION

- 10.1 If a piece of test equipment is in use and the calibration runs out during the (in use), a Calibration Extension can be issued, but for no longer than a thirty (30) day period.
- 10.2 A calibration sticker shall indicate the extension limit.
- 10.3 The calibration extension form must be authorized by Calibration and Quality Assurance Personnel.
- 10.4 The calibration extension form shall be maintained on file in the Calibration Lab.

ACTON ENVIRONMENTAL TESTING CORPORATION

Inter-Office Correspondence

TO: Department Supervisors

DATE:

NAME: _____

FROM: Calibration

BE ADVISED THAT THE FOLLOWING EQUIPMENT WAS FOUND OUT
OF TOLERANCE AND CALIBRATION ON _____ (date).
ATTACHED IS A COPY OF CALIBRATION REPORT WHICH WILL
BE ON FILE:

<u>ITEM</u>	<u>AETC#</u>	<u>MFG</u>	<u>MODEL</u>	<u>AMOUNT OUT OF SPEC</u>	<u>LAST DATE OF CALIBRATION</u>
-------------	--------------	------------	--------------	-------------------------------	-------------------------------------

Found out of
Spec. by: _____

Please make a follow-up of the above listed equipment, checking on any
jobs that it may have been used on and take appropriate action.

Sign below to state that either:

1. I have read all the information above and have taken appropriate
action as it pertains to me or my Department. (Note action taken
on back of this form.) _____ Date _____
(Sign Name)

2. Information above does not pertain to me.

_____ Date _____
(Sign Name)

Return this form to the Quality Assurance Office.

AETC Form 533-8-5
Revision No. 28



ACTON ENVIRONMENTAL TESTING CORPORATION

533 MAIN STREET, ACTON, MASSACHUSETTS 01720 (817) 263-2933 BOSTON 542-0237

Calibration

AETC # _____ DATE CAL'D _____ CAL DUE DATE _____
ITEM _____ BY: _____ CAL INT _____
MODEL _____ TEMP. _____ °F CP# _____
S/N _____ RH _____ 8 ACC./REJ. _____
MFG _____

TYPE OF MEASUREMENT:

TYPE OF MEASUREMENT:

LIST BELOW ALL OF THE TEST EQUIPMENT USED IN THE CALIBRATION OF THE ABOVE ITEM

AETC#	MFG.	MODEL	ITEM	REMARKS: (CONTINUE ON REVERSE SIDE AS REQUIRED)

ALL MEASUREMENTS TAKEN WILL BE DONE USING EQUIPMENT TRACEABLE TO THE N.B.S.
AETC Form 533-8-6 USE ADDITIONAL PAGES AS REQUIRED

CALIBRATION
BY _____ DATE _____
DUE _____

CALIBRATE
BEFORE USE

CALIBRATION
BY: _____
DATE: _____
DUE: _____

DO NOT USE FOR
QUANTITATIVE
MEASUREMENT

USE WITH
CALIBRATED
EQUIPMENT



RECEIVING AND SHIPPING

1.0 SCOPE

- 1.1 When the customer requests procurement of our services and Military Specification MIL-Q-9858A or Nuclear Qualification Title 10, Code of Federal Regulation Part 50, Appendix B, is referenced in the item specification, contract, or purchase order, these procedures shall be conformed to in their entirety. These programs shall have their "Job Folders" "Q" stamped.

2.0 RECEIVING

- 2.1 All items to be tested will receive a Receiving and Inspection Report (AETC Form 533-9-8). This report will be initiated by the Shipping Department, completed by In-process Storage Personnel and filed in the Job Folder.
- 2.2 All items will be recorded by model, type, serial number (if any), quantity and description on the Receiving and Inspection Report Form.
- 2.3 A Shipping/Receiving Log shall be maintained by Shipping Department Personnel.
- 2.4 After the items have been logged in, the items shall become the responsibility of the Project Manager assigned to the job. The Job Folder will be annotated with the name of the Project Manager and/or Project Engineer by the Vice President of Operations.
- 2.5 The items shall be routed, via the Vice President of Operations, to the In-process Storage Room, or to the Test Area where the test will be performed.
- 2.6 All items will be tagged, by In-process Storage personnel, with a properly annotated "Receiving Tag," (AETC Form 533-9-9), except where physical limitations prohibit such attachment.

3.0 HANDLING OF ITEMS

- 3.1 Handling of all items shall be done in such a manner to preclude damage, loss, substitution and deterioration.

4.0 VISUAL INSPECTION

- 4.1 Visual inspection will be performed on all incoming items. Receiving and Shipping personnel shall check-off the appropriate block on the Receiving and Inspection Report Form. Material certification, where applicable, will be reviewed and approved by QA.
- 4.2 If a defect is noted on the item, a "HOLD" tag will be attached to the item until disposition of the item is ascertained.

5.0 PACKAGING

- 5.1 Materials shall be packaged for shipment in the same manner as normally received. Special requirements requested by the customer will be acknowledged.

6.0 SHIPPING PROCEDURE

- 6.1 The Shipping Department will be notified by the Project Engineer that shipment of customer test item(s) are required.
- 6.2 The Project Engineer will give the Shipping Department the item(s) or their location in the Laboratory along with a completed AETC Shipping Ticket (AETC Form 533-9-11) as well as any special packaging and shipping requirements.
- 6.3 The Shipping Department shall then make arrangements for shipping the item out of house, back to the customer.
- 6.4 Shipping records shall be maintained in the Job Folder and in the Shipping Department.

7.0 CLEANING

- 7.1 Special cleaning requirements requested by the customer will be acknowledged.
- 7.2 When necessary, the cleaning of test items will be done in such a manner as not to damage or cause deterioration of test items and performed to an approved procedure.

DATE _____ PROJECT ENGINEER _____

CUSTOMER	CUSTOMER P.O.	PACKING LIST	OUR LAB #	DISPOSITION

[illegible]

REP. from CUSTOMER RECEIVED BY

Receiving Tag

FILL OTHER SIDE

(FORM #111)

**Acton Environmental
Testing Corp.**

Job # _____

DATE _____

CUSTOMER _____

ITEM _____

S/N _____ MOD. _____

TYPE OR P/N _____ P.O.# _____

REC. INSP. BY _____ OK ☐ OTHER _____

533 MAIN STREET

ACTON, MASS. 01720

Date _____

Our P. O. No.

Our Case Number

Date Shipped

SHIP

Ship't Via

TO

W/B or B/L No.

No. of Pkgs.

Weight

Shipment No. Partial ☐ Final ☐ TERMS net 10

F.O.B. Acton, Mass.

Item No.

Quantity

Type Number

Description

WHITE COPY - ORIGINAL • CANARY COPY - ACKNOWLEDGMENT • PINK COPY - FILE COPY • GOLDENROD COPY - PACKING LIST

STORAGE

- 1.0 All equipment/item(s) to be tested shall be stored in the appropriate "In-process Storage Area."
- 1.1 Special requirements for storage by the customer and/or specific requirements for storage shall be considered on a case basis.

IN-PROCESS CRITERIA (4-1-11)

1.0 PROJECT ASSIGNMENT

- 1.1 The Vice President of Operations shall assign the job to a Project Manager.
- 1.2 The Project Manager assigns the job to a Project Engineer.
- 1.3 The Project Manager and/or Project Engineer will conduct a complete review of the requirements of the job to identify and make timely provisions for the special controls, processes, test equipment, fixtures, tooling and skills required to assure quality testing.
- 1.4 A Test Technician shall be assigned to the Project Engineer by the appropriate Departmental Supervisor.
- 1.5 The Test Technician will perform the test under the supervision of the cognizant Project Engineer.

2.0 TEST SETUPS

- 2.1 Functional test setups shall be strictly in compliance with the drawings and specifications required by the approved Test Procedure or Customer Purchase Order where applicable. The approved test procedure will reflect acceptance limits contained in applicable design documents.
 - 2.1.1 Data Sheet, AETC Form 533-11-10, shall be used to record all test data where applicable.
 - 2.1.2 The Test Technician shall maintain and record a daily log of work performance in the "Log Book."
- 2.2 All Hydraulic Test Setups shall be labeled as to show the type of hydraulic fluid utilized in each test setup (i.e., MIL-H-5606-SKYDROL-etc.).
- 2.3 Prior to Quality Assurance test verification, the Quality Assurance Manager, or his/her designee, shall assure that the test procedure in use has been approved.

2.0 TEST SETUPS (continued)

- 2.4 Test setup equipment shall be verified for calibration by the Quality Assurance Manager or his designee.
- 2.5 The Quality Assurance Manager, or his designee, will perform a surveillance inspection, in conjunction with the Test Technician, of the test setup on all "Q" stamped jobs. After inspection, the Log Book will be stamped, as noted below, for QA verification.

The Equipment Used on This Test
Has Been Examined and Meets
Calibration Requirements.

QA _____

DATE _____

- 2.6 As required, all tests are performed under suitable environmental conditions.
- 2.7 After completion of required tests, AETC Form 533-11-11 shall be filled out by the Project Engineer and routed to the Shipping Department for return to the customer, if required.

3.0 IDENTIFICATION

- 3.1 Parts shall be identified by either name, number(s), color, etc., in order that control of such parts are not lost. Control may be, in special cases, by documentation.
- 3.2 Identification of parts will be maintained throughout entire test program.

Revision No. 28

Time _____

[illegible]

Acton Environmental Testing Corp.
533 MAIN STREET ACTON, MASS. 01720

Customer Order No.	Date	Our P. O. No.	Our Case Number
			Date Shipped
SHIP			Ship't Via
TO			W/B or B/L No.
			No. of Pkgs.
			Weight

Shipment No. Partial ☐ Final ☐ TERMS net 10 F.O.B. Acton, Mass.

Item No.	Quantity	Type Number	Description

WHITE COPY - ORIGINAL • CANARY COPY - ACKNOWLEDGMENT • PINK COPY - FILE COPY • GOLDENROD COPY - PACKING LIST

SURVEILLANCE

- 1.0 Surveillance during tests may be required by the Customer, Government Inspector and Acton Environmental Testing Corporation Quality Control.
 - 1.1 Tests requiring mandatory inspection hold points shall not proceed without consent of designated representatives.
- 2.0 Qualified Representatives of our customers will be granted access to test areas within restrictions placed on us by Security Measures.

MATERIAL REVIEW BOARD (MRB)

1.0 PROCEDURE

- 1.1 When a Customer's Product Fails and investigation determines that failure was not caused by AETC equipment, personnel, or procedures, NO MRB IS REQUIRED.
 - 1.1.1 A responsible representative of the Project Group will fill out AETC Form 533-13-12, "Customer Product Failure Notification Form," in its entirety.
 - 1.1.2 A copy of the completed form will be sent to the Quality Assurance Office for record.
 - 1.1.3 The original shall be kept in the Job Folder and will remain as part of the project history.
- 1.2 A Material Review Board is required when a product fails and investigation determines that failure was not caused by customer related circumstances.
- 1.3 The MRB shall consist of the Project Manager and the Quality Assurance Manager. Alternates may be named by these individuals to attend the MRB.
- 1.4 When MIL-Q-9858 is referenced in the customer's purchase order, a Government Inspector will be required as a member of the MRB.
- 1.5 All non-conforming test items shall be identified as discrepant, segregated and reviewed. Disposition shall be determined after customer consultation.
- 1.6 When a MRB is required, AETC Form 533-13-13 will be completed in its entirety and shall become part of the project history and filed in the Job Folder.

2.0 ANOMALIES/NONCONFORMANCE

- 2.1 Nonconformance items not requiring an MRB will be segregated and addressed on a case basis using AETC Form 533-13-14.
- 2.2 The reporting of defects and noncompliance situations are reported to the Quality Assurance Manager. Certain defects and noncompliances that could result in a failure (Part 21) are reported to the President of AETC. Upper management is responsible for notifying the proper authorities in order that corrective action can be implemented.

ACTON ENVIRONMENTAL TESTING CORPORATION

CUSTOMER PRODUCT FAILURE NOTIFICATION

CUSTOMER _____ JOB NO. _____

PROJECT ENGINEER (AETC) _____

DATE CUSTOMER NOTIFIED _____ CONTACT NAME NOTIFIED _____

METHOD CUSTOMER NOTIFIED OF PRODUCT FAILURE:

TELEPHONE ☐
LETTER ☐
MEMORANDUM ☐
TELECOPY ☐
WITNESSED FAILURE ☐
VERBAL ON-SITE ☐
VERBAL OFF-SITE ☐

PIECE IDENTIFICATION NUMBER

DESCRIPTION OF FAILURE: _____

CUSTOMER INSTRUCTIONS: _____

AETC PERSONNEL INITIATING NOTIFICATION:

Signature _____ Date _____

Title _____

ACTON ENVIRONMENTAL TESTING CORPORATION

FAILURE EVALUATION
(Material Review Board)

CUSTOMER _____ DATE _____

JOB NUMBER _____ P.O. NUMBER _____

ITEM _____ PART NUMBER _____

DISCREPANCY: _____

CAUSE: _____

PERTINENT FACTS: _____

CORRECTIVE ACTION TAKEN: _____

Project Manager

QA Representative/QA Manager

DCAS - QAR (where applicable)

ACTON ENVIRONMENTAL TESTING CORPORATION

NONCONFORMANCE REPORT

COMPANY _____ JOB # _____

ITEM (AETC #) _____ S/N _____

NONCONFORMING CONDITION: (describe)

DISPOSITION:

By _____ Date _____

CORRECTIVE ACTION:

Approved By _____
QA Manager

Verification of Corrective Action Implementation:

QA _____ Date _____

Corrective Action to Preclude Recurrence

QA Manager _____ Date _____

FINAL TEST REPORT

- 1.0 Test data shall be converted into the Final Test Report. The Project Engineer is responsible for the accuracy of the report, which describes the results of the test, and that the customer's test requirements were met.
- 2.0 It is the responsibility of the Quality Assurance Department to make sure that the Final Test Report has been included in the Job Package prior to filing and storage.