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QUALITY AND RELIABILITY ASSURANCE

HANDBOOK

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T PROCUREMENT QUALITY ASSURANCE

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June 1969

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
(Installations and Logistics),
Washington, D.C. 20301

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OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D. C. 20301

INSTALLATIONS AND LOGISTICS

Procurement Quality Assurance Plan

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This Handbook has been prepared for use by personnel responsible for performing Department of Defense procurement quality assurance functions normally accomplished at contractors' plants.

At a later date it is planned to reissue this document in a mandatory format for implementation throughout the Department of Defense. Understandably it is imperative that each Military Department and the Defense Supply Agency attempt to apply it, as written, and thus through experience highlight those topics in need of amplification or revision.

Recommendations for changes to this Handbook should be forwarded to the Staff Director for Quality and Reliability Assurance, Office of the Assistant Secretary of Defense (Installations and Logistics), The Pentagon, Washington, D. C. 20301.

John J. Riordan
for GEORGE E. FOUCH
Deputy Assistant Secretary of Defense
(Logistics Management Systems & Programs)

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SECTION I

PROCUREMENT QUALITY ASSURANCE CONCEPTS AND POLICY

Part 1

Procurement Quality Assurance Policy

1-100 PURPOSE

To provide policy guidance and authority for Contract Administration Services (CAS) quality assurance personnel in accordance with Department of Defense (DoD) quality assurance concepts, outline the relationships with other activities which have an influence on the CAS mission and for whom services are provided, and describe the Procurement Quality Assurance Program.

1-101 DOD CONCEPT

The DoD quality assurance concept is that responsibility rests upon:

- a. The Government for establishing contractual quality requirements.
- b. The contractor for controlling product quality and for offering to the Government, for acceptance, only those supplies and services that conform to contractual requirements and, when required, for maintaining and furnishing substantiating evidence of this conformance.
- c. The Government for determining that contractual requirements have been complied with prior to acceptance of the supplies or services. ✓

1-102 QUALITY ASSURANCE IN-PLANT RESPONSIBILITIES

- a. Becoming thoroughly familiar with individual contract quality requirements.
- b. Developing and applying an effective and economical Government procurement quality assurance program.
- c. Verifying that contractors have complied with contractual requirements relating to product quality. ✓
- d. Performing such special Product Verification Inspection actions as are requested in writing by purchasing offices.

e. Providing information to purchasing offices relating to inadequate contractual requirements, including technical descriptions.

1-103 TECHNICAL DIRECTION AND CONTROL

a. DoD policy provides that the Contract Administration Office (CAO) will be responsive to the technical direction and control exercised by the appropriate DoD program manager, and will perform specified inspection functions as requested by the program manager.

b. Such requests should be strictly product-oriented and not conflict with this handbook. When detailed procedures are furnished, defining the intensity of Government inspection to be performed, such procedures must be consistent with DoD policy. This policy states that to the extent that contractor quality data are available and reliable, such data will be used to adjust the amount of Government inspection of products to a minimum consistent with proper assurance that the supplies accepted conform to quality requirements established by the procurement documents.

c. CAO components receiving procedures not in compliance with DoD policy, or unnecessarily limiting the quality assurance functions defined in this handbook, will advise the purchasing office and endeavor to develop a program which provides mutually acceptable flexibility. If these efforts are not successful, the CAO headquarters will be promptly contacted, through established channels, and furnished necessary details to permit resolution. Similar action will be initiated if the procedures received impose demands for CAS quality assurance services such that they tend to relieve the contractor of his responsibilities.

d. The provisions of paragraphs 1-103a through c above are not applicable to National Aeronautics and Space Administration (NASA) procurements. The NASA purchasing office will name for each delegation the NASA representative who will provide technical direction for quality assurance.

1-104 PLANNING

In the event that a review of manpower requirements for a contract indicates that the CAO will be unable to provide necessary quality assurance actions, additional staffing will be requested from the CAO Headquarters. When necessary resources cannot be provided from any source in time to perform on a contract or subcontract, the requesting element will be advised of the circumstances and an understanding reached and documented describing the service which will be provided.

1-105 PURCHASING OFFICE VISITS

The purchasing office, in conjunction with the activity responsible for technical requirements, may, as considered necessary, conduct product-oriented surveys and evaluations. The purpose of these actions is to determine the adequacy of technical requirements relating to product quality and conformance to design intent. Support and cooperation will be given to the purchasing office's representative.

1-106 SUPPORT OF OTHER CAO FUNCTIONAL ELEMENTS

a. Quality Assurance personnel are conveniently located to provide effective and economical support to other functional elements. Requests for technical assistance, advisory comments, and reports will be honored on a timely basis consistent with availability of resources and priority workload. Such requests will normally be in writing. The procedures to be used and the instructions for accomplishment will be provided by the requesting functional element. The requesting element will be advised promptly, through appropriate channels, of the inability to meet established time requirements and furnished a proposed completion date.

b. Quality Assurance personnel will, as requested, participate in preaward surveys. Procedures for accomplishing the quality assurance portion of a preaward survey are contained in ASPR, Appendix K. Findings concerning the ability of a prospective contractor to meet quality requirements must be objective and based on current and factual information. Where judgment is a factor, it will be applied in a fair and open manner. The interest of the Government in obtaining material that meets quality requirements will be kept paramount to all other considerations. A negative rating will be given prospective contractors who are unable to demonstrate adequate control capability.

1-107 SUPPORT OF THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Quality Assurance services on NASA contracts will be provided as specified in the letter of delegation/redelegation and the response thereto. CAO personnel performing NASA work will be familiar with pertinent details of NASA Publications Control (NPC) 200-1A. NPC 200-1A and supplementary procedures specified for a particular NASA delegation take precedence over this handbook.

1-108 SUPPORT OF OTHER NON-DOD AGENCIES.

Consistent with available resources, quality assurance services will be provided to other non-DoD agencies on a reimbursable basis.

✓ 1-109 SUPPORT OF THE CANADIAN GOVERNMENT

Service in support of the Canadian Government will be provided on a nonreimbursable basis which is in accordance with formal international agreements. The procedures in this handbook will be utilized.

1-110 SUPPORT OF OTHER FOREIGN GOVERNMENTS

✓ a. The Department of Defense or its agencies may enter into formal agreements with foreign governments or international organizations concerning the services to be provided. A Military Department is usually appointed as the executive agent for such agreements. The Military Department then receives requests for quality assurance services from the foreign purchaser and sends them to the appropriate CAO for performance. In some cases, however, the agreements may authorize the foreign governments or international organizations to submit requests directly to the appropriate CAO. In any event, the agreements contain instructions for processing the requests that are binding upon both the United States and the foreign governments or international organizations. The CAO is furnished information regarding the terms of the formal agreements.

b. Foreign governments and international organizations may also deal directly with contractors in the United States without obtaining management or administrative assistance from a Military Department or other DoD agency. In that case, the foreign purchasers send their requests for quality assurance services to the Central Control Point for direct procurements, the Defense Contract Administration Services Region, New York, 60 Hudson Street, New York, N. Y. 10013. The Central Control Point processes the requests and sends them to the Army, Navy, Air Force, or CAS activities responsible for the suppliers' plants. Those activities perform the quality assurance services and report the manhours and incidental costs involved to the Central Control Point through their accounting and finance offices. The Central Control Point then bills the foreign purchasers and disburses the amount collected to the proper Army, Navy, Air Force or DSA organizations.

c. Requests for quality assurance services that are processed by DCASR, New York are identified with a Request Control Number that begins with the letters FCAS. Instructions for handling the request(s) are contained in Joint Regulation DSAR 8200.5, AR 715-23, NAVMATINST 4355.63, AFR 400-22, Requests from Foreign Governments or International Organizations for Inspection of Direct Procurements. The Regulation includes North Atlantic Treaty Organization (NATO) Standardization Agreement (STANAG 4107) Mutual Acceptance of Government Quality Assurance. STANAG 4107 pertains to interchange of inspection services between countries that are listed in the document as members of NATO, and the Joint Regulation describes its application to foreign procurements in the U.S.

d. Contractors occasionally receive foreign orders that call for U. S. Government inspection before the CAO receives an official request for quality assurance services. If it is necessary to perform inspection on such an order before the official request is received, assurance must be obtained that the request for inspection on the foreign order is valid. The validity of the request may be verifiable through a reference on the order to an applicable formal agreement. Otherwise, assurance of the validity of the request must be obtained from the Central Control Point at DCASR New York.

e. Contractors may also receive subcontracts from foreign companies that are supplying a DoD procuring activity or a DoD contractor which call for U. S. Government inspection. Orders of that type are not processed by the Military Departments or the Central Control Point; and the inspection costs are not reimbursable, since the U. S. Department of Defense is the ultimate customer. Such subcontracts can usually be identified by the DoD contract number and appropriation number which will be shown on the contractual document. A questionable case should be referred to the U. S. company that received the order for clarification by the foreign purchaser. Clarification should include assurance that the request was authorized by the foreign purchaser's quality assurance organization.

f. Unless otherwise specified, quality assurance services will not include the act of acceptance, and the costs of providing the services will be recorded and billed according to established procedures.

1-111 SAFETY

Quality Assurance personnel will:

a. Observe accepted safety standards related to the manufacture of hazardous or dangerous material.

b. Comply with contractor's rules and regulations regarding safety while on plant property.

c. Advise appropriate personnel of any unsafe conditions or practices.

d. Discuss with appropriate personnel of the CAO any observed safety hazards and questions concerning safety.

e. Report to the CAO all major accidents, fires, and explosions occurring in a contractor's plant which involve or affect the completion of the contract or involve Government employees or property. Advise the Production element of the CAO if production schedules are affected.

f. Assure conformance with contract safety requirements when such requirements plan an integral part in the quality assurance operation.

SECTION II

PROCUREMENT QUALITY ASSURANCE PROGRAM
AT PLANT LEVEL

Part 1

General

2-100 PURPOSE.

To establish the In-Plant Procurement Quality Assurance Program hereinafter referred to as the program and provide related general information. ✓

2-101 GENERAL

a. The program established by this section is designed to standardize, to the maximum extent practicable, accomplishment of the quality assurance in-plant mission.

b. The applicability and intensity of activity required for each of the basic parts of the program will vary with the individual contract or contractor.

c. A thorough understanding of the basic parts of the program and their application is essential to successful accomplishment of the in-plant mission.

d. The extent of effort on the individual parts of the program will be continuously reviewed so that adjustments in manpower utilization can be made. The amount of effort applied will be based on performance of the contractor, the data generated by the quality assurance representative (QAR), and other available quality data.

2-102 PARTS OF THE BASIC PROCUREMENT QUALITY ASSURANCE PROGRAM AT PLANT LEVEL ✓

The following parts constitute the program:

- (1) Procedures Review.
- (2) Procedures Evaluation.
- (3) Product Verification Inspection.
- (4) Contractor Decision Verification.
- (5) Corrective Action.

2-103 GENERAL APPLICATION OF THE PROGRAM BY PART

a. Procedures Review and Procedures Evaluation will be applied any time the contractor is required to prepare and maintain written procedures for the control of quality.

b. Product Verification Inspection will be applied any time physical inspection by the Government is necessary to determine contractor compliance with quality provisions of the contract.

c. Contractor Decision Verification will be applied whenever in-process product control is performed by the contractor and the volume of production and duration of contracts permit this part to be applied. This includes modification and repair-type contractor facilities, when appropriate.

d. Corrective Action will be applied whenever the contractor fails to conform to quality requirements of a contract.

2-104 PROGRAM CONTINUITY

Whenever initial Procedures Evaluation is being performed and the procedure being evaluated directly affects product quality, Product Verification Inspection will be immediately performed on the same product that is affected by the procedure. Corrective Action, if required, will assure that the procedure is adequate, that it is being followed, and that inspection is being performed by the contractor to prevent delivery of nonconforming supplies.

2-105 CLASSIFICATION OF FACILITIES

Contractor facilities will be classified as resident, scheduled, or on-call. In determining the classification, consideration will be given to the type of commodity, volume and duration of production, the quality requirements of the contract and intensity of Product Verification Inspection.

2-106 OPERATING PROCEDURES

These procedures are designed to bridge the gap between specific contract requirements and the local in-plant programs. The development, implementation, and maintenance of the in-plant program may require the issuance of Operating Procedures by the QAR. Procedures will explain the Quality Data Collection and Evaluation System used at a particular facility including use of contractor's data. Operating Procedures will not duplicate material in this handbook.

SECTION II

Part 2

Planning

2-200 PURPOSE

To establish the requirement for planning those actions necessary to accomplish the program.

2-201 GENERAL

Planning will be initiated upon receipt of the contractual document. The QAR will review the contract and related documents for completeness, legibility, clarity, and adequacy of technical requirements. Any observed deficiency in design or technical requirements, including contract quality requirements, together with recommended changes will be forwarded through appropriate channels to the purchasing office on DD Form 1716. For details see Section VIII, paragraph 8-112.

2-202 POSTAWARD CONFERENCE

When, during review of a contract, it is determined that the contractor does not or may not have a clear understanding of the quality requirements of the contract, it is essential that the QAR recommend to the Administrative Contracting Officer (ACO) that a postaward orientation conference be held to clarify contract requirements and resolve misunderstandings. Such a conference should be a joint Quality, Production, Contract Administration, etc., action, as appropriate, with the ACO acting as the Government representative. The quality assurance portion of the postaward conference results will be reviewed, when available, to ascertain the extent of quality assurance requirements involving the supplier and/or technical activity. The results of this postaward conference will be considered when planning the Procurement Quality Assurance Program.

2-203 PLANNING FOR APPLICATION OF THE PROGRAM

a. The QAR is responsible for selecting the applicable parts of the program. Figure II-2-1 provides a general guide in selection of parts to be applied. Local conditions at a particular contractor's plant will be the deciding factors in the selection. These conditions include individual contract quality requirements, supplies or services to be rendered, manufacturing methods to be employed, technical guidance furnished by the purchasing office, and contractor quality history. ✓

b. When the contract invokes a general requirement for a quality program/system (such as MIL-Q-9858, NPC 200-2, MIL-I-45208, or NPC 200-3) ✓

the QAR will be governed by these requirements, and will plan for review and evaluation of the contractor's written quality procedures. Other contract requirements, such as specifications for control of processes (e.g., welding or radiography) also may require review and evaluation of contractor written procedures.

c. The QAR will plan for performing all requirements imposed on the QAR by the purchasing office. Communications with the purchasing office during planning should be made only to clarify requirements.

d. The QAR will plan to perform Product Verification Inspection to the degree necessary to assure contractors conformance to related contract requirements.

e. Planning for implementation of Contractor Decision Verification will be accomplished where the volume of production and duration of contracts permit this part of the program to be implemented. The QAR will obtain from the contractor or develop a facility layout identifying the flow of materials and contractor's inspection stations. Government product control centers and inspection stations will be established by the QAR and identified numerically. (See Figure II-2-2, for example.)

f. The QAR will plan for the systematic collection and evaluation of quality data.

2-204 SPECIAL CONSIDERATIONS FOR PLANNING

a. The QAR will review the quality assurance portion of the pre-award survey results, when available, relative to the adequacy of the contractor's facility and capability to comply with the quality provisions of the contract. Specific attention should be directed to those areas reported as deficient, and where the contractor indicates an intention to correct deficient areas in the event of an award.

b. Knowledge of the past performance of a contractor on previous contracts is essential to adequate planning. Available quality data will be reviewed for such items as reports relative to previous contracts, results of previous evaluations of the contractor's quality program, use of feedback data (failure, unsatisfactory reports) and complaint investigation reports, and records of rejections.

c. The appearance of a liquidated damages clause in a contract or subcontract means that the delivery schedule is critical. The QAR's planning will assure availability of Government personnel when required. The ACO must be alerted immediately if any known problem exists which may prohibit timely delivery.

d. Conditions may arise where the contract may require delivery before the QAR's copy of the contract has been received through Government channels. In these instances, the QAR is authorized to use the contractor's copy of the contract. Government records will reflect that the contractor's copy of a contract was used.

e. The QAR will arrange with the contractor for a thorough Government evaluation, including inspection, of the first item or items on the contract.

2-205 MANPOWER PLANNING

a. The QAR is responsible for determining the required number of Government personnel needed to perform on a given contract or at a contractor's plant.

b. Local procedures will be followed in making these requirements known at the Contract Administration Office level.

2-206 PLANNING OF SKILL CAPABILITY

a. The QAR is responsible for assuring that the required skills are available to determine acceptability of products being produced and services rendered at the contractor's plant.

b. Schedules for required training will be established, kept current, and made available for approval in accordance with local procedures.

GUIDE TO NORMAL APPLICATION OF THE IN-PLANT FUNCTION

	CONTRACTUAL QUALITY OR INSPECTION REQUIREMENT				
	MIL-Q-9858 NPC-200-2 Similar *	MIL-I-45208 NPC-200-3 Similar *	SF 32	Contractor Respon- sibility	NONE
Procurement Quality Assurance In-Plant Function Parts					
Procedure Review	Applicable	Applicable	Generally Not Applicable	Generally Not Applicable	Not Applicable
Procedure Evaluation	Applicable	Applicable	Generally Not Applicable	Generally Not Applicable	Not Applicable
Product Verification Inspection	Applicable	Applicable	Applicable	Applicable	Applicable
Contractor Decision Verification	Applicable	Applicable	Generally Not Applicable	Not Applicable	Not Applicable
Corrective Action	Applicable	Applicable	Applicable	Applicable	Applicable

NOTE: For support to NASA see NPC-200-1A and letter of delegation.

Figure II-2-1

TYPICAL PLANT LAYOUT

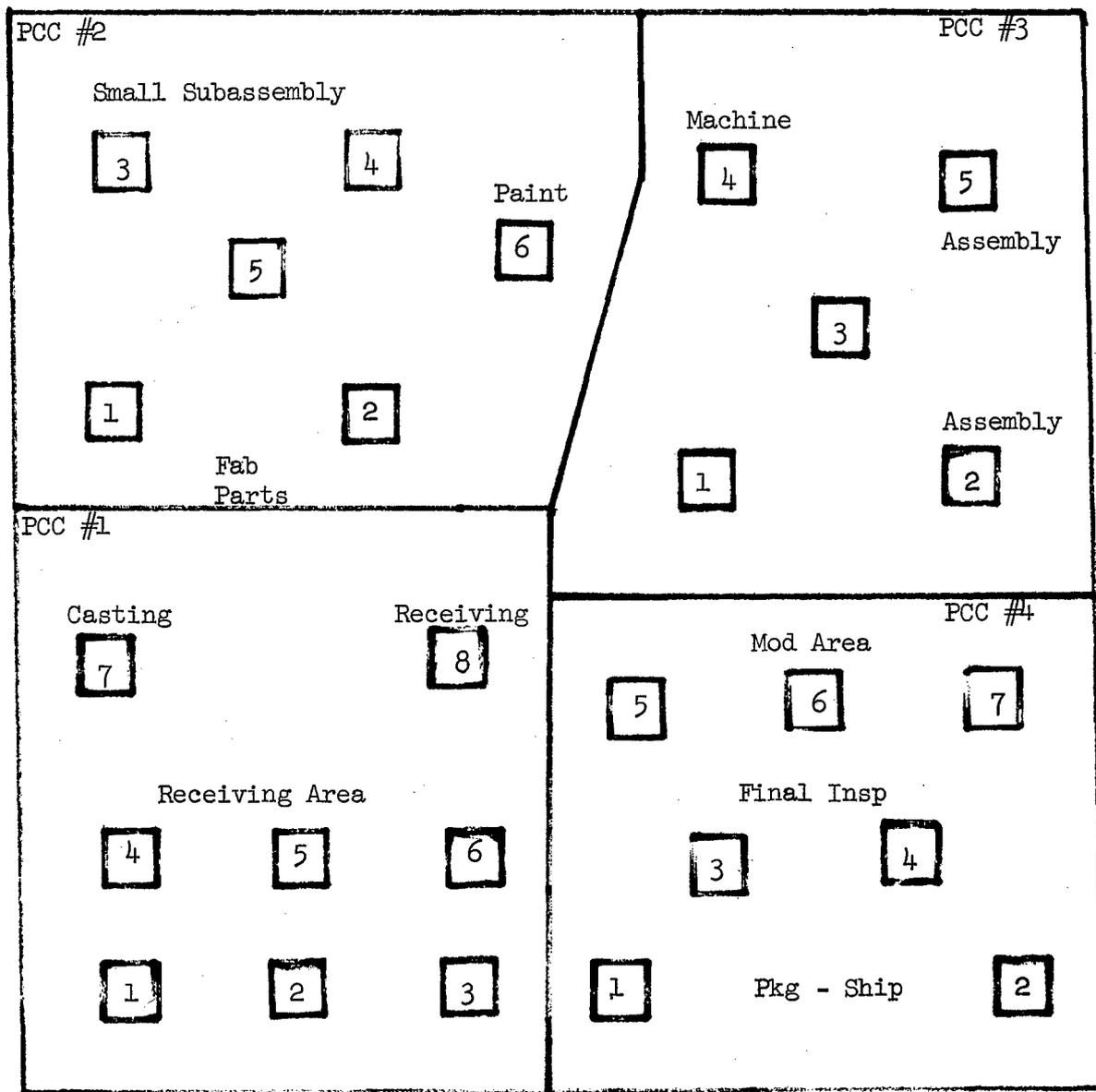


FIGURE II-2-2

SECTION II

Part 3

Procedures Review

2-300 PURPOSE

To provide instructions to the QAR for review of contractor's written quality or inspection procedures.

2-301 GENERAL

a. A review of the contracts and associated specifications will be performed by the QAR to determine whether requirements exist for the contractor to document the quality or inspection procedures. Where written procedures are required, they will consist of pertinent and accurate information describing those operations and actions to be performed by the contractor and meet all provisions of contractual specifications covering the system area. A Guide to areas usually requiring written procedures is contained in Figure II-3-1.

b. Where a review of the contractor's written procedures is applicable, it will be accomplished prior to or at the start of production. The contractor's written procedures need not be contained in a single publication. They may be contained in a number of documents, such as quality or inspection manuals, test procedures, inspection instructions, work instructions, and other similar documents.

c. A formal notice to the contractor of the approval of the contractor's written procedures is not required, unless the contract requires approval by the purchasing office. In the event the purchasing office elects to approve the procedures, the QAR will furnish comments on proposed procedures to the purchasing office, and will obtain approval prior to implementation by the contractor. QAR's disapproval of contractor's procedures will be based on noncompliance with contract provisions, or evidence contract requirements will not be complied with, and will be conveyed, in writing, to the contractor as soon as possible.

d. Where specifications require Government and QAR approval of a specific contractor's operation, the QAR will assure that the contractor obtains approval of the procedures and determine if the specification requires:

- (1) Certification or qualification of personnel, equipment and processes.
- (2) Written procedures.

- (3) Workmanship samples.
- (4) Other special requirements.

e. The contractor is given wide latitude in devising procedures to implement the requirements for an acceptable quality program or inspection system. The QAR, therefore, must be thoroughly familiar with the products and processes to determine adequacy of the procedures.

2-302 REVIEW CRITERIA

a. The following handbooks will be used in the review of contractor's procedures:

- (1) H-50, Evaluation of a Contractor's Quality Program.
- (2) H-51, Evaluation of a Contractor's Inspection System.
- (3) H-52, Evaluation of a Contractor's Calibration System.

b. Some requirements of above handbooks may not be applicable to all contracts. A specific contract may exclude one or more paragraphs of the related specification or may add additional requirements. The above handbooks may be used as guidelines to review similar procedures regardless of what specific quality requirements are incorporated in the contract.

2-303 INADEQUATE WRITTEN PROCEDURES

✓ a. The QAR will request advice and assistance from the staff specialist or engineer when in doubt regarding the adequacy of a particular procedure.

✓ b. The QAR will inform the contractor of inadequate procedures, but should never tell the contractor "how" to do the job. He will state facts and indicate where the procedures fail to satisfy contractual requirements.

c. Nonavailability of a procedure or an inadequate procedure will justify nonacceptance of a product or service, if the procedure is essential to Government determination of product or service conformance to contract technical requirements. Situations which necessitate withholding acceptance of product or service for foregoing reasons will be brought to the attention of the next higher supervisor and ACO.

2-304 CHANGES TO WRITTEN PROCEDURES

Upon receipt of a new contract during the life of an existing contract, the contractor may make changes to written procedures. These changes will be reviewed by the QAR.

2-305 CHECKLIST FOR PROCEDURES EVALUATION

a. As the result of contract review and Procedures Review, checklists for evaluation of contractor's written procedures will be developed. These checklists will serve as sufficient evidence that a review of contractors written procedures was performed. The checklists will be maintained current with contract requirements.

b. The Guide to Requirement for Written Procedures (Figure II-3-1) is directly related to the Criteria for Evaluation in Handbooks H-50 and H-51. These requirements vary with the type procurement and complexity of the item and the evaluation checklists should vary correspondingly. The QAR's checklists may be brief, limited to selected designators, or in detail including all alpha designators. Some of the designators may be group expanded or even eliminated as considered appropriate by the QAR. Likewise, the frequency at which each procedure is evaluated should be dependent upon the criticality of the operation being described. For instance "Organization" does not need to be checked at the same frequency as "Measuring and Test Equipment" or "Work Instructions".

Alpha
Designation

Guide to Requirement for Written Procedures

A	Advanced Metrology Requirements
B	Bailed Property
C	Completed Item Inspection and Test
D	Corrective Action
E	Cost Related to Quality
F	Drawings, Documentation, and Change
G	Government Furnished Material
H	Government Inspection at Subcontractor or Vendor Facilities
I	Handling, Storage, and Delivery
J	Indication of Inspection Status
K	Materials and Materials Control
L	Measuring and Test Equipment
M	Nonconforming Material
N	Organization
O	Planning
P	Process Control
Q	Production Tooling Used as Media of Inspection
R	Production Processing and Fabrication
S	Purchasing Data
T	Records
U	Responsibility for Control of Purchases
V	Statistical Quality Control and Analysis/Sampling Inspection
W	Use of Contractors Inspection Equipment
X	Work Instructions/Inspection and Testing Documentation

Figure II-3-1

SECTION II

Part 4

Procedures Evaluation

2-400 PURPOSE

To provide instructions to the QAR for evaluation of contractor's written procedures.

2-401 GENERAL REQUIREMENTS

A continuing evaluation of the contractor's compliance with procedures will be performed. The handbooks referenced in Section II, Part 3, do not provide detailed procedures and checklists for evaluating procedures. The checklists developed during review of contractor's procedures will be used during the Procedures Evaluation.

2-402 INITIAL EVALUATION OF PROCEDURES

a. The QAR will evaluate each new or revised procedure at the time of initial use of the procedure.

b. Each particular item on the checklist will continue to be evaluated until a satisfactory quality history has been obtained at each location. A random selection of at least five locations may be used where an item is applicable to more than five locations. The initial evaluation also will include sufficient product evaluation to assure that the procedure is in fact resulting in compliance with contract requirements.

2-403 CONTINUING EVALUATION OF PROCEDURES

a. Subsequent to the initial verification that the contractor is adequately controlling the quality level, the QAR is responsible for establishing a routine frequency for evaluating procedures. Technical assistance should be requested from supervisors or staff specialists, as necessary, based on knowledge of the procedures and products involved.

b. The frequency of Procedure Evaluation may be reduced when evaluation data indicates control by the contractor. Each applicable item on the checklist will be considered separately in establishing or changing the frequency of evaluation.

c. The frequency of Procedures Evaluation will be increased from the reduced or the routine level when any data indicates the contractor is not maintaining satisfactory control. In the case of both routine and reduced levels, the frequency established will be recorded.

SECTION II

Part 5

Product Verification Inspection

2-500 PURPOSE

To provide instructions to the QAR for performing Product Verification Inspection.

2-501 GENERAL

a. Initial production items and items produced following significant changes in the item, or manufacturing techniques for making the item, will be thoroughly inspected. ✓

b. Sufficient inspection will be performed at time of initial evaluation of a procedure to assure that the procedure is in fact resulting in compliance with contract requirements.

c. Additional inspection will be performed at time and place of manufacture and to the degree necessary to assure contractor compliance to related requirements of the contract. Such inspections will be performed after contractor inspection has been completed and records made available to the Government representative.

d. Where the contractor is not required to perform inspection on a particular contract, and has not agreed to control production under an existing quality program or inspection system, inspection/acceptance normally will be by the use of an approved Government sampling plan. The QAR will request the Procuring Contracting Officer (PCO) to add a requirement for contractor inspection in accordance with Section VIII, paragraph 8-112.

e. Where the contractor is performing inspection only by a contractually required Federal or Military specification, these same requirements will be used as Government inspection/acceptance criteria until a satisfactory quality history is obtained. Once a quality history has been obtained, a reduction in Government verification will be instituted.

f. Where the contractor is controlling quality under a quality program or inspection system, the amount of inspection will depend on a number of factors such as:

- (1) Contractual requirements.
- (2) Contractor quality history.

g. The program in each facility will include Product Inspection of some end items. The characteristics to be inspected and the number of end items on which these characteristics are to be inspected normally will be left to the judgement of the QAR.

2-502 SELECTION OF CHARACTERISTICS FOR PRODUCT VERIFICATION INSPECTION

a. Inspection required by contract to be performed by the Government will be performed until the contract is changed.

b. Inspection imposed by the purchasing office in letters of instructions will be performed until the requirement is removed. Quality data reflecting contractor's control and results of Product Verification Inspection will be furnished the purchasing office when requesting a reduction in Product Verification Inspection requirements.

c. Characteristics determined to be critical by either the Government or a contractor in accordance with the criteria in MIL-STD-109 will be inspected by the QAR. This requirement may be relaxed when further assembly or test can reveal a defect, contractor controls will assure detection of a defect, or contractor quality history proves that control is maintained.

d. The QAR may use any locally developed means to efficiently and effectively select additional characteristics for inspection.

e. The QAR will consider problems reported from the user and other Government activities, contractor quality data, records of Contractor Decision Verification, results of Product Verification Inspections, and the results of Procedures Evaluation in the selection of product characteristics for additional Product Verification Inspection.

f. All characteristics selected will identify the Government records with the document containing the characteristics, and assure availability of the Government records and the document to which it is identified for full retention period of the Government records.

2-503 PERFORMING PRODUCT VERIFICATION INSPECTION

a. Government Quality Assurance personnel will be capable of performing inspection required of a contractor by contract.

b. The CAO will assure timely availability of Government personnel to perform required inspection.

c. The QAR will assure that Government personnel perform inspections required by this part of the handbook.

d. Exceptions to paragraph 2-503c above are those instances when the nature of the inspection or test would be detrimental to the item being inspected or the length of the test would make Government inspection prohibitive. In such instances, the Government may witness or observe the inspection being performed by the contractor. The act of witnessing an inspection will be performed only by personnel capable of performing the examination or test independently. It will be performed as follows:

(1) As the contractor performs the inspection, closely witness each examination or test.

(2) Independent of the contractor, read the measuring or test equipment to determine whether the item meets requirements.

(3) Observe whether the contractor records actual results of the test. A defect properly noted and recorded by the contractor's representative will not be recorded as a defect by the witnessing QAR. This does not prohibit records that the defect occurred.

e. The intensity of inspection in all instances, where the quality history of the product, processes, and contractor is not available, will be sufficient to determine that the product conforms to the contract. After such a history, as reflected in reliable and available quality data and other information, is developed, the intensity of inspection will be adjusted to a level necessary to maintain assurance that existing controls are adequate to maintain the necessary quality level. This adjustment will consider the requirements in paragraphs 2-502a, 2-502b, and 2-502c. The adequacy of contractor controls during manufacture is reflected in contractors records and other quality data including data concerning subcontractors. The adequacy of the contractors overall quality program and inspection system controls is reflected in Government data including user experience data.

2-504 INSPECTION OF OFF-THE-SHELF COMMERCIAL ITEMS

a. When contracts for Off-the-Shelf items (no Military Specification quoted) require inspection at source, and the supplies are procured from a jobber, wholesaler, authorized dealer, inspection may consist only of examination for type and kind, quantity, condition, operability, if readily determinable, and preservation, packaging, packing, and marking, if applicable.

b. When contracts for Off-the-Shelf items cite Military Specifications, inspection will consist of a review of test records, examination for type and kind, quantity, condition, operability, and preservation,

packaging, packing, and marking, if applicable. Do not ship until the contractor produces evidence of compliance with the contract.

2-505 ACCEPTANCE AND REJECTION

a. When the contractor is operating under a quality program or inspection system, and the program or system has not been disapproved and Corrective Action has been effective, acceptance will be based on evaluation of objective quality data including Government records.

b. When the contractor is operating under a quality program or inspection system, acceptance will not be effected if the program or system has been disapproved and the contractor has not initiated Corrective Action.

c. When a quality program or inspection system is not applicable, acceptance may be based on evaluation of reliable quality data.

d. When a quality program or inspection system is not applicable, rejection will be consistent with contract requirements.

e. Rejection of an item or lot may occur at any time during manufacturing, before further assembly operations are performed, if the QAR has not been assured through corrective action, of product conformance to contract requirements.

SECTION II

Part 6

Contractor Decision Verification

2-600 PURPOSE

To provide instructions to the QAR for performing Contractor Decision Verification (CDV).

2-601 CDV CONCEPT

a. During the manufacturing process, a contractor's inspector makes a decision every time a quality characteristic is evaluated. The effectiveness or defectiveness may be expressed as a process average in terms of a percent deficient obtained through the use of a sampling plan. The plan employed in this handbook requires a constant number of the contractor's decisions to be verified at certain time intervals to establish and maintain the process average. If the contractor's process average grows more deficient, verification is proportionately increased from an established minimum to an established maximum for that center. When the contractor's process average exceeds the maximum allowable percent defective, the system is unacceptable for the control center in which the defectiveness occurred.

b. The CDV procedure is primarily for the purpose of assuring that the contractor's quality program or inspection system satisfactorily controls the quality of the product. The contractor can control the quality of the product only at "in-process" inspection stations, including receiving and end item inspection, by evaluating specified quality characteristics in a systematic manner. The effectiveness of control then can be measured by evaluating the accuracy of decisions relative to these quality characteristics. A contractor's decision may be based upon a general characteristic, i.e., welds, solder joints. The QAR performs one observation each time a contractor's decision is verified regardless of the number of times a general characteristic may appear on the unit of product. The number of characteristics to be evaluated for adequate verification of the decision will be established by the OP. Where the probability of some defective characteristics always occurring exists, the decision as to how many defective characteristics will constitute a defective observation will be established in the OP. In the test area, CDV can only be applied where retest has been requested for benefit of the Government. Observations will not be made which require retests that might adversely affect the quality or service life of the product or if retest is prohibited by specification. In such instances, another observation will be selected at random.

c. Verification by statistical methods is based on the principle that if a constant sample size (n) is selected at random from an unknown universe, regardless of the lot size (N), the results obtained from a number of consecutive samples will give an acceptable estimate of the mean. It may be proven by laws of probability that it is the absolute size of a random sample that is of greater importance than its relative size to the lot. For inspection purposes, a constant sample size of 50 observations has been selected as the nominal value (n) to be used for evaluating contractor's decisions at in-process stations. If the contractor makes the correct decision 99 percent of the time, the quality control system is reasonably efficient and acceptable to the Government. This decision is based on the premise that no contractor's quality control system is perfect and makes no incorrect decisions.

d. The authenticity of the concept to select a constant sample of 50 observations at a predetermined frequency is contingent upon the random selection of contractor's stations and characteristics to be observed. A random sample is defined as "one that has as equal an opportunity of being selected as any other". At any time that it is necessary to select some number of contractor's stations to be checked in lieu of taking observations from all stations, the stations are to be numbered in numerical sequence and selected for observations using a table of random numbers. This same procedure will be applied to the selection of characteristics from contractor's inspection checklists. If characteristic checklists are not available in some instances, inspection records may be an acceptable substitute. When it is impossible or inadvisable to make an observation on the random number selected, the next number should be selected from the table. When minor characteristics are selected, the time expended would not be justified by the results obtained; therefore, such characteristics may be screened from the lists to be utilized for selected observations. It must be recognized, however, that wrong decisions relative to minor product characteristics are still indicative of the effectiveness of contractor inspection.

2-602 GENERAL

a. Application of this part requires identification of contractor inspection stations and establishment of Verification Stations and Product Control Centers (PCC).

b. PCC's are designed to separate the contractor's inspection activities into manageable increments. The contractor's total inspection activity must be evaluated to determine the Control Centers needed.

c. Uniformity between products or processes within a PCC is not essential, but it is highly desirable.

d. Implementation of CDV in a PCC is predicated upon the establishment of a satisfactory quality history in that particular PCC.

2-603 ESTABLISHMENT OF VERIFICATION STATIONS

a. Verification Stations are designed with two objectives in mind:

(1) To provide assurance that all important contractor inspection decisions have an equal opportunity of being selected at random for verification.

(2) To prevent excessive concentration of effort from being applied to a particular contractor's inspector or group of inspectors.

b. The number of Verification Stations does not have to match the number of contractor inspection stations.

c. Verification Stations are temporarily assigned consecutive numerical identifications throughout the facility prior to determining the number of control centers needed.

2-604 ESTABLISHMENT OF PRODUCT CONTROL CENTERS

a. Each PCC is established and managed independently.

b. Each should include three to nine Verification Stations except for technical data. The PCC will usually match a geographical area of the contractor's facility or a grouping of manufacturing processes.

c. One PCC may be assigned to Technical Data and Information when the workload is sufficient for continuous evaluation during preparation of the data. If the workload is small, control it as a part of a Verification Station.

2-605 SELECTION AND IDENTIFICATION OF DECISIONS

a. Product characteristics not selected for inspection during Product Verification Inspection are subject to CDV. Minor characteristics may be screened from the lists to be used for CDV when there is an adequate number of majors for selection under the CDV procedure. ✓

b. Where a contractor uses sampling and his sample is identified or segregated, observations will be selected from the contractor's sample. ✗

✓ c. Where a contractor uses sampling and his sample is not identified or segregated, characteristics will not be selected for inspection under CDV.

d. Where practicable, the contractor's inspection record will be stamped or initialed to identify the characteristics observed in conducting CDV.

2-606 PROCEDURE FOR PERFORMING CONTRACT DECISION VERIFICATION

a. Selection of Verification Stations. The QAR will select one half, but not less than three Verification Stations at random within each PCC for the application of this procedure, using a table of random numbers. When one or more stations remain unverified after three consecutive verification periods, such stations will be included for verification during the next scheduled period.

b. Selection of Observations

(1) To the extent possible, different products and characteristics of products within stations will be selected to accumulate the 50 observations. In all cases, these observations will relate to contractor quality decisions as reflected on his inspection checklists or records.

(2) The QAR will select 50 observations at random from the products available within the selected Verification Stations. Where different personnel skills are involved, more than one person may be involved. Where 50 observations are not available from the selected stations, the remaining stations within the control center will be utilized. The actual day selected for taking the sample will be varied so as not to establish a fixed pattern. At resident facilities, if 50 observations are not available within a 8-hour period, the verification will be continued into the next workday.

c. Procedure

(1) The QAR will begin at the first step except when the contractor's previous quality history indicates the ability to make quality decisions at a process average of one percent or less defective decisions.

(2) Before verifying selected decisions, the QAR will verify the applicable procedural characteristics for each type of product. This involves a determination as to the use of required tools, drawings and inspection criteria, and completeness of inspection records. Even though this general description contains many specific procedural types

of characteristics, they will be considered only as one observation and; therefore, would become defective observation if one or more defects were noted.

(3) Resident Facilities

(a) Step 1. Take a group of 50 observations daily in each PCC until five groups (250 observations) are made. If percent defective does not exceed 2.8 percent (seven or less defective observations per 250), proceed to Step 2. The process average is considered under control at one percent acceptable quality level (AQL) based on three standard deviations. If the total number of defective observations exceeds seven, initiate appropriate Correction Action and continue taking groups of 50 observations each day until five consecutive groups (250 observations) contain seven or less defective observations, then proceed to Step 2.

(b) Step 2. Take 50 observations at each PCC once within each period of seven calendar days.

(4) Nonresident Facilities

(a) Step 1. Take five groups of 50 observations (if that many are available) in each PCC during the first ten QAR workdays of production. If percent defective does not exceed 2.8 percent for 250 observations or does not exceed the percent defective for the total number of observations included in the five groups as shown in Figure II-6-1, proceed to Step 2. If the total number of defective observations permitted is exceeded, take appropriate action and continue taking groups of 50 observations until five consecutive groups do not exceed the percent defective in Figure II-6-1, then proceed to Step 2; any five consecutive groups of 50 observations must be taken within a 10 workday period.

(b) Step 2. Take 50 observations at each PCC once within each period of ten calendar days.

(5) In Step 2 where the percent defective for a group of characteristics exceeds 5.2 percent, and the cause is not traceable to a single contractor's inspector, an additional 50 observations will be taken within two working days at the same Verification Stations. If the percent defective of the first and second samples combined exceeds the process average in Figure II-6-1, the QAR will revert to Step 1 of this procedure. Variations about the process average, called standard deviation, allow for normal variation corresponding to the sample size. The above 5.2 percent for 50 observations or less is considered equivalent to three standard deviations above the standard one percent process average.

GUIDE FOR CORRECTIVE ACTION BASED ON CDV PROCESS AVERAGE

<u>NUMBER OF OBSERVATIONS</u>	<u>PROCESS AVERAGE (%)</u>
50	5.2
51- 74	4.8
75-100	4.2
101-124	3.8
125-149	3.6
150-199	3.3
200-249	3.0
250-299	2.8
300-349	2.7

FIGURE II-6-1

SECTION II

Part 7

Quality Data Evaluation

2-700 PURPOSE

To provide instructions to the QAR for collection, evaluation, and use of quality data.

2-701 QUALITY DATA EVALUATION COLLECTION SYSTEM

a. The QAR will establish and describe in the local Operating Procedures the system to be used in a particular plant for collection, evaluation, and use of quality data. The system will provide for the use of Contractor Quality Data, Government Procurement Quality Assurance Data, and User Experience Data.

b. The data required by contract to be developed by the contractor during manufacture and made available to the Government becomes a part of the Contractor Quality Data. Other data, when required to be made available to the Government by contract, such as analysis of data for prevention and correction of defects is also a part of the Contractor Quality Data.

c. Government records, which become a part of the Government Procurement Quality Assurance Data, will be maintained to reflect:

(1) The nature of Government procurement quality assurance actions, including, when appropriate, the number of observations made and the number and type of deficiencies.

(2) Decisions regarding the acceptability of the products, the processes, and the requirements, together with actions taken to correct deficiencies.

(3) Distribution of Government procurement quality assurance effort within the particular contractor's facility.

(4) The extent to which Government records corroborate contractor records.

d. The information received back from the recipient of material delivered from a contractor's plant becomes a part of the User Experience Data. This includes information from Government supply and maintenance activities in addition to actual users of the material. The information feedback from a prime contractor to a subcontractor whether through contractor or Government channels also becomes User Experience Data.

2-702 QUALITY DATA EVALUATION

The QAR will evaluate the quality data individually and collectively at locally established periodic intervals for the purposes of:

- a. Adjusting the intensity of application of appropriate parts of the procurement quality assurance in-plant function.
- b. Providing a basis for acceptance/shipment of products or services.
- c. Providing a basis for rejection of product or refusal to accept products or services.
- d. Providing a basis for disapproval of a contractor's inspection system or quality program.
- e. Providing a basis for disapproving a contractor's written procedure.
- f. Initiating investigation projects.
- g. Determining which method of Corrective Action to request of the contractor.
- h. Requesting assistance of appropriate staff Quality Assurance personnel.
- i. Notifying Contract Administration Offices and purchasing offices of current problems or lack of problems.
- j. Determining effectiveness of contractor's inspection operation.
- k. Providing a foundation for technical actions aimed at maintaining and making needed improvements in the quality characteristics of both current and future products by the technical activity.
- l. Providing a basis for upgrading methods and practices used by the contractor during manufacture and delivery of the item.
- m. Providing a basis for upgrading methods and practices for using the item when audit of the item or evaluation of customer complaint reveals improper use of equipment.

SECTION II

Part 8

Corrective Action

2-800 PURPOSE

To provide instructions to the QAR for Corrective Action.

2-801 GENERAL

a. Any breakdown in the contractor's quality program or inspection system requires action by the QAR to assure that product quality is not compromised. The extent of this action is dependent on the frequency and importance of the defect or deficiency. The contractor will be required to correct defects and deficiencies and eliminate the cause. The QAR must determine the effectiveness of this action. The QAR will determine the necessity for tighter control until assured that the contractor's corrective action is satisfactory.

b. The QAR will request the contractor to take corrective action when any deficiency is found while performing Procedures Review, Procedures Evaluation, Product Verification Inspection, and Contractor Decision Verification. The method or concurrent methods of Corrective Action selected will depend on the importance or criticality of the defect when found.

2-802 TYPES OF CORRECTIVE ACTION

Where Corrective Action on the part of the contractor is required, it will be requested by one or more of the following methods:

a. Method A. On-the-spot Corrective Action will be taken with the responsible contractor's personnel to eliminate the cause. The deficiency will be recorded and become a part of Government records. This method alone is not sufficient Corrective Action on deficiencies revealed through inspections imposed by purchasing offices.

b. Method B. A quality deficiency record will be initiated to notify the contractor in writing of the deficiencies found and the requirement for Corrective Action as to cause. This method is the minimum level of Corrective Action when deficiencies are revealed through inspections imposed by purchasing offices.

c. Method C. A letter will be forwarded by the QAR to the contractor's management requesting immediate correction of causes of observed deficiencies.

d. Method D. The QAR will recommend to the ACO that action be taken to notify the contractor that a serious quality problem exists at the facility and that immediate Corrective Action must be taken to comply with the provisions of the contract. When considered advisable by the QAR, the ACO will be requested to include in the notification a statement to the effect that acceptance of end-items is being withheld pending receipt and acceptance of the proposed Corrective Action. A request for assistance from the ACO will, as a minimum, contain the following: contractor's name and address, contract number, statement of the problem, history, and recommendations. Additional information, such as delivery schedule, should be supplied when appropriate. A copy of each recommendation to the ACO for method D Corrective Action will be forwarded to the CAO Chief of Quality Assurance.

e. Method E. Where a subcontract is involved, and the requirement for Corrective Action is of the magnitude of Method C or D, the QAR at the prime contractor's facility will be informed of the circumstances and requested to have the prime contractor take immediate action with subcontractor.

2-803 SPECIAL CONSIDERATIONS FOR CORRECTIVE ACTION

a. Method D Corrective Action may be requested when the contractor refuses to develop written procedures, if written procedures are required by contract.

b. The QAR will verify the contractor's indicated Corrective Action for Methods B, C, and D. For Method E Corrective Action, the QAR at the prime contractor's plant will advise the QAR at the subcontractor's plant of action requested by the prime contractor of the subcontractor. The Corrective Action taken by the subcontractor will be appropriately verified in accordance with Section IV, paragraph 4-102.

2-804 NOTIFICATION OF POTENTIAL DELAY IN DELIVERY

When the condition that caused the issuance of the Corrective Action Notice could result in a noncompliance with delivery schedules, the QAR will notify the Production element of the CAO. This notification to the Production element will include a copy of the quality deficiency record or letter issued to the contractor. Any other actions affecting delivery should be brought to the attention of the Production element of the CAO.

2-805 INVESTIGATION OF RECURRING DEFICIENCIES

a. Corrective Action, over and beyond that normally taken, may be initiated when recurring deficiencies are revealed through evaluation of quality data. When such action is taken, it will be known as an investigation project (IP). If the project involves skills beyond the

capability of assigned personnel, assistance should be requested through supervisory channels for movement of personnel between plants or organizational elements within a CAO.

b. The investigation project technique can be used between plants particularly when material is being delivered from one plant to another for installation.

SECTION III

Part 1

Authorizing Shipment of Supplies

Methods of Authorizing Shipment of Supplies

3-100 PURPOSE

To describe the types of methods authorized for releasing shipments of supplies from contractor's plant, and to provide guidance to the QAR relative to the use of these methods.

3-101 TYPES OF AUTHORIZATION FOR RELEASE OF SUPPLIES

a. Government. This type is used where it is necessary for the QAR to sign or stamp the papers accompanying each shipment from the contractor's or subcontractor's plant. This is the normal method of release of shipments.

b. Contractor. This type is used where it is unnecessary based on criteria established in Part 2 of this Section, for the QAR to sign or stamp the papers accompanying each shipment from the contractor's or subcontractor's plant. This method is referred to as "Alternative Procedures". Under this procedure the contractor assumes the responsibility for release for shipment of supplies inspected by the Government at the prime contractor's or subcontractor's plant.

c. Unauthorized. Normally contracts assigned for administration establish inspection as one of the conditions for the release of shipments. In the event that a contractor ships material without inspection or authorization, the QAR will immediately notify, in writing, the CAO and receiving activity(ies).

SECTION III

Part 2

Alternative Procedures--Contractor Release of Shipment

3-200 PURPOSE

To establish uniform procedures for authorizing contractors to release supplies for shipment.

3-201 GENERAL

a. Alternative Procedures:

(1) Are not intended to relieve the QAR from any of the responsibilities in performance of procurement quality assurance actions and are not intended to become another form of Certificate of Conformance or Fast Pay procedures. It will never be used as the sole basis for acceptance and in lieu of performing procurement quality actions.

(2) Are appropriate when the signing and stamping of the documentation authorizing shipment of an item or equipment, that has previously been inspected in accordance with a planned quality program, can place an unreasonable demand upon a QAR's time.

(3) Will not be authorized on shipments against NASA contracts and orders.

(4) May be authorized on a commodity or contract basis.

(5) Can be authorized at resident or nonresident scheduled facilities.

b. The authorization of Alternative Procedures releases Government manpower for technical functions by eliminating routine signing and stamping of papers authorizing each shipment. The procedure requires a contractor to place the statement in paragraphs 3.202(b) or 3.202(c), as appropriate, on these papers in accordance with ASPR, Appendix I. This statement is essentially a notice to the receiving activity that the supplies have been Government inspected and released under cognizance of the QAR.

3-202 CRITERIA FOR AUTHORIZING ALTERNATIVE PROCEDURES

a. The QAR will recommend to the Director or Chief of Quality Assurance that the contractor be permitted to release shipments when all of the following conditions occur:

(1) The signing or stamping of papers by the QAR impair the operation of a planned Procurement Quality Assurance Program or places an unreasonable demand on the QAR's time.

(2) There is sufficient continuity of production to permit a systematic and continuing Government evaluation of the contractor's control of quality.

(3) The contractor has a record of satisfactory product quality, including quality pertaining to preparation of shipment.

b. When the contractor is permitted to release shipments, the authorization will be in writing from the CAO. The authorization will require the contractor to type or stamp and sign the following statement on papers authorizing shipments in accordance with instructions in ASPR, Appendix I:

"The supplies comprising this shipment have been subjected to and have passed all examinations and tests required by the contract, were shipped in accordance with authorized shipping instructions, and conform to the quality, identity and condition called for in contractual requirements and to the quantity shown on this document. This shipment was released in accordance with paragraph 14-409 of the Armed Services Procurement Regulation for Authorizing Shipment of Supplies under authorization of (Name and Title of the authorized representative of the Contract Administration Office) in a letter (Date of authorizing letter).

(Signature and Title of Contractor's designated representative)"

c. When the contractor is permitted to release shipments of fuel on petroleum terminal service contracts, the authorization will be in writing. The authorization will require the contractor to type or stamp and sign the following statement on papers authorizing shipments in accordance with instructions in ASPR Appendix I.

"I certify that the above supplies were (a) in the quantity indicated, (b) taken from Government-owned and approved stocks, and (c) loaded into inspected and approved containers. This shipment was released in accordance with paragraph 14-503 of the Armed Services Procurement Regulation under authorization of (Name and Title of the authorized representative of the Contract Administration Office) in a letter dated (Date of authorizing letter).

(Signature and Title of Contractor's designated Representative)."

d. In addition to the above, the CAO's written authorization will advise the contractor as to the intent and purpose of the procedure and the responsibility for performance of all required inspections and tests.

3-203 WITHDRAWAL OF AUTHORITY FOR ALTERNATIVE PROCEDURES -- CONTRACTOR
RELEASE OF SHIPMENT

When there is an indication that conditions in paragraph 3-202.a no longer prevail, the QAR will recommend to the CAO that the contractor be advised that authority to release shipments is withdrawn. The notification to the contractor will be expeditious and in writing.

SECTION III

Part 3

Certification of Conformance (CoC)

3-300 PURPOSE

To provide information and guidance to the QAR regarding the use of CoC as an element incident to acceptance of supplies for the Government.

3-301 GENERAL

a. A contractor's CoC to contract requirements will only be requested when provided for in the contract. The contract may provide for a CoC to be used as the sole basis for acceptance by the purchasing office or as an element incident to acceptance by the ACO.

b. The purchasing office is permitted to authorize CoC as the sole basis for acceptance where:

(1) Small losses would be incurred in the event of defects.

(2) Knowledge of the contractor's reputation or past performance provides assurance that the material would be replaced without contest. Where the contract authorized CoC as the sole basis for acceptance, the Quality Assurance element of the CAO will not subject the contract to procurement quality assurance actions. The responsibility for notification of defects disclosed rests with the receiving activity.

c. The contract may authorize the CAO to use a CoC as an element incident to acceptance when the value of supplies or condition of the purchase, delivery, receipt, or use thereof makes it desirable to have additional assurance that the material conforms to contract requirements. The QAR and QAR supervisor will give due consideration to utilization of this technique.

3-302 CRITERIA FOR APPLICATION OF CoC

a. The QAR will determine if CoC should be used as an element incident to acceptance in contracts that authorize it as such. In making this determination, the following criteria will be considered:

(1) Nature of the supplies and intended use.

(2) Administrative cost associated with the accomplishment of required Procurement Quality Assurance actions versus the potential risk in the event of defective material.

(3) Knowledge or experience with the contractor.

b. When the QAR has determined that it would be advantageous to utilize the CoC technique, the contractor will be notified and instructed to utilize the procedures specified in the contract.

c. In addition to the above, when the QAR authorizes CoC for use and the authorized material is to be shipped to a contract destination directly from the subcontractor's plant, the contractor will be instructed to furnish the subcontractor sufficient signed copies of the CoC for attachment to each copy of the document authorizing shipment.

SECTION IV

Government Procurement Quality Assurance Actions at Subcontract Level

4-100 PURPOSE

To provide instruction to the QAR relative to the contractor's and Government's responsibilities for the control of subcontracted supplies and services.

4-101 GENERAL

Controlling the quality of purchased supplies is the contractor's responsibility. The contractor must exercise or cause to be exercised the same degree of control over supplies that are purchased as over supplies that are manufactured. Government procurement quality assurance actions at the subcontract level do not relieve the contractor of any responsibilities under the contract and do not establish any contractual relationship between the Government and the subcontractor. Such actions are performed for convenience of the Government, and to assist the CAO for the prime contract in determining that the prime contractor is assuring conformance of subcontracted supplies or services with contract requirements. The overall Government objective is to decrease procurement quality assurance actions at subcontract facilities to a minimum consistent with evidenced control on part of the contractor.

4-102 CONDITIONS FOR PROCUREMENT QUALITY ASSURANCE ACTIONS AT SUBCONTRACT LEVEL

a. General. In furtherance of the DoD policy of contractor responsibility and objective of reducing controls over industry, a careful review of all factors will be undertaken prior to requesting procurement quality assurance actions at source. When a decision has been made to request such support, requests should be precise in stating the degree of support required and the length of time it should be exercised.

b. Direct Shipment Requirements. When the subcontracted item is to be shipped directly from the subcontractor's plant to a Government activity, performance of Government procurement quality assurance actions at source will be requested. To the extent that information is available to the QAR at the prime contractor's plant, guidance should be provided to the QAR at the subcontractor's plant concerning specific characteristics, processes or procedures to be verified; tests to be witnessed; or records, reports and certificates to be evaluated. Where such information is not available in a timely manner, the QAR at the subcontractor's plant will be requested to apply the appropriate parts of the Procurement Quality Assurance Program.

c. Contractual or Purchasing Office Requirements. When either of the following conditions exist, some degree of Government quality assurance actions will be required at the subcontractor's plant, even though the item is to be shipped to the prime contractor for further processing or incorporation into an end item to be delivered to the Government:

(1) The contract specifies that a certain inspection is to be made by the Government and such inspection can only be made at the subcontractor's plant.

(2) A letter of instruction imposed upon the CAO by a purchasing office requires the inspection of certain characteristics and such inspection can only be made at the subcontractor's plant.

The request for quality assurance actions at the subcontractor's plant under these conditions should ordinarily be limited to those actions which have been imposed upon the QAR at the prime contractor's plant by contract or letter of instruction. However, there may be cases where the application of additional portions of the program may be considered necessary and such support should be requested.

d. QAR Imposed Requirements. As part of the overall Procurement Quality Assurance Program, it may be desirable to request selected Government procurement quality assurance actions at the subcontractor's plant, even though the material will later be further processed or incorporated into a contract end item, under the following conditions:

(1) Performance of such actions at any other point would require uneconomical disassembly or destructive testing.

(2) Considerable loss to the Government would result from the manufacture and shipment of unacceptable supplies or from the delay in making necessary corrections.

(3) Performance of such actions at any other point would destroy or require the replacement of costly special packing and packaging.

In making a determination to request such support, full consideration should be given to the availability of reliable objective evidence available from the subcontractor via the contractor; the contractor through on-site inspections at the subcontractor's plant, previous subcontractor quality history as indicated in the contractor's records for similar items, the QAR at the subcontractor's plant through telephone or letter contact. The availability and reliability of this information

should be evaluated as well as the cost to the Government of providing the required support; the criticality of the product end use; and the criticality of the characteristics for which quality can be assured only at the subcontractor's plant. Based on this evaluation, a determination will be made as to whether or not Government procurement quality assurance actions at source will be requested. If support is to be requested, such support should ordinarily be limited to a selective evaluation for only as long a period of time as is necessary to establish confidence in the reliability of the results of this subcontractor's product quality and the objective quality evidence. Requests for selective evaluation will indicate Government procurement quality assurance actions to be performed, e.g., specific characteristics, processes and procedures to be verified, reports and certificates to be evaluated. Requests will further indicate the length of time that the actions will be performed, e.g., first article, first ten times; first article and each 50th thereafter; for duration of subcontract. Where design control rests with the subcontractor, the selection of services to be provided may be left up to the QAR at the subcontractor's plant and so stated on the request.

4-103 COMMUNICATIONS

a. Communications between offices concerning Government procurement quality assurance actions at subcontractor's plants will normally be through Government channels.

b. CAOs may utilize the procedures permitted by MIL-I-45208, paragraphs 3.11.1 and 3.11.2 and MIL-Q-9858A, paragraph 7.1 to request performance of procurement quality assurance actions at subcontractor's plants. All elements will honor such requests and will institute appropriate portions of the program when specific services are not requested. Requests from any source which appear to be unnecessary will be challenged. However, services and shipments will not be delayed pending reply.

c. When Government procurement quality assurance actions are required, the QAR will assure that the contractor adds to subcontracts the following statement:

"Government inspection is required prior to shipment from your plant. Upon receipt of this order, promptly notify the Government representative who normally services your plant so that appropriate planning for Government inspection can be accomplished. In the event the representative or office cannot be located, our purchasing agent should be notified immediately."

d. When the decision to request Government procurement quality assurance actions at subcontract level is made after the subcontract is released, the contractor will be requested to amend the subcontract to include the clause above.

e. A prime contractor's production control function may be located in a CAO different from the CAO cognizant of the contractor's prime administering function or his manufacturing operation. The CAO cognizant of the contractor's production control function may be the only Government activity in a position to know where manufacturing for a particular contract item is to be performed. The responsibility rests with this CAO for requesting procurement quality assurance support, when required, from the CAO cognizant of the manufacturing point. Responsibility rests with the CAO cognizant of the prime contractor administration point to provide a copy of the contract to the CAO cognizant of the contractor production control function.

4-104 DOCUMENTATION

In addition to the normal documentation of procurement quality assurance actions, ASPR, Appendix I, Part 2, paragraph I-201, requires the Government representative to sign the contractor's shipping documents following completion of procurement quality assurance actions at subcontract level.

SECTION V

Automatic Delegation of Quality Assurance Responsibilities

5-100 PURPOSE

To provide instruction to the QAR for implementing the concept of automatic delegation of quality assurance responsibilities.

5-101 BACKGROUND

DoD 4105.59-H, DoD Directory of Contract Administration Services Components, requires a standard distribution of six copies of each contract to the CAO cognizant of a prime contractor's administering activity except for retained contracts. The Directory also requires two extra copies of the contract to be forwarded to each manufacturing location shown in the contract (outside the prime CAO).

5-102 GENERAL

a. The above procedure applies at both prime and subcontractor's manufacturing locations.

b. The quality assurance element of the CAO cognizant of the prime contractor's location does not normally have any immediate responsibility for the subcontract unless manufacturing is performed under the cognizance of the prime CAO.

c. The quality assurance element at each manufacturing location shown on the contract will automatically assume responsibility for Government procurement quality assurance upon receipt of the contract.

5-103 PROCEDURES

a. Upon receipt of the contract, the QAR will plan the quality assurance program in accordance with procedures in this handbook and the contract requirements.

b. The subcontractor's purchase order, in-plant work order, etc., will be reviewed to determine if there is a difference in quality requirements in the prime contractor's purchase document and the contract.

c. Difference in the quality requirement will be brought to the attention of the manufacturer for information.

d. Differences between the contract and prime contractor's purchase document will be brought to the attention of the CAO cognizant of the prime contractor for any correction of quality requirement in the prime contractor's purchase document.

e. Inspection/acceptance will be in accordance with the contract requirements rather than subcontract requirements.

SECTION VI

Part 1

Nonconforming Supplies

6-100 SCOPE

These procedures apply to CAO personnel and are applicable to all DoD contracts unless prohibited by contract or letter of instructions. When MIL-STD-480 and MIL-STD-481 are contractually authorized, they supersede the procedures in Part 2 of the Section.

6-101 PURPOSE

To provide procedures for processing nonconforming supplies to the Government.

6-102 GENERAL

a. Contracts establish technical requirements for the quality of supplies through reference to plans, drawings, specifications or purchase descriptions. Supplies containing departures from such requirements are termed nonconforming supplies. In the manufacture of supplies for sale to the Government, contractors may establish dimensions, tolerances, (e.g., to accommodate gage wear), test limits, process controls or other controls which are either more stringent than required by contract or are not specifically covered by contract. Departures from such contractor imposed more stringent requirements which still are within contract requirements do not cause the supplies to be nonconforming. Departures from contractor imposed requirements which are not specifically covered by contract must be judged individually on the basis of the effect, if any, on contract requirements for the quality of supplies. Such departures may or may not cause the supplies to be nonconforming. ✓

b. Final decisions regarding acceptance of nonconforming supplies are solely the prerogative of the Government.

c. The act of offering nonconforming supplies to the Government should be an exception.

d. The act of consistently offering nonconforming supplies to the Government indicates:

(1) A degradation in the contractor's control over product quality.

(2) A deficiency in contract technical requirements.

e. Repeated tender of nonconforming supplies or services, including those with only minor defects, should be discouraged by appropriate action such as rejecting the supplies or services whenever feasible and documenting the contractor's performance record.

6-103 DOCUMENTATION OF CONTRACT FILES

a. On DoD procurements, QARs will provide the Contract Administration element of the cognizant CAO a copy of each approved Material Review Board (MRB) and Waiver action which involve acceptance of minor (Type II) nonconformance and Government representative estimates that the contractor saved \$50.00 or more in producing the nonconforming supplies or performing the nonconforming services. On non-ACO assigned contracts, the approved actions will be provided to the PCO.

b. In the case of minor (Type II) nonconformances, the contract normally will not be modified except when the CAO estimates that the contractor saved \$50.00 or more in producing the nonconforming supplies or performing the nonconforming services.

6-104 COMMUNICATION

a. The ACO is responsible for coordination with the purchasing office in ACO assigned contracts.

b. Quality Assurance personnel will communicate with the purchasing office in accordance with locally established procedures on non-ACO assigned contracts.

6-105 IDENTIFICATION OF NONCONFORMING SUPPLIES

✓ a. Nonconforming supplies and services will be identified as Type I (affecting major areas) or Type II (minor and not affecting any of the major areas) according to criteria contained in the Glossary.

b. When one or more departures exist on a single item, each departure is evaluated and identified. If major nonconformances exist on the same item, the nonconforming supplies will be identified as Type I.

c. When minor nonconformances exist on a single item, consideration should be given whether the accumulative aspects of these nonconformances should, in reality, be considered as major.

d. When the QAR is uncertain as to the proper identification for the nonconforming supplies, it must be considered major until positive determination is reached through consultation with cognizant technical or contract personnel of either the CAO or the purchasing office, as appropriate.

6-106 AUTHORITY FOR ACCEPTANCE OF NONCONFORMING SUPPLIES

a. Major Nonconformance

(1) On DoD procurements, authority for acceptance of supplies and services which affect one or more of the major areas, is vested in the Procuring Contracting Officer (PCO) based upon information furnished by the contractor and comments provided by the CAO. Generally, the CAO information will be provided in writing except for urgent situations where it may be furnished orally and confirmed in writing.

(2) On NASA procurements, authority for acceptance of major nonconforming supplies and services is retained by the NASA PCO. Acceptance of such supplies and services requires approval of the PCO or the COR when delegated.

b. Minor Nonconformance

(1) On DoD procurements, authority for acceptance of minor nonconforming supplies and services is automatically vested in the CAO except when the authority for such acceptance is specifically withheld in writing by the PCO.

(2) On NASA procurements, the Materials Review Board (MRB) procedures may be implemented when establishment of MRB is contractually authorized and the CAO is delegated MRB authority. The scope of CAO MRB authority is limited to that set forth in the letter of delegation. Normally, it is to determine or recommend disposition of the nonconforming supplies. It may, however, involve acceptance authority in some instances. Acceptance of such supplies when MRB is authorized does not require contract modification unless determined otherwise by the cognizant NASA PCO or COR.

6-107 METHOD FOR REQUESTING ACCEPTANCE OF NONCONFORMING SUPPLIES

a. On DoD procurements the methods of acceptance are:

(1) Submission of the nonconforming material to the local MRB for onsite review, disposition, or acceptance if determined to be in the best interest of the Government.

(2) Contractor submission of a formal Request for Waiver to the QAR CAO for onsite evaluation and acceptance or processing the request to the purchasing office through ACO channels with appropriate approval/disapproval recommendations.

b. On NASA procurements the methods of acceptance are:

(1) Through the local MRB. In the MRB action, the board determines or recommends the disposition of the nonconforming supplies or services referred to it. If disposition is not within the authority of the MRB, it is forwarded to the cognizant NASA PCO for approval/disapproval. When NPC 200-3 is invoked without MRB authority, the Request for Waiver procedures may be utilized by the contractor for submission to the PCO or COR. When such actions are taken by the contractor pertinent QAR comments should be provided.

(2) Through formal Request for Waiver. The procedures for processing such requests are contained in Part 2 of this section.

SECTION VI

Part 2

Request for Waiver

6-200 PURPOSE

To provide guidance on preparation and processing of a Request for Waiver. These procedures are applicable on DoD and NASA contracts unless otherwise specified.

6-201 CONTRACTOR'S REQUEST FOR WAIVER

a. DoD Procurements

(1) The contractor may elect to submit a Request for Waiver to the CAO or purchasing office, as appropriate, when the purchasing office has withheld authority for acceptance of the minor nonconformances, the nonconformance affects one or more of the major areas and determined to be major, or the nonconformance is minor, but a materials review procedure has not been established.

(2) It is the contractor's prerogative to submit Requests for Waiver and the QAR must never refuse to process the request. For example, contractor may desire to resubmit nonconforming supplies which have been rejected by a MRB or determined by a MRB to exceed the Board's acceptance prerogative. However, pertinent comments or recommendations to the request should be provided by the QAR.

b. Government Request. In unusual circumstances and under certain type contracts such as Cost Plus Fixed Fee (CPFF), it may be to the Government's benefit to consider acceptance of nonconforming supplies that have been produced and the contractor has not elected to submit a Request for Waiver for their acceptance. For example, if the raw material is Government-furnished and is highly expensive, such as silver or gold, and the contract is CPFF, the contractor may not submit a request for acceptance of the nonconforming supplies since he has no incentive to do so. In such cases the QAR will notify the ACO and request appropriate instructions in writing.

c. NASA Procurements. The Request for Waiver procedures may be utilized by the contractor for submission to the NASA PCO or COR when NPC 200-3 is invoked without MRB authority. When such actions are taken by the contractor, pertinent QAR comments should be provided.

6-202 PREPARATION OF A REQUEST FOR WAIVER

A request for acceptance of nonconforming supplies or services is prepared by the contractor or subcontractor on his own form or letterhead, unless specific forms are designated by contract. A subcontractor initiated Request for Waiver must be thoroughly evaluated by the prime contractor and supported by documented evidence. Only authorized prime contractor personnel are permitted to formally submit the Request for Waiver to the QAR. A Request for Waiver, when other instructions have not been received from the purchasing office, should include the following information:

- a. Name and address of contractor.
- b. A Request for Waiver number. This is a serial number starting with (1) on each contract preceded by contract number, e.g., 56824-1.
- c. Complete identification information, such as contract number and type of contract (CPFF, Fixed Price (FP)); part name and number including revision data, specification number including revision data; lot, model or serial numbers.
- d. Quantity of nonconforming items.
- e. Details of each deficiency with respect to technical requirements, including statement of the effect on minor areas of consideration. Recurrency data for each deficiency also will be provided. Marked up drawings should be included, if necessary.
- f. Reason for submission of request.
- g. Proposed corrective action taken to prevent recurrence, including effective date or serial number of equipment. If prevention is impossible, state why.
- h. Reduction in price.
- i. Signature and title of authorized contractor representative.

6-203 PROCESSING OF REQUESTS FOR WAIVER

a. Upon receipt of completed Requests for Waiver from a contractor the QAR will:

- (1) Assure the nonconforming supplies have been properly identified and segregated.
- (2) Review the Request for Waiver to assure all prescribed information is provided.

(3) Verify the adequacy and accuracy of information and assure that nonconformances are not misidentified as affecting minor considerations when major areas are actually affected. QARs should be alert for a series of minor nonconformances which could have the effect of creating a major nonconformance.

(4) Assure that reported corrective action has been taken to correct and prevent recurrence of conditions causing the nonconformance. Where recurrency data on the Request for Waiver indicates a high degree of repetitiveness for specific deficiencies, the ACO will be notified.

(5) Assure that sufficient copies of the Request for Waiver have been provided to satisfy CAO or purchasing office distribution requirements. These requirements vary significantly between contracts, PCOs, and Military Services and their subordinate elements. Accordingly, if not provided by contract or letter instructions from the Purchasing Office, QARs will request distribution requirements from the cognizant ACO on a contract-by-contract basis.

b. Processing of Requests for Waiver when Approval not Withheld. When the contractor has not established materials review procedure for disposing of minor nonconformances, the Request for Waiver will be referred to the CAO in accordance with paragraph 6-302b for appropriate action. Referral of the Government approved Request for Waiver to the ACO for contract modification normally is not required except when the Government representative estimates that the contractor saved \$50.00 or more in producing the nonconforming supplies or performing the nonconforming services.

c. Processing of Requests for Waiver when Approval is Withheld. In addition to requirements in paragraph 6-203a above, the QAR will:

(1) Provide reasons for recommending acceptance or rejection of the supplies or services.

(2) If acceptance is recommended, furnish particulars concerning appropriateness of contractor's adjustment (if known).

d. Requests for Waiver received by the QAR will be processed expeditiously and the QAR will maintain a file of such requests. Where purchasing office approval is required, the nonconforming materials covered by an impending request are to be held in abeyance until final disposition is received from the ACO.

e. When approval of the purchasing activity is required and contractor processes a request for acceptance of nonconforming supplies on DD Form 1694, Request for Deviation/Waiver, the QAR will sign Block 26 of the form and transmit same to the ACO with supporting data.

6-204 EXPEDITIOUS APPROVALS OF REQUEST(S) FOR WAIVER

a. When the contractor requests expediting of a Request for Waiver and when the situation requires immediate action to be in the best interest of the Government, the QAR is authorized to handle the Request for Waiver by telephone to be confirmed by teletype or letter. When such approval is furnished it will be acknowledged only when provided through CAO and purchasing office channels. The QAR will obtain the name of the individual and activity authorizing the approval, and will request written confirmation of Request for Waiver disposition. The QAR will, in addition, document the information provided, furnish copies to the appropriate ACO and will maintain followup until confirmation is received by TWX or letter.

b. The foregoing procedures also may be used to expedite minor Requests for Waiver when the purchasing office retains acceptance authority for such nonconformances. PCO approvals of these minor-type nonconformances normally do not require contract modification, and annotations on acceptance document are not required, except for NASA work, when NPC 200-3 is invoked and no MRB is authorized.

SECTION VI

Part 3

Material(s) Review

6-300 SCOPE

The procedures in this part are applicable to DoD and NASA contracts, unless otherwise specified.

6-301 EXCEPTIONS TO MATERIAL REVIEW BOARD PROCEDURES

Excluded from these procedures is material rendered obsolete due to design changes or material which has been altered or substituted as a result of planned engineering changes, industrial standard drawing changes, or Government specification changes. (For DoD use only.)

6-302 PROVISIONS FOR USE OF MRB

a. On DoD procurements, MRB procedures will be established and implemented when considered to be in the best interest of the Government and when authority for acceptance of minor nonconforming supplies is not withheld; the contractor establishes and agrees to comply with the written MRB procedures; and contractor provides adequate engineering capabilities and personnel who are fully knowledgeable of product technical requirements to participate in making MRB decisions.

b. On NASA procurements, MRB procedures may be implemented when contractually authorized. In all cases, the CAO must be delegated MRB authority. All nonconforming supplies, except those designed for scrap, or returned for rework to drawings or completion of operations, require MRB action. When MRB authority is delegated, it is limited to Type II nonconformances and may be implemented only when the following conditions exist:

(1) The contractor agrees to comply with the established Government approved procedures.

(2) The contractor provides adequate engineering capabilities, who are fully knowledgeable of and have access to the product technical requirements, to participate in making MRB decisions.

c. On Type I nonconformances for NASA procurements, contractor's request for approval transmitting the MRB evaluation and recommendations will be directed to the NASA PCO. Acceptance of such supplies requires appropriate contract modification.

6-303 ESTABLISHMENT AND COMPOSITION OF MATERIAL REVIEW BOARD

a. One or more MRBs may be established as demanded by the volume and diversity of work operations.

b. Each MRB will be composed of the following principal members:

(1) A qualified representative of the contractor's quality control department, subject to the concurrence of the Government representative.

(2) A qualified representative of the contractor's engineering department, subject to the concurrence of the Government representative.

(3) A Government representative, normally the QAR or a designee.

c. MRB members may call upon other Government or contractor personnel for advice. These advisory personnel will have no vote in the MRB proceedings.

6-304 RESPONSIBILITIES OF MATERIAL REVIEW BOARD.

The responsibilities of the MRB are to:

a. Review nonconforming material produced under applicable contracts, identify the causes of nonconformance and assure followup action and accomplishment of corrective measures by the contractor for the purpose of preventing recurrence of the nonconformance.

b. Evaluate nonconformances and determine the appropriate disposition of the nonconforming material and direct appropriate action to effect the board's disposition.

c. Assure conformance to the established documented procedures for materials review activity. (Procedures must be approved for NASA procurements.)

d. Assure that adequate records of all material review actions are maintained and used by MRB and responsible contractor management personnel for the purpose of determining progress in correcting conditions causing discrepant parts and that these records are made available to the responsible Government representative upon request.

e. Determine the advisability of contractor submitting a request for an engineering change where apparent unrealistic technical requirements are causing the nonconforming material.

6-305 MATERIAL REVIEW BOARD PROCEDURES

a. When material is found to depart from technical requirements, it will be properly identified and, where possible, removed from the normal production and inspection channels.

b. Unless otherwise indicated by the MRB, qualified contractor personnel will initially review the material deficiencies and where disposition is to scrap or complete work omissions, initiate the required action without referral to the MRB. (Where the contract requires prior NASA approval to scrap material, contractor is denied privilege to scrap without referral to the MRB.)

c. When disposition in paragraph 6-305b above is not effected, the nonconforming supplies will be identified to indicate that they were subjected to initial MRB procedures. The reason for the nonconformance and all related actions taken with respect to the supplies will then be recorded on a suitable contractor material review record (approved by the MRB) which will include the following information and will be attached to the materials:

(1) Name and address of contractor.

(2) Contract number and subcontract number if applicable. On DoD procurements, contract number normally is not required on the MRB record except when Government representative estimates that the contractor saved \$50.00 or more in producing the nonconforming supplies or performing the nonconforming services.

(3) Complete identification data, such as part or drawing number, part name, model or serial numbers if applicable, specification number if applicable.

(4) Type of nonconformance.

(5) Quantity of nonconforming items.

(6) Description of the nonconformance.

(7) Corrective action to prevent recurrence.

(8) Recommended Disposition (use as is, repair/rework, scrap).

(9) Signatures and dates of contractor's quality control and engineering representatives and Government member.

d. If supplies are subsequently accepted, the material review record is to remain with the materials until all MRB actions are completed insofar as practicable. (MRB actions on NASA work will be

traceable to the specific articles.) On DoD procurements referral of the Government approved MRB record to the ACO for contract modification normally is not required except when the Government representative estimates that the contractor saved \$50.00 or more in producing the nonconforming supplies or performing the nonconforming services.

e. Notwithstanding any prior requirement for contractor identification of the nonconforming supplies on NASA procurements, the NASA "Nonconformance Stamp" will also be affixed to the nonconforming material or record, as applicable.

6-306 MATERIAL REVIEW BOARD FUNCTIONS

a. The board should function as a unit; however, it is not mandatory for the members of the MRB to convene at the same time to review the submitted material. When previously established and approved repair and rework criteria are available, the MRB may use such criteria for subsequent dispositions. MRB actions predicated on valid engineering decisions approving a discrepancy will not be used as a justification for acceptance of recurring discrepancies. Where criteria are not available, the contractor's engineering and quality control representative will conduct research and provide fully documented analysis to support the recommended disposition of the material. Contractor recommendations will be considered in determining whether:

(1) Material is acceptable for "use as is".

(2) On DoD procurements, the departure is of such a nature, affecting one or more major areas, that it should be identified as Type I and processed under Type I, Request for Waiver, procedures set forth in Part 2 of this section.

(3) On NASA procurement, the departure is of such a nature, affecting one or more major areas, that it should be identified as Type I and processed under Type I MRB procedures specified in paragraph 6-302c.

(4) A suitable method of repair or rework which will permit the item to satisfactorily perform as originally intended, provided the considerations set forth in paragraphs 6-306(2) and (3) above are not violated.

(5) Scrapping of material is required.

b. The contractor's engineer will provide such details of the engineering analysis, resulting from paragraph 6-306a above to other board members and will annotate recommendations for disposition of the item on the material review record.

c. Rejection can be made by any member of the MRB without the concurrence of all members. Any disagreement between contractor MRB members must be resolved prior to submission for Government approval. In any event the Government member will have final authority to accept or reject contractor's proposed disposition.

d. Notwithstanding the existence of approved repair procedures or other previously established acceptance criteria, the contractor is responsible for taking appropriate action to investigate causes of nonconforming material and to prevent recurrence. The promptness of the corrective action taken by the contractor, the number of items involved and the frequency of the recurrence will be considered by the MRB in making decisions regarding acceptance of recurring discrepancies referred to the MRB.

e. If, in the opinion of the Government representative, the volume of parts requiring MRB actions becomes excessive, he will request the contractor to take immediate action to correct the conditions leading to the production of the nonconforming material.

f. MRB privileges may be withheld or withdrawn by the Government representative or the CAO if the contractor fails to take adequate corrective measures to prevent recurrence of discrepancies or for other causes.

6-307 DISPOSITION OF NONCONFORMING SUPPLIES BY MATERIAL REVIEW BOARD

The MRB will authorize the following dispositions:

a. Scrap Material. Material to be scrapped will be positively segregated and identified in such a manner as to preclude the possibility of its use on any Government contract. Disposal of such material is at the discretion of the contractor unless the contract terms specify that it be handled otherwise.

b. Reworked/Repaired Material. Material that can be made acceptable by rework or repaired according to the MRB approved procedures. The board will indicate whether the items, after repair or rework, are to be resubmitted to the MRB or processed through normal inspection channels. Material that has been satisfactorily reworked, reinspected and accepted will thereafter be considered as normal material.

c. "Use As Is" Material. Material which is identified as containing minor departures and completely usable without rework or repair may be accepted as "use as is" with the concurrence of all MRB members. This material will be processed the same as normal material.

6-308 USE OF SUBCONTRACTOR MATERIAL REVIEW BOARDS

a. On DoD procurements, it is the policy of the DoD not to establish MRBs at subcontractors' plants. In exceptional cases, the prime contractor Government representative may, at the request of the prime contractor, authorize the establishment of MRB at the subcontractor plant when such action is considered advantageous and when the following exists:

- (1) The subcontractor agrees to comply with established MRB procedures.
- (2) The composition of the subcontractor MRB complies with paragraph 6-303b.
- (3) The subcontracted supplies require Government procurement quality assurance actions at source.

b. When the Government subcontractor MRB member involved with acceptance of minor nonconformances estimates that the subcontractor saved \$50.00 or more in producing the nonconforming supplies or performing the nonconforming services, the Government member will refer the approved MRB record to the prime contractor Government representative for referral to the ACO. When supporting administration is requested and an ACO is assigned, the Government subcontractor MRB member will refer the approved MRB record to the assigned ACO.

c. Consistent with DoD policy, procurement quality assurance actions should not be requested for the singular purpose of providing Government participation in MRB actions at subcontractors level. Where MRB is not authorized at subcontractor level, the subcontractor's request for acceptance will be processed to the prime contractor for MRB action at prime contractor level. The prime contractor is responsible for validating the information on subcontractor's request.

d. On NASA procurements, it is the policy of the DoD not to establish MRBs at subcontractor's plant. However, MRBs may be established at subcontractor's plant when the prime contractor authorizes MRB authority, and the QAR at the prime contractor's plant concurs. The QAR may, in some instances, provide a Government representative on the MRB. In most cases, he will redelegate this authority when authorized by letter of delegation, unless specifically retained by NASA, and if the following exists:

- (1) The subcontractor agrees to comply with his established procedures.
- (2) The composition of the subcontractor MRB complies with paragraph 6-303b.

6-309 MATERIAL REVIEW BOARD ACTIVITY DURING IRREGULAR HOURS

a. On DoD procurements, there may be occasions when urgency of requirements necessitate materials review action during hours when Government personnel are not available. When this situation occurs, the contractor's MRB members may be permitted to effect preliminary dispositions on the material review record subject to postconcurrence action by the Government board member at the earliest practical time. Contractors are to be advised that preceding actions are at his own risk and that the nonconforming supplies are to be identified in such a manner as to be traceable.

b. Materials processed in accordance with paragraph 6-309a above are not to be shipped from contractor's facility until the Government board member indicates the disposition on the material(s) review record.

SECTION VII

Engineering Changes

7-100 SCOPE

This section establishes the CAO Quality Assurance procedures for the processing, reviewing and, when specifically authorized, approving Engineering Changes. It applies where MIL-STD-480 or MIL-STD-481 are contractually authorized. When other provisions are contractually authorized, they will be used.

7-101 PURPOSE

To provide instructions to the QAR and supporting quality assurance technical and engineering personnel relative to contractor's and Government's role and responsibilities in the area of Engineering Changes.

7-102 EXCEPTIONS TO ENGINEERING CHANGE/ENGINEERING CHANGE PROPOSAL (ECP) PROCEDURES

a. Processing of Value Engineering Change Proposals (VECP) is excluded from the provisions of this section. The Production element of the CAO is the Office of Primary Interest (OPI) for monitoring contractor's performance when VECP clauses are contractually included. VECPs received by the QAR directly from the contractor will be considered as misdirected and no technical action will be taken. The QAR will promptly forward these VECPs to the responsible CAO.

b. On NASA procurements, the CAO will support the PCO or COR in the technical and administrative aspects of ECPs to the extent delegated.

c. Provisions of this section are not applicable to engineering changes generated by the contractor prior to the establishment of a formal base line, unless otherwise required by the purchasing activity. Contracts invoking MIL-STD-480 will define the base line (functional, allocated or product), documentation and change control requirements consistent with the scope of the program and the complexity of the item being procured. In some cases, the use of the provisions of this section may be advantageous to the contractor and the CAO prior to the establishment of a formal base line.

7-103 GENERAL INFORMATION

a. Engineering Change procedures should not be used to obtain approval for nonconforming material.

b. Recurring Class II Changes on a specific product/product line may indicate a marginal design or poor manufacturing practices. The CAO will investigate recurring Class II Changes to determine whether a combination of these Changes should be more appropriately classified in the Class I category.

c. An Engineering Change which is Class II to the originator may be Class I in its impact on another contractor(s), when two or more contractors are producing items to the same mandatory detail drawings.

d. Effective implementation of the provisions stated herein require that the QAR make maximum use of the available highly specialized technical skills at various levels within the CAO. Included are such skills as engineers, statisticians, materials and processes specialists, metrology specialists and transportation and packaging specialists. QARs will be advised by their supervisors where required skills are available within the CAO. QAR requests, oral or written, for specific engineering or specialist technical skills will be honored on a timely basis.

e. Application of MIL-STD-480/481

(1) MIL-STD-480. This standard will be used by prime contractors and Government activities for proposing engineering changes to configuration items which were developed, designed, or modified specifically for DoD activities, and to control the form, fit and function of privately developed items used in configuration items.

(2) MIL-STD-481. This standard will be applied to contracts for procurement of multiapplication or standard items which were not developed as subdivisions of a specific system; items fabricated in accordance with mandatory detail design which was not developed by the fabricator; and privately developed items, when the purchasing activity determines that the application of change control to such items is necessary and that the short form ECP is adequate.

f. The procedures prescribed herein were prepared for use with MIL-STD-480 and 481 but may be applied with minimal variations when ANA Bulletin 445 or AMCR 11-26 is specified contractually.

7-104 RECORDING ENGINEERING CHANGE ACTIVITY

a. QA element will maintain a copy of each Class I/II ECP received and reviewed, and assure appropriate comments concerning the change such as, concurrence or nonconcurrence in classification approval or disapproval, are annotated or attached. Class II ECP's concurred in classification by the QA element or approved, where authority is delegated, will be subject to appropriate staff reviews. Copies of the Class II ECP may be retained or disposed of at local option after staff reviews.

b. Staff member performing reviews will maintain appropriate documentation, with copy provided to the activity reviewed, concerning observations made, actions taken, and an overall evaluation of the activity. The documentation may be in the form of a trip report, log or record, and will include, as a minimum, the date of review, quantity of changes reviewed and quantity nonconcurrent in classification or disapproved, as applicable, and an evaluation of plant level discipline over the engineering change function.

c. The staff review activity will apply whether the plant level engineering change function is performed by the QA element or onsite engineer.

7-105 AUTHORITY FOR APPROVING ENGINEERING CHANGES

a. MIL-STD-480 (Class I). Authority for approval of Class I ECPs is vested in the purchasing activity unless they specify otherwise. Receipt of contractual approval will constitute sole authority for the contractor to effect the change. Contractor will be notified in writing for ECP disapprovals and will be furnished reasons therefor with a copy to the CAO.

b. MIL-STD-480 (Class II)

(1) Unless otherwise specified by the purchasing activity, the only CAO (QAR) review of Class II ECPs will be for concurrence in classification. When the contractor chooses to use DD Form 1692, Engineering Change Proposal, or his own form to propose Class II ECPs the Government representative will indicate his concurrence or non-concurrence in classification on this form.

(2) Each Class II ECP is subject to approval by the Government prior to implementation, when the contractor or his subcontractors do not have custody of the design drawings and compliance with such drawings is contractual. Contractor will not implement these changes until receipt of a copy of approved DD Form 1692 or other arrangements are authorized.

(3) When the purchasing activity requires by contract that each Class II ECP be approved by the Government, the contractor will not implement the ECP until receipt of a copy of the approved DD Form 1692.

(4) Approval actions prescribed in (2) and (3) above are the responsibility of the purchasing activity but may be delegated to the CAO. Conversely the contractor will be advised in writing of ECP disapprovals and will be furnished reasons therefor.

c. MIL-STD-481 (Class I Generally)

(1) CAO (QAR) review for concurrence in classification normally will not apply unless contractually specified that ECP Class be designated on the ECP by the contractor.

(2) Authority for approval or disapproval of ECPs is vested in the purchasing activity or reviewing activity delegated such authority. Contractual approval is required on ECPs which affect contract cost, fee, schedule or technical requirements specified in the contract or in documentation prescribed directly in the contract. Technical approval by the purchasing activity is acceptable for ECPs not having any of the effects listed in preceding sentence, When ECP is disapproved, the activity making the decision will apprise the contractor of such disapproval in writing, with a copy to the CAO.

7-106 PROCESSING ENGINEERING CHANGES/ENGINEERING CHANGE PROPOSALS WHEN SUCH REQUIREMENT IS INVOKED IN THE CONTRACT

a. The provisions of this paragraph generally apply to all Class I or II Engineering Changes/Engineering Change Proposal(s) prescribed by the Military Services.

b. Unless otherwise specified in the contract, the prime contractor will submit to the QAR each ECP (Class I or Class II) originated including those from subcontractors. Disagreements between prime and subcontractor will be negotiated by the prime contractor.

c. The QAR will give preference to ECPs having a priority of emergency or urgency.

d. Figure VII-1-1 is furnished as a guide for the processing of Engineering Changes.

e. On each Class I Change, the QAR will:

(1) Review the ECP for accuracy and adequacy of information, proper classification when required, and provide comments, as appropriate on the effectiveness and necessity of the proposed ECP with respect to design goals, safety, correction of design deficiencies and improvements, and any other significant factors.

(2) Request staff or supervisory assistance when needed to provide a comprehensive appraisal and technical evaluation of the contractor ECP. Where minor technical implications are involved onsite assistance may not be necessary.

(3) When an ACO is Assigned. Upon completion of the review submit the ECP and pertinent comments, including recommendations for approval or disapproval to the purchasing office. The comments should include inputs from supporting Quality Assurance elements and represent a unified quality assurance position. ✓

(4) When an ACO is not Assigned. Upon completion of the review submit the ECP and pertinent comments, including recommendations for approval or disapproval of the ECP, direct to the purchasing office in writing. The comments should include inputs from supporting Quality Assurance elements and represent a unified quality assurance position.

f. On each Class II Change, the QAR will:

(1) Review the ECP for concurrence in classification. When an ECP proposed as Class II is considered in reality to be Class I, take appropriate Corrective Action with contractor as prescribed in Section II, Part 8, and withhold acceptance of items incorporating the change. When Government concurrence in classification is applicable, the return of a copy of the signed ECP to the contractor as evidence of concurrence or nonconcurrence in classification is at CAO option.

(2) Review the ECP for accuracy and adequacy of technical content and acceptability and:

(a) Where approval authority is delegated to the CAO, indicate approval or disapproval on DD Form 1692 pursuant to paragraph 7-105b and return a copy to the contractor.

(b) When an ACO is Assigned. Where approval authority is not delegated to the CAO, forward the ECP with recommendations for approval or disapproval to the ACO for further processing to the purchasing office. Appropriate comments to support the recommendations should be included.

(c) When an ACO is not Assigned. Where approval authority is not delegated to the CAO, forward the ECP with recommendations for approval or disapproval direct to the purchasing office in writing. Appropriate comments to support the recommendations should be included.

(3) Conduct the reviews specified in paragraphs 7-106(1) and 7-106(2) above within three working days after receipt of the ECP from the contractor. Failure to provide timely notice of rejection constitutes tacit concurrence in classification approval and the contractor may present items incorporating the ECP for acceptance.

(4) Request staff or supervisory assistance when required to effectively perform functions specified in paragraph 7-106(1) through 7-106(3) above.

7-107 PROCESSING ENGINEERING CHANGES WHEN SUCH REQUIREMENT IS NOT INVOKED IN THE CONTRACT (FORM, FIT & FUNCTION AFFECTED)

a. In the absence of any contractual provisions regarding the processing of ECPs, the contractor need not classify ECPs as Class I or Class II. The ECPs will be submitted to the QAR by means of a letter or on contractor's form containing, as a minimum, the following information:

(1) Complete identifying information as applicable, such as drawings and documents affected, contract number.

(2) Description of Change.

(3) Need for Change and problem which the requested Change will solve.

(4) Effect on cost and delivery schedule.

b. Upon receipt of the ECPs, the QAR will comply with the provisions of paragraph 7-106e(1) through 7-106e(4), as applicable, regardless of potential classification.

7-108 EXPEDITIOUS APPROVALS OF CLASS I/II ENGINEERING CHANGES/ECPs

a. Approval of Class I Emergency or Urgent Changes may be requested and provided by telephone, to be confirmed by teletype, when the situation requires immediate action in the best interest of the Government. When such approval is furnished, it will be acknowledged only when provided through contracting office (ACO or PCO) channel. The CAO will obtain the name of the individual and activity authorizing the approval, the control number and date assigned to the authority document, the contract change document which will be assigned, and request formal confirmation by TWX or letter. The CAO will, in addition, document the information provided, furnish copies to the ACO, and maintain follow-up until receipt of confirmation TWX or letter.

b. The foregoing procedures may also be used, to the extent necessary, to expedite approvals of Class II ECPs when the purchasing office retains the approval authority.

7-109 SUBCONTRACTOR CLASS II ENGINEERING CHANGE REVIEW

Class II Engineering Change Review functions may be delegated to subcontractor level only when MIL-STD-480 is contractually

authorized. When a prime contractor authorizes a design responsible subcontractor to process Class II Engineering Changes, the QAR may delegate Class II Engineering Change functions as part of the total delegation to the Government representative cognizant of the subcontractor, when such action is considered advantageous and when:

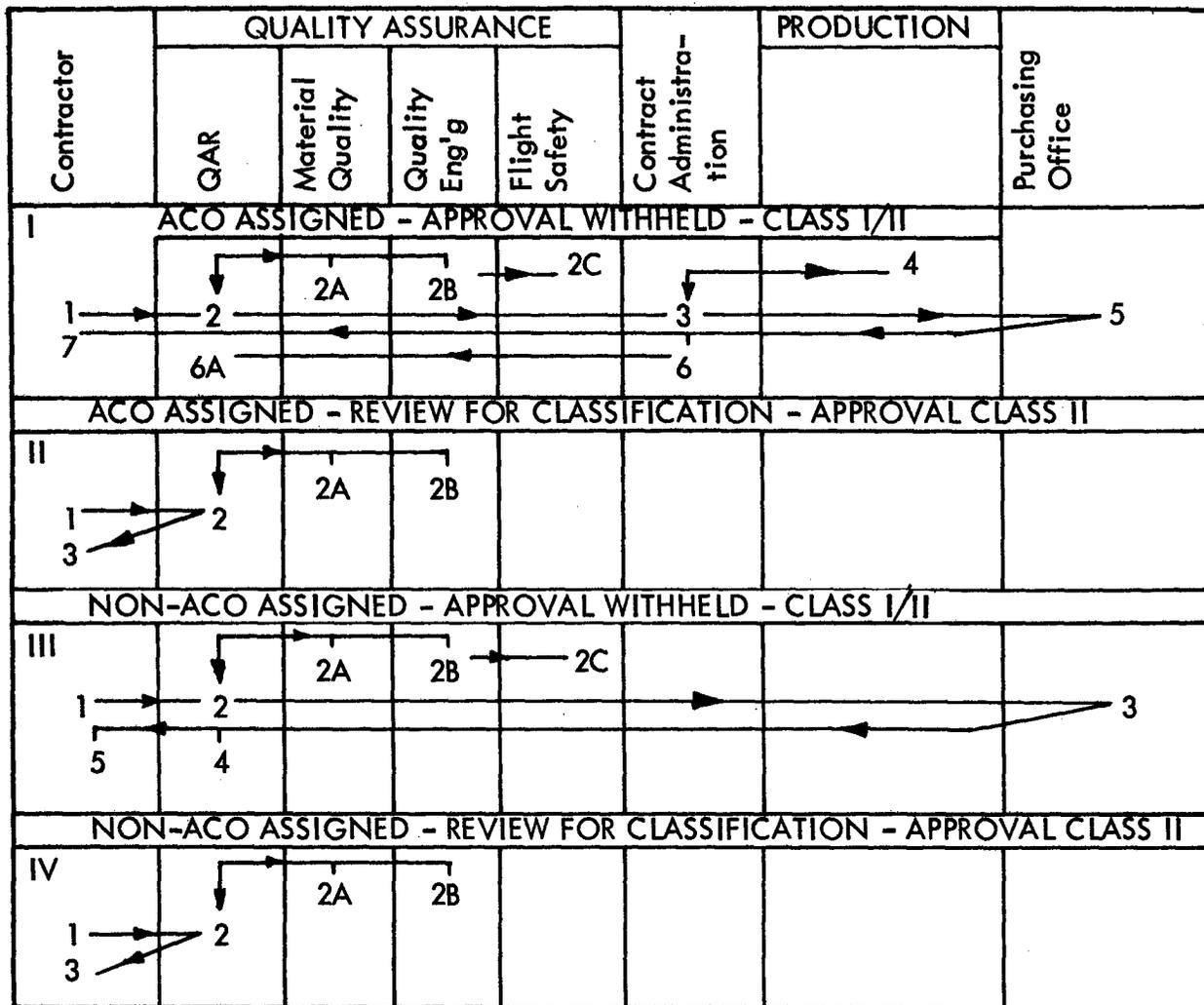
a. The subcontracted supplies require Government procurement quality actions at source.

b. The subcontractor agrees to comply with subcontract provisions relative to the proposal, justification, and approval of Class II ECPs.

c. Subcontractor's Engineering Change activity is effectively controlled to assure that the Engineering Changes do not conflict with criteria specified by the prime contractor for the subcontracted supplies.

d. The prime contractor periodically audits the effectiveness of the subcontractor's Class II Engineering Change System.

PROCESSING OF ENGINEERING CHANGE PROPOSALS



NOTES: Step I. 2B obtains input from 2C on Class I changes involving System Safety.
 Steps II. & IV. GAR 2 takes action to upgrade Class II changes to Class I when cost implications are involved.

FIGURE VII-1-1

SECTION VIII

Procurement Quality Assurance Program Forms

8-100 PURPOSE

To provide instructions to the QAR relative to the application and preparation of procurement quality assurance records.

8-101 GENERAL

a. The forms contained in this handbook have been developed to provide universal application for recording procurement quality assurance actions and findings.

b. The QAR will promptly and accurately record the results of procurement quality assurance actions.

8-102 DD FORM 1709, PROCEDURES REVIEW CHECK LIST

This form is designed for use in planning the Government procurement quality assurance actions pertaining to the evaluation of contractor conformance to quality or inspection system requirements, and will be completed as follows:

Contractor. Enter the name of the contractor.

Date Prepared. Enter the date the form was prepared and evaluated by the QAR.

Control Center or Inspection Station. Identify the contractor location where the specific procedure can be evaluated.

Alpha Designation. Enter the alpha designation from Section II, Part 3, Figure II-3-1.

Review Procedure. Briefly describe the characteristic to be evaluated.

Contractor Procedure No., Page No./Paragraph No., and Date. Where applicable, identify the contractor's written procedure, including number, page and/or paragraph from which the characteristic was selected, and date of procedure.

PROCEDURES REVIEW CHECK LIST		CONTRACTOR ABC Company		DATE PREPARED 10 June 1969
CONTROL CENTER OR INSPECTION STATION	ALPHA DESIGNATION	REVIEW PROCEDURE	CONTRACTOR PROCEDURE NO., PAGE NO., PARAGRAPH NO. AND DATE	GOVERNMENT EVALUATION CRITERIA
Control Center #1 (Admin. Office)	S	Each purchase order must include all of line item listed "A" through "M" to assure compliance with paragraph 3.3.1.	PROCEDURE NO. 602 PAGE NO. 2 PARA. NO. 3.3.1 DATE 5/12/69	Check five purchase orders monthly
Inspection Station 2, 3 and 4 (Receiving Location)	K	Verify that contractor quality control is performing inspection of supplies received in compliance with paragraph 3.4.1.	PROCEDURE NO. 602 PAGE NO. 2 PARA. NO. 3.4.1 DATE 5/12/69	Select and verify five items weekly
Laboratory Office	T	ASTM D-95 water test will be used to determine that water content of penetrant does not exceed 15 percent.	PROCEDURE NO. 1507 PAGE NO. 3 PARA. NO. 7 DATE 5/18/69	Check 10 test records in the laboratory each week
Laboratory	P	ASTM D-95 water test will be used to determine that water content of penetrant does not exceed 15 percent.	PROCEDURE NO. 1507 PAGE NO. 3 PARA. NO. 7 DATE 5/18/69	Witness two tests being performed each week
Special Storage Area	M	Rejected parts will be identified by contractors' red rejection tag pursuant to paragraph 9; will be routed to storage and will be held pending receipt of disposition instructions per paragraph 10.	PROCEDURE NO. 1507 PAGE NO. 4 PARA. NO. 9 & 10 DATE 5/18/69	Check 10 parts per month
			PROCEDURE NO. PAGE NO. PARA. NO. DATE	

Government Evaluation Criteria. Briefly describe the method to be used for evaluating compliance to the characteristic. Indicate the number of evaluation and frequency of evaluations to be made at each station.

An example of a completed DD Form 1709 is provided in Figure VIII-1-1.

8-103 DD FORM 1710, PROJECT RECORD

This form is designed to record project assignments and investigative actions taken to resolve product and procedural problems and will be completed as follows:

Office Symbol. Enter the symbol of the organizational level at which the assignment is made.

Project Number. Enter a number to identify the Investigation Project and assign in one of two ways.

a. By the QAR or Quality Assurance Supervisor on those projects generated as a result of local data evaluation,

b. By higher headquarters on directed projects.

Contract Number. Enter the contract number, when applicable.

Authorization Data. Indicate the basis for establishment and a concise description of the project. Also, indicate whether source was verbal or written.

PROJECT RECORD		OFFICE SYMBOL	PROJECT NUMBER	CONTRACT NUMBER
		DCRA-QOE	14E	AMC-XXX
AUTHORIZATION DATA <input type="checkbox"/> VERBAL <input checked="" type="checkbox"/> WRITTEN			DATES	
DESCRIPTION OF PROJECT High rejection during Product Inspection			DUE	6/5/69
			SUSPENDED	
			DISCONTINUED	
			COMPLETED	
ASSIGNED BY Mr. J. J. Jones		TO (Name of person) L. B. Brown		DATE 6/5/69
REASSIGNED BY		TO (Name of person)		DATE
PURPOSE To determine the cause of high rejection of part 1004871				
COORDINATION (Print name, organization and telephone number)				
George Lynch, DGSC				
DATE	BRIEF OF PROGRESS			MANHOURS
5/6/69	Analysis was made of final inspection station where product is controlled.			2
5/7/69	Same as above. (400 units checked - 40 defective.)			4
5/14/69	Checked parts after heat treat (100 checked - 2 defective.)			3
5/19/69	Checked production jig. No indication of fault.			2
5/22/69	Checked receiving inspection gage. (Equipment out of tolerance.)			3
5/26/69	Had receiving gage calibrated. Verified parts previously accepted by contractor inspection. Gage rejected parts.			2
5/29/69	Further investigation revealed that inspection equipment had been subject to rough handling. Contractor supervision instructed inspector in care and maintenance of gages. Followup will be made in two weeks to verify action.			1

Dates. Due/Suspended/Discontinued/Completed, will be established by the initiator of the project.

Assigned by. Indicate the name of assignee, and date of assignment.

Reassigned by. Indicate name of person reassigning the project, name of person to whom the project is reassigned and date of reassignment.

Purpose. Indicate reason for the establishment of the project. If contract number is applicable, include the name of the contractor and location in this space.

Coordination. This should include oral discussions.

Date - Brief of Progress - Manhours. Maintain a chronological progress report, outlining in brief the various actions taken and the manhours involved in these actions until completion of project.

An example of a completed DD Form 1710 is provided in Figure VIII-1-2 .

8-104 DD FORM 1711, OBSERVATION RECORD

This form is designed for recording the results of procurement quality assurance actions performed by the QAR. DD Form 1711 can be used for recording the results of Product Inspection, Procedure Evaluation and/or CDV. Variations in the use of the form to meet specific situations are authorized. The Form normally will be completed as follows:

a. Front Side

Space 1. Enter the name of the facility.

Space 2. Enter the contract number or item nomenclature if the activity is Product Inspection. Enter the alpha designator of the Procedures Review for this activity.

Space 3. Enter the activity, e.g., CDV, Procedures Evaluation; Production Inspection.

Space 4. Enter the serial number of the end item if the activity control center number such as Final Inspection - Seal Assembly; Shop Complete-Hydraulic System; Laboratory; Control Center #7.

Column A. Enter the serial number of the end item if the activity is shop complete or final inspection. Enter the batch number or lot number, where applicable.

Column B. Enter the initials of the individual conducting the Procurement Quality Assurance Program action.

Column C. Enter the date the action was accomplished.

Column D. Enter the hours expended in accomplishing the activity.

Column E. Enter the total number of observations made.

Column F. Enter the total number of defective observations.

Column G. Enter the percent of defective observations. (Divide number entered in Column F by number entered in Column E and multiply the quotient by 100).

Column H. Enter the total number of defects observed; however, do not include the defects noted in Column O.

Columns I, J, K, L. To be used, as necessary, by the QAR to list the lot size, AQL, sample size, critical, major or minor defectives, product, batch or lot number, etc.

Column M. Enter the characteristic number or description if the activity is Product Inspection or Procedures Evaluation. Enter the number of the verification station if the activity is CDV. Below each characteristic, number or verification station number, enter the number of observations taken above the diagonal and the number of defective observations below the diagonal.

Column N. This column is for recording procedural characteristic evaluation. Enter the number "1" above the diagonal for each line entry requiring procedural evaluation. If one or more procedural characteristics are deficient, insert "1" below the diagonal; (this column is applicable only to CDV).

Column O. Enter the total number of defects observed, not related to the activity being performed.

Column P. Enter the number of units of product examined when performing CDV or Product Inspection.

Space 5. Enter the totals of Columns E, F, H, O, P, and, as applicable, Columns I, J, K, and L.

Space 6. Compute and enter the process average by dividing totals of Column F by total of Column E and multiply the quotient by 100. Columns I, J, K, L, and O may, if applicable, also be used for process average.

b. Reverse Side

Date. Enter date for each entry.

Type of Corrective Action Requested. Place an "X" in appropriate subcolumn to indicate method of corrective action taken.

Defect Observed. Enter a brief description of the defect observed.

c. Figures VIII-1-3, VIII-1-4, VIII-1-5 and VIII-1-6 represent examples of a completed DD Form 1711 when used for recording results of Product Inspection, Procedures Evaluation, and CDV.

Prime Contractor. Enter the name of the contractor.

Manufacturer or Supplier. Enter the name of the manufacturer or supplier at whose plant the inspection was conducted, if different from the contractor.

Inspector Naval Material (Insmat) or District - Prime Contractor. Enter the name of the CAO in which the manufacturer's or supplier's plant is located.

Specification and Revision. Enter specification number (including revisions, amendments and other authorized changes) of the article or material being inspected. Where applicable, include grade or class of defects.

Contract Number. Enter the number of the Government contract.

Purchase Order No. If material is being inspected on a sub-contract enter the subcontract number.

Class of Defect. Use appropriate abbreviations: C for critical; MA for major; and MI for minor.

Sampling Procedure. Indicate inspection degree, inspection level, and sampling plan using the following code:

<u>Inspection Degree</u>	<u>Inspection Level</u>	<u>Sampling Plan</u>
Reduced - R	Level I - I	Single - S
Normal - N	Level II - II	Double - D
Tightened - T	Level III - III	Multiple - M
100% Insp		100%

Acceptable Quality Level. Where applicable, enter the AQL.

Date. Enter date of inspection.

Production Lot No. Enter production lot number if known.

Inspection Lot No. Enter number assigned to the inspection log, if known.

1. CONTRACTOR ABC Refinery										IDENTIFICATION										OTHER DEFECTS	NO. OF ITEMS EXAMINED	
2. CONTRACT/PROCEDURES REVIEW CHECK LIST All Contracts										M										Z	O	P
3. ACTIVITY Product Inspection (PI) Procedures Evaluation (PE)										Test to be identified by QAR												
4. OPERATION/LOCATION Laboratory										L												
										K												
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										C												
										B												
										A												
										H												
										G												
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										C												

8-105 DD FORM 745, REPORT OF SAMPLING INSPECTION (ATTRIBUTES)

This form is designed for recording the results of Product Inspection when conducting lot-by-lot sampling in accordance with MIL-STD-105, Ratio/Skip Lot, or Skip Lot. While the form is intended to record Inspections performed by the Government, a comparison between the contractor's inspection and Government's inspection can be obtained by recording the contractor's results in the first column and QAR results in the second column. This form may also be used as a Quality History Record. Variations in the use of the form to meet specific situations are authorized. The form will normally be completed as follows:

Report Control Symbol. Enter the report control number, when required or assigned.

To. Enter the name of the activity to which the report is to be forwarded.

End Item. Enter the name of the item being procured, produced, or processed.

Unit or Operation. Enter the name of the item or operation being inspected.

Sip Number and Revision. Enter, as applicable, the number and revision of the Contractor's Inspection Procedure or other document utilized in conducting the sampling inspection.

CD Number. Enter, as applicable, the identification and revision of the Government Classification of Defects, Inspection Procedure or other document utilized in conducting the sampling inspection.

Drawing or Stock No. If applicable, enter drawing or stock number of unit or operation. Include any applicable revision or change.

Resubmission. Enter "R" for resubmitted lots. Enter "R2", etc. if resubmitted a second time

Inspection Lot Size. Enter the number of units of product included in the inspection lot.

Sample Size. Enter number inspected. If double or multiple sampling is utilized enter quantity included in the first sample in space "1st" and the total cumulative sample in "CUM".

Number Found. Enter number of defects or defectives observed as follows: Defects observed when single sample is utilized or during the first sample of double or multiple sampling will be entered in "1st". The cumulative number of defects or defectives observed will be entered in "CUM".

Disposition. Indicate by "X" whether the lot was accepted or rejected.

Report No. Where desired, enter a locally assigned report number.

From and To. Enter the beginning and closing dates for the report.

Prepared by: QAR that prepared the report will sign his name in this space.

Remarks. Enter defect numbers, from the classification of defects, found by the Government QAR. Use the reverse side to explain any apparent reasons for difference in results between the supplier's and Government inspection of the same sample. Record pertinent data regarding rejected lots on reverse side of form.

Total this Report. Enter totals of respective columns, including resubmitted lots. When using double or multiple sampling plans, total quantities for first sample only.

Total to Date. From preceding report (if applicable) extract total to date and add to space "Total this Report" to obtain a new "Total to Date" figure.

Total for Process Average. Enter totals utilized in computing process average. Do not include resubmitted lots.

Estimated Process Average. Enter for each class of defectives the estimated process average.

Figures VIII-1-7, VIII-1-8 and VIII-1-9 represent examples of a completed or partially completed DD Form 745.

REPORT OF SAMPLING INSPECTION (Attributes)															REPORT CONTROL SYMBOL							
TO BUWEPS Tail Gate			UNIT OR OPERATION Hydraulic Assembly			SIP NUMBER AND REVISION			CD NO. 2302037B			DRAWING OR STOCK NO. 2302037 Rev B			CONTRACT NO. NOW-67-000		PURCHASE ORDER NO. N-1234					
PRIME CONTRACTOR John Doe and Company			INSMAT OR DISTRICT—PRIME CONTRACTOR			SPECIFICATION AND REVISION QQ-A-411			CONTRACT NO. NOW-67-000			DRAWING OR STOCK NO. 2302037 Rev B			CONTRACT NO. NOW-67-000		PURCHASE ORDER NO. N-1234					
MANUFACTURER OR SUPPLIER Jones, Inc.			INSMAT OR DISTRICT—MANUFACTURER OR SUPPLIER			SPECIFICATION AND REVISION QQ-A-411			CONTRACT NO. NOW-67-000			DRAWING OR STOCK NO. 2302037 Rev B			CONTRACT NO. NOW-67-000		PURCHASE ORDER NO. N-1234					
CLASS OF DEFECT			MA			MA			MA			MA			REPORT NO. 1							
SAMPLING PROCEDURE			N-II-S			Ratio/SkipLot			Ratio/SkipLot			Ratio/SkipLot			Ratio/SkipLot							
ACCEPTABLE QUALITY LEVEL			1.0%			1.0%			1.0%			1.0%			1.0%							
DATE 19	PRO- DUCTION LOT NO.	INSPECTION LOT NO.	NO OF SAMP LES	INSPECTION LOT SIZE	NUMBER FOUND		SAMPLE SIZE		NUMBER FOUND		SAMPLE SIZE		NUMBER FOUND		SAMPLE SIZE		NUMBER FOUND		DISPOSITION	REMARKS		
					IST	CUM	IST	CUM	IST	CUM	IST	CUM	IST	CUM	IST	CUM	IST	CUM			ACC	REJ
11 Jan	1	1		400	0	0	50	50	1	1	50	50	1	1	X					104 Defective		
12 Jan	2	2		400	0	0	50	100	0	1	50	100	0	1	X							
13 Jan	3	3		400	0	0	50	150	0	1	50	150	0	1	X							
14 Jan	4	4		400	0	0	50	200	0	0	25	25	0	0	X							
15 Jan	5	5		400	0	0	50	250	1	1	25	250	1	1	X					101 Bad		
18 Jan	6	6		400	0	0	50	300	0	1	25	300	0	1	X							
19 Jan	7	7		400	0	0	50	350	0	1	25	350	0	1	X							
20 Jan	8	8		400	0	0	50	400	0	1	25	400	0	1	X							
21 Jan	9	9		400	0	0	50	450	0	1	25	450	0	1	X							
22 Jan	10	10		400	0	0	50	500	0	0	17	500	0	0	X							
25 Jan	11	11		400	0	0	50	550	2	2	17	550	2	2	X					102 Defective		
26 Jan	12	12		400	0	0	50	600	0	2	17	600	0	2	X							
27 Jan	13	13		400	0	0	50	650	3	5	17	650	3	5	X					104 Defective		
28 Jan	14	14		400	0	0	50	700	0	0	25	700	0	0	X							
29 Jan	15	15		400	0	0	50	750	1	1	25	750	1	1	X					101 Defective		
TOTAL THIS REPORT				6000	0	0	750	750	8	8	418	418	8	8								
TOTAL TO DATE				6000	0	0	750	750	8	8	418	418	8	8								13 2
TOTAL FOR PROCESS AVERAGE				6000	0	0	750	750	8	8	418	418	8	8								13 2
ESTIMATED PROCESS AVERAGE					0	0	0	0														

REPORT OF SAMPLING INSPECTION (Attributes)

TO		UNIT OR OPERATION		SIP NUMBER AND REVISION		CD NO.		DRAWING OR STOCK NO.		REPORT NO. FROM TO PREPARED BY	
END ITEM Coffee, Roasted, Ground		INSMAT OR DISTRICT—PRIME CONTRACTOR		SPECIFICATION AND REVISION		CONTRACT NO.		PURCHASE ORDER NO.		FROM TO PREPARED BY	
PRIME CONTRACTOR John Doe & Co.		INSMAT OR DISTRICT—MANUFACTURER OR SUPPLIER		HHH-C-571a, DoD Dev. List 1 May 64 DPSC Art. 422		DSA-136-7-C-481B7				Sk-Lot Step 1	
MANUFACTURER OR SUPPLIER John Jones, Inc.		Major A		Major B		Total		Minor		REPORT NO. FROM TO PREPARED BY	
CLASS OF DEFECT		N, I Primary Container		N, I Primary Container		N, S-3 Net Wt.		N, S-3 Net Wt.		FROM TO PREPARED BY	
SAMPLING PROCEDURE		0.25		1.5		4.0		2.5		DISPOSITION	
ACCEPTABLE QUALITY LEVEL		DPHU		DPHU		DPHU		DPHU		REMARKS	
DATE	PRODUCTION LOT NO.	INSPECTION LOT NO.	NO. OF CANS	INSPECTION LOT SIZE	DPHU	NO. OF CANS	INSPECTION LOT SIZE	DPHU	NO. OF CANS	INSPECTION LOT SIZE	DPHU
19				2# cans							
11 Jul	1	19972	0	200	200	0	200	2	3	200	200
12 Jul	2	18472	0	200	200	0	200	1	1	200	200
13 Jul	3	19360	0	200	200	0	200	0	1	200	200
14 Jul	4	19138	0	200	200	0	200	2	0	200	200
17 Jul	5	18694	0	200	200	0	200	1	2	200	200
18 Jul	6	19589	0	200	200	0	200	0	0	200	200
19 Jul	7	18714	0	200	200	0	200	1	1	200	200
20 Jul	8	19984	0	200	200	0	200	2	3	200	200
21 Jul	9	18222	0	200	200	0	200	0	1	200	200
24 Jul	10	19142	0	200	200	0	200	1	2	200	200
25 Jul	11	19672	0	200	200	0	200	2	3	200	200
26 Jul	12	18762	0	200	200	0	200	1	2	200	200
27 Jul	13	19024	0	200	200	0	200	0	0	200	200
TOTAL THIS REPORT											
TOTAL TO DATE											
TOTAL FOR PROCESS AVERAGE											
ESTIMATED PROCESS AVERAGE											

15-60864-1 U. S. GOVERNMENT PRINTING OFFICE 894-078

FIGURE VIII-1-8

DD FORM 1 NOV 53 745

8-106 DD FORM 1712, WORKSHEET FOR CONTINUOUS SAMPLING INSPECTION

This form is designed to record results of Product Inspection when conducting inspection by continuous sampling using MIL-STD-1235, DoD Handbooks H-106 and H-107. Variations in the use of the form to meet specific situations are authorized. The form normally will be completed as follows:

Space 1. Enter the nomenclature of the part.

Space 2. Enter the part number or drawing number and revision.

Space 3. Enter source of inspection provisions, e.g., contract number(s), specification, supplier's inspection checklist, drawing, or some other appropriate reference.

Space 4. Enter number assigned to the production interval. Resubmitted material should be identified by the original number, followed by "A" indicating the first resubmission, "B" the second, etc.

Space 5. Enter plan designation and inspection level being used, as follows:

a. For Continuous Sampling Plan (CSP) 1, 2, and A, enter CSP-1, CSP-2, or CSP-A followed in parentheses by the levels, I, II, or III. When a level is not specified in the procurement document, level II will be used in accordance with MIL-STD-1235, paragraph 7.2. Example: Plan CSP-2, level III would be indicated, CSP-2 (III).

b. For CSP-M plans enter the plan designation, followed in parentheses by K1 through K5, as determined from Tables VIII or XI or MIL-STD-1235. Example: Plan CSP-M, level K3 would be indicated, CSP-M (K3).

Space 6. Enter inspection degree and frequency being used for each class of defect being considered. The following coding will be used:

a. For CSP-1, 2 and A plans:

Inspection Degree

Frequency

Normal --- (N)

f = followed by sample frequency from table.

Phase 1 --- (Ph 1)

f/5 followed by 1/5 of sampling

Phase 2 --- (Ph 2)

frequency listed in appropriate table

Phase 3 --- (Ph 3)

Example: A sampling procedure with a frequency of 1/10 would be indicated as follows:

Normal inspection (N) f = 1/10

Phase 1 inspection (Ph 1) f/5 = 1/50

Phase 2 inspection (Ph 2) f/5 = 1/50

Phase 3 inspection (Ph 3) f/5 = 1/50

b. For CSP-M plans the code for inspection degree in Space 6, a above, will be used followed by k = 1/2 or 1/3 for normal inspection or by k/5 = 1/10 or 1/15 for minimum inspection.

Example: A CSP-M sampling procedure with a frequency of 1/2 would be indicated as follows:

Normal inspection (N) k = 1/2

Phase 1 inspection (Ph 1) k/5 = 1/10

Phase 2 inspection (Ph 2) k/5 = 1/10

Phase 3 inspection (Ph 3) k/5 = 1/10

Space 7. Enter appropriate AQL for each class of defects being inspected from inspection document referenced in Space 3. When a separate AQL for each defect is specified, use additional forms as required.

Space 8. Enter identification of the quality assurance verification station where inspection is to be accomplished.

Space 9. When inspection is accomplished on a sample, the following indications will be made in the tally blocks:

a. When no defects are found, an "X" will be placed in appropriate tally block.

b. When a defect is found, a circle will be placed in appropriate tally block.

Space 10. Enter tally number from Space 9 when a defect is found.

Space 11. Enter defect characteristic number or code in accordance with the following instructions:

a. When characteristics are classified and coded in Section 4 of the specification or other procurement document, indicate by class the coded number assigned to the defect or characteristic.

b. When characteristics are not classified by the procurement document:

(1) The defect will be classified in accordance with definitions of classes of defects, MIL-STD-109, Quality Assurance Terms and Definitions.

(2) Each characteristic for the part inspected will be identified by a number. The defective characteristic number will be coded, using three digits, as follows:

(a) Critical Defect. Precede assigned number with 0., e.g., if characteristic 04 was defective, the coded number would be 004.

(b) Major Defect. Precede assigned number with 1, e.g., if characteristic 12 was defective, the coded number would be 112.

(c) Minor Defect. Precede assigned number with 2, e.g., if characteristic 18 was defective, the coded number would be 218.

Space 12. Indicate status of supplier's inspection effort when defect was found. The following coding will be used.

a. To indicate 100 percent or screening inspection, enter the letter "Q" (qualification period).

b. To indicate sampling inspection, enter the letter "S". For CSP-M plans only, the letter "S" will be followed by numbers 1 through 5, indicating level of sampling inspection in effect.

Space 13. When a defect is found and the verification procedure in effect requires a specific number of consecutive units or samples be cleared prior to making a determination, the following entries will be made:

a. Space 13a. Enter number of units or samples required to clear, as specified by the verification procedure.

b. Space 13b. Enter number of units or samples on which inspection has been completed when:

(1) The required units or samples are found free of defects.

(2) A second defect is found requiring a change in inspection frequency.

(3) The working shift ends.

c. Space 13c

(1) When the situation in Space 13, b(1) or b(2) above occurs, enter "0" in this space.

(2) When the working shift ends, enter difference between Space 13a and 13b. This number will be posted in Space 13a for the following production interval and inspection continued for this defect until the required determination can be made.

Space 14. Enter reference to DD Form 1715 Quality Deficiency Record if issued.

Space 15. Enter total observations for each set of samples.

Space 16. Enter inspection date.

Space 17. Self-explanatory.

Space 18. Total number of units produced.

Space 19. Enter number of units or samples inspected for each AQL.

Space 20. Enter total number of defects found for each AQL.

Space 21. Enter signature of the QAR.

Space 22. Enter Contractor Decision Verification process average, by dividing the total number of observations (Space 15) into the defective observations (Space 20) and multiplying by 100.

An example of a completed DD Form 1712 is provided in Figure VIII-1-10.

This form is designed to record results of Product Inspections, when conducting inspection by variables using MIL-STD-414. The form normally will be completed as follows:

Space 1. Enter name of supplier.

Space 2. Enter nomenclature of the part.

Space 3. Enter date inspection was performed.

Space 4. Enter contract, purchase order or work order number (s).

Space 5. Enter applicable part or drawing number and revision.

Space 6. Only one characteristic may be considered on a single form. Enter number of the characteristic being considered, as follows:

a. When characteristics are classified and coded in Section 4 of the specification or other procurement document, indicate by class the coded number assigned to the characteristic.

b. When characteristics are not classified by the procurement document:

(1) The defect will be classified in accordance with definitions of classes of defects, MIL-STD-109, Quality Assurance Terms and Definitions.

(2) Each characteristic for the part inspected is identified by a number. The characteristic number will be coded, using three digits, as follows:

(a) Critical Defect. Precede assigned number with 0, e.g., if characteristic 04 was defective, the coded number would be 004.

(b) Major Defect. Precede assigned number with 1, e.g., if characteristic 12 was defective, the coded number would be 112.

(c) Minor Defect. Precede assigned number with 2, e.g., if characteristic 18 was defective, the coded number would be 218.

c. When inspection of a characteristic is required by a paragraph in a specification, enter the paragraph number.

Space 7. Enter source of inspection provisions, e.g., specification, supplier's inspection checklist, drawing, or some other appropriate reference.

Space 8. Enter identification of the quality assurance verification area.

Space 9. Enter number assigned to the inspection lot or production interval. Resubmitted lots should be identified by using the original lot number, followed by "A" the first time a lot is resubmitted, "B" the second time, etc.

Space 10. Enter method of calculation used. The letter and number designation assigned to examples in MIL-STD-414 may be used as a code, e.g., B-1, C-3, D-2, or other appropriate codes.

Space 11. Enter quantity of units of product in the inspection lot or production interval.

Space 12. Enter acceptable quality level or levels (AQL) for the characteristic being inspected in the appropriate space.

Space 13. Enter degree and level of inspection being performed, using the following coding:

<u>Inspection Degree</u>	<u>Inspection Level</u>
Normal ----- N	I
Tightened ----- T	II
Reduced ----- R	III
Minimum-Step One-- R(1/5)	IV
Minimum-Step Two -- R(1/10)	V

Space 14. Enter upper specification limit for the characteristic being inspected.

Space 15. Enter lower specification limit for the characteristic being inspected.

Spaces 16 through 20. Enter results of calculations performed, as required, for the method of calculation being used.

Space 21. When using known variability methods, enter predetermined variability of the quality characteristic.

Space 22. Record individual measurements in the order inspected.

Space 23.

a. For variability unknown, standard deviation method, enter squares of the individual measurements.

b. For variability unknown, range method, enter differences between the highest and lowest individual measurements for each group of five. (See MIL-STD-414, paragraphs C3.2 or C11.2).

Spaces 24 through 39. Enter results of calculations performed, as required, for the method of calculation being used.

Space 40. Enter any remarks pertinent to product verification, including identification number of any Quality Deficiency Record issued, e.g., or letter.

Space 41. Enter "X" in the appropriate square.

Space 42. Enter signature of the QAR performing the inspection.

Space 43. Enter contractor decision process average by dividing the total number of observations into the defective observations and multiplying by 100.

An example of a completed DD Form 1713 is shown in Figure VIII-1-11.

8-108 DD FORM 1714, PRODUCT VERIFICATION RECORD

This form may be used in lieu of DD Form 745 and is designed to record results of Product Inspections when conducting lot-by-lot sampling in accordance with MIL-STD-105, Ratio Skip Lot or Skip Lot. Permission is granted to use DD Form 1238, Inspection Record, if it is more suitable for the intended purpose than this form. The form will normally be completed as follows:

Space 1. Enter the contract number.

Space 2. Enter the lot number.

Space 3. Enter the date of verification.

Space 4. Enter the name of the prime contractor.

Space 5. Enter the lot size.

Space 6. Place an "X" in the appropriate box.

Space 7. Enter the name of the plant location at which the verification is being performed.

Space 8. Place an "X" in the appropriate box.

Space 9. Place an "X" in the appropriate box.

Space 10. Describe the item.

Space 11. Enter the degree and level of inspection being performed.

Space 12. Place an "X" in the appropriate box.

Space 13. Enter the specifications, amendments, deviation lists, etc., that contain the applicable quality assurance provisions.

Space 14. Enter the total number of lots verified on the contract to date, including this lot.

Space 15. Place an "X" in the appropriate box.

Space 16. Enter the number or title of each examination. These entries must be easily identified with the appropriate specification cited in Space 13.

Spaces 17 through 19. Self-explanatory.

Space 20. Check box identified "CONTR" and enter the contractor's sample size and number of defects found for each examination.

Space 21 and 22. Self-explanatory.

Space 23. Enter QAR's sample size and number of defects found. The sample size will be the same as that required by the specification sampling plan.

Space 24. Enter the appropriate "action number" taken from DoD Handbook H-109, Statistical Procedures for Determining Validity of Supplier's Attributes Inspection, Table I.

Spaces 25a and 25b. Enter the description, or code number of defects found in Column B and corresponding examination in Column A. Other information such as lot numbers, defect numbers, and numerical inspection results such as individual weights, vacuum readings, and other appropriate information will also be entered in Column A or B, when applicable.

Spaces 25c, 26, 27, and 27a. Self-explanatory.

Space 28. This space may be used for remarks concerning quality of product, corrective action taken, determining average net weight.

An example of a completed DD Form 1714 is shown in Figure VIII-1-12.

The form is designed to enable the QAR to record contractor quality deficiencies and furnish official notification to contractors when corrective action is taken. The form will be completed as follows:

Space 1. Enter the date the form is prepared.

Space 2. Enter a control reference number for identification purposes.

To. Enter the name of the contractor and the responsible contractor quality control supervisor.

From. Enter the name of the quality assurance office.

Space 3. Enter complete identification of the deficiency.

Space 4. When corrective action as to cause is required, indicate number of days. Enter signature of the requestor.

Space 5. Contractor's reply/corrective action on discrepancies reported in Space 3.

Space 6. CDV and/or Procedures Evaluation performed by QAR.

Space 6a and 6b. Self-explanatory.

Space 7. Finalization or closeout of any action on discrepancies as required.

An example of DD Form 1715 is shown in Figure VIII-1-13. The contractor's reply is shown in Figure VIII-1-14.

5. CONTRACTOR'S REPLY:

1. 100% inspection conducted on all parts #1004772. Those found out of tolerance were brought within tolerance, or, if below minimum, set aside, pending formal waiver request.
2. Rockwell hardness and other metallurgical tests conducted on samples, part #1004772. All within prescribed limits.

J. D. Jones
J. D. JONES, SUPT.
(Date)

6. STATEMENT OF VERIFICATION AND EVALUATION OF CONTRACTOR'S ACTION (To be completed by Quality Assurance Representative):
Request for approval, parts #1004772, within tolerance, and 1004772, submitted to ACO by ltr, dtd _____. Parts #1004772, below minimum tolerance, "Waiver" handled as a separate matter.
(Date) _____

6A. TYPED OR PRINTED NAME OF Q.A.R.

J. D. JAMES

6B. SIGNATURE

7. STATEMENT OF FOLLOW-UP ACTION, WHEN NECESSARY

TWX 250047z from PCO approves all actions, including "Waiver" of parts #1004772 below minimum tolerance.

J.D.J., QAR

J. D. James
(Date)

8-110 DD FORM 1232, QUALITY CONTROL REPRESENTATIVE'S CORRESPONDENCE

This form is designed to enable the QAR to transmit procurement quality assurance actions to supervisors or other CAOs. Variations to meet specific QAR situations are authorized. The form will usually be completed as follows:

Space 1. Enter the contract, purchase order or office instruction number.

Space 2. Enter the date the form was prepared.

Space 3. Enter the name and address of the prime contractor.

Space 4. Enter the name and location of the plant.

Space 5. Enter an identification of the operation or item involved.

Subject. Provide an appropriate subject such as, Source Inspection, Request for Information, or some other appropriate subject.

From and To. Self-explanatory.

In the body of the form, provide, as a minimum, the following information:

a. Request the procurement quality assurance actions desired and attach a copy of the purchase order. Also, provide the name and location of the subcontractor.

b. Reason for requesting source inspection.

c. Outline specific characteristics that must be verified.

An example of a completed DD Form 1232 is shown in Figure VIII-1-14.

QUALITY CONTROL REPRESENTATIVE'S CORRESPONDENCE

1. CONTRACT, P. O., OR O. I. NUMBER
AMC-00-C-XXXX

2. DATE PREPARED

3. PRIME CONTRACTOR AND LOCATION
XYZ Company, Seattle, Washington

4. PLANT NAME AND ADDRESS
444 Airway Road, Seattle

5. ITEM
P. O. 66-4-1 for Grease

SUBJECT: Source Inspection

FROM (Name & Signature): J. D. Jones, QAR, XYZ Company



TO: John D. Adams, QAR, XYZ Subcompany

1. It is requested that Government Source Inspection be accomplished on the purchase order noted in item 5 above, copy of which is attached.
2. Source inspection is requested since all specification tests cannot be performed at this plant.
3. The following characteristics will be inspected on a 100% basis:
 - a. -----
 - b. -----
 - c. -----

This form provides an optional, convenient method of requesting tests or test surveillance when other forms are not contractually specified. DD Form 1222 may be used to request tests from a Government laboratory, notify a contractor of articles selected for contractually required tests, or request Government witnessing of contractor tests subcontracted to another facility. Test at Government laboratories must be contractually required or arranged with the laboratory prior to shipment of test units. When other forms for requesting tests are contractually required, they must be used. When tests are subcontracted to another facility, a Letter of Instruction should accompany the request for inspection and test. The DD Form 1222 is supplied in sets of original and six copies. The original and as many copies as necessary should accompany the test articles when shipped. Retain one copy for file. Other distribution may be made as desired. The form is adaptable for any type of textile, petroleum, electronic, mechanical, ammunition, or other test for functional, chemical, interchangeability, or other characteristics.

Section A of the form will usually be completed as follows:

Space 1. Enter the name and address of the Government laboratory, the QAR of the commercial laboratory, or the prime contractor to which the sample is transmitted for tests.

Space 2. Enter the prime contractor QAR name, address, including zip code, and telephone number and Area Code where applicable.

Space 3. Enter the name and address of prime contractor as shown on the contract. Below, enter the contract number. For petroleum testing contracts, enter "Same as 1".

Space 4. Enter the name of plant from which sample is being submitted, if different from prime contractor. Otherwise, use the word "Same". Below, enter the purchase order or work order number, if applicable. For petroleum testing contracts, enter "N. A.".

Space 5. Enter the official nomenclature of finished item as listed in the contract. Enter "N. A." for submission of petroleum samples.

Space 6. Assign a sample number sequentially by Test Item for identification and enter it in this space.

Space 7. Enter the lot number or other identification where applicable.

Space 8. Enter here the type test desired, such as First Article Approval, Product Acceptance, Correlation Sample. If there is insufficient space to identify the test, enter "See Remarks" and describe the desired test in that space. The applicable test procedure may be attached or referenced.

Space 9. Enter the date that the sample is actually shipped.

Space 10. Enter the official nomenclature and part number of component being submitted for test. Also enter brand name if applicable.

Space 10a. Enter the unit quantity of product submitted. Also enter the number of packages in which the samples are being mailed when there is more than one package. (Example: 20 pieces, 2 packages.)

Space 11. Enter the quantity of unit of product in lot represented by the sample. Also enter in parenthesis the estimated quantity of end items in which this quantity of components will be used, if this information does not violate security requirements. If an end item is submitted, no parenthetical figure is necessary. The quantity per lot may be omitted when the information would violate security. Enter "N. A." for petroleum testing contracts.

Space 12. Enter the information required.

Space 13. Enter name and address of manufacturer of component, not the jobber or distributor, if different from Space 3. For petroleum contracts enter "N. A." since information is restricted.

Space 14. Enter the type of mail or express shipment used to submit sample to laboratory. (Example: First Class, Parcel Post.)

Space 15. Enter the Calendar date sample was selected, typed and signed name of pertinent quality assurance personnel indicating his symbol if applicable.

Space 16. Enter the following, where applicable:

- a. When only certain characteristics of the sample are to be tested, list the characteristics.
- b. Request return of samples, when applicable.
- c. State which tests must be witnessed by QAR.
- d. This space may be used as a continuation medium for any other space.

e. Any other comment which will serve to clarify or expedite the completion of testing or first article approval.

Space 17. Enter the name and address of the activity to which the results of the test are to be sent.

Section B of the form will usually be completed as follows, by the addressee or by the prime QAR when tests are to be conducted at the contractor's plant.

Space 1. Enter the date the witnessing quality assurance personnel selected sample or the date received from another QAR or Government facility.

Space 2. Enter the date a telephoned or wired notice of completion is given if in advance of the formal report.

Space 3. Enter the contractor's or Government laboratory report number if applicable, otherwise enter "N. A.".

Space 4. Enter date(s) test(s) performed, results of examination and testing, and specification and/or contract requirements. Where contractor's laboratory report adequately describes test results, it may be attached and a note "see attached report number _____" entered in Space 4. The following information will be included or attached:

- a. When nonconformance is noted, indicate applicable reference and fully describe nonconformance.
- b. When alternate methods, operations or materials are authorized, the options taken will be noted.
- c. Recommendation whether the sample should or should not be approved and reasons therefore.

Date. Enter the date the report is signed.

Typed Name and Title of Person Conducting Test. Self-explanatory.

Signature. Enter the signature of the Government tester, QAR, Quality Assurance Engineer, or Specialist who witnessed the test.

Examples of completed DD Forms 1222 are shown in Figures VIII-1-15, VIII-1-16, VIII-1-17, and VIII-1-18. Figure VIII-1-15 represents submission of samples to a Government laboratory; Figure

VIII-1-16 to a contractor laboratory; Figure VIII-1-17 for Government witnessing at a subcontract laboratory; and Figure VIII-1-18 for testing under a petroleum service testing contract.

REQUEST FOR AND RESULTS OF TESTS				PAGE NO.	NO. OF PAGES
				1	1
SECTION A - REQUEST FOR TEST					
1. TO: Commander Defense Personnel Support Center 2800 South 20th Street Philadelphia, Pa. 19101 ATTN: Lab Branch, Technical Div.			2. FROM: QAR John Doe A. B. Company 107 Lovedale Road Anyplace, New York 1xxxxx 914 - 723-6542		
3. PRIME CONTRACTOR AND ADDRESS A. B. Company 107 Lovedale Road Anyplace, New York 1xxxxx CONTRACT NUMBER See Block 16			4. MANUFACTURING PLANT NAME AND ADDRESS Same P. O. NUMBER N. A.		
5. END ITEM AND/OR PROJECT Barrier Material, Greaseproofed Flexible (Waterproofed)		6. SAMPLE NUMBER 7	7. LOT NO. 4	8. REASON FOR SUBMITTAL Verification Testing	9. DATE SUBMITTED 10 Aug 69
10. MATERIAL TO BE TESTED Barrier Material Type II Gr.C,Cl	10a. QUANTITY SUBMITTED 5 Sample Units of 2 yds. each	11. QUANTITY REPRESENTED 200 rolls		12. SPEC. & AMEND AND/OR DRAWING NO. & REV. FOR SAMPLE & DATE MIL-B-121B 21 May 1959 w/exceptions in Block 16	
13. PURCHASED FROM OR SOURCE N/A		14. SHIPMENT METHOD First Class Mail	15. DATE SAMPLED AND SUBMITTED BY 10 Aug 69 <i>John Doe</i> John Doe		
16. REMARKS AND/OR SPECIAL INSTRUCTIONS AND/OR WAIVERS. Conditionally Reliable 50 Rolls - DSA-4-67213 75 Rolls - DSA-4-53726 50 Rolls - DSA-3-16357 25 Rolls - DSA-5-37269 200 Rolls Test only for: Tear Strength after aging (MD&CD) Tensile Strength after aging (CD only)					
17. SEND REPORT OF TEST TO Commander, Def. Gen. Supply Center, ATTN: Quality Analysis Branch, Eng. Services & Quality Control Division, Director of Tech. Operations, Richmond, Va. 23219					
SECTION B - RESULTS OF TEST (Continue on plain white paper if more space is required)					
1. DATE SAMPLE RECEIVED		2. DATE RESULTS REPORTED		3. LAB REPORT NUMBER	
4. TEST PERFORMED		RESULTS OF TEST	SAMPLE RESULT	REQUIREMENTS	
DATE	TYPED NAME AND TITLE OF PERSON CONDUCTING TEST			SIGNATURE	

REQUEST FOR AND RESULTS OF TESTS				PAGE NO.	NO. OF PAGES
				1	1
SECTION A - REQUEST FOR TEST					
1. TO: XYZ Company Anytown, Tennessee 662XX			2. FROM: QAR XYZ Company Anytown, Tennessee 662XX		
3. PRIME CONTRACTOR AND ADDRESS Same CONTRACT NUMBER NOW 65-3067			4. MANUFACTURING PLANT NAME AND ADDRESS Same P. O. NUMBER N.A.		
5. END ITEM AND/OR PROJECT Ripper Missile AGM-XX		6. SAMPLE NUMBER 7	7. LOT NO. IV	8. REASON FOR SUBMITTAL Incoming Material Sample Test	
				9. DATE SUBMITTED 9 June 69	
10. MATERIAL TO BE TESTED Resistor, PIN 49736 1 & 15	10a. QUANTITY SUBMITTED 10 pcs/1 pkg.	11. QUANTITY REPRESENTED 700 Resistors		12. SPEC. & AMEND AND/OR DRAWING NO. & REV. FOR SAMPLE & DATE 49736 Rev G	
13. PURCHASED FROM OR SOURCE KLM Resistor Co. Someplace, N. Y.		14. SHIPMENT METHOD N. A.		15. DATE SAMPLED AND SUBMITTED BY 6 June 69 J. Doakes DCRA-QOCY <i>J. Doakes</i>	
16. REMARKS AND/OR SPECIAL INSTRUCTIONS AND/OR WAIVERS. Scheduled incoming material sampling test. Test for compliance with Humidity and High Temperature operation per 49736 Rev G, Government witness of test set ups and final electrical tests is required					
17. SEND REPORT OF TEST TO One copy of contractor letter report to QAR.					
SECTION B - RESULTS OF TEST (Continue on plain white paper if more space is required)					
1. DATE SAMPLE RECEIVED 9 June 1969		2. DATE RESULTS REPORTED 30 June 1969		3. LAB REPORT NUMBER XYZ-E-271	
4. TEST PERFORMED		RESULTS OF TEST		SAMPLE RESULT	
Humidity 10-20 June High Temp. 23 June		1 Failure O. K.		49736 Note 7.d. Note 7.c.	
DATE	TYPED NAME AND TITLE OF PERSON CONDUCTING TEST		SIGNATURE		
30 June 69	J. K. LONG TESTER, XYZ CO.		<i>R. A. Tabor</i> R. A. TABOR QAA, XYZ CO.		

REQUEST FOR AND RESULTS OF TESTS				PAGE NO.	NO. OF PAGES
				1	1
SECTION A - REQUEST FOR TEST					
1. TO: QAR AB Testing Laboratory Union, N. J. XXXXX			2. FROM: QAR XYZ Company Anytown, Tenn. 662XX		
3. PRIME CONTRACTOR AND ADDRESS XYZ Company Anytown, Tennessee 662XX CONTRACT NUMBER NOW 65-53092			4. MANUFACTURING PLANT NAME AND ADDRESS Same P. O. NUMBER A0-65-409		
5. END ITEM AND/OR PROJECT Ripper Missile AGM-XX		6. SAMPLE NUMBER 2	7. LOT NO. II	8. REASON FOR SUBMITTAL Production Lot Acceptance Test	9. DATE SUBMITTED 12 Dec 69
10. MATERIAL TO BE TESTED Guidance Sect P/N976530	10a. QUANTITY SUBMITTED 4 pcs/2 pkgs.	11. QUANTITY REPRESENTED CONF		12. SPEC. & AMEND AND/OR DRAWING NO. & REV. FOR SAMPLE & DATE WS-49650 Rev N 976530 Rev K	
13. PURCHASED FROM OR SOURCE N. A.		14. SHIPMENT METHOD REA - Armed Surveil.		15. DATE SAMPLED AND SUBMITTED BY 11 Dec 69 J. Doakes DCRA-OOGX <i>J. Doakes</i>	
16. REMARKS AND/OR SPECIAL INSTRUCTIONS AND/OR WAIVERS. Environmental tests to be conducted in accordance with attached CONFIDENTIAL procedures, AB Testing Laboratory, Union, N. J. TP-653402 Rev D of 11 Nov 65 and XYZ Co. T-13562 Rev N of 20 Oct 1966. Gov't witness of all operational, random vibration, and acoustic noise req'd. by Contract. Witness of test set up for other tests req'd. Date and stamp data sheets for all tests or set ups witnessed. Test lab to return samples to XYZ Co.					
17. SEND REPORT OF TEST TO 2 cys to QAR, XYZ Co. 1 cy to Naval Air Systems Command, Washington, D. C. 20360, Code Air 69					
SECTION B - RESULTS OF TEST (Continue on plain white paper if more space is required)					
1. DATE SAMPLE RECEIVED 16 Dec 69		2. DATE RESULTS REPORTED Fonecon 15 Jan 70		3. LAB REPORT NUMBER ABL-66-12	
4. TEST PERFORMED 16 Dec thru 14 Jan		RESULTS OF TEST See attached Contractor Report ABL-66-12		SAMPLE RESULT 2 Failures	
				REQUIREMENTS Test procedures supplied	
DATE 26 Jan 70	TYPED NAME AND TITLE OF PERSON CONDUCTING TEST G. H. ISLE TEST SUPER., AB TEST LAB.			SIGNATURE <i>G. H. Isle</i> N. O. POST QAR, AB TEST LAB.	

DD FORM 1222
1 FEB 62

REPLACES DD FORM 1222, 1 JUL 58, WHICH IS OBSOLETE.

REQUEST FOR AND RESULTS OF TESTS				PAGE NO.	NO. OF PAGES
				1	1
SECTION A - REQUEST FOR TEST					
1. TO: XYZ Laboratory Anytown, Anywhere, U.S.A. 662XX			2. FROM: QAR XYZ Laboratory Anytown, Anywhere, U. S. A. 662XX 615 - 736-7639		
3. PRIME CONTRACTOR AND ADDRESS Same as 1 CONTRACT NUMBER DSA-600-XXXX			4. MANUFACTURING PLANT NAME AND ADDRESS N/A P. O. NUMBER		
5. END ITEM AND/OR PROJECT N/A		6. SAMPLE NUMBER 1	7. LOT NO. N/A	8. REASON FOR SUBMITTAL DSA-600-XXXX	9. DATE SUBMITTED 6 Jun 69
10. MATERIAL TO BE TESTED JP-4	10a. QUANTITY SUBMITTED 10 gallon	11. QUANTITY REPRESENTED N/A	12. SPEC. & AMEND AND/OR DRAWING NO. & REV. FOR SAMPLE & DATE MIL-J-5624G		
13. PURCHASED FROM OR SOURCE N/A		14. SHIPMENT METHOD Hand Carried	15. DATE SAMPLED AND SUBMITTED BY 6 June 69 <i>Jesse Doakes</i> Jesse Doakes DCRA-QCGX		
16. REMARKS AND/OR SPECIAL INSTRUCTIONS AND/OR WAIVERS. Sample submitted for complete specification testing pursuant to requirement of contract DSA-600-XXXX Government witnessing of WSIM and contaminant level tests is required. Complete report required within 24 hours.					
17. SEND REPORT OF TEST TO QAR, XYZ LABORATORY, ANYTOWN, ANYWHERE USA, 662XX					
SECTION B - RESULTS OF TEST (Continue on plain white paper if more space is required)					
1. DATE SAMPLE RECEIVED 9 June 69		2. DATE RESULTS REPORTED 10 June 69		3. LAB REPORT NUMBER XYZ-1	
4. TEST PERFORMED 9-10 June 69	RESULTS OF TEST See attached Contractor Report	SAMPLE RESULT Fails WSIM		REQUIREMENTS MIL-J-5624G	
DATE 10 June 69	TYPED NAME AND TITLE OF PERSON CONDUCTING TEST G. H. ISLE Test Supervisor, XYZ Laboratory	SIGNATURE <i>G. H. Isle</i> G. H. ISLE			

DD FORM 1222
FEB 68

REPLACES DD FORM 1222, 1 JUL 58, WHICH IS OBSOLETE.

8-112 DD FORM 1716, PROCUREMENT DATA PACKAGE RECOMMENDATION/DEFICIENCY

This form is designed to enable the QAR to report deficiencies in procurement data packages. The form will be completed as follows:

Space 1. Control Number. To be assigned by reporting element. Enter the organizational code followed by last two digits of calendar year and suffixed by 1 and up through calendar year. (Example - DCRB-DBQ-69-01.)

Space 2. Thru (ACO) (when applicable). When ACO is assigned process through the ACO only when the problem affects the relationship of the contracting parties. Enter ACO name, office code, and complete address including zip code. Otherwise process directly to the PCO. When ACO is not assigned, enter, if appropriate, CAO cognizant of reporting element.

Space 3. To (PCO). Enter PCO name, office code, and complete address including zip code.

Space 4. From. Enter organization name, office code, and complete address including zip code of reporting activity.

Space 5. Category of Deficiency. Check in appropriate block(s).

Space 6. Priority for PCO Reply. Check urgency in appropriate block.

Space 7. Item Noun Name. Enter, where appropriate, to identify specific line item on report.

Space 7a. FSN. Enter, where appropriate, to identify specific line item on report. Use space 10 when additional reporting is required.

Space 8. Contract Number. Enter contract number including Procurement Instrument Identification Number (PIIN), Contract Line Item Number (CLIN), or Exhibit Line Item Number (ELIN).

Space 8a. Contractor's Name and Complete Address. Enter contractor's name and complete address including zip code. Include Federal Supply Code of Manufacturers, if known.

Space 9. Contract Administration Problems. Check in appropriate blocks A or B. When B is identified, check in sub-blocks to identify deficient condition(s). When Block B 6 is checked, DD Form 1426, Specification Analysis Sheet, should be attached to this form.

Space 10. Remarks. Describe problem in detail with substantive facts including appropriate recommendations for solution.

Space 11a. Typed Name, Title, Telephone Number of Initiator. Self-explanatory.

Space 11b. Signature of Initiator and Date. Self-explanatory.

Space 12a. Typed Signature and Title of Reviewing Official and Date. Self-explanatory.

Space 12b. Signature of Reviewing Official and Date. Self-explanatory.

Section II - For completion by ACO (when applicable). When ACO is assigned, and including in the form routing if the problem involves the relationship of contracting parties, provide pertinent recommendations to aid PCO in reaching a decision or, when PCO action is deemed unnecessary, check appropriate block and provide rationale to support action. Actions prescribed for PCO may be performed by authorized contract administration office personnel when an ACO is not assigned to the contract.

Section III - For completion by PCO. Indicate action taken or to be taken with regard to the reported problem. Reply should be responsive to priority in Space 6.

Example of form is shown in Figure VIII-1-19.

GLOSSARY

1. Acceptance. The act of an authorized representative of the Government by which the Government assumes for itself, or as agent of another, ownership of existing and identified supplies tendered, or approves specific services required, as partial or complete performance of the contract on the part of the contractor.

2. Activities.

a. Contract Administration Office (CAO). The office which performs assigned functions related to the administration of contracts and assigned preaward functions.

b. Purchasing Office. The office which awards or executes a contract for supplies or services and performs post award functions not assigned to a contract administration office.

c. Technical Activity. The Government activity responsible for the development of technical requirements included in contracts.

3. Complex Item. An item having quality characteristics, not wholly visible in the end item, for which contractual conformance must progressively be established through precise measurements, test and controls accomplished during purchasing, manufacturing, assembly, and functional operations either as an individual item or in conjunction with other items.

4. Configuration Identification. The current approved or conditionally approved technical documentation for a configuration item as set forth in specifications, drawings and associated lists, and documents referenced therein.

5. Contract. Any type of a Government agreement or order for the procurement of supplies or services. It includes awards and notices of awards; contracts of a fixed-price, cost, cost-plus-a fixed-fee, or incentive type; contracts providing for the issuance of job orders, or task letters thereunder; letter contracts and purchase orders. It also includes supplemental agreements with respect to any of the foregoing.

6. Contract Quality Requirement. The detailed requisites for quality incumbent on the contractor, consisting of:

a. All quality requirements contained in a contract.

b. The detailed contractual requisites incumbent on the contractor to substantiate conformance of product or service to quality requirements of the contract.

7. Contracting Officer Representative (COR) (NASA). Any individual designated by letter to act for the contracting officer.
8. Contractor. Any individual, company, partnership or association holding a contract with a Government purchasing office.
9. Contractor Decision Verification. A system performed by the Government to determine how well or the accuracy at which the contractor's overall inspection operation is functioning.
10. Corrective Action. Effective action to obtain correction of deficiencies found in contractors compliance with contract quality requirements.

Improvement Project: A specifically directed investigative function designed to correct a defective condition and to assure the adequacy of contractor's action in correcting the cause of reported deficiencies or to control any other project which may be assigned to QA personnel.

11. Critical Application. An application of an item in which the failure of the item could injure personnel or jeopardize a military mission. Critical items may be either peculiar, having only one application, or common, having multiple application.

12. Customer Complaint. A notice received by a CAO from a Government receiving or using activity that relates to an unsatisfactory condition. Notices may be made by letter, message, or departmental/agency form.

13. Data.

a. Quality Evaluation Data Collection System. A system for collecting quality data making optimum use of existent contractor and Government forms, records, and record keeping procedures.

b. Contractor Quality Data. All information required by contract to be developed, collected, or maintained and made available to the Government.

c. Government Procurement Quality Assurance Data. All information pertaining to Government inspections, surveys, evaluations, investigations, audits, and requests for corrective actions.

d. User Experience Data. Performance feedback information from users. This data is provided by failure reports, unsatisfactory material reports, equipment improvement recommendations, customer complaints, reports, etc.

e. Quality Data Evaluation. A continuing and systematic evaluation of the quality data provided by the quality evaluation data collection system for the purpose of effecting acceptance and requesting corrective action.

14. Engineering Changes.

a. Engineering Change. An alteration in the configuration of an item delivered, to be delivered, or under development, after formal establishment of its configuration identification.

b. Engineering Change Proposal (ECP). A term which includes both a proposed engineering change and the documentation by which the change is described and suggested.

c. Class I Engineering Change. An engineering change will be classified Class I when one or more of the factors listed below is affected:

- (1) The functional or allocated configuration identification.
- (2) The product configuration identification as contractually specified (or as applied to Government activities), excluding referenced drawings.
- (3) Technical requirements below contained in the product configuration identification, including referenced drawings, as contractually specified (or as applied to Government activities).
 - (a) Performance outside stated tolerance.
 - (b) Reliability, maintainability or survivability outside stated tolerance.
 - (c) Weight, balance, moment of inertia.
 - (d) Interface characteristics.
- (4) Non-technical contractual provisions.
 - (a) Fee.
 - (b) Incentives.
 - (c) Cost.
 - (d) Schedules.
 - (e) Guarantees or deliveries.

(5) Other factors.

- (a) Government furnished equipment (GFE).
- (b) Safety.
- (c) Electromagnetic characteristics.
- (d) Operational, test or maintenance computer programs.
- (e) Compatibility with support equipment, trainers or training devices/equipment.
- (f) Configuration to the extent that retrofit action would be taken.
- (g) Delivered operation and maintenance manuals for which adequate change/revision funding is not on existing contracts.
- (h) Pre-set adjustments or schedules affecting operating limits or performance to such extent as to require assignment of a new identification number.
- (i) Interchangeability, substitutability or replaceability, as applied to Configuration Item (CI's) and to all subassemblies and parts of repairable CI's, excluding the pieces and parts of non-repairable subassemblies.
- (j) Sources of CI's or repairable items at any level defined by source control drawings.

Note: In the above definition of a Class I engineering change, the words "excluding referenced drawings" in subparagraph 14c(2) will not be interpreted to exclude drawings prescribed directly in a contract by drawing number to define contract line items. Other drawings, whether referenced in documents or listed on associated lists are excluded from 14c(3) but included in 14c(2).

d. Class II Engineering Change. An engineering change shall be classified Class II when it does not fall within the definition of a Class I engineering change in 14c(2). Examples of a Class II engineering change are: (a) a change in documentation only (e.g., correction of errors addition of clarifying notes or views) or (b) a change in hardware (e.g., substitution of an alternative material) which does not affect any factor listed in 14c.

Note: When two or more contractors are producing items to the same mandatory detail drawings, an engineering change which is Class II to the originator may be Class I in its impact on the other contractor(s).

15. Facilities

a. Resident Facility. (Type 1). A facility requiring the assignment of one or more full time personnel.

b. Scheduled Facility. (Type 2). A facility where less than the full time assignment of one man is required but where the workload and nature of the product requires the accomplishment of the applicable parts of the Procurement Quality Assurance Program on a regularly scheduled basis.

c. On-Call Facility (Type 3). A facility where QA activity is normally limited to functions which can or must be performed at time of shipment and it is not advantageous to preschedule visits.

16. Inspection (Product Verification Inspection) (Product Inspection). The examination and testing of supplies or services (including, when appropriate, raw materials, components, and intermediate assemblies) to determine whether they conform to contract requirements.

17. Testing. An element of inspection and generally denotes the determination by technical means of properties or elements of supplies or components thereof, including functional operation and involves the application of established scientific principles and procedures.

18. Intensity. The degree to which the DoD examines a product or associated characteristics.

19. Material Review Board (MRB). The formal Contractor-Government Board established for the purpose of reviewing, evaluating, and disposing of specific nonconforming supplies or services; and, for assuring the initiation and accomplishment of corrective action to preclude recurrence.

20. Non-complex item. An item having quality characteristics for which simple measurements and test of the end item is sufficient to determine conformance to contract requirements.

21. Nonconforming Supplies and Services. Those supplies and services which contain one or more departures from the contractual requirements.

a. Type I Nonconformance. Those supplies which depart from contract requirements and affect one or more of the following major areas: performance, durability, interchangeability, effective use or operations, weight or appearance (where a factor), or health or safety.

b. Type II Nonconformance. For purposes herein, departures are considered minor when they lack importance or significance from the established standards of workmanship or other similar standards in a manner or to degree that has no subsequent bearing on the effective

use or operation of the item or related components for its intended application. Those supplies or services which depart from contract requirements and are minor in that they do not affect any of the criteria specified in Type I above.

22. Objective Evidence. Any documented statement of fact pertaining to the quality of a product or service based on observations, measurements, or tests which can be fully verified. Evidence must be expressed in unbiased terms of quality requirements of characteristics. These characteristics are identified in drawings, specifications, and other documents which describe the item, process or procedure.

23. Operating Procedure (OP). A procedure developed by the QAR to provide for local implementing instructions.

24. Procedures

a. Procedures. Written instructions required to control work operations affecting quality.

b. Review of Contractor's Procedures. An examination of the contractor's procedures to assure appropriate subject coverage and timely availability.

c. Evaluation of Contractor's Procedures. A continuing determination of contractor's conformance to written procedure.

25. Procedures Element. The separate parts of the procedures, techniques and processes in any areas of the contractor's operations which influence product quality.

26. Procurement Quality Assurance (PQA). The Government function by which the Government determines whether a contractor has fulfilled the contract obligations pertaining to quality and quantity. This function is related to and generally precedes the act of acceptance.

27. Product Control Center. A manageable increment of the contractor's total inspection activity. A Product Control Center is a grouping of verification stations which will allow Product Control Centers to match a geographical area of the contractor's facility or similar manufacturing processes.

28. Quality Assurance Assistant (QAA). The individual(s) assigned to assist the QAR in the performance of the quality assurance mission at a given contractor's facility.

29. Quality Assurance Representative (QAR). The individual directly charged with performance of the Government procurement quality assurance function at a given contractor's facility.

30. Records

a. Review of Contractors Records. An examination of contractors records to assure that all required entries are provided for and that the entries are complete and accurately entered.

b. Evaluation of Contractors Records. A comparison of the data in the contractors records with the results of those inspections performed by the Government to determine accuracy of the data.

c. Contractor Decision Verification. A random and continuing evaluation of the contractors decisions, performed by comparing the findings of Government inspection with contractors inspection records.

31. Subcontract. Any contract as defined in Item 3 of this Glossary, including interworks agreements, other than a prime contract entered into by a prime contractor or subcontractor calling for supplies or services required for the performance of any one or more prime contracts.

32. Subcontractor. Any supplier, distributor, vendor or firm which furnishes supplies or services to or for a prime contractor.

33. Verification Station. A specific contractor's inspection activity where one or more contractor's inspectors are engaged in making quality decisions.

33. Request for Waiver. The formal document prepared by the contractor, or his subcontractors, and submitted by the prime contractor to the Government for the purpose of requesting acceptance of the designated nonconforming supplies or services, or, for requesting temporary relief from a technical requirement of the contract.

34. Waiver. A written authorization to accept a configuration item or other designated items, which during production or after having been submitted for inspection, are found to depart from specified requirements, but nevertheless are considered suitable for use "as is" or after rework by an approved method.