

**Material Identification and Control for Level 1/Subsafe
Materials**Process Owner: **Quality**

Management:

1. Scope:

This document details the minimum quality assurance requirements for identification and control of materials designated as Level 1/Subsafe (L1/SS) as defined by 0948-LP-045-7010.

2. Requirements:**2.1. Purchase Order:**

- 2.1.1. The purchase order shall specify that the material or component shall conform to L1/SS traceability requirements.
- 2.1.2. The purchase order shall be clearly identified as L1/SS with a stamp or a separate test line stating LEVEL 1 or SUBSAFE.
- 2.1.3. The purchase order shall specify that the material or component is to be free of mercury contamination.
- 2.1.4. The purchase order shall be reviewed by one of the persons identified on AL-13-004 to verify that the L1/SS requirements are properly detailed on the purchase order. The reviewer shall countersign or stamp the purchase order to document acceptability.
- 2.1.5. The purchase order shall specify that the material or component supplied shall be in DFARS 252.225-7009, Preference for Domestic Specialty Metals.
- 2.1.6. For components, the purchase order shall include the requirement that any time processing will remove traceability identification, the supplier shall contact FCP for instructions as to how and where to remark the traceability identification.

2.2. Receiving Inspection:

- 2.2.1. All items shall be receipt inspected to verify the physical marking of traceability information.
- 2.2.2. Receipt inspection of the material or component shall be performed in accordance with OP-13-045 in addition to the requirements of this procedure. In the event of a conflict between this procedure and OP-13-045, the requirements of this document shall take precedence.
- 2.2.3. Material Certification shall be inspected to verify the following requirements.
 - 2.2.3.1. Test data shall be recorded on the testing company's letterhead. Transcribed data is not allowed.
 - 2.2.3.2. The correct material specification and revision level shall be referenced.
 - 2.2.3.3. The heat number and/or lot number shall be marked on both the material and the certification.
 - 2.2.3.4. Quantitative data of chemical composition and mechanical properties that relate to the specific heat and/or lot number shall be recorded.
 - 2.2.3.5. The name, title, and signature of an authorized company representative must be included.
 - 2.2.3.6. The certification and the heat and/or lot number marked on the material shall be complete and legible.
 - 2.2.3.7. All specific contractual requirements shall be met.



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OP-13-044

**Material Identification and Control for Level 1/Subsafe
Materials**

Page 2 of 5

Revision: -

Process Owner: **Quality**

Management:

- 2.2.3.8. Quantitative data shall meet the requirements set forth by the contractually referenced material specification.
- 2.2.3.9. Compliance with DFARS 252.225-7009, Preference for Domestic Specialty Metals, shall be described.
- 2.2.3.10. The heat code marked on fasteners matches the code referenced on the certification.

2.2.4. Documentation of Inspection:

- 2.2.4.1. The results of the certification verification shall be recorded on forms F-13-047 Material Receipt Inspection Checklist/All Materials and F-13-048 Material Receipt Inspection Checklist/Level 1.
- 2.2.4.2. The reviewer shall initial or stamp each page of the certification package as the review of that page is complete and found to be acceptable.

2.2.5. Recertification Requirements:

A material that undergoes a metal working process, heat treatment, forming, etc, excluding marking and machining, that alters the material's original properties shall have the material's mechanical properties recertified by one of the following methods.

- 2.2.5.1. Retest and re-certify the material for all mechanical properties only. The altered material shall be uniquely re-identified with a traceability number or code. The original mill certification shall be over stamped and/or annotated to contain the following information. Pertinent data on the mill certification shall not be obscured by the over stamp or annotation.

Traceability Number/Code _____ is fabricated from raw material Heat No./Heat-Treat No. _____ Date _____ Name and Signature of the Authorized Company Representative

- 2.2.5.2. Retest and re-certify both the chemical and mechanical properties in accordance with paragraph 2.2.3.

2.2.6. Foreign Certificates:

- 2.2.6.1. Foreign certificates shall be converted to English/US units of measurement either on the original certification or on an addendum.
- 2.2.6.2. The conversion shall identify the name, title, and signature of the authorized representative providing the translation.

2.2.7. Storage:

- 2.2.7.1. Level 1 materials and components shall be physically segregated by cages, racks, bins, shelves, roped off areas, or by other attributes such as size or physical appearance so as to prevent mixing with similar appearing material or components.



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OP-13-044

**Material Identification and Control for Level 1/Subsafe
Materials**

Page 3 of 5

Revision: -

Process Owner: **Quality**

Management:

2.2.7.2. Raw materials shall be stored in such a way as to prevent commingling of alloys and material conditions as specified in MOP-15-02.

2.3. In-process Control of Component Parts:

2.3.1. Heat Number Traceability shall be maintained at all times through all processes for all in-process materials and components .

2.3.2. Recertification of mechanical properties of a material or component is required if the material is subjected to an operation that would alter the original properties of the material. Recertification shall be performed in accordance with Paragraph 2.2.5.

2.4. Marking Requirements:

2.4.1. Raw materials, castings, components:

2.4.1.1. Unless otherwise specified by the applicable contract, marking shall be a permanent method specified in MIL-STD-792.

2.4.1.2. Items too small to be permanently marked shall have the heat number and/or lot number identified using one of the following methods:

2.4.1.2.1. Bundled and identified with a tag or card;

2.4.1.2.2. Confined as a group in a tote box identified with the heat and/or lot number;

2.4.1.2.3. Individually identified with self-adhesive labels; or

2.4.1.2.4. Individually identified with a card or tag affixed to the component.

2.4.1.3. If the portion of the raw material containing the heat and/or lot number is removed from the stock, the raw stock shall be marked with the heat and/or lot number.

2.4.2. Fasteners (nuts, bolts, studs, screws):

2.4.2.1. Fasteners manufactured in accordance with MIL-STD-1222 shall be marked in accordance with the standard.

2.4.2.2. For fasteners manufactured in accordance with other standards, the fasteners shall be marked with a trace code that provides traceability to the raw materials and all subsequent processes.

2.4.2.3. Fasteners may be marked with the manufacturer's identification symbol.

2.4.2.4. Manufacturer's marking shall not be removed or otherwise obliterated.

2.4.3. In-process Materials:

2.4.3.1. If the raw material is partitioned in to small segments during processing, each segment shall be re-identified with the heat and/or lot number in accordance with Paragraph 2.4.1.

2.4.3.2. If processing results in the heat and/or lot number being removed from a material or component, the identification shall be re-marked in accordance with paragraph 2.4.1.

Process Owner: **Quality**

Management:

- 2.5. Final Assembly Requirements:
 - 2.5.1. Marking:
 - 2.5.1.1. All parts shall be 100% inspected to verify the legibility of all markings.
 - 2.5.2. Material Certifications:
 - 2.5.2.1. Existence of certifications for each heat and/or lot number shall be verified.
 - 2.5.2.2. All certifications shall be 100% inspected for legibility.
 - 2.5.3. Inspection Documentation:
 - 2.5.3.1. Verify that documentation of certification inspection is performed in accordance with Paragraph 2.2.4.
- 2.6. Maintenance of Records:
 - 2.6.1. Unless otherwise specified, all records shall be maintained in accordance with FCP procedures detailing control of records.
 - 2.6.2. At least one original copy of material certifications shall be maintained on file.
 - 2.6.3. Records provided to customers may be photocopies of the original.
- 2.7. Lost Traceability/Certification:
 - 2.7.1. In the event that traceability is lost due to a failure to maintain heat and/or lot number identification: the material is unacceptable for use in the L1/SS program. The material is considered non-conforming until appropriate tests have been performed that can absolutely identify the heat from which the item was produced.
 - 2.7.1.1. This requirement is not applicable to items that are uniquely identifiable by their size and configuration.
 - 2.7.1.2. The method of re-establishing traceability shall be approved by the customer for each incident where traceability is lost.
 - 2.7.2. In the event of a lost certification, a replacement may be obtained from the original vendor or testing facility.



OP-13-044

Page 5 of 5

Material Identification and Control for Level 1/Subsafe Materials

Revision: -

Process Owner: **Quality**

Management:

Applicable Documents

MIL-I-45208	DI-MISC-80705	MIL-STD-792
EB2678	P-7.4.3.0-03	P-4.2.2.0-01
MOP-15-02		

Applicable AS9100/ISO 9001 Clauses

NA		
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Previous Documents

QAP-13.1		
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Record Requirements

Record I.D.	Document Name	Active Storage Location	In-Active Storage Location	Retention Time (Minimum)	Disposal Method
F-7.4.3.0-02	Material Receipt Inspection Checklist; All Materials			Indefinite	Delete
F-7.4.3.0-03	Material Receipt Inspection Checklist; Level 1 Materials			Indefinite	Delete
-	Material Certification			Indefinite	Delete

Revision History

Training Required?	Rev	Pages or sections affected			Date
		Revised	Added	Removed	
YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	-		Initial release		10/02/17
YES <input type="checkbox"/> NO <input type="checkbox"/>					
YES <input type="checkbox"/> NO <input type="checkbox"/>					
YES <input type="checkbox"/> NO <input type="checkbox"/>					