

# Defense Logistics Agency INSTRUCTION

DLAI 8360.01 Effective December 11, 2013

J334

SUBJECT: Product Verification and Testing Program

References: Refer to Enclosure 1.

# 1. PURPOSE.

a. This Instruction cancels DLAI 3108 (Reference (a)) and reissues to update policy, responsibilities, and procedures for the Product Verification and Testing Program. The purpose of the overall Instruction, in accordance with the authority in DOD 5105.22 (Reference (b)), is to establish the DLA Product Verification Program (PVP) Offices, and the DLA Product Testing Centers (PTC) as part of the overall Total Quality Program and provide policy, responsibilities and metrics for the operation of DLA's Product Verification and Testing Program, which includes DLA Headquarters (HQ), DLA PVPs, and DLA PTCs.

b. DLA performs product verification and testing to assure the items it procures are of the requisite quality. The main goal of the program is to verify quality of DLA managed items by implementing effective processes for product verification and testing. Product verification and testing improves the process of delivering logistics support at a reduced cost by:

(1) providing quality materiel that meets customer requirements;

(2) reducing failure costs incurred for nonconforming materiel by verifying conformance of materiel to contract specifications; and

(3) utilizing the supplier's past performance for future source selections and best value contracting decisions.

2. <u>APPLICABILITY</u>. This Instruction is applicable to DLA HQ Technical And Quality Division (J334), DLA PVPs and DLA PTCs.

# 3. DEFINITIONS. See Glossary.

# 4. <u>POLICY</u>.

a. It is DLA policy that laboratory testing and product inspection must be used as a tool for verification that items conform to prescribed technical requirements (e.g., drawings, specifications, product/technical data, and item descriptions). =

b. DLA PVPs and DLA PTCs will consult with DLA HQ J334 in all matters associated with Product Verification and Testing in order to gain clarity on issues and concerns. DLA HQ J334 will initiate all communications regarding changes in policy.

5. <u>RESPONSIBILITIES</u>. The general responsibilities of the three major organizations of the DLA Product Verification and Testing Program, DLA HQ J334, DLA PVPs and DLA PTCs, are described in <u>Enclosure 2</u>.

6. <u>PROCEDURES</u>. Refer to the PTC quality manuals (Reference (c), (d), (e) and the DLA Technical/Quality Deskbook (Reference (f)) in Enclosure 1.

7. <u>INFORMATION REQUIREMENTS</u>. The DLA Product Verification and Testing Program will use enterprise-wide systems to record information and data related to Product Verification and Testing. The following systems are used for this purpose:

a. Enterprise Business Systems (EBS): DLA PVPs and DLA PTCs record information related to each test request within the EBS. EBS records contain pertinent information associated to the test request and results.

b. Test Information Management System (TIMS): DLA PTCs utilize TIMS for recording details of the completed project data and metrics. TIMS records contain pertinent information associated the testing conditions and results.

## 8. INTERNAL CONTROLS.

a. DLA HQ J334 employs a metrics management system for overseeing the DLA PVPs and DLA PTC activities. Proper management of DLA PVPs and DLA PTCs requires the use of a monitoring and management system that is based on metrics which measure progress of the overall Product Verification and Testing Program. DLA HQ is the responsible authority for measuring and approving the agency's test metrics.

b. The DLA PVPs and DLA PTCs are responsible for calculating the metrics, and submitting them to DLA HQ J334 according to the frequency described in the Table 1.

c. DLA HQ J334 is responsible for overseeing the Product Verification and Testing Program, updating metrics and introducing new metrics based on the requirements of the program.

Organization	Subject	Metric	Calculation	Frequency	Goal	
DLA PVP	Test Volume	Number of Tests*	Sum of tests	Quarterly	Determine workload volume and optimization o program selection	
		Test Percentage*	Sum of test category/ Sum of tests	Quarterly		
	Test Acceptance	Tests Passed*	Sum of tests passed	Quarterly		
		Tests Failed*	Sum of tests failed	Quarterly		
		Pass Rate*	Sum of passes / Sum of tests	Quarterly	Increase risk mitigation tactics for Procurement and Technical Quality	
		Fail Rate*	Sum of fails / Sum of tests	Quarterly		
		Cause of Failure*	Sum of fail type / Sum of tests	Quarterly		
	Cost	Total Cost	Total cost of lab test activities	Quarterly	Identify and reduce inefficient expenditures	
		Cost by Category*	Total cost by test category	Quarterly		
	Timing	Test Result Processing Time*+	Average time to respond to a customer request	Quarterly	Identify resource constraints and reduce supply impact	
	Inventory Integrity Target	Plan v Actual	Planned tests compared to actual tests	Annually	Assess adherence to Inventory Integrity Plan established by the PVP offices.	
DLA PTC	Test Volume	Number of Tests*	Sum of tests received verses completed	Quarterly	Identifies productivity, work in process and backlog.	
	Test Acceptance	Failure Rate*	Sum of tests passed verses failed	Quarterly	Signifies if non-conformance rates identify any trend.	
		Failure type*	Percent of fail type / Sum of tests	Quarterly	Breaks down the non-conformances into general categories.	
		Suspect Counterfeit	Sum of suspect failure by test program	Monthly	Indicates the number of non-conforming test results each month that meets the criteria for indication the items might be considered counterfeit.	
	Cost	Net Operational Cost*	Sum of earnings/ Sum of expenses	Quarterly	Provides indication of whether earnings are covering costs.	
	Timing	Project Cycle Time*++	Sum of tests completed on time	Quarterly	Shows if the labs are providing test results when needed by the customers. Separated by test type.	

**Table 1 Test Metrics** 

Note: The \* symbol denotes the calculation is performed for the sum of all tests, and for each of the following test categories: contractually mandated, customer support, and inventory integrity. Within each of these four figures, the calculation is performed for each DLA PTC lab, each

Service lab, and each commercial lab the DLA PVP utilizes. The Timing metric, marked with the + symbol, measures the DLA PVP from the time it receives the test request from the customer, until the time it delivers the test results to the customer. Timing metric, marked with the ++ symbol, measures the DLA PTC from the time it receives the test request from the DLA PVP, until the time it delivers the test results to the DLA PVP.

9. <u>RELEASEABILITY</u>. UNLIMITED. This Instruction is approved for public release and is available on the Internet from the DLA Issuances Internet Website.

# 10. EFFECTIVE DATE. This Instruction:

a. Is effective on December 11, 2013.

b. Must be reissued, cancelled, or certified current within 5 years of its publication in accordance with DLAI 5025.01, DLA Issuance Program. If not, it will expire effective December 11, 2023 and be removed from the DLA Issuances Website.

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Enclosures Enclosure 1 – References Enclosure 2 – Responsibilities Glossary

## ENCLOSURE 1

#### REFERENCES

- (a) DLAI 3108, "Product Verification Program," December 3, 2009, (hereby cancelled)
- (b) DOD 5105.22, "Defense Logistics Agency", Enclosure 2, sub-paragraph E2.1.1.16.", May 17, 2006
- (c) Product Test Center Electronic Quality Manual, July 8, 2012
- (d) Product Test Center Mechcanical Quality Manual, June 6, 2012
- (e) Product Test Center Analitical Quality Manual, April, 10,2012
- (f) "DLA Technical-Quality Support Policy and Procedures Deskbook," Appendex B08 and B31, dates vary
- (g) DLAR 4155.24, "Product Quality Deficiency Reporting," July 20, 1993

## ENCLOSURE 2

# **RESPONSIBILITIES**

1. The Director, DLA Logistics Operations (J3) shall oversee the three major organizations of the DLA Product Verfication and Testing Program: DLA HQ J334, DLA PVPs and DLA PTCs.

2. DLA HQ J334 responsibilities include:

a. Promoting the development and continued viability of Product Verification and Testing capabilities within DLA by collaborating with the DLA PVPs and DLA PTCs to ensure capabilities for addressing emerging requirements.

b. Employing a metrics management system for overseeing DLA PVP and DLA PTC activities. Data for metrics will be obtained by PVP through EBS and the PTC will receive their data from TIMS. Developed data will be analyzed by DLA HQ J334. Proper management of DLA PVP and DLA PTC activities requires the use of a monitoring and management system that is based on the right metrics—metrics that measure progress of the overall Product Verification and Testing Program activities, as well as metrics that measure the conduct of tests.

c. Developing fiscal test project estimates based upon test program category and site distribution for DLA PVP and DLA PTC activities. Workload estimates will be based upon approved DLA PVP inventory integrity test plans and average 3 year demand for contractually mandated and customer support testing. Annual numbers of tests are presented in Table 2 and 2a.

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Organization	Contractually mandated	Customer support	Inventory integrity
Aviation PVP	3883	60	552
Land & Maritime PVP	1085	632	1540
Industrial Hardware PVP	914	46	118
HQ Test Coordinators	0	400	400

 Table 2 Annual Numbers of Referred to Testing (All Labs)

Note: Numbers for contractually mandated and customer support were estimated based on five years of historical data.

Table 2a Annual Numbers of PTC Tests Accepted					
Organization	Aviation PVP	Land &	Troop PVP	C&T	Depot Test
		Maritime PVP			Coordinators
Mechanical Lab	612	1540	120	0	300
Electronic Lab	0	2159	0	0	450
Analytical Lab	0	0	0	8810	50

#### **Table 2a Annual Numbers of PTC Tests Accepted**

d. Monitoring and auditing Product Verification and Testing Program activities:

(1) Verifying the DLA PTCs' progress for capability retention by reviewing their testing capability in concert to Command level and customer demand requirements at least annually, and providing feedback.

(2) Reviewing the testing metrics annually to assess Product Verification and Testing Program effectiveness.

e. Hosting Product Verification and Testing Program meetings at its discretion to bring all relevant stakeholders together to discuss issues.

f. Monitoring and establishing system execution procedures.

g. Conducting site visits where necessary.

h. Developing and distributing agency policy for test initiatives.

i. Approving existing and future product verification and testing metrics.

j. Facilitating cross agency communications.

k. Maintaining the chain of command by establishing clear lines of communication between DLA HQ J334 and other command organizations.

l. Facilitating departmental actions in response to Department of Defense (DoD), and other Government policy related to product verification and testing.

m. Interpreting the meaning and impact of other Government agency Product Verification and Testing-related policy for the DLA Product Verification and Testing Program.

n. Establishing appropriate testing levels to ensure materiel conformance and confidence level at or above 95 percent for the high risk potential counterfeit Federal Supply Classes identified from High Risk Procurements database

3. DLA PVP responsibilities include:

a. Administering and supporting test requests from DLA Supply Chains, support activities, and other Government activities.

b. Monitor, record, and initiate test requests within each of the three categories for test types promulgated in Table 3.

Table 5 Test Categories			
Test Category	Definition	Example Test Types	
Contractually	Test requirements are required on	Government First Article	
mandated	DLA solicitations and contract	Contractor First Article	
	awards	Pre-award PDM/Bid Samples	
		Production Lot Testing – Government	

#### **Table 3 Test Categories**

Test Category	Definition	Example Test Types
		Production Lot Testing – Contractor
		Product Verification Testing
		Shade Testing
		Source Sampling Test
		Surplus Material Testing)
Customer support	Testing services support offered to	Directed Testing
	the DLA Supply Chains	Directed Testing-Expedited
		Specialized Testing Initiative
		Value Engineering
Inventory integrity	Testing performed to verify materiel	Counterfeit Materials & Product Subsitution Testing
	conformity during delivery or	Customer Returns and Improvement Initiative
	storage.	Critical Safety Items
		Testing of Quality Suppliers List
		Clothing-Textile Testing
		Testing for Cause
		Targeted Sampling Model
		Vendor Testing Program
		Quality Verification Energy Testing
		Shelf Life Testing

c. Initiate testing in the following order based on the priority of request received and mission support: contractually mandated, customer support and inventory integrity. In certain circumstances, priority of test requests may be based on item demand and/or urgency.

d. Maintaining a list of reliable, qualified, effective, and efficient DLA or other Government and commercial laboratories that may be used for product verification and testing.

e. Selecting testing laboratories based on the testing capability needed for the materiel/item, cost and turnaround times.

f. Developing a fiscal inventory integrity test program plan for HQ J334 approval. The plan will outline the number and type of tests to be performed.

g. Developing test plans for all laboratory testing.

h. Providing metrics on supplier quality performance and quality levels of materials stored in DLA distribution warehouses.

i. Providing testing data to the acquisition community to improve future purchases.

j. Assisting DLA Legal Counsel and Supply Chains with investigations of suspect counterfeits and fraud.

k. Serving as the primary interface between the test lab and Product Specialist.

1. Monitoring the status of open test cases.

m. Funding test programs and projects.

n. Reporting statistical information for the tests conducted throughout the Product Verification and Testing Program related to cost, test type, and response time.

o. Providing First Article assistance as required.

p. Generating Product Quality Deficency Report (PQDR) Document Type 4 for item deficiencies in accordance with DLAR 4155.24 (Reference (g)) identified through the verification and test program.

q. Supporting special test programs (i.e., Critical Safety Item, Critical Application Item, Defense Criminal Investigative Service (DCIS) investigations).

r. Directing product inspections/tests required to support special project/product verification requirements.

4. DLA PTC responsibilities include:

a. Providing testing for conformance services, and test reports and supporting data identifying material conformance/non-conformance to specifications along with related information and support requested by the Supply Chains.

b. Developing and maintaining an annual plan for capability retention for chain of command approval.

c. Providing technical support and consultation to the Supply Chains, Supply Chain Product Assurance Specialist, DLA PVPs, Engineering Support Activity, Military Services, DLA HQ, Legal, Special Agents with DCIS and Office of Special Investigations, Defense Contract Management Agency and contractors. Technical support and consultation includes, but is not limited to, the following:

(1) Specification review

(2) External Lab capability

- (3) PQDR investigations
- (4) Reverse Engineering
- (5) Fraud Investigations
- (6) Witness Testing

(7) Interpretation and analysis of test requirements and test results

(8) Development of new techniques, methods, approaches, or criteria that become standard for future test procedures.

(9) Preparation of standard operating procedures

d. Providing technical expertise by recording, maintaining, analyzing and interpreting technical data and test results.

e. Collecting and submitting testing data to DLA PVPs through EBS.

f. Supporting the development of performance metrics.

g. Participating in meetings, conferences and committees pertaining to product testing and representing DLA at national conferences and/or workshops involving both Government and civilian officials on the subject of laboratory test methods/standards, etc.

h. Serving as a consultant on all aspects of assigned product testing activities to other DLA and customer activities, industrial firms and representatives of foreign governments.

i. Serving as an expert advisor to manufacturers concerning interpretations of testing requirements, alternate tests, equivalent test, severity of tests, etc., and discussing test failures with customers, explaining results obtained and procedures used, and interpreting specification requirements.

j. Serving as an expert in many areas to include Non- Destructive Test (NDT) analysis, material analysis, calibration, tensile strength, hydrostatic testing, dimensional testing, testing setup and training, customer system support, text fixture design and manufacturing, failure analysis, etc. and all of the associated test equipment

k. Implementing a laboratory training and certification program.

(1) The initial training period for laboratory personnel can exceed two years to be fully proficient in the testing environment. To maintain continuity of operations and to ensure knowledge retention, the DLA PTCs shall develop an intern program. The Land & Maritime supply chain working with Headquarters will agree to the timing and execution of the program.

(2) PTC Lab Specialists must complete a comprehensive on the job and formal training program necessary to serve as a focal point and subject matter expert on testing. They are assigned the most difficult, complex, and unusual types of tests which regularly require application of novel or unique testing approaches due to lack of adequate testing precedents. Acting independently, they serve as an authority on testing requirements in their assigned product and functional area. The complexity of the test equipment and the methods of testing required to successfully complete a test plan are the responsibility of the Lab Specialist along with developing a Statement of Work for the purchase and repair of test equipment necessary to accomplish the testing mission for the Supply Chains. Strong material, dimensional and equipment expertise is necessary to understand and implement a test plan. This expertise classifies a Lab Specialist as a subject-matter expert in a designated program area, e.g.,

dimensional, automated test equipment operation, programming languages, software calibration, NDT, hydrostatic testing, etc.

(3) Based on the routine technical complexity of the core duties and levels of communication required, the appropriate level for the PTC Lab Specialists shall be established by human resources.

1. Developing and maintaining a succession plan to ensure continuous test capability.

# <u>GLOSSARY</u>

# PART I. ABBREVIATIONS AND ACRONYMS

DCIS	Defense Criminal Investigative Service
EBS	Enterprise Business Systems
HQ	Headquarters
NDT	Non-Destructive Test
PQDR PTC PVP	Product Quality Deficiency Report Product Testing Center Product Verification Program
TIMS	Test Information Management System

# PART II. DEFINITIONS

<u>Product inspection</u>: The critical appraisal involving examination, measurement, testing, gauging, and comparison of materiels or items. An inspection determines if the materiel or item is in the proper quantity and condition and if it conforms to the specified requirements.

<u>Product testing</u>: The quality control means by which the capability of a manufactured item to meet its specified requirements is determined by subjecting the item to a set of operating conditions and documenting the results.

<u>Product verification</u>: The comparison of two or more items, or the use of tests to ensure the accuracy/correctness of the item in association to known requirements. Product verification is used by DLA as a means to ensure that conforming parts, materiels, or items are being procured, and is accomplished through product inspection and product testing.