



NSWC/IHDIV QUALITY MANUAL



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DEPARTMENT OF THE NAVY

INDIAN HEAD DIVISION
NAVAL SURFACE WARFARE CENTER
101 STRAUSS AVE
INDIAN HEAD MD 20640-5035

IHDIVNAVSURWARCENINST 4855.3C
CODE: 05

OCT 19 1998

IHDIVNAVSURFWARCEN INSTRUCTION 4855.3C

From: Commander

Subj: QUALITY ASSURANCE PROGRAM

Ref: (a) ANSI/ASQC Q9001-1994
(b) IHSP 99-438 "Quality Assurance Manual"

1. **Purpose:** To establish the Quality Assurance Program for the Indian Head Division (IHDIV), Naval Surface Warfare Center, Indian Head, MD.
2. **Cancellation:** NAVSURFWARCENINST 4855.3B Changes are not indicated because of major revision.
3. **Background:** Reference (a) establishes a model for Quality Assurance in Design, Development, Production, Installation, and Servicing that provides for a disciplined approach to assuring customer requirements are fully understood and achieved. The backbone of that disciplined approach is the consistent application of documented procedures for processes that may impact the quality of one's products or services.
4. **Policy:** Reference (b), based upon the requirements of reference (a), establishes the Quality Assurance program for the Indian Head Division. Responsibility and accountability for design, development, manufacturing, and test quality assurance shall be assigned to appropriate personnel by their cognizant Department Head. The Director, Corporate Quality (Code 05Q) is responsible for developing IHDIV quality assurance policy and performing oversight to assure compliance with reference (b).
5. **Action:** The Director, Corporate Quality shall publish and maintain reference (b) for the IHDIV Quality Assurance Program. All other organizations shall provide the resources necessary to assure that the quality assurance disciplines are implemented within their areas of responsibility.

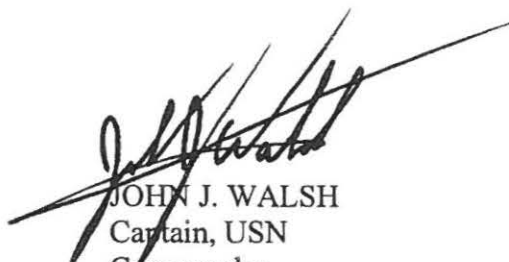

JOHN J. WALSH

FOREWORD**INDIAN HEAD DIVISION QUALITY POLICY**


We shall strive to continuously improve our products and processes so that we might better serve our customers, the warfighters, and exceed their expectations.

The purpose of this Quality Manual is to document and communicate the quality policies of the Indian Head Division, Naval Surface Warfare Center and its detachments. The Quality System described in this manual meets or exceeds the requirements of **ANSI/ASQC Q9001-1994**, *Quality Systems — Model for Quality Assurance in Design, Production, Installation, and Servicing*.

Our focus must be two-fold: (1) to provide high quality products and services and (2) to strive to improve all aspects of our business; we should never be complacent with “good enough.” It is only through this continuous improvement that we will ensure our role and our value in the future.



JOHN J. WALSH
Captain, USN
Commander



MARY E. LACEY
Director

CONTENTS

QM 01.0	Management Responsibility
QM 02.0	Quality System
QM 03.0	Contract Review
QM 04.0	Design Control
QM 05.0	Documentation and Data Control
QM 06.0	Purchasing
QM 07.0	Control of Customer Supplied Material
QM 08.0	Product Identification and Traceability
QM 09.0	Process Control
QM 10.0	Inspection and Testing
QM 11.0	Control of Test, Measuring, and Diagnostic Equipment
QM 12.0	Inspection and Test Status
QM 13.0	Control of Nonconforming Material
QM 14.0	Corrective and Preventative Action
QM 15.0	Handling, Storage, Packaging, Preservation, and Delivery
QM 16.0	Control of Quality Records
QM 17.0	Internal Quality Audits
QM 18.0	Training
QM 19.0	Servicing
QM 20.0	Statistical Techniques

REVISION STATUS
INDIAN HEAD DIVISION QUALITY MANUAL

The latest official copy of the Indian Head Division Quality Manual will be maintained on the IHD Intranet page; any printed copies are uncontrolled and can only be used for historical reference. The listing below provides a summary of the revision status of each section of this manual:

<u>Section No.</u>	<u>Title</u>	<u>Revision</u>
QM 01.0	Management Responsibility	N/A
QM 02.0	Quality System	N/A
QM 03.0	Contract Review	N/A
QM 04.0	Design Control	N/A
QM 05.0	Document & Data Control	N/A
QM 06.0	Purchasing	N/A
QM 07.0	Control of Customer-Supplied Product	N/A
QM 08.0	Product Identification & Traceability	N/A
QM 09.0	Process Control	N/A
QM 10.0	Inspection & Testing	N/A
QM 11.0	Control of Test, Measuring & Diagnostic Equipment	N/A
QM 12.0	Inspection & Test Status	N/A
QM 13.0	Control of Nonconforming Material	N/A
QM 14.0	Corrective & Preventive Action	N/A
QM 15.0	Handling, Storage, Packaging, Preservation, and Delivery	N/A
QM 16.0	Control of Quality Records	N/A
QM 17.0	Internal Quality Audits	N/A
QM 18.0	Training	N/A
QM 19.0	Servicing	N/A
QM 20.0	Statistical Techniques	N/A

QUALITY POLICY

Our mission is to ensure operational readiness of U.S. and Allied Forces by providing full-spectrum technical capabilities necessary to rapidly move any energetics product from concept through production, to operational deployment. It is crucial that we all strive to continuously improve our products and processes so that we might better serve our customers and exceed their expectations. Our focus must be two-fold: [1] providing high quality products and services, and [2] striving to improve all aspects of our business; we should never be complacent with “good enough”. It is only through this continuous improvement that will we ensure our role and our value in the future.

JOHN J. WALSH
Captain, USN
Commander

4855
Ser 05/094
15 Sept 97

MEMORANDUM

From: 05Q

Subj: CHANGE TO IHDIV QUALITY ASSURANCE MANUAL

Ref: (a) IHSP 87-253, Revision 1 "Quality Assurance Manual"

Encl: (1) Quality Policy

1. Reference (a), Indian Head Division's QA Manual is currently being revised to reflect the requirements of ISO 9000. However, to correct deficiencies noted during a Standard Missile Maintenance Evaluation the following changes are made to the existing manual:

[a] Remove page v, "Forward", and replace with enclosure (1)

[b] Replace all references to NAVSEA OD 46574B "Weapons and Combat Systems QA Requirements" with NAVSEA TO300-AM-ORD-010.


NOTE: TO300-AM-ORD-010 replaced OD 46574B in October 1993 but reference (a) was not revised due to the lack of change in the actual requirements between OD 46574B and TO300-AM-ORD-010.

2. You are requested to make the above changes and to record those changes on page vii of reference (a); this will be CHANGE 1.

PAUL V. MORROW

QUALITY POLICY

Our mission is to ensure operational readiness of U.S. and Allied Forces by providing full-spectrum technical capabilities necessary to rapidly move any energetics product from concept through production, to operational deployment. It is crucial that we all strive to continuously improve our products and processes so that we might better serve our customers and exceed their expectations. Our focus must be two-fold: [1] providing high quality products and services, and [2] striving to improve all aspects of our business; we should never be complacent with "good enough". It is only through this continuous improvement that will we ensure our role and our value in the future.



JOHN J. WALSH
Captain, USN
Commander

Subj: CHANGE TO IH DIV QUALITY ASSURANCE MANUAL

Distribution:

A	1	230	1	5830	1	8430	1
B	1	2320	1	590	1	950	1
TD	1	2340	1	620	1		
OC	1	2350	1	6210	1		
PM	1	30	1	6220	1		
PM1	1	30E	1	630	1		
PM2	1	310	1	6310	1		
PM3	1	3110	1	6320	1		
PM4	1	3120	1	64	1		
PM5	1	3130	1	651	1		
PM6	1	3140	1	652	1		
04	1	330	1	653	1		
041	1	330C	1	654	1		
042	1	3310	1	655	1		
05	1	3320	1	660	1		
05Q	1	3330	1	670	1		
11	1	40	1	6710	1		
11Q	1	47	1	6720	1		
11Q3	1	49	1	6730	1		
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2230	1	5720	1	9430	1		
2240	1	580	1	9450	1		

2250 1

5820 1

9460 1

QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Management Responsibility	QM 01.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 2
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. The Commander, IHDIV, is responsible for establishing, implementing, and maintaining the Division's quality system. Specific responsibilities include: formulating the quality policy, defining organization, assigning authority and responsibility and appointing the management representative, periodically reviewing the quality system, and providing the resources required to operate and maintain the system. The policies contained in this quality manual shall apply to all organizations that are under the cognizance of the Commander, IHDIV, including those that are located at sites other than Indian Head. This manual does not apply to tenant commands located at Indian Head.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 The management representative, Director, Corporate Quality, Code 05Q (also referred to as the Quality Focal Point), is responsible for identifying all processes, procedures, and instructions necessary to ensure that products and services are of the highest possible quality, while meeting customer requirements. Specifically, Code 05Q shall:

- a. In conjunction with executing departments and program leadership, ensure that a quality system is established, implemented, and maintained.
- b. Report on the performance of the quality system to management for review and as a basis for improvement of the quality system.
- c. Maintain this manual and issue quality procedures to standardize quality assurance procedures and policies for specific quality and reliability issues.
- d. Act as primary IHDIV contact for quality related policy issues.
- e. Provide consultation and guidance to all departments in implementing and executing the IHDIV Quality Assurance Program (QAP).
- f. Oversee and audit IHDIV programs and organizations to ensure compliance with QAP element.
- g. Issue and maintain IHDIV quality assurance stamps.

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3.2 Departments shall ensure that personnel who manage, perform, or verify work affecting quality have sufficient responsibility and authority defined and documented to enable them to:

- a. Initiate action to prevent the occurrence of any nonconformances relating to product, process, and quality system.
- b. Identify and record any problems relating to the product, process, or quality system.
- c. Initiate, recommend, or provide solutions through designated channels.
- d. Verify the implementation of solutions.
- e. Control further processing, delivery, or installation of nonconforming material until the deficiency or unsatisfactory condition has been corrected.

3.3 Departments shall provide adequate resources, including the assignment of trained personnel, for management, performance of work, and verification activities, including internal quality audits.

3.4 The two components of the IHDIIV leadership system, the Executive Team (ET) and the Leadership Team (LT), shall, on a regular basis, review the corporate performance indicators with the intent of identification of progress toward established goals and the initiation of any warranted improvement actions. Included in these corporate indicators are metrics pertaining to the effectiveness of the quality system.

4. REFERENCES. N/A

QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Quality System	QM 02.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 2
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. The Quality System established at IHDIV is based upon the requirements contained in ANSI/ASQC Q9001 (ISO 9001-1994), and is supplemented by higher level Federal, Navy, and NAVSEA regulations and specific customer requirements. The quality system places the responsibility for product/service/process quality on the individual performing the work and provides appropriate emphasis on the understanding of and meeting customer needs and expectations as well as on the prevention of defects through the application of a disciplined approach to design, development, production, and testing. It also provides the requisite guidance for the handling of any nonconforming material and the necessary corrective actions to prevent recurrence of defects.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 Quality Planning. This manual sets forth the basic policies and requirements of the IHDIV Quality System but the actual implementation of those requirements can only be accomplished through the application of quality planning. Departments shall provide for the appropriate level of quality planning, commensurate with the scope and complexity of the program/project under consideration, with particular attention given to the following areas:

3.1.1 Quality Project Plans. A document setting out the specific quality practices, resources, responsibilities, and requirements relative to a particular product, service, task, or contract.

3.1.2 Process Controls. This includes inspection and test equipment, fixtures, skills, etc., that may be needed to achieve the required quality.

3.1.3 Product/Process Design. See QM 04.0.

3.1.4 Inspection and Testing Techniques. Includes the development of new instrumentation.

3.1.5 Test, Measurement, and Diagnostic Equipment. The identification and availability of existing equipment/technologies as well as the development of any new technologies, as required. This area of quality planning is equally applicable to both manufacturing and research and development activities.

3.1.6 Inspection and Verification. Identification of suitable verification methodologies at appropriate stages of processes.

3.1.7 Standards of Acceptability. Includes both the development of new standards and the clarification of existing ones.

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3.1.8 Quality Records. The identification and development of such records and the identification of the requirements for their storage.

3.2 Documentation. The description of the IHDIV Quality System extends beyond that contained in this manual and includes the following levels of documentation:

Level I: **IHDIV Mission and Vision** Statements
IHDIV Quality Manual

Level II: **IHDIV Instructions**
IHDIV Quality Procedure Manual
Department Procedure Manuals (if applicable)

Level III: Standard Operating Procedures
Engineering Procedures
Ballistic Test Procedures
Mix Sheets

4. REFERENCES. N/A

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Contract Review	QM 03.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. All contracts to IHDIV for products and services shall be reviewed to assess if the customer's needs and requirements are adequately defined and understood and if IHDIV has sufficient resources to meet those requirements.

Note:

In the context of this procedure the term "contract" refers to fund documents; e.g., Purchase Orders, Military Interdepartmental Purchase Requests (MIPRs), and Work Orders, that IHDIV receives from its customers for the delivery of products or services. Contracts that IHDIV awards for goods and services are to be reviewed following the provisions of QM 06.0.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 All contracts received shall be reviewed for funding and technical adequacy following the provisions of reference a.

3.2 If contracts are received without an adequate description of the products or services to be provided the cognizant program/project manager shall ensure that the contract requirements are agreed upon and documented prior to contract acceptance.

4. REFERENCES.

- a. **IHDIVNAVSURFWARCENINST 5200.4B**, Program Management System Policies and Procedures.

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT:

Design Control

QM 04.0

REV:

N/A

DATE:

22 October 1999

Page 1 of 2

APPROVED:

Paul V. Morrow

1. POLICY. Efforts to achieve quality must begin in the design process and the establishment of design criteria shall take into account a full understanding of our customer's needs and expectations. Our goal must be to meet those requirements in the most cost-effective manner and to exceed requirements or expectations if possible without negative impact to the customer's quality, schedule, and cost requirements. Design practices for new or improved products, components, or processes shall control design, development, and documentation to ensure safety and quality requirements are incorporated in a consistent and uniform manner.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 General. Departments engaged in design and development activities shall specifically assign responsibilities for the various design duties to activities both inside and outside their organization and ensure that all those who contribute to the design are aware of their responsibilities for achieving a quality design.

3.2 Design and Development Planning. The design and development of a new or revised product or service shall be accomplished in accordance with a written plan prepared in advance of the design and development process. Design and development responsibilities shall be assigned to qualified personnel with adequate resources to accomplish their assigned tasks. Plans shall be updated as the design evolves. The detail contained in such a plan shall be commensurate with the scope and complexity of the design project itself.

3.3 Organizational and Technical Interfaces. The individuals, teams, and/or organizations that will provide input to the design shall be identified and the communication links between the groups defined. Provisions shall be made to ensure that necessary information is documented, transmitted, and regularly reviewed and the timeframes when input must be received for the design process to proceed on schedule must also be identified.

3.4 Design Input. Design input requirements; e.g., customer needs/expectations, military or commercial specifications and manuals, statutory or regulatory requirements, shall be identified, documented, reviewed for adequacy, and considered against the results of the contract/task reviews. Incomplete, ambiguous, or conflicting requirements shall be resolved.

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3.5 Design Output. Design output shall be documented and expressed in terms that can be verified and validated against design requirements. Design output must:

- a. Meet design input requirements.
- b. Contain or make reference to the acceptance criteria.
- c. Identify characteristics of the design that are crucial to the safe and proper functioning of the product, e.g., operating, handling, maintenance, and disposal requirements.
- d. Include a review of design output documents prior to release.

3.6 Design Review. At appropriate stages of design, formal documented design reviews shall be conducted in accordance with the provisions of reference a. Records of such reviews shall be maintained as Quality Records in accordance with **QM 16.0**.

3.7 Design Verification and Validation. Verification compares design output to input; it is the producer's point of view. Validation ensures that the product meets the user needs and requirements; it is the customer's point of view and is usually performed on the final product.

3.7.1 Design verification shall be performed at appropriate stages of the design to ensure that the design stage output meets the design stage input and the results of such design verification efforts shall be recorded and maintained as Quality Records in accordance with **QM 16.0**. Verification may include any of the following:

- a. Alternative calculations, made to verify the correctness of the original calculations and analyses
- b. Testing and demonstrations, following the provisions of reference b
- c. Comparison with a proven design.

3.7.2 Design validation is performed to ensure the product conforms to the customer or user needs and requirements and is normally performed under defined operating conditions of the finished product. Multiple validations may be necessary if there are different intended uses.

3.8 Design Changes. Design changes and modifications shall be identified, documented, reviewed, and approved by authorized personnel prior to implementation.

4. REFERENCES.

- a. **IHDIVNAVSURFWARCENINST 9070.1**, Design Reviews
- b. **IHDIVNAVSURFWARCENINST 3960.1**, Test Readiness Reviews.

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Documentation and Data Control	QM 05.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. All documents and data that pertain directly or indirectly to the quality of our products and services shall be controlled to ensure that all work performed is correct, complete, accurate, properly approved, and in accordance with authorized customer requirements.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 Document and Data Approval and Issue. Following the provisions of references a through c all documents/data shall be reviewed and approved for accuracy and adequacy prior to use. Provisions shall be made, via a master list or an equivalent document-control procedure, to ensure the ready identification of the current revision status of documents and this instrument shall be readily available to preclude the use of invalid and/or obsolete documents. Appropriate controls shall be established to ensure that:

- a. The current issues of documents are readily available to those personnel performing work.
- b. Obsolete or invalid documents are either removed from all points of use or otherwise guarded against unintended use.
- c. Obsolete documents retained for archival purposes are properly identified.

3.2 Document and Data Changes. Following the provisions of references a through c procedures shall be established to assure that all changes to controlled documentation and data are reviewed and approved by authorized personnel prior to issue and use.

4. REFERENCES.

- a. **IHDIVNAVSURFWARCENINST 5070.3**, Technical Documentation Control Record System
- b. **IHDIVNAVSURFWARCENINST 5070.5**, Requisitioning, Custody, Maintenance, & Distribution of Technical Data
- c. **MIL-STD-973**, Configuration Management.

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Purchasing	QM 06.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 2
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. IHDIV shall take all steps necessary to ensure that our suppliers provide us with material or services that meet all specified requirements.

2. CANCELLATION. N/A

3. REQUIREMENTS.

Note:

The requirements of this QM do not apply to the purchase of non-mission related goods and services; e.g., office supplies and janitorial services.

3.1 Supplier Evaluation and Selection. Contracts shall be awarded on either a best-price or best-value basis depending upon the item(s) being procured. If the best-value method of selection is to be used cost, schedule, and known past performance are to be the main determinants. (The IHDIV-maintained vendor performance database or the NAVSEALOGCENDET, Portsmouth NH, Product Data Reporting and Evaluation Program (PDREP) are potential sources of supplier performance data.) If no such performance data are available or if the solicitation has unusual technical or quality requirements a pre-award survey shall be a significant part of the source selection process.

3.1.1 Acquisition planning shall include provisions for appropriate levels of control or oversight of the suppliers during the course of contract performance. Such controls shall be dependent upon the complexity of the product/service being procured, its impact on subsequent IHDIV operations, and the past performance of the supplier.

3.1.2 Records pertaining to the quality of the material provided by a supplier and the supplier's overall contract performance shall be maintained.

3.2 Purchasing Information. Purchase documents, including contracts, Bank Card transactions, Purchase Orders, etc., shall contain sufficient information to clearly describe the product ordered. Such information may include, where applicable:

- a. Type, class, grade etc.
- b. Title, number or other positive identification of applicable drawings, specifications, etc.
- c. Title, number, and issue of the applicable quality system standard, e.g., **ISO 9000, FAR 52.246-2**, or equivalent, to be used
- d. Inspection data and certifications.

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3.3 Verification of Purchased Product. Contracts, Purchase Orders, etc., shall clearly identify the location; i.e., source or destination inspection, of acceptance of a delivered product/service. Acceptance shall be accomplished following the provisions of reference a.

3.4 Record. Records pertaining to the acceptance of purchased material, e.g., inspection results, certifications, etc., shall be maintained for a period to be established by the purchasing organization, but in no case shall this be less than 7 years after final payment (**FAR 4.805**).

4. REFERENCES.

- a. **IHDIVNAVSURFWARCENINST 4235.4**, Procedures for Receipt, Inspection, and Delivery of Materials.

QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Control of Customer Supplied Material	QM 07.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. All customer-owned materials and supplies shall be maintained and managed in a manner to preclude damage or loss.

2. CANCELLATION. N/A

3. REQUIREMENTS. Procedures shall be established to provide for the proper identification, inventory, and monitoring of customer-owned material and supplies to ensure that it is not missing, lost, or stolen. The owners of such material shall be notified immediately if it is damaged or lost in accordance with the provisions of reference a. The provisions of reference a shall also apply to material owned by our nongovernment customers.

4. REFERENCES.

- a. **IHDIVNAVSURFWARCENINST 5500.4**, Policy and Procedures for Reporting Missing, Lost, Stolen, or Recovered (MLSR) Government Property.

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Product Identification and Traceability	QM 08.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. All material shall be clearly identified, per references a and b, from receipt and through all stages of processing, final assembly, and delivery. If traceability (forward or rearward) is warranted by customer requirements, provisions shall be made to ensure unique identification of individual product or batches.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 Identification. Documented procedures shall be established and implemented to ensure that all material is clearly and durably identified throughout processing. Examples of such identification may include marking each item with drawing/specification number and revision status, and the labeling of bags/containers of like items.

3.2 Traceability. Documented procedures shall be established and implemented, as applicable, to provide for clear traceability of components, batches, and product.

4. REFERENCES.

- a. **MIL-STD-129**, Standard Practice for Military Marking.
- b. **IHDIVNAVSURFWARCENINST 8015.1**, Ammunition Distribution and Control (AD&C) Responsibilities and Field Reporting Procedures.

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Process Control	QM 09.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 2
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. All production, development, or service processes shall be identified and planned to ensure that the requisite level of quality is achieved at each step of the process. Appropriate controls shall be placed on all processes to provide verification and assurance that the end product meets all customer requirements and that the processes are conducted in accordance with existing safety procedures and regulations.

Where direct verification is not possible or practical the processes, i.e., special processes, shall be fully qualified and certified prior to the commencement of operations.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 Process Identification. All processes, including design, development, manufacturing, and in-service engineering, that have an impact on the quality of products delivered to our customers shall be identified and formally documented. In addition, critical process steps, i.e., those having direct and significant influence on product quality, shall also be identified.

3.2 Process Planning. All processes shall be planned and formally documented to assure that production and service processes are carried out under controlled conditions. Controlled conditions shall provide for the following:

- a. Documented work instructions defining the manner of production
- b. Use of suitable production equipment and work environment
- c. Compliance with applicable reference standards/codes, e.g., **OP 5**, quality plans and/or documented procedures
- d. Monitoring and control of suitable process and product characteristics
- e. Approval of processes and equipment, as applicable
- f. Workmanship standards, where applicable
- g. Suitable maintenance of equipment to ensure continuing process capability.

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3.3 Special Processes. A special process is a process in which the acceptability of the result cannot be verified by subsequent inspection or test. Such processes require prequalification of their process capability. Special processes, e.g., soldering, welding, magnetic particle inspection, shall be identified and documented and provisions shall be made for special process or operator certification training, as appropriate.

4. REFERENCES. N/A

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Inspection and Testing	QM 10.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 2
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. All material and products shall be subjected to verification, in accordance with formally documented and approved inspection/test procedures, to assure their compliance with customer's requirements and specifications. Materials and products shall not be used or processed further until such verification has been accomplished and the results approved by cognizant authority. Items found to be nonconforming shall be identified and segregated from acceptable items until the nonconformities have been repaired, reworked, or waived by the appropriate authority. The results of all inspections and tests shall be recorded and reviewed prior to the release of the item(s).

Note:

The term "material" as it is used in this QM applies to items that are to be used in research, development, test, or manufacturing programs—not to routine supplies and consumables.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 Receiving Inspection and Test. Provisions shall be made to verify that all received material conforms to specified requirements prior to use. Additionally, provisions shall be made to assure that:

- a. Material is segregated prior to inspection.
- b. Inspections are performed in accordance with formally documented and approved procedures.
- c. The amount and nature of inspection performed is based upon the amount of control exercised at the supplier's facility and the recorded evidence of conformance provided by the supplier. (The appropriate level of inspection might range from a mere verification of quantity received and part number to full dimensional and nondestructive examination.)
- d. Material released for urgent production prior to completion of verification is formally identified and capable of positive recall in the event of nonconformity to specified requirements.

3.2 In-Process Inspection and Test. All in-process inspections and tests shall be conducted using formally documented and approved procedures. Product shall be held from further processing until the required inspections and tests have been completed and the results verified for conformance to specifications except when it is released under positive-recall procedures.

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3.3 Final Inspection and Test. All final inspections and tests shall be conducted in accordance with formally documented and approved procedures to assure conformance of the final product with the customer's requirements and specifications. Provisions shall be made to—

- a. Verify successful completion of all required receiving and in-process inspections/tests.
- b. Assure that no product is released to the customer until all activities specified in the quality plan or in otherwise documented procedures have been completed.
- c. All inspection and test records are available and authorized.

3.4 Inspection and Test Records. Records shall be established and maintained and shall:

- a. Provide evidence that required inspections and tests have been performed.
- b. Clearly indicate the acceptance status, i.e., pass/fail.
- c. Shall identify the person(s) responsible for the release of the product.

4. REFERENCES. N/A

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QUALITY MANUAL

Indian Head Division, NSW

Subject: Control of Test, Measuring, and Diagnostic Equipment	QM 11.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. All test, measuring, and diagnostic equipment (TMDE) shall be controlled, calibrated, and maintained to assure their continued capability of meeting the required measurement accuracies. All TMDE shall clearly indicate their calibration status.

Note:

This policy applies to all manufacturing, laboratory, and R&D operations regardless of the purpose of the measurement, i.e., product acceptance, process control, 'information only,' etc.

2. CANCELLATION. N/A

3. REQUIREMENTS. All TMDE shall comply with the provisions of reference a and the owners of TMDE shall provide for its use and storage in a manner consistent with maintaining its intended accuracy. Persons requiring the use of TMDE shall determine the measurements to be taken and the required accuracy and select the TMDE capable of meeting those requirements.

4. REFERENCES.

- a. **IHDIVNAVSURFWARCENINST 4734.1**, Calibration Program.

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Inspection and Test Status	QM 12.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. The inspection and test status of materials and product shall be clearly identified to indicate the conformance or nonconformance based on the results of inspection/test actions and shall be maintained during all phases of production.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 General. Departments engaged in the manufacture of products, components, or items for delivery to customers, external or internal, shall establish, document, and implement procedures for the clear identification of the inspection/test status of such material throughout the production process. This identification shall include:

- a. Item nomenclature
- b. Lot/batch and/or serial number, if applicable
- c. Material condition code, per reference a
- d. Defect code, per reference a
- e. Inspection status, i.e., awaiting inspection, accepted—awaiting further processing, nonconforming—awaiting disposition, etc.
- f. Identification of person assigning inspection status.
- g. Storage location, per reference b.

4. REFERENCES.

- a. TW010-AC-ORD-010, Inspection Requirements for Receipt, Segregation, Storage and Issue of Navy and Marine Corps Conventional Ammunition.
- b. **IHDIVNAVSURFWARCENINST 8015.1**, Ammunition Distribution and Control (AD&C) Responsibilities and Field Reporting Procedures.

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Control of Nonconforming Material	QM 13.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. All material that does not conform to established requirements shall be clearly identified and controlled to prevent its unintended use or shipment. Additionally, all nonconforming material shall be reviewed by a cognizant authority for the purpose of determining its disposition.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 General. Departments engaged in the manufacture of products intended for delivery to our customers, external or internal, shall establish and document procedures for the control of nonconforming material to prevent its unintended use. These procedures shall provide, as a minimum, for the following:

- a. Clear identification of material status per reference a
- b. Segregation, if practical, of nonconforming material from acceptable material
- c. Establishment of material review boards and the definition of the limits of their authority to make material disposition
- d. Documentation, via Discrepancy Reports (reference b) of nonconforming material including a description of the discrepant condition and any subsequent repair/rework actions.

3.2 Repaired and/or reworked material shall be reinspected per the provisions of the applicable quality plan or otherwise documented procedures. Prior inspections shall be repeated if their results are invalidated through the rework/repair process.

3.3 Records. The documentation of nonconforming material via discrepancy reports, shop travelers, etc., shall be controlled following the requirements of **QM 16.0**.

4. REFERENCES.

- a. **QM 12.0**, Inspection and Test Status
- b. Discrepancy Record, Form **NDW-IHDIVNAVSURFWARCEN 9090/2**.

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Indian Head Division, NSWC

SUBJECT: Corrective and Preventive Action	QM 14.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. All IHDIV employees are encouraged to report and document any instance of actual or potential nonconforming material or process and have the authority to stop processes which, in their opinion, have a significant adverse effect on product quality or the safety of operations. All instances of nonconformances shall be documented and investigated to determine root cause. Corrective actions shall be assigned to prevent recurrence. Quality data, including customer complaints, SPC charts, audit results, etc., shall be analyzed to detect potential problems and their causes and actions shall be assigned to prevent the occurrence of nonconforming material or processes. Corrective or preventive actions taken to eliminate causes of nonconformances shall be to the degree appropriate to the magnitude of the problem and commensurate with the risks encountered.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 General. Departments engaged in the manufacture of products for delivery to our customers, external or internal, shall establish and document procedures for the implementation of an effective corrective action and preventive action program. These procedures shall provide for the following.

3.1.1 Corrective Action

- a. Documentation of all instances of nonconforming material
- b. Investigation into the root causes of the nonconformance
- c. Assignment of effective corrective actions
- d. Application of controls to ensure that the action is taken and that it is effective.

3.1.2 Preventive Action

- a. Use of appropriate source of information to detect potential problems
- b. Assignment of any necessary preventive actions
- c. Application of controls to ensure the effectiveness of the preventive action
- d. Submittal of relevant actions taken for management review (see **QM 01**).

4. REFERENCES. N/A

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Handling, Storage, Packaging, Preservation, and Delivery	QM 15.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. IHDIV shall provide for the handling, storage, packaging, preservation, and delivery of our products, as well as our incoming and in-process materials, in such a manner as to preclude loss, damage, or deterioration (reference a).

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 Handling. Departments engaged in the handling of materials, components, or products shall develop and document procedures to ensure that the task is completed by trained personnel using well-maintained and approved equipment.

3.2 Storage. Departments storing materials, components, or products shall:

- a. Provide storage areas where the product will be secure from deterioration and damage
- b. Develop and document procedures for the controlled movement of items into and from the storage area
- c. Provide for the periodic assessment of the condition of items held in storage.

3.3 Packaging. Departments engaged in the packaging of products shall develop and document procedures to ensure conformance with the customer's requirements.

3.4 Preservation. Departments shall develop and document procedures to ensure that material, components, and product are preserved according to the customer's requirements.

3.5 Delivery. Departments shall develop and document procedures for the delivery of IHD products to our customers in a manner that is consistent with maintaining product quality and, when specified, in conformance with the customer's requirements.

4. REFERENCES.

- a. NAVSEA OP 5, Vol I.

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QUALITY MANUAL

Indian Head Division, NSWC

SUBJECT: Control of Quality Records	QM 16.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. All IHDIV quality records shall be controlled, via documented procedures, in a manner that provides for their identification, collection, indexing, access, filing, storage, maintenance, and disposition and permits demonstration of conformance to customer-specified requirements.

2. CANCELLATION. N/A

3. REQUIREMENTS. Departments shall establish and document procedures for the control of quality records and such procedures shall provide for:

- a. Identification, collection, indexing, access, filing, storage, maintenance, and disposition of quality records
- b. Retention of records that demonstrate the effectiveness of the quality system
- c. Records that are legible and traceable to the product involved
- d. Ease of access and retrieval of the records
- e. Protection of the records from damage while stored
- f. Specification of retention periods
- g. Availability of the records to our customers.

Notes:

1. *Records* are defined as 'recorded information, regardless of medium or characteristics, made or received by an organization that is useful in the operation of the organization' whereas *documents* denote procedures, policies, instructions, or other written or graphically depicted methods or ways of conducting oneself or the operations in a given organization. Some examples of records are:

- (a) Inspection reports
- (b) Test data
- (c) Calibration data
- (d) Qualification reports
- (e) Completed shop travelers
- (f) Completed MIL-STD-129 tags.

2. A blank form is a document but once it is filled in it becomes a record!

3. A document may be changed and therefore subjected to the provisions of configuration management but a record cannot be altered and is, therefore not subject to document control.

4. Records may be in the form of any type of media, such as hard copy or electronic media.

5. Reference a provides guidance for records pertaining to records for storage of explosive material.

4. REFERENCES.

- a. **IHDIVNAVSURFWARCENINST 8015.1**, Ammunition Distribution and Control (AD&C) Responsibilities and Field Reporting Procedures.

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Internal Quality Audits	QM 17.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. IHDIV shall conduct periodic internal quality audits of our quality system to determine both the compliance with and the effectiveness of our documented procedures. The internal quality audits shall be conducted (a) by personnel independent of the function being audited and (b) using a documented audit plan. The results shall be reported to management for review and corrective action.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 General. Departments shall provide, on an as-needed basis, trained and qualified personnel to participate in quality audits of work performed in accordance with the elements contained in this Quality Manual. Additionally, departments shall investigate deficiencies noted during such audits to determine root cause(s) and implement effective corrective actions to prevent recurrence.

3.2 Auditor Qualifications. Auditors shall be:

- a. Independent of those having direct responsibility for the work being performed
- b. Trained in the methodology of conducting audits in accordance with the provisions of **ISO 9000**.

3.3 Audit Schedule. An audit schedule shall be developed covering each element of this manual. Each element should be audited on an annual basis and those elements determined to be more critical should be audited on a more frequent basis.

3.4 Audit Planning. Audits shall be conducted in accordance with documented audit plans.

3.5 Audit Report. After each audit is completed an audit report shall be prepared and issued to responsible area management for action. The report shall identify the area audited, audit findings, assignment of responsibility for corrective action, and a brief narrative regarding the overall results.

3.6 Corrective Action. Organizations assigned corrective actions shall investigate the discrepancy, identify root cause(s), implement effective actions, and report the status of such actions to the Director, Quality Operations, Code 05Q, on a regular basis until all actions are closed.

3.7 Follow-Up Audits. Periodic follow-up audits shall be conducted to verify and record the implementation and effectiveness of corrective actions taken.

4. REFERENCES. N/A

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Training	QM 18.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. IHDIV shall, through documented procedures, identify training needs and provide for the training of all personnel performing activities affecting quality. Personnel performing specific assigned tasks shall be qualified on the basis of appropriate education, training, and/or experience as required.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 General. Departments shall identify training needs for assigned personnel and, in conjunction with the Human Resources Department, identify training sources and provide for the delivery of that training. Appropriate records of that training shall be maintained.

3.2 Explosive Operations. The training and qualification of personnel to observe and/or participate in explosive operations shall be in accordance with reference a and the applicable department's Personnel Certification Plan.

4. REFERENCES.

- a. **IHDIVNAVSURFWARCENINST 5100.22**, Safety Manual.

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QUALITY MANUAL

Indian Head Division, NSWG

SUBJECT: Servicing	QM 19.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. When stipulated by contract, IHDIV shall, through documented procedures, provide its customers with the service they require to accomplish their mission successfully. IHDIV shall support the products we provide to ensure that they are ready to perform when deployed, at the level of quality to which they were designed.

2. CANCELLATION. N/A

3. REQUIREMENTS.

3.1 General. Departments shall document their processes for providing service to their customers. These processes shall include: engineering and technical support to resolve problems affecting the ability of users to perform their assigned mission, information tracking to monitor product/system quality and reliability, and integrated logistics support.

4. REFERENCES. N/A

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QUALITY MANUAL

Indian Head Division, NSW

SUBJECT: Statistical Techniques	QM 20.0	REV: N/A
	DATE: 22 October 1999	Page 1 of 1
	APPROVED: <i>Paul V. Morrow</i>	

1. POLICY. IHDIV shall identify the need for appropriate statistical techniques to measure and analyze data, e.g., product/process quality, performance, to ensure attainment of customer, internal and external, requirements. When the use of statistical techniques is determined to be appropriate, IHDIV shall establish and document procedures to implement and control their application.

2. CANCELLATION. N/A

3. REQUIREMENTS. When applicable Departments shall provide for the documentation and use of statistical techniques and shall provide for the training of personnel in their proper use. Additionally, Departments shall provide for the review, at a suitable frequency, of the data resulting from the use of such statistical techniques with the intent of improving the product/process under consideration. References a through f are provided for guidance in the selection and application of statistical techniques.

4. REFERENCES.

- a. **ANSI/ASQC Z1.4** – 1993, Sampling Procedures and Tables for Inspection by Attributes (replaces MIL-STD-105)
- b. **ANSI/ASQC Z1.9** – 1993, Sampling Procedures and Tables for Inspection by Variables for Percent Nonconforming (replaces MIL-STD-414)
- c. **ANSI/ASQC A2** –1987, Terms, Symbols, and Definitions for Acceptance Sampling
- d. **ANSI/ASQC B1-B3** – 1996, Quality Control Chart Methodologies
- e. *Statistical Quality Control*, Grant and Leavenworth, McGraw Hill, 1996
- f. *A Primer on the Taguchi Method*, Ranjit Roy, Van Nostrand Reinhold, 1990.

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DEPARTMENT OF THE NAVY

INDIAN HEAD DIVISION
NAVAL SURFACE WARFARE CENTER
101 STRAUSS AVE
INDIAN HEAD MD 20640-5035

IHDIVNAVSURFWARCENINST 4734.1B
Code: 30

8 NOV 1995

IHDIVNAVSURFWARCEN INSTRUCTION 4734.1B

From: Commander

Subj: CALIBRATION PROGRAM

- Ref:
- (a) NAVSEA TO300-AM-ORD-010/Quality System Requirements and Methods for Navy Weapons and Combat Systems
 - (b) NAVSEA 4734.1A/Metrology and Calibration (METCAL) Program
 - (c) NAVSEA OD 45845/Metrology Requirements List (METRL)
 - (d) NAVSEA OD 45842/Requirements for Shorebased Navy Calibration Laboratories
 - (e) MIL-M-38793A/Manuals, Technical: Calibration Procedures; preparation of
 - (f) ANSI\NCSL Z540-1-1994/Calibration Laboratories and Measuring and Test Equipment-General Requirements
 - (g) NAVSEAINST 5100.3B/Mercury, control of
 - (h) ST700-AM-PRO-010/TAMS Operations and Procedures Manual
 - (i) ST700-AM-GYD-010/METCAL; Metrology and Calibration (METCAL) Laboratory Requirements and Certification Guide

- Encl:
- (1) Calibration Out-of-Tolerance Notice Program
 - (2) Out-of-Tolerance Notice

1. Purpose. To formally establish a calibration program for test, measuring, and diagnostic equipment (TMDE) per references (a) and (b).

2. Cancellation. NAVORDSTAINST 4734.1A.

3. Policy. The calibration of TMDE is under the jurisdiction and control of the Test and Evaluation Department (Code 30) Calibration Laboratory. Under reference (b), calibration of TMDE and standards used for quantitative measurement is mandatory and will be performed by the Metrology Branch (Code 3230) at established intervals or anytime instrument credibility becomes questionable. All TMDE standards used for quantitative measurements must be appropriately labeled to indicate their calibration status per the provisions of reference (b). Code 30 will fully implement and administer references (a) through (i) as they apply to the calibration and control of TMDE.

8 NOV 1995

4. Scope. The provisions of the calibration program described herein apply to TMDE and standards used by the Indian Head Division, Naval Surface Warfare Center, (IHDIVNAVSURFWARCEN), and other government agencies which record, make, or generate quantitative measurements in the development, production, maintenance, inspection, and testing of items delivered to our customers.

5. Definitions

a. Test, Measuring, and Diagnostic Equipment (TMDE). Devices used to measure, gage, test, inspect, diagnose, and otherwise examine material, supplies, and equipment to determine compliance with requirements established in applicable specifications. Such equipment includes Special Purpose Test Equipment (SPTe), Special Support Equipment (SSE), and General Purpose Test Equipment (GPTE).

b. Calibration. Comparison of two instruments or measuring devices, one of which is a standard of known accuracy traceable to the National Institute of Standards and Technology, to detect, correlate, report, or eliminate (by adjustment) any discrepancy in the accuracy of the instrument or measuring device being compared with the standard.

6. Responsibility

a. Metrology Branch (Code 3230)

(1) General

(a) Calibrate TMDE at established intervals under the provisions of reference (c). Code 3230 will perform acceptance tests and/or calibrate all new TMDE prior to use.

(b) Establish and maintain an inventory of all TMDE, standards, and ancillary equipment which is held in an active or inactive calibration status and is part of the calibration recall program. Per reference (b), control the maintenance and use of Code 3230 standards to ensure that quantitative measurements derived during the calibration process are accurate, valid, and provide traceability to the National Institute of Standards and Technology. To maintain such traceability, Code 3230 will periodically forward its standards to the appropriate standards laboratory for verification and calibration.

8 NOV 1995

IHDIVNAVSURFWARCENINST 4734.1B

(c) Review all TMDE procurement requests to prevent acquisition of new equipment that is already on board in an active or inactive status, and to assure the proposed equipment has the required accuracy, stability, range, and measurement capability for its intended use. The review will also assure equipment standardization and assure that provisions are made to appropriately calibrate the equipment.

(2) Calibration Labels. Affix the appropriate calibration servicing labels and tags per reference (b) to all TMDE and standards calibrated. Affix "calibration not required" labels to all equipment, except steam-line gauges, when listed as "calibration not required" in reference (c), or if not listed, when the criteria of enclosure (1) of reference (b) are met. Code 3230 will maintain the integrity of labels or tags, restricting tag access to authorized personnel.

(3) Calibration Procedures.

(a) Maintain a file of current calibration procedures.

(b) Per reference (e), assist in the development of calibration procedures for special equipment not listed in reference (c).

(4) Recall Program. Using the calibration intervals in reference (c), establish and maintain a mandatory program to periodically recall all active TMDE for recalibration. Recall notices will be sent out no later than the last week of each month for equipment due the following month. Calibration recall notices will indicate manufacturer's code, model number, serial number, nomenclature, holder (user), and the date the item is due to Code 3230. Code 320 will distribute Calibration Overdue Notices to the user's Division Head, with a copy to the appropriate branch manager, for TMDE not submitted in response to the original recall notice. If there is no response after the second notice, the Test and Evaluation Department Head (Code 30), will send out a Corrective Action Request. The Corrective Action Request will require the equipment be placed out of service (Red Tagged), and all work using that equipment be halted. Test and Evaluation will notify TDQ of this action. The branch manager, who owns the equipment, will "Red Tag" all out of date equipment. Department Quality Assurance Focal Points will monitor all Corrective Action Requests for completeness and accuracy.

8 NOV 1995

(5) Calibration Documentation.

(a) Document the results of each calibration performed by the policy established by reference (a).

(b) Generate out-of-tolerance notices following enclosure (1) that include the parameter found out-of-tolerance and the extent of the error, and forward to the branch manager of the TMDE user with a copy to the Department's Quality Assurance Focal Point. The branch manager is to respond by using enclosure (2). If Code 3230 has not received a response within ten (10) working days of the out-of-tolerance notice, then Code 320 will generate a memo to the user's division head, with a copy to the appropriate branch manager requesting a response to the original out-of-tolerance notice sent. If there is no response within ten (10) working days after the second notice, the Test and Evaluation Department Head (Code 30) will generate a corrective action request to the user's department head with a copy to TDQ, who will proceed to assist in the correction of the problem.

(6) Assure that the contract, purchase order, work request, or work authorization document for calibration services performed by a private contractor or other government activity imposes the requirements of references (d) and (f), as required.

(7) Training. Ensure that calibration personnel receive training per reference (b).

(8) Lab Certification. In accordance with references (h) and (i), a biennial Calibration Capability Review (CCR) of the Calibration Laboratory will be conducted by Naval Sea Support Center Atlantic, (Code 912). Upon satisfactory completion of the CCR, certification will be documented by a certificate signed and issued by NAVSEA (Code 04DS).

(9) Safety. Maintain strict compliance to reference (h) when working with equipment containing mercury. Potential personnel hazard, damage to materials and environmental pollution resulting from the use of mercury will be constantly monitored.

b. Quality Assurance Focal Point, TDQ

(1) Periodically audit the station calibration program per references (a) and (b) to assure compliance with program directives.

(2) Follow up on delinquent out-of-tolerance notices.

8 NOV 1995

IHDIVNAVSURFWARCENINST 4734.1B

c. Quality Procurement (Code 110)

(1) Review contractor calibration systems, ensuring that contractors comply with the requirements established by reference (f), as applicable.

d. Program Engineering Groups

(1) Assist in development of all calibration procedures for special equipment not listed in reference (c) which have not been furnished by the cognizant in-service engineering agent.

(2) Assure that Calibration Procedures are developed per references (a), (e), and (h).

(3) The appropriate quality control person in the department using the TMDE will provide for immediate removal or conspicuous identification of any equipment which has not been calibrated per the established schedule.

(4) The Quality Assurance Focal Point in the department will do an impact study on out-of-tolerance TMDE used to accept products and provide a completed out-of-tolerance report to Code 3230.

7. Action

a. Test and Evaluation Department (Code 30). Maintain and update this instruction to ensure that the provisions herein and in references (a) through (i) are enforced for all station elements using TMDE for verification of product quality.

b. Departments Using TMDE for Verification of Product Quality
Submit TMDE for calibration/recalibration as directed by appropriate recall notices. Prior to submitting for purchase, route all purchase requests for TMDE for product verification through Code 3230 for review. Investigate and respond to out-of-tolerance notices.

c. Supply Department (Code 11). Ensure that Code 3230 reviews all purchase requests for TMDE prior to initiating purchase action.

W. J. Newton

W. J. NEWTON

Distribution:
List "X"

8 NOV 1995

IHDIVNAVSURFWARCENINST 4734.1B

Calibration Out-Of-Tolerance Notice Program

1. Purpose. To establish procedures and define responsibility to ensure systematic processing and analysis of Out-Of-Tolerance Notices (OTNs) for all test, measuring, and diagnostic equipment (TMDE) used in the in-process or final acceptance testing of Indian Head Division, Naval Surface Warfare Center (IHDIVNAVSURFWARCEN), Indian Head products.

2. Background. ANSI\NCSL Z540-1-1994, reference (f), Calibration System Requirements, requires that IHDIVNAVSURFWARCEN'S calibration program include provisions for the response to OTNs by the users of the TMDE. The analysis of all TMDE with OTN's will determine the effect of the out-of-tolerance conditions on the acceptability of material previously tested and accepted.

3. Responsibilities

a. Metrology Branch (Code 3230)

(1) Initiate OTN's that include the parameter found out-of-tolerance and the extent of the error and forward the OTN to the TMDE user (branch level) and a copy to the Department Quality Assurance Focal Point.

(2) Provide assistance, upon request, in the analysis of the out-of-tolerance condition.

b. TMDE User Organization (Branch Level)

(1) Determine, upon receipt of an OTN, if the instrument was used for in-process or final acceptance testing and, if so, analyze the effect of the instrument error on the acceptability of the items tested.

(2) Respond to OTN's within ten working days. Submit responses to the Departmental Quality Assurance Focal Point with a copy to Code 3230.

(3) If items tested with out-of-tolerance instruments have been shipped and subsequent analysis of the test results indicates that the items do not conform to specifications, or are questionable, notify the cognizant In-Service Engineering Agent (ISEA) of the analysis results.

c. Departmental Quality Assurance Focal Point

- (1) Review and evaluate responses to OTN's.
- (2) Retain close-out OTN's.

Enclosure (1)

8 NOV 1995

(3) Provide assistance, upon request, in resolution of the effect of the out-of-tolerance condition on material previously accepted.

d. In-Service Engineering Agents (ISEAs). Assess impact of OTN on materials already shipped off station and notify Code TDQ or Department Quality Assurance Focal Point of actions taken.

e. TDQ. Periodically monitor and evaluation the OTN program to assure compliance with program requirements.

Enclosure (1)

8 NOV 1995

MEMORANDUM

From: 3230
To:

Subj: OUT-OF-TOLERANCE NOTICE; SERIAL NUMBER _____

Ref: (a) ANSI/NCSS Z540-1-1994
(b) IHDIIVNAVSURFWARCENINST 4734.1B

Encl: (1) OPNAV Form 4790/58A (07/74) Meter Card
(2) Evaluation of Out-Of-Tolerance Condition

1. In accordance with references (a) and (b), the Indian Head Division, Naval Surface Warfare Center, has implemented an out-of-tolerance program to assure that material accepted by measuring and test equipment found to be out-of-tolerance during calibration is identified. Furthermore, the program assures that this accepted material is analyzed for acceptability and positive corrective action is taken to preclude the shipment, issue, or use of defective or potentially defective material. The Station is committed to ensure that all items produced, accepted, and shipped meet all quality requirements.
2. As the measuring and test equipment user, you are best able to perform the initial data analysis and to make recommendations concerning the out-of-tolerance equipment since, in most cases, you are the first to know that defective or potentially defective material has been accepted and shipped to the Fleet. Therefore, please review enclosure (1), complete enclosure (2), and send them within ten working days from the date of this memorandum to your departmental Quality Assurance Focal Point and Code 3230.
3. If Code 3230 has not received a response within ten (10) working days of the out-of-tolerance notice, then Code 320 will generate a memo to the user's division head, with a copy to the appropriate branch manager requesting a response to the original out-of-tolerance notice sent. If there is no response within ten (10) working days after the second notice, the Test and Evaluation Department Head (Code 30) will generate a corrective action request to the user's department head with a copy to TDQ, who will proceed to assist in the correction of the problem.

JOSEPH E. CRAVEN, JR

Copy to:
Departmental Quality Assurance Focal Point
Sub-custodian

Enclosure (2)

8 NOV 1995

MEMORANDUM

From:

To: Department Quality Assurance Focal Point

Subj: EVALUATION OF OUT-OF-TOLERANCE CONDITION, SERIAL NUMBER:

1. The subject out-of-tolerance condition has been investigated and the following information and recommendations are submitted.

PART A - (To be completed by the user organization)

1. Instrument status from date last calibrated to due date:

- () Not used, held as spare equipment only.
- () Not used for acceptance purposes.
- () Used for in-process tests which are re-verified during final testing.
- () Not used on scale or range that is out-of-tolerance. Explain: _____

- () Used to test final product.
 - a. Item tested: _____
 - b. Part or drawing number: _____
 - c. Number of items tested with instruments during out- of-tolerance period: _____
 - d. Location of items (on-station): _____
 - e. Shipped to FLEET. Explain: _____

2. Classification of characteristics being tested.

Critical: _____

Major : _____

Minor : _____

Enclosure (2)

8 NOV 1995

IHDIVNAVSURFWARCENINST 4734.1B

3. In the opinion of the user, the following action should be taken concerning the measurements made with the out-of-tolerance instrument.

() Accept items/data as is. Explain: _____

() Recommend items be re-inspected or data be re-generated using the out-of-tolerance valves provided. Explain: _____

() It could not be determined by the user what effect, if any, the out-of-tolerance condition would have on the end product. Explain: _____

4. Intended future use of instrument?

() Discard/Excess

() Repair by other source and resubmit to Calibration Laboratory. Note: If an out-of-tolerance piece of equipment is repaired or repaired and calibrated by a private company that item must be resubmitted to the Calibration Laboratory for recalibration.

() Special calibration (If existing out-of-tolerance condition is acceptable for production use.) Explain: _____

5. User investigation performed by _____ Date: _____

PART B - (To be completed by Departmental Quality Assurance Focal Point)

() Concur with action recommended or taken.

() Do not concur with action recommended or taken. Explain: _____

6. Action verified by Name: _____ Date: _____

Copy to:
3230

3

Enclosure (2)



DEPARTMENT OF THE NAVY

INDIAN HEAD DIVISION
NAVAL SURFACE WARFARE CENTER
101 STRAUSS AVE
INDIAN HEAD MD 20640-5035

IHDIVNAVSURFWARCENINST 8015.1E
Code: 20

18 SEP 1996

IHDIVNAVSURFWARCEN INSTRUCTION 8015.1E

From: Commander

Subj: AMMUNITION DISTRIBUTION AND CONTROL (AD&C)
RESPONSIBILITIES AND FIELD REPORTING PROCEDURES

Ref: (a) NAVSEAINST 8015.1
(b) SPCCINST 8010.12
(c) NAVSUP Publication 437; MILSTRIP/MILSTRAP
(d) NAVORDSTAINST 5500.4
(e) OPNAVINST 55309.13
(f) NAVSEAINST 5500.4
(g) INDIVNAVSURFWARCENINST 11163.1
(h) Propellant Stability Test Program Instruction
(i) NAVSUPINST 4440.115
(j) NOC ltr 8000 OPR N4124 Ser N4/95-048 of 21 Dec 95
(k) TDQ memo 4855 Ser TDQ/25 dtd 19 Aug 96
(l) NAVSEA TW010-AC-ORD-010

Encl: (1) Policy for Material in Condition Code K
(2) Policy for Material in Condition Code J
(3) Policy for the Material Review Program
(4) Policy for Establishing Local Stock Numbers
(5) Material Reportable/Reports Required
(6) Policy for Minimum Shelf Life for CADs/PADs
(7) Reporting Procedures for AD&C Reportable Material
(8) Receipt Document Replacement, NDW-NAVORDSTA Form 4410/2
(9) Report of Material Identification and/or Movement, NDW-NAVORDSTA Form 4430/1 (Rev 4-92)
(10) Owner/Purpose Code Definitions

1. **Purpose.** To establish responsibilities and procedures for the management and operation of the Ammunition Distribution and Control (AD&C) function as required by reference (a). NOTE: For the purposes of this instruction, references to AD&C are for the function rather than the organization; therefore, the responsibility for the function may belong to an organization other than AD&C.

18 SEP 1996

2. Cancellation. NAVORDSTAINST 8015.1D. Changes are not indicated because of major revisions.

3. Scope. This instruction applies to all organizational elements of the Indian Head Division Naval Surface Warfare Center (IHDIIVNAVSURFWARCEN), Indian Head, involved in the receipt, storage, control, issue, repair, manufacture, shipment, modification, rework, lot acceptance testing, demilitarization, engineering, test, transportation, or procurement of conventional ammunition, including mines, missiles, torpedoes, associated components, and electronics inert material, such as shapes, simulators, containers, handling bands, fins, hoisting beams, etc.

4. Background. The IHDIIVNAVSURFWARCEN AD&C function is part of a Navy-wide program to record and report the receipt, storage, and issue of conventional ordnance material and ammunition. References (a), (b), and (c) require AD&C to maintain accurate inventory records of all reportable assets at IHDIIVNAVSURFWARCEN to ensure asset accountability, to facilitate local production/test operations planning, and to facilitate Navy-wide short, intermediate, and long-range ordnance acquisition, mobilization, and operations planning. AD&C requires the assistance of personnel throughout the activity to accomplish this mission. Reference (d) disseminates additional paperwork procedures for sensitive conventional Arms, Ammunition, and Explosives (AA&E), as required by references (e) and (f).

5. Responsibilities.

a. Ammunition Distribution and Control Office

(1) Manage the IHDIIVNAVSURFWARCEN AD&C function following references (a) and (b) in full integration with the Inventory Management Systems Division (IMSD) Conventional Ammunition Inventory Management System (CAIMS).

(2) Develop and maintain AD&C system reporting procedures and control for all program managers and participating station organizations.

(3) Control the receipt and issue of all reportable ordnance material and ammunition and the movement of such material in and out of service, ready issue magazines and production areas. The owner is responsible for material movements to and from in-process magazines. Service, ready issue, and in-process magazines are defined in reference (g).

(4) Oversee ammunition inventory program using the Ordnance Management System (OMS).

(5) Process all incoming Notice of Ammunition

18 SEP 1996

IHDIVNAVSURFWARCENINST 8015.1E

Reclassifications (NAR) in accordance with reference (a).

(6) Execute policy for material in Condition Code K (Suspended), in accordance with reference (a) and enclosure (1).

(7) Execute policy for material in Condition Code J (Suspended) in accordance with enclosure (2).

(8) Monitor policy tracking material in the IHDIVNAVSURFWARCEN Stability Test Program in accordance with reference (h).

(9) Monitor and execute policy for material in the IHDIVNAVSURFWARCEN Material Review Program in accordance with enclosure (3) and the Hazardous Waste Management Plan (IHDIVNAVSURFWARCENINST 5090.2).

(10) Manage policy for physical inventories of IHDIVNAVSURFWARCEN magazines in accordance with references (g), (h) and (i). Production building inventories will be conducted annually by the building owner and submitted to AD&C. AD&C will update OMS.

(11) Establish Local Stock Numbers (LSN) in accordance with enclosure (4).

(12) Prepare Department of Defense (DoD) Single Line Item Release/Receipt Document (DD Form 1348-1) for shipment of all ordnance materials (e.g., Ammunition cogs OT, 2D, 2E, 2T, 4E, 4T, 6T, 8E, 8S, 8T, and 8U; as defined in reference (b) and enclosure (6)).

(13) Coordinate and direct Activity response to all Code 999 emergency requisitions and messages, including weekends and holidays. Notify appropriate personnel/department and obtain required support to ensure material shipment is completed.

(14) Contact IMSD Item Manager for disposition of excess material. Initiate appropriate action.

(15) Designate organizational responsibility for updating OMS in an effort to input at the source. Identify equipment, equipment maintenance and training requirements for designated organizations. Oversee implementation and continue periodic audits (yearly minimum).

(16) Ensure Inventory Accuracy Officer (IAO) is aware of major problem areas. Involve IAO when chain-of-command notification does not resolve conflicts with other organizations.

(17) Review and analyze all recommendations made by

18 SEP 1996

Ammunition Management/Accountability Reviews (AMARs) and OMS Assessments to determine if implementation would be beneficial to this Activity.

(18) Monitor Building Data Set (BDS) report from OMS daily. When a building appears on the BDS report, AD&C will immediately notify the organization owning the building that there is a storage deficiency. The Safety Department and IAO will also be notified.

(19) Execute policy for Cartridge Actuated Devices and Propellant Actuated Devices (CADs/PADs) in accordance with reference (j) and enclosure (6).

(20) Ensure Ammunition Defect Codes are entered in OMS in accordance with reference (k).

b. All departments. All departments involved in the receipt, storage, control, issue, repair, manufacture, shipment, modification, rework, lot acceptance testing, demilitarization, engineering, test, or procurement of reportable ordnance and inert material will:

(1) Follow the procedures provided by enclosures (6) and (7), using the forms provided as enclosures (8) and (9).

(2) Respond to Code AD&C request for support in response to "999" emergency requisitions and messages for ordnance material and ammunition at any time including weekends and holidays.

(3) Comply with the provisions and requirements of enclosures (1), (2), (3), (4) and reference (h).

(4) Update OMS for all reportable transactions when designated by AD&C. Provide equipment, equipment maintenance, and training as necessary.

(5) Ensure OMS accurately reflects proper identification and quantities of reportable material. Owner/Purpose Codes are defined in enclosure (10).

(6) Take immediate action to correct discrepancies noted by the OMS BDS report as identified by AD&C. Building owners have 7 calendar days to correct storage deficiencies. The Safety Department shall tag "Out of Service" any building which has storage discrepancies that have not been corrected in 7 calendar days.

(7) Notify AD&C when materials are no longer required.

(8) Provide Ammunition Defect Codes when required in

accordance with reference (k).

1 8 SEP 1996

c. Information Security Division

(1) Forward, via email, all messages received on Milstrip Requisition, Ammo Milstrip Disposal Orders, Ammo Milstrip Referrals, Report of Shipments, Shipping Destinations, and other related matters citing ordnance cog symbols OT, 2D, 2E, 2T, 4E, 4T, 6T, 8E, 8S, 8T, and 8U.

(2) Notify designated Code AD&C personnel of all "999" emergency requisitions received from 1600 Friday to 0630 Monday.

W. J. Newton
W. J. NEWTON

Distribution:
List "X2"

POLICY FOR MATERIAL IN CONDITION CODE K

18 SEP 1996

Ref: (a) NAVSEA Instruction 8015.1B

1. The purpose of this policy is to establish and document requirements for the review of material in Condition Code K.

2. Material may be initially receipted in Condition Code K. However, in accordance with reference (a), the condition code must be changed to reflect the true condition of the material within 45 days of receipt on station.

3. Following is the policy for the review of Condition Code K material:

a. Code 2250 shall run a Condition Code K listing from the Ordnance Management System (OMS) the first week of each month.

b. Code 2250 shall review the list and notify material owners of any shipments received in Condition Code K. Notification will not be required for Fleet returned CADs/PADs.

c. Code 2250 will monitor the material to ensure action is taken with the 45-day timeframe.

d. If the 45-day timeframe is exceeded, Code 2250 shall notify the cognizant department head and the Safety Department that the material is of an unknown condition code.

Enclosure (1)

18 SEP 1996

IHDIVNAVSURFWARCEWNINST 8015.1E

POLICY FOR MATERIAL IN CONDITION CODE J

Ref: (a) TDQ memo 4855 Ser TDQ/099 dtd 18 Dec 95

1. The purpose of this policy is to establish and document requirements for the review of material in Condition Code J.

2. Material may be initially receipted in Condition Code J. However, in accordance with reference (a), the condition code must be changed to reflect the true condition of material within six (6) months of receipt on station.

3. Following is the policy for the review of Condition Code J material:

a. Code 2250 shall run a Condition Code J listing from the Ordnance Management System (OMS) the first week of each month.

b. Code 2250 shall review the list and notify material owners of any shipments received in Condition Code J.

c. Code 2250 shall monitor the material to ensure action is taken with the sixth month timeframe.

d. If the sixth month timeframe is exceeded, Code 2250 shall notify the cognizant department head and the Safety Department that the material is of an unknown condition code.

ENCLOSURE(2)

18 SEP 1996

IHDIVNAVSURFWARCENINST 8015.1E

POLICY FOR THE MATERIAL REVIEW PROGRAM

1. The purpose of this policy is to revise and document the procedure for performing the Material Review Program (formerly known as the Surplus Material Program).

a. Material Review Program Policy

(1) Annually Code 2250 shall run a list of material in the Ordnance Management System (OMS) that has not had any action (movement/transaction) for two years.

(2) The Material Review Program applies to all building assets recorded in OMS, with the following exception: material with a Federal Supply Class (FSC) of 1377 and Condition Code "A" or "F".

(3) Code 2250 shall submit this list of material to the material owner's department head for action.

(4) Continued storage of this material must be justified in a memo from the material owner to Code 2250. If the justification memo is written by someone other than the department head, it must be approved by the material owner's department head.

The memorandum requesting continued storage should include the following information: program the material supports; if the program is funded; how long the owner anticipates the material will be at this Activity; and adverse impact on the program if the material is dispositioned by Code 2250A.

(6) Code 2250A will forward justification memos to Code 20 for approval/disapproval.

(7) No item shall be approved for continued storage without the cognizant department head and Code 20 approval.

(8) Unless otherwise noted, approved justifications for continued storage expire on the last day of the last month of the second year, e.g., if the waiver is approved on 17 May 96 it is a valid waiver until 31 Dec 98.

(9) It is the material owner's responsibility to identify material to AD&C for disposition at any time the material is no longer required for program support.

(10) Magazine custodians are encouraged to notify AD&C of material in their magazines that is not regularly utilized. AD&C may choose to include this material in the Material Review Program

Enclosure (3)

18 SEP 1996

and require justification from the material owner for continued storage.

(11) In an effort to determine material ownership for items with no identified owner, Code 2250 will advertise through email. If no response is received within two weeks, the material will be dispositioned by Code 2250.

(12) Code 2250 shall maintain files of both approved and disapproved justification memos.

(13) Code 2250 shall determine the appropriate disposition for material declared excess by the owner.

18 SEP 1996

IHDIVNAVSURFWARCENINST 8015.1E

POLICY FOR ESTABLISHING LOCAL STOCK NUMBERS

Encl: (1) Local Stock Number Information Sheet

1. The purpose of this policy is to establish and document the procedure for assigning local stock numbers to materials not identified by a national stock number and requiring tracking by the Ordnance Management System (OMS).

2. The requesting department should take the following steps:

a. Before requesting a new LSN, review the active local stock number listing at AD&C for an existing stock number for that item.

b. Complete page 3 of enclosure (4) and forward to Code 041 for local storage hazard classification.

c. A Security Risk Code, which is assigned by the Naval Ordnance Center, will be obtained by AD&C.

d. Provide any additional information to Code 041 required for item classification.

e. If item is inert, provide memo to Code 2250 certifying that the item is inert. Inert display items must be certified inert, including serial number in accordance with NAVORDSTAINST 5100.22E, Chapter 10 (Safety Manual).

3. The Safety Department, Code 04, will review the request; verify hazard classification, compatibility group, and net explosive weight for each request. Upon approval of the request, Code 04 will sign and forward to Code 2250.

4. AD&C, Code 2250, will:

a. Assign a local stock number in accordance with NAVSEAINST 8015.1B.

b. Maintain an active file for each local stock number, which shall include: Code 041 approved local stock number request (or other equivalent document); inert certification memo, if applicable; and completed OMS technical data field print out on the local stock number.

c. Establish local stock number on the OMS system from the information on the approved local stock number request.

d. Add one or more of the following references to the nomenclature field in OMS for each local stock number established:

Interim Hazard Classification Number
JHCS Classification Number

Enclosure (4)

18 SEP 1996

Inert Certification Memorandum Number
Code 041 approval

- e. Review active and inactive stock number listing for possible duplication of stock numbers.
- f. Maintain and update active local stock number listing.
- g. Delete all local stock numbers without assets from the OMS inventory system when research shows that there has not been any transactions within 6 months.
- h. Maintain an inactive file for each deleted local stock number.

18 SEP 1996

MEMORANDUM

From:
To: 2250

Subj: Establish Local Stock Number

1. We request that the following local stock number be established in the OMS inventory system:

- A) COG: _____ (as defined by NAVSEAINST 8015.1B)
- B) Local Stock Number: _____ (assigned by code 2250)
- C) Nomenclature: (detailed description of the item)

- D) Unit of Issue: Pounds, Grams, Each (circle one)
- E) Unit Price: _____ (cost of the item)
- F) Net Explosive Weight: _____ (total explosive weight of the item in pounds)
- G) Part or Drawing Number: _____ (part or drawing number for the item)
- H) Security Class: _____ (assigned by code 2250)
- I) Security Risk Code (SRC): _____
- J) Type of Propellant/Explosive Contained in the Item:

- K) Local Storage Hazard Classification: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, or Inert (circle one, Inert items require a separate memo certifying item is inert)
- L) Compatibility Group: A, B, C, D, E, F, G, H, J, K, L, N, S (circle one)

2. Please contact _____, Code _____ on extension X-_____ for additional information on this item.

Signature

Code 041 Approval: _____

Date: _____

Enclosure (4)

18 SEP 1996 IHDI VNAV SURFWARCEN INST 8015.1E

POLICY FOR MINIMUM SHELF LIFE FOR CARTRIDGE ACTUATED DEVICES
(CADs) and PROPELLANT ACTUATED DEVICES (PADs)

1. Reference (j) of the basic instruction requested all CADs and PADs for which the remaining shelf life is less than the service life be assigned Condition Code (C/C) "B", rather than "A".
2. Every month code 2250 will receive a "downgrade report" from Code 5320. They will use this report to update the Ordnance Management System (OMS) to reflect C/C "B" and Defect Code (D/C) "ZAAJZZ" for the lots listed. After completion, the person updating OMS will sign and date the report signifying completion. Signed reports shall be maintained for a minimum of 3 years.
3. Code 2250B is NOT required to physically change 129 tags or bar code labels to reflect this new C/C and D/C.
4. As part of issue inspection before shipment, Code 2250B will ensure all CADs and PADs being shipped have their 129 tags and bar code labels changed to reflect the actual C/C and D/C.

ENCLOSURE(5)

1 8 SEP 1996

IHDIVNAVSURFWARCENINST 8015.1E

MATERIAL REPORTABLE/REPORTS REQUIRED

1. What material is reportable? AD&C reportable material includes all Navy, Air Force, and Army stock identified by a National Stock Number (NSN) or Local Stock Number (LSN) and is included in one of the following expendable ordnance cogs:

a. OT - Conventional Ammunition. Inventory Manager - Commandant, Marine Corps

b. 2D - Surface Launched Material. Inventory Manager - Joint Cruise Missile Project Office

c. 2E - Conventional Air Ammunition (including bombs, rockets, cartridges, cartridge actuated devices, propellant actuated devices, military pyrotechnics and chemicals). Inventory Manager - IMSD, Mechanicsburg, PA

d. 2T - Conventional Surface and Underwater Ammunition (including rockets, gun ammunition, small arms, landing force ammunition, military pyrotechnics, chemicals, depth charges, and underwater mines). Inventory Manager - IMSD, Mechanicsburg, PA

e. 4E - Air-Launched Missile Materials. Inventory Manager - IMSD, Mechanicsburg, PA

f. 4T - Torpedoes and Components (including torpedoes and ASROC). Inventory Manager - IMSD

g. 6T - Underwater Mines and Components. Inventory Manager - IMSD

h. 8E - Air-Launched Missile Material. Inventory Manager - Naval Air Systems Command (NAVAIRSYSCOM)

i. 8S - SUBROC Material. Inventory Manager - Naval Sea Systems Command (NAVSEASYS COM)

j. 8T - Surface-Launched Missile Material. Inventory Manager - NAVSEASYS COM

k. 8U - Sonobuys. Inventory Manager - IMSD

2. When are reports required? The following actions require an update to OMS. It is the responsibility of the building foreman or other responsible person to ensure that AD&C or other designated organization is notified when any of the listed actions occur.

a. Material Identification Changes.

(1) Material serialization, lot numbers, nomenclature,

ENCLOSURE(6)

18 SEP 1996

condition defect codes, owner/purpose codes, and condition codes.

b. Material Movement.

(1) Receiving or shipping from/to off-Activity destination of reportable material.

(2) Intra-Activity movement of items in OMS (including internal restows within magazines), to include:

-- New material from production will be receipted in OMS when the material is moved to a magazine; shipping documentation is prepared; or material is upgraded to a ready-for-issue status.

-- Material moved to production will be removed from OMS if material will become a part of an all-up-round (AUR) or will be disassembled.

-- Material moved for destructive test or to disposal will be removed from OMS.

-- Material moved to a less-than-90-day site outside a magazine will be removed from OMS.

-- All movement to/from Service and Ready Issue magazines require reporting.

3. An update to OMS will not be required when:

a. Material is put in a less-than-90-day site within a magazine in its existing location

b. Temporary movement of material away from a production area for nondestructive test (e.g. x-ray)

1 8 SEP 1996

IHDIVNAVSURFWARCENINST 8015.1E

REPORTING PROCEDURES FOR AD&C REPORTABLE MATERIAL

1. Receipt from off-station.

a. Receipt inspection shall be in accordance with reference (1).

b. Initial receipt, entering the material into the Ordnance Management System (OMS), shall be accomplished within 72 hours. Material in Categories I and II shall be receipted in OMS within 24 hours. Initial receipt is based on information obtained from receipt documentation (DD Form 1348-1, DD Form 1149, DD Form 250, or similar form) and receipt inspection of material.

c. At least three copies of each receipt document shall be provided by the shipper. If the required number of copies are not received, the in-checker will be responsible for copying the required number of copies of the form. If no receipt documents are received, the in-checker will prepare in triplicate a Receipt Document Replacement, NDW-NAVORDSTA Form 4410/2, enclosure (8).

d. The in-checker shall ensure that the destination on the paperwork is NSWCIHDIV or an NSWCIHDIV tenant.

e. Receipt document(s) are signed and dated, acknowledging that the material has been processed through the receiving area.

f. The magazine custodian/warehouseman or other person withdrawing material from the receiving area signs, dates, and indicates destination on two copies of the receipt document(s). One copy will be given to the custodian or other person withdrawing material.

g. Remaining shipment documentation is distributed as follows:

(1) one copy of each receipt document to AD&C at the end of each day;

(2) remaining receipt document copies, plus all Government Bills of Lading, freight bills, etc, shall be forwarded to Shipping;

(3) The person withdrawing material from the receiving area will write the material storage location on the receipt document and will send it to AD&C within one working day. Organizations with container opening responsibilities will report container/contents discrepancies per paragraph 5 of this enclosure.

h. Shipping will file appropriate discrepancy reports with

Enclosure (7)

the shipper or carrier within five working days of discrepancy identification.

2. Material Inspection Procedures. Organizations conducting material inspection (container opening) of AD&C reportable material will notify AD&C of any discrepancies found during material inspection. A corrected receipt document shall be submitted to AD&C within one working day of inspection completion.

3. Intra-Activity movements.

a. Procedure for routine material movements from magazines/storage areas

(1) The requestor will generate a Material Movement Notification form in OMS and forward to the appropriate magazine/storage area at least two working days before material is desired.

(2) AD&C will be notified of any discrepancy found. If possible, material movement will not be detained while discrepancies are being researched and reconciled. If required, substitutions can be made with the concurrence of the requestor.

b. Procedure for emergency material movement from magazine/storage area. To avoid extended operations shutdown, the following procedure will be used when changes in schedule, inadequacy of material on hand, or other problems necessitate expedited procedure.

(1) The requestor will:

(a) generate a Material Movement Notification in OMS and forward to the appropriate magazine/storage area;

(b) contact the appropriate magazine/storage area by telephone/fax explaining the emergency.

(c) Material will not be detained while discrepancies are being reconciled.

4. Other information changes. For other information changes, the foreman or other responsible person requesting and/or overseeing the identification of material marking changes will be responsible for generating Material Correction form in OMS in order to process the change.

5. Material identification changes. The foreman or other responsible person overseeing material identification changes is

18 SEP 1996

responsible for the generation of a Material Correction form in OMS for all identification changes. Report all container/contents discrepancies to the packaging organization so that appropriate discrepancy report(s) can be filed. MIL-STD-129 tags and container stenciling must match material restowed inside containers.

6. Gains from Disassembly/Losses from Assembly. The foreman or other responsible person overseeing gains from disassembly/losses from assembly operations will be responsible for updating OMS accordingly. A copy of enclosure (9) may be used for internal recordkeeping.

7. Destruction of AD&C reportable material.

a. Routing procedures. The foreman or other responsible person overseeing the destruction of AD&C reportable material will be responsible for generating a Material Movement form in OMS noting in the Remarks section of the form that the material is to be destroyed.

b. Exception. This instruction does not address the demilitarization and disposal of excess, surplus, and foreign excess ammunition, explosives, and other dangerous material. Contact AD&C for appropriate procedures.

8. Shipments off-Activity. Shipments of AD&C reportable material from this activity are usually initiated by two means, MILSTRIP and fund document schedule. The following procedures will be used by activity personnel for off-station shipments:

a. MILSTRIP

(1) AD&C receives requisitions via telecon, message, or through AUTODIN from a source outside the Activity.

(2) AD&C will contact program managers, engineers, logistic management specialists, production controllers, or other responsible personnel for assistance in coordinating shipments.

b. Fund Documents. Fund documents often provide schedules for material shipment. In these cases, the program managers, logistic management specialists, production controllers, or other responsible personnel will provide AD&C with a copy of the fund document or the following information so that AD&C can prepare the appropriate shipment documentation (DD Form 1348-1): destination; supplementary address; requisition number; National Stock Number (NSN); Navy Ammunition Logistics Code (NALC); nomenclature; COG; priority; quantity; fund document number; and fund code.

18 SEP 1996

Foreign Military Sales (FMS) shipments must have the full 80-column MILSTRIP provided in order to ship. The required information may be obtained from either the inventory managers or funding sponsors.

c. Document Flow/Material Preparation. AD&C will prepare one set of DD Form 1348-1 and a Shipment Preparation Worksheet (SPW) and will distribute documentation as follows:

(1) Completed DD Form 1348-1 is forwarded to Shipping for carrier scheduling and other shipment processing.

(2) One copy of the SPW is forwarded to the custodian for material shipment preparation.

(3) AD&C retains one copy of SPW for pending file.

d. After shipment complete, Shipping will provide AD&C with Proof of Shipment (POS).

10 SEP 1966

STATION CONSIGNEE		SHIPPER/ADDRESS			DATE SHIPPED		DATE RECEIVED	
CARRIER		B/LADING, AKB, ETC.			REQUISITION NUMBER		SCALES INSPECTOR	
NUMBER UNITS	TOTAL WEIGHT	TOTAL CUBE	NOMENCLATURE	NSN	CONSIGNEE SIGNATURE			
SERIAL/LOT NUMBER	COND. CODE	SERIAL/LOT NUMBER	COND. CODE	SERIAL/LOT NUMBER	COND. CODE	SERIAL/LOT NUMBER		

STORAGE LOCATION _____ PAGE _____ OF _____

RECEIPT DOCUMENT REPLACEMENT

STATION CONSIGNEE		SHIPPER/ADDRESS			DATE SHIPPED		DATE RECEIVED	
CARRIER		B/LADING, AKB, ETC.			REQUISITION NUMBER		SCALES INSPECTOR	
NUMBER UNITS	TOTAL WEIGHT	TOTAL CUBE	NOMENCLATURE	NSN	CONSIGNEE SIGNATURE			
SERIAL/LOT NUMBER	COND. CODE	SERIAL/LOT NUMBER	COND. CODE	SERIAL/LOT NUMBER	COND. CODE	SERIAL/LOT NUMBER		

ENCLOSURE (8)

STORAGE LOCATION _____ PAGE _____ OF _____

OWNER/PURPOSE CODES

18 SEP 1996


Owner Codes identify the Activity or Program for which the material is designated. The Purpose Code provides the owner of the material with a means of identifying the purpose or reason for which the material is reserved.

Although there are more Owner/Purpose Codes than those listed, the following codes are used most frequently by this Activity.

- Purpose Code: "A" - General Issue/Navy
- "V" - GFM/Navy
- "W" - Surveillance/Navy
- "Q" - Special Operations
- "F" - Reserved for Production, Maintenance, and Reclamation
- "Z" - Propellant Stability Test Program
- Owner Code: "1" - Army
- "2" - Demil Program
- "3" - Indian Head Use Only. To include:
- Design/development items manufactured with no intent to issue to the fleet
 - First article and pre-production items produced for validation testing
 - Production lot acceptance items which are tested to determine acceptability of production lot
- "4" - Marine Corps
- "5" - Navy
- "6" - Air Force
- "8" - Foreign Military Sales (FMS)

ENCLOSURE(10)

CONSOLIDATED COMMENTS ON DRAFT QUALITY MANUAL

QM #	PARA #	COMMENT	originator	Resolution
QM 16	2.0	In para 2.0[f], add a reference to QM 06, i.e., a minimum of 7 years being required for purchasing documentation. C199	20	
QM 17	2.4	Sentence is redundant to almost identical phrasing in para 1.0. This paragraph should be eliminated.	6730N	
QM 18				
QM 19		Not sure why we have a separate Servicing section when all previous sections address product and/or services, e.g., QM 09.0 requires all production, development or service processes to be identified and formally documented.	64	
GENERAL		Effectivity; need to name/identify this instruction and any it supercedes! Assume this would be 4855.3C and supercede 4588.3B [QM 02 lists both IHDIV Quality Manual <u>and</u> 4855.3 as Level 1 documents; aren't these the same?]	572	
		Continuation of departmental Quality Manuals reinforces stovepipe processes. Need to look at common practices or processes, e.g., the configuration management initiative that Dave Krause is leading	50	
		The manual lacks details which are needed rather than generalities which create more latitude than desirable	50	
		This manual appears to paraphrase ISO 9001 and doesn't provide the 'how to'.	74	
		Do Laboratories fall under ISO 9001, or under other guidance?	74	
		This manual will be less useful than the existing one unless the Quality Procedure Manual [QPM] called for in QM 1.0, para 3.1© is simultaneously available. While some specific IHD instructions are referenced, this draft is little more than a rehash of Q9001-1994. This approach poses some avoidable problems, e.g., all previous guidance will be superceded, leaving open the opportunity for departments to 'go their own way'	64	

CONSOLIDATED COMMENTS ON DRAFT QUALITY MANUAL

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		The instruction is not specific enough in areas such as audits, plans, quality indicators, etc. to preclude each department having to write its own instruction detailing format and procedure for major aspects of quality program. Suggest that consideration be given to producing the instruction as a "stand alone", with departments only having to tailor requirements to specific conditons. This would eliminate the instruction cascade effect and would add consistency to the essential elements.	70	
		It is suggested that the instruction identify a minimum of 5 to 10 required quality indicators, and their metrics, that would apply to all departments and would give a sense of the overall quality program at the department/activity level. This would provide quality assurance information at the Activity level that would be useful in indentifying individual and corporate-level potential problems and trends.		
		Should we have an appendix that puts all the acronyms and their meanings in one place.	20	
		In some of the elements we say 'develop, document, and implement' and in others we only say 'develop and document'; we should be uniform and require the 'develop, document, and implement' phrase.	20	

CONSOLIDATED COMMENTS ON DRAFT QUALITY MANUAL

QM #	PARA #	COMMENT	originator	Resolution
Title Page		Use an appropriate designator vs. IHSP 87-253	47	
QM 01		Use consistent headings: 'Quality Manual' or Quality Assurance Manual	30C4	OK
		Change Management Team to Leadership Team	64	OK
		Paragraph numbering in this QM is formatted differently than rest of the document.	47	
	3[g]	Some detachments maintain control of their own quality assurance stamps. Recommend consideration be given to continuing this practice for Detachments.	47	See QP
		What are the corporate indicators [metrics] that will be used as indicators of the effectiveness of the quality system?	74	See QP
	3.2 - 3.3	[a] Are all QA costs to be direct dollars from operating departments? [b] Is there to be oversight by QA Department, Code 05Q?	74	No - some is indirect
	3.3	The lists of actions for 'management' may need to be better defined.	74	
	3.3	Should we define which departments? Scope says all but people may want to think only production departments.	20	No
		Who, or what group establishes the goals that the ET & LT use to evaluate the Corporate Indicators? Where do we define that responsibility?	20	QP
QM 02	1.0	"The Quality System...performing the work" sounds like management is shifting responsibility for quality to the worker rather than sharing it. The emphasis should be on building quality into all processes and in sharing responsibility.	74	
	1.0	Change the order of the documents to Federal, Navy, NAVSEA, Customer.	20	
	2.0	Ranking Dept. QMs as Level II is inconsistent; they belong in level III as implementation of reqmnts.	6730N	
	2.0	Under Level III, add 'equipment operation/user manuals.	20	

CONSOLIDATED COMMENTS ON DRAFT QUALITY MANUAL

QM #	PARA #	COMMENT	originator	Resolution
	2.0	Include reference to IHDIVINST 8023.4A [SOPs]	572	
	2.0	Should there be some mention of documents like Ballistic Test Procedures, Mix Sheets. Off-site Test Procedures, etc.?	30C4	
	3.0	Even though TO300-AM-ORD-010 is not active, wh should be able to use the information in that document, make it part of our QM. Do we need to identify any of the detailed checklists that TO300 contained?	20	
QM 03		Shouldn't Configuration Management Plans be mentioned [either here or in QM 16]?	572	
		For the defintition of contracts we should also use the words 'work order', 'work authorizing document', 'scope of work', and 'requirements definition'.	20	
	1	"All contracts to IHDIV...meet those requirements"; the way this is stated suggests that a review of incoming work is defined as a contract review whereas out-going contracts are not reviewed.	74	
	2.1	Code PM should be part of the team with the operating departments in ensuring the accuracy of the incoming fund document and whether or not the work can be accomplished.	74	
	2	Suggest adding para. 2.3: "If the customer's contract requirrements change after acceptance of the contract, the cog. PM shall determine the potential impact on cost, schedule and risk and communicate this info to the customer. The contract shall be modified to reflect acceptance of the changes by both parties.	64	
QM 04	1.0	"Efforts to ... design process" seems too broad and needs to have a tailored statement toward the design process.	74	
	1.0	2nd sentence - suggest that our goal should be 'to meet requirements in the most cost effective manner and exceed requirements or goals if possible without negative impacts to the customer's quality, schedule, and cost requirements'.	20	

CONSOLIDATED COMMENTS ON DRAFT QUALITY MANUAL

QM #	PARA #	COMMENT	originator	Resolution
	1.0	In the last sentence, do we need more description about what 'control design' means? Do we want to add something for control of the design process for methods used, or reviews conducted? For development, do we add wording that identifies manufacturing and testing along with development and documentation?	20	✓
	2.1	Title should include "development" as in Q9001, para 4.4.2	6730N	OK
	2.5.1 & 2.5.2	FCA and PCA should be added and referenced to MIL-STD-973	6730N	QPM!
	2.5.2	No indication of when validation is to take place. Q9001 indicates after design verification and generally on final product.	6730N	OK
QM 05		Is the policy directed at work performed or customer requirements? Should we say "...work performed is correct, complete, accurate, and properly approved and is in accordance with authorized customer requirements."?	20	OK
	1.0	"All documents and data that pertain....authorized customer requirements" is too long, ambiguous, and not clear in its intentions	74	✓
	2.2	Reference documents do not cover <i>change</i> control; need to reference MIL-STD-973	6730N	✓
	2.2	Q9001 requires changes be accomplished by same organization that initially approved. If this is not specified in references, it needs to be added to text.	6730N	QPM
QM 06	2.2	Should Mil-Q-9858 be given as an example of a quality system standard if it has been canceled?	30C4	✓
	2.2	Add 'inspection data and certifications'	20	✓
QM 07	2	Change 'unaccounted for' to 'stolen' in the first sentence	30C4	✓
	1	Add words "material and supplies" after customer-owned ...	multiple	✓
QM 08	3	Should Mil-Std-129 be cited?	30C4	OK still valid spec.

11Q COMMENTS ON QA MANUAL & COMMENTS

QM 03.0 #2 Responsibilities should be Requirements

QM 06.0 #2.1 NMQA0 should be NAVSEA LOG CEWDET PTSMH. In addition to PDREP; should refer to Contractor Performance Assessment Reporting System (CPARS)

#2.2 [c] another example that is used in most orders is FAR 52-246-2

#2.3 should read - first sentence ... destination of inspection and acceptance of a delivered...

QM 11.0 #1.0 maybe there should be a reference of TMDE being traceable to NIST

Comments on QM 03 - by 20 doesn't need to be all inclusive, the other terms can be defined in the procedures manual

QM 06 - by 20 "inspection data and certifications" don't describe the product ordered.

Dave Smith

4-19-99

CONSOLIDATED COMMENTS ON DRAFT QUALITY MANUAL

QM #	PARA #	COMMENT	originator	Resolution
QM 09	1.0	For special processes, should we identify that the operators must be certified and qualified to conduct the approved processes?	20	QPM
	2.1	Remove the 'including design, development, and In-Service engineering' phrase; to me, this seemed to cause confusion with the word 'service' in the Policy statement.	20	—
	2.2	Line 2.2.8 should be deleted; this is not a controlled condition for accomplishing processes	6730N	OK ✓
	2.3	Use of 'acceptability' in 1st sentence is misleading & does not express context of Q9001, para 4.9. Suggest deleting 'accept...the' and adding 'and processing deficiencies may become apparent only after product is in use' to end of sentence.	6730N	—
		Suggest identifying familiar special processes like soldering, welding, etc. for guidance	6730N	✓
		Process control requirements are valid but we need to recognize that the cost in terms of manpower and funding required to bring us into compliance are huge.	64	✗
		Requirements for records should be added per Q9001	6730N	QPM
		Include reference to IHDIVINST 4855.4A [PRRs]		NO
QM 10	1.0	1st sentence should include 'test' as well as inspection procedures	6730N	✗ ✓
	2.1	I think that this should be a program requirement, not a Center policy. The inspection and tagging of each little part is costly and practically Impossible. It is not usually desired by individual projects. Credit card buying makes it more cost effective to buy replacement parts than to spend a small fortune on inspection and tracking. The mgmt of parts should be the responsibility of the Project Mgr & production personnel. The practice could bankrupt small programs if they are held accountable to this policy.	64	
	2.1	use of 'specifications' is too limiting; suggest replacing with 'specified requirements' per QM 06	6730N	✓

CONSOLIDATED COMMENTS ON DRAFT QUALITY MANUAL

QM #	PARA #	COMMENT	originator	Resolution
	2.1.3 & 2.1.4	Paraphrasing Q9001, para 4.10.2.2 & 4.10.2.3 is less descriptive; suggest replacing with same wording as Q9001	6730N	✓
	2.3.2 & 2.3.3	Suggest combining by eliminating '2.3.3' and replacing with 'and'	6730N	✗
QM 12	General	Q9001, par 4.12 clearly indicates this area is to apply to production, installation, and servicing phases not just production. IHDIV is at least involved in servicing (prework/repair) & probably gets involved in installation.	6730N	Not part of scope
		This would be a good place to introduce the use of inspection indicators, i.e., stamps. QM 01 states O5Q responsibility for issue & maintenance but this is the only place they are mentioned.	6730N	QP Manual
QM 13	2.1.3 & 2.1.4	DR & MRB are weakly defined. They are presented in formal terms but there is no guidance on minimum implementation requirements.	6730N	→ QP Manual
	2.1.4	Should we identify the Discrepancy Report form number? Should it be a reference document?	20	→ OK ✓
QM 14	2.1.2.4	This section seems to relate mostly to the manufacture of products.	74	
		1.0 What is meant by being empowered? How does an employee know they are empowered and what it means?	50	encouraged
		This should be clearer in regard to when management review should occur. Do you really want action already taken to be reviewed by mgmnt. Or should management review planned actions before they are taken?	6730N	
QM 15	2.1	Is the wording 'well maintained' necessary? It seems enough to use the word 'approved'	20	Keep in OHE may be approved but not well maint.
★	2.2 & 2.5	Are Condition Code Tags/Labels still going to be required? Since no longer required by MIL-STD-129, is it to be IHD policy to provide visible condition status? If so, need guidance details.	6730N	Will still use MIL-STD-129 - QP XX
	2.3	Add wording to reflect assessment of the quantity as well as the condition.	20	

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	2.2	Q9001 requires changes be accomplished by same organization that initially approved. If this is not specified in references, it needs to be added to text.	6730N	
	General	consider adding the following instructions: 4330.1G 'contractor tech data' 8023.4A 'SOP program' 9086.1E 'Tech Manual Mgmt Program' 5510.25F 'release of tech information'	80	
QM 06	2.2	Should Mil-Q-9858 be given as an example of a quality system standard if it has been canceled?	30C4	
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	2.2c	another example that is used in most orders is FAR 52-246-2	11	
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QM 18	3.0[a]	Consider adding OP 5, 8023.4a, Mil performance [29612?], and Mil-Std 1379D	80	
QM 19		Not sure why we have a separate Servicing section whan all precious sections address product and/or services, e.g., QM 09.0 requires all production, development or service processes to be identified and formally documented.	64	
GENERAL		Effectivity; need to name/identify this instruction and any it supercedes! Assume this would be 4855.3C and supercede 4588.3B [QM 02 lists both IHDIV Quality Manual <u>and</u> 4855.3 as Level 1 documents; aren't these the same?]	572	
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