

# DEFENSE LOGISTICS AGENCY

AMERICA'S COMBAT LOGISTICS SUPPORT AGENCY

## DLA Land and Maritime

The logo of the Defense Logistics Agency (DLA) is centered in the background. It features a bald eagle with wings spread, perched atop a shield with vertical red and white stripes and a blue top section. The eagle is set against a blue globe with white stars. A yellow banner arches over the eagle with the word "LOGISTICS" in black. Two other yellow banners, one on the left and one on the right, contain the words "DEFENSE" and "AGENCY" respectively.

# Qualification Programs

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# Qualification Program



**Background – What is Qualification?**

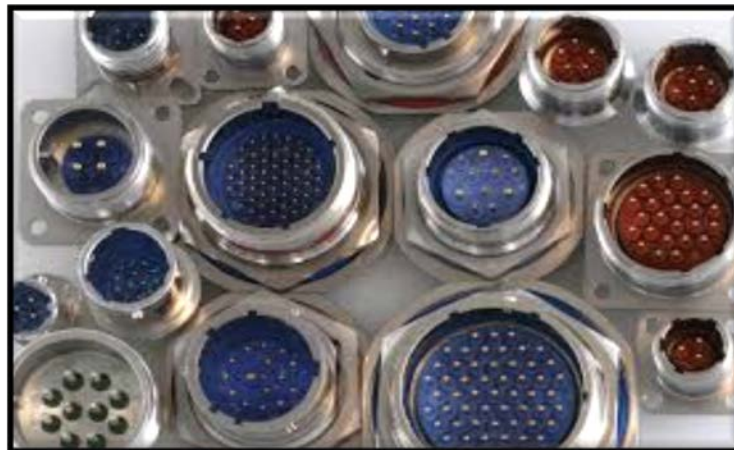
**What We Do – “The Qualification Process”**

**Other Land and Maritime Programs**

**Benefits**

**Web Site**

**POCs**





# Qualification



- **Process of Qualifying a Manufacturer's Products Prior to and Independent of a Contract Award**
  - *Successful process results in qualification listing on the Qualified Products Database (QPD) (<http://qpldocs.dla.mil> )*
- **Authority Comes from DoDM 4120.24 Dated September 24, 2014**



# Authority

- **10 U.S. Code § 2319 - Encouragement of New Competitors**
- **Federal Acquisition Regulation (FAR) Subpart 9.2 -- Qualifications Requirements**
- **DoDM 4120.24 Enclosure 14 - Qualification**





# Scope



- **World Wide Program – World Wide Impact**
- **Close to 900 Manufacturers Participate**
- **More than 100 Test Labs**





# Scope



- Large program covering wide variety of technologies
- Electronics covers 22 types of components including:

***Capacitors***

***Resistors***

***Connectors***

***Tubes***

***Switches***

***Relays***

***Microcircuits***

***- Hybrid***

***- Custom***

***Discrete Solid State***

***- Transistors***

***- Diodes***

**Many component families contain special quality/reliability level requirements for space applications; e.g. microcircuits, discrete, capacitors, resistors, relays, etc.**



# Scope



## Non-Electronics Covers 7 Types of Components Including:

- *Hoses/Wipers*
- *Fittings*
- *Pumps*
- *Wire/Cable*





# Scope



## Manage Several Qualified Suppliers List(s):

- **QSLD** – *Qualified Suppliers List of Distributors*
- **QTSL** – *Qualified Testing Suppliers List*
- **QSLM** – *Qualified Suppliers List for Manufacturers*





# Qualification Process



## Four Major Steps

- **Technical Audit of Manufacturers Plant – “Certification”**
- **Qualification Testing (Technical Data)**
- **Product Approval**
- **Build and Maintain Relationship with Manufacturer to Ensure Continued Performance, Quality and Reliability**



# Technical Audit



- **On-site Audit of the Companies Manufacturing Process and Quality System**
  - *Request, pre-audit info review, scheduling*
- **Audit Team Composition - Dependent on Technology, Requirements and Number of Lines/Plants:**
  - *Typically two (2) engineers for 3 days*
  - *Audit teams may consist of military service(s)/space representatives, and industry experts (e.g. radiation)*
  - *Customers invited to attend*



# Technical Audit



- **Audit the lines to certify:**
  - *Verify manufacturing line step by step*
  - *Review all in house testing capability*
  
- **Support Areas:**
  - *Incoming Inspection*
  - *Document Control*
  - *Training*
  - *Calibration Lab*
  - *Field Failures*
  - *Records/Test Results*
  - *Self Audit*
  - *Statistical Process Control*



# Technical Audit



## Post Audit Corrective Actions

- **Provide manufacturer a list of deficiencies**
- **All deficiencies must be corrected to obtain facility Certification**
- **Manufacturer must be “Certified” before proceeding with Qualification Process**



# Qualification Process



- **Technical Audit of Manufacturer's Plant (Certification)**
- **Qualification Testing (Technical Data)**
- **Product Approval (QPL/QML)**
- **Build and Maintain Relationship with Manufacturer to Ensure Continued Performance, Quality and Reliability**



# Qualification Testing



- **Product Built on the “Certified” Manufacturing Line using Approved Product Baselines and Manufacturer’s Flows**
- **Product Subjected to all Prescribed Qualification Tests using Approved Set-up and Procedures.**
- **All Testing Must be Accomplished at a *DLA Land and Maritime* Approved Location – In-House or Outside Lab**



# Qualification Process



- **Technical Audit of Manufacturer's Plant (Certification)**
- **Qualification Testing (Technical Data)**
- **Product Approval (QPL/QML)**
- **Build and Maintain Relationship with Manufacturer to Ensure Continued Performance, Quality and Reliability**



# QPL/QML



- **Test Report and Data Reviewed**
- **Products Passing Military Specification Qualification Testing are Listed on the Qualified Products Database (QPD) (<http://qpldocs.dla.mil> ) (a major accomplishment)**
- **QPD Listings Allow for the Military Services, OEMs (Govt/Commercial) and other Agencies– Worldwide to find Military Qualified Products Quickly.**





# Qualification Process



- **Technical Audit of Manufacturer's Plant (Certification)**
- **Qualification Testing (Technical Data)**
- **Product Approval (QPL/QML)**
- **Build and Maintain Relationship with Manufacturer to Ensure Continued Conformance, Quality and Reliability**



# Working Relationship



- **Validate Screening and Periodic Qualification Conformance Inspection Testing**
- **Periodic Re-audits**
  - *Typically 2-5 year cycle*
- **Product Failures are Reported, Reviewed, and Action Taken**
  - *May shut down lines until major problems are fixed*



# Working Relationship



- **Configuration Control - Product Redesigns, Manufacturing Flows, Test Travelers Changes are Evaluated. (Baselines, travelers, flows updated). Re-qualification Testing Required as Appropriate**
- **Review Periodic (annual, quarterly, etc.) Retention Reports (coverage, capacity, fraud)**





# QSL Programs



- **QSLD - Qualified Suppliers List of Distributors**
- **QTSL - Qualified Testing Suppliers List**
- **QSLM - Qualified Suppliers List for Manufacturers**





# QSLD



- **Support DLA Land and Maritime Acquisition for Military and Commercial Parts for Products in FSC's 5961 / 5962 (Semiconductor Devices / Advanced Microcircuits)**
- **Qualified Suppliers List of Distributors (QSLD)**
  - *Implemented March 2009*
  - *Full chain of custody available (Valid traceability documentation available)*
  - *On-site validation required initially and periodically*



# QTSL



- **Qualified Testing Suppliers List (QTSL)**
  - *Implemented February 2013*
  - *Full chain of custody not available (no traceability)*
  - *Required counterfeit mitigation testing/ inspection to validate authenticity*
  - *On-site validation required initially and periodically*



# QSLM



- **Small Arms Sourcing Initiative established January 2013 to investigate persistent and ongoing problems with products in FSC 1005. (1005, 1010, 1015, 1025, 1095)**
- **Project has two major areas of focus:**
  1. **Nadcap certification requirement for phosphate coating**
    - *Nadcap (formerly NADCAP, the National Aerospace and Defense Contractors Accreditation Program) is a global cooperative accreditation program for aerospace engineering, defense and related industries.*
    - *Industry standard for chemical processing*



# QSLM (cont.)



- **Nadcap is administered by the Performance Review Institute (PRI) (<http://p-r-i.org/nadcap/>)**
  - 2. Qualified Supplier List for Manufactures (QSLM) for gun parts**
    - *Contains competitive (AMC/AMSC 1/G) gun part NSN's*
    - *On-site validation required initially and periodically*





# Suppliers of Qualified Product



- **Ensure product being supplied is actually qualified product**
  - *Manufactured/assembled by source listed on QPL/QML/QSL*
- **Able to trace product back to listed source**
- **Able to supply proper documentation to verify origin of product**
- **Some specifications and/or contracts may require such documentation (CoC)**



# Qualification Benefits Everyone



## Benefits Include

- Establishes level playing field and provides a “known-good supplier” list for customers
- Demonstrated capability to meet all requirements
- Validates continual adherence (design rules, process flow, tests)
- Configuration management
- Lower life cycle cost, shorter lead times
- Significantly improves quality and reliability
- \$200M fraud settlements



# Bottom Line



- **Manufacturer Must be Qualified (on QPL/QML/QSL) Before being Awarded a Contract Requiring a Qualified Part**
- **Other “Suppliers” of QPL/QML/QSL Product must Assure and be Able to Document that the Product Originated from a Qualified Source**
- **Qualified Parts are Built and Tested for Military and Space Applications and the Performance, Quality and Reliability are Validated**



# VQ Home Page



- **Sourcing and Qualifications Division Web Site**
- **<https://landandmaritimeapps.dla.mil/programs/qmlqpl/>**
- **Download QMLs, QPLs, QSLs, Commercial Laboratory Listing, etc. in .pdf Format**
- **Online Part Search for QMLs and QPLs**
- **General Information on Commodities and Laboratories**



# VQ POC Listing



- **VQ Alan Will (614) 692-0619**
- **VQC Microcircuits - Custom/Standard  
Mike Adams (614) 692-0662**
- **VQH Microcircuits – Hybrid, Passives - Fuses,  
Circuit Breakers, Switches, Relays, Crystals  
Jim Eschmeyer (614) 692-0591**
- **VQE Discrete Semiconductors, Printed Wiring  
Boards, Electron Tubes, Antenna, Hardware  
Ray Kolonchuk (614) 692-0621**
- **VQP Passives - Capacitors, Resistors, Connectors,  
Fiber Optics, Hose and Assemblies  
John Casto (614) 692-7076**



