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DOCUMENT IDENTIFIER **PS850100E**

SUBJECT: **ACCEPTANCE TESTING OF INCOMING METALLIC RAW MATERIAL**

MATERIAL ENGINEERING & TECHNOLOGY DEVELOPMENT
ENGINEERING & DEVELOPMENT CENTER

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REVISION STATUS

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1. APPLICABILITY

1.1. Applicable to all projects.

1.2. This Revision is effective within 30 days of issue at IAI Ltd. Processors, outside IAI Ltd, performing acceptance testing of raw material in accordance with requirements of the previous issue of this Process Specification (PS) shall implement the changes defined herein within three (3) months after the issue of this PS, unless otherwise agreed upon with relevant Divisional Quality Assurance (QA) Department.

2. SCOPE

2.1. This PS establishes the quality control surveillance procedures for each incoming raw materials at IAI Ltd, at its designated distributors, and at its subcontractors. The acceptance testing requirements for castings and forgings are defined in separate process specifications.

2.2. Raw materials procured to other manufacturer's material specifications intended for their specific project shall be subject to the acceptance testing requirements of those specifications and not to this PS.

2.3. Refer to Appendix A for definition of terms used in this PS.

3. APPLICABLE DOCUMENTS

Except where a specific issue is indicated, the latest issue of the following documents shall be considered as part of this PS to the extent specified herein.

3.1. IAI Ltd.

PS231900 Passivation of Stainless Steel

3.2. American Society for Quality Control

ANSI/ASQC Z1.4 Sampling Procedures and Tables for Inspection by Attributes

3.3. The current issues of applicable Procurement Specifications for metallic raw materials.

4. ENGINEERING DRAWING CALL-OUT

The applicable Engineering document (QA Procedure, E.O., route card, etc.) and other relevant documents shall reference this PS by number.

NOTE: When raw material is procured for IAI Ltd projects the requirements of this PS shall apply even if the Engineering document does not specifically call-out this PS by number.

5. TABLE OF CONTENTS

6. MATERIALS

Not applicable.

7. EQUIPMENT AND TOOLS

Not applicable.

8. REQUIREMENTS

8.1. Quality Assurance

8.1.1. QA shall maintain an updated list of “preferred producers” (refer to Appendix A, para. A6.1) and “approved producers” (refer to Appendix A, para. A6.2) authorized to manufacture raw material for IAI Ltd in accordance with the QA Group Procedures. The lists are maintained in the SAP application.

8.1.2. QA shall verify that the vendor/supplier has established a system for the handling, storage and identification of raw material.

8.1.3. The vendor/supplier shall furnish to the purchaser with each lot a certificate of conformance (C.O.C) as well as the certificate of test (C.O.T.) covering all the acceptance tests, as required by the procurement specifications, performed by producer.

8.1.4. The certificates shall include the purchase order number, name of manufacturer, lot and/or heat number, material designation, condition, procurement specification and revision letter, nominal size, and quantity from each heat supplied.

8.1.5. The vendor/supplier is responsible to ensure that all the inspections and acceptance tests as specified by the procurement specification have been performed on every lot before delivery and conform to the requirements.

NOTE: A C.O.C. furnished by a vendor/supplier shall not be considered an acceptable substitute for the producer’s C.O.T. including all laboratory test results.

8.2. “Preferred Producer” Qualification

A manufacturer shall be granted “preferred producer” (refer to para A6.1) status in accordance with QA Group Procedures.

8.3. Inspector Qualification

Inspectors performing inspections and testing required in this PS shall be trained and qualified in accordance with the Group QA Procedures, designated distributor’s or subcontractor’s training requirements.

8.4. Acceptance Tests

8.4.1. Applicable to all forms and types of raw material, except as stated in para. 2.1, purchased by and for the different Plants of IAI Ltd.

8.4.2. The acceptance testing frequencies for the subsequent production lots received at IAI Ltd shall be based on the quality history of the producer.

8.4.3. Designated distributors or subcontractors to the various IAI Divisions/Plants need not perform any destructive acceptance tests when material is supplied by IAI Ltd or when purchasing raw material directly or indirectly from ~~either~~ a "preferred" (refer to para. A6.1) producer. Subcontractor must perform Receiving Inspection per para. 8.4.4.

Designated distributors must work, similar to the IAI Receiving Inspection, in accordance to the requirements of this PS for raw material received from approved or non-approved producer.

8.4.4. Receiving Inspection

NOTE: When Receiving Inspection is mentioned in this PS it shall include an IAI Ltd department as well as an inspection department at a designated distributor approved by IAI QA Group or at a subcontractor.

8.4.4.1. In-coming lots of raw material shall be inspected by Receiving Inspection as outlined below (requirements conform to CAG QA Procedure):

a. Shipment:
Check for compliance with requirements specified in Purchase Order (identification of the raw material, quantity, packing requirements, etc.).

b. Documentation:
Check for a vendor/supplier's C.O.C and producer's C.O.T. as per para. 8.1.

c. Visual inspection for dimensions, surface finish, absence of defects caused during shipment, and identification marking.

8.4.4.2. Any deviations from the procurement specification and other contractual requirements shall be reported as a defect.

8.4.5. Implementation of Test Plan

8.4.5.1. Receiving Inspection is responsible to verify that raw material has been received from either an "approved" producer or "preferred" producer.

8.4.5.2. If the raw material is not from a "preferred" or "approved" producer, the lot shall be quarantined to prevent using the material and referred to Material Review Board (MRB) decision.

8.4.5.3. Receiving Inspection shall record all the relevant information of the incoming raw material, such as Supplier, alloy, condition, specification, form, dimensions, etc.

8.4.5.4. Receiving Inspection shall then record the heat-melt number and manufacturer's code of the in-coming lot of raw material.

NOTE: Lots received with heat-melt number previously tested or rejected shall be recorded but shall not be counted.

8.4.5.5. When required per testing frequency plan, Fig. 2 for "approved" producer, Receiving Inspection shall send samples from the incoming lot of raw material for laboratory destructive testing per requirements of this PS.

8.4.5.6. When required per testing frequency plan, Fig. 3 for "preferred" producer, Receiving Inspection shall send samples from the incoming lot of raw material for laboratory destructive testing per requirements of this PS.

8.4.6. Laboratory Destructive Testing

Laboratory testing shall be performed by the Metallurgical Laboratory in the Aviation Group ~~Division~~ / Engineering & Development Center ~~Group~~ or at any other IAI metallurgical laboratory of the Company suitably equipped and staffed by personnel qualified specifically for the purpose and authorized by the relevant Group QA authority or by IAI Training Center, or at any other qualified metallurgical laboratory testing aerospace materials and approved by one of the following organizations: International Laboratory Accreditation Cooperation (ILAC), National Aerospace and Defense Contractors Accreditation Program-Material Testing Laboratories (NADCAP-MTL), American Association for Laboratory Accreditation (A2LA) or International Organization for Standardization 17025 (ISO 17025). Laboratory testing shall include:

8.4.6.1. Laboratory testing to be performed for "Acceptance Test" shall include all tests and examinations required in the relevant procurement specification and this PS. Sample size for acceptance test shall be in accordance with Table 1.

~~Laboratory test to be performed for "Abbreviated Test" shall be in accordance with Table 1.~~

8.4.6.2. Laboratory testing to be performed for "Control Test" shall be as requested by QA - Receiving Inspection.

NOTE: Sample size for "Control Test" shall be a function of the testing to be performed and shall be determined in conjunction with the metallurgical laboratory performing the testing. If not otherwise required by the testing laboratory sample size shall be identical to sample size for acceptance test in Table 1.

~~Sample size for acceptance test and abbreviated test shall be in accordance with Table 2.~~

TABLE 1: Tests Required for "Abbreviated Test"

ALLOY DESIGNATION	SHAPE	ABBREVIATED TEST REQUIREMENTS
Low Carbon Steel	Bar, sheet & plate	Hardness
	Tube	Hardness
Medium Carbon Steel 0.3% ≤ C < 0.6%	Bar, sheet & plate	Hardness
	Tube	Hardness
Spring Steel	Strip	Hardness + (Hardness or Tensile after heat treatment)
	Wire	Tensile test
Low Alloy Steel	Bar & sheet	Hardness + Hardness after heat treatment
	Plate	Hardness
	Tube	Hardness
Austenitic Stainless Steel	Bar & plate	Hardness
	Sheet	Hardness + Bend
	Wire	Tensile test
	Tube	Flaring + Flattening + Surface condition test 1/
Martensitic Stainless Steel	Bar & sheet	Hardness + Hardness after heat treatment
Ferritic Stainless Steel	Bar & sheet	Hardness
PH Stainless Steel	Bar & sheet	Hardness + Hardness after heat treatment
Free Machining Stainless Steel	Bar	Hardness
Nickel & Cobalt Base (non-heat treatable)	Bar & plate	Hardness
	Sheet	Bend
	Tube	Flaring + Flattening
Nickel & Cobalt Base (heat treatable)	Bar	Hardness + Hardness after heat treatment
	Sheet & plate	Hardness
Aluminum Alloys 1xxx; 3xxx; 5xxx	Bar, sheet & plate	Electrical conductivity
	Tube (5052-O)	Flattening + Flaring
2xxx	Bar, shape, sheet & plate	Electrical conductivity 2/
	Tube	Flattening + Flaring
6xxx	Bar, shape, sheet & plate	Electrical conductivity 2/
	Tube	Flattening + Flaring (+ Microexamination 3/)
7xxx	Bar, shape, sheet & plate	Electrical conductivity 2/
Copper Alloys	Bar, sheet & tube	Hardness + Hardness after heat treatment
Titanium Alloys	Bar	Hardness
	Sheet	Bend
	Tube	Flaring + Flattening

~~**NOTES to Table 1**~~

~~1/ For hydraulic tubes only. Two tubes from each lot tested. Refer to Appendix B, para. B1.1.~~

~~2/ Tested in the "as received" condition and after heat treatment for heat treatment response.~~

~~3/ Samples sent for "Abbreviate Test" for 6061 tubes shall be visually examined for areas suspect for the presence of corrosion. If present, suspect tube samples shall be cross-sectioned and microexamined for corrosion.~~

TABLE 1 ~~2~~ - Sample Size Requirement for Laboratory Acceptance ~~and Abbreviated~~ Test~~s~~ 1/

SHAPE	MATERIAL GROUP and/or ALLOY DESIGNATION	MATERIAL SIZE Diameter or Thickness (inch)	SAMPLE SIZE	
			Acceptance Test (inch)	~~Abbreviated Test (inch)~~
Sheet & Plate	All alloys except plates listed below	≤ 0.5 > 0.5	10x10 5x5	~~5x1~~ 2/ ~~5x1~~ 2/
Plate	Aluminum Alloys: 2124 7050 7475	 ≥ 1.5 ≥ 2.0 ≥ 1.0	 10x10 10x10 10x10	 ~~1x1~~ ~~1x1~~ ~~1x1~~
	Steel: AF1410	 ≥ 1.5	 5x6	 ~~1x1~~
Tube (Not Hydraulic)	Aluminum Alloys: 2024 5052 6061	 ≤ 1 1 < d ≤ 3 All ≤ 1 1 < d ≤ 3	 32 17 17 32 17	 ~~4~~ ~~4~~ ~~4~~ ~~4~~
	Titanium Alloy:	≤ 1 1 < d ≤ 1.75 1.75 < d ≤ 3	32 40 54	~~4~~ ~~4~~ ~~4~~
	Stainless Steels: 304 / 316 321 / A286	 All	 20	 ~~4~~
	Nickel Base Alloys: Inconel 600 IN 102	 All	 14	 ~~4~~
Tube (Hydraulic)	Aluminum Alloys: 6061	 ≤ 1 1 < d ≤ 3	 32 3/ 17 3/	 ~~4~~ ~~4~~
	Titanium Alloy: Ti-3Al-2.5V	 All	 40	 ~~4~~
	Stainless Steels: 304 / 321 21-6-9	 All All	 20 + 2/, 3/ 40 + 2/, 3/	 ~~4~~ ~~4~~

TABLE 1 ~~2~~ - Sample Size Requirement for Laboratory Acceptance ~~and Abbreviated~~ Test~~s~~ 1/ (cont.)

SHAPE	MATERIAL GROUP and/or ALLOY DESIGNATION	MATERIAL SIZE Diameter or Thickness (inch)	SAMPLE SIZE	
			Acceptance Test (inch)	~~Abbreviated Test (inch)~~
Wire	17-7PH	≤0.06	237	~~237~~
		>0.06	40	~~40~~
	Other Alloys	≤0.06	119	~~119~~
		>0.06	20	~~20~~
Extrusion	Aluminum Alloys:			
	Bars	≤ 1.5	14	~~2~~
		> 1.5	10	~~2~~
	Shapes	All	18	~~2~~
	Carbon and Low Alloy Steel	All	20	~~2~~
Bar & Rod	Aluminum Alloys:			
	Heat Treatable	≤ 1.5	20	~~1~~
		1.5 < t ≤ 2	7	~~1~~
		> 2	4	~~1~~
	Non-Heat Treatable	All	5	~~1~~
	Steels: Carbon, Low Alloy, Stainless Steel, PH Steel	All	6	~~2~~
	Nickel & Cobalt Base Alloys:	≤ 1.5	12	~~2~~
		1.5 < t ≤ 2	8	~~2~~
		> 2	5	~~2~~
	Titanium Alloys	All	6	~~2~~

Notes to Table 1

1/ Sample size may be changed in agreement with the Metallurgical Laboratory performing testing when there is a lack of sufficient material. In case of failed test, another sample may be required.

~~Cut specimen with longest dimension perpendicular to the rolling direction.~~

2/ Two sample tubes per each lot tested, for surface condition evaluation, refer to Appendix B, para. B1.1. The test is non-destructive and not included in sample length.

3/ Does not include sample for hydrostatic pressure test.

9. PROCEDURES

Refer to Fig. 1 for a general outline of acceptance testing of incoming metallic raw material procedure.

9.1. Laboratory Test Plan

9.1.1. Receiving Inspection per para. 8.4.4 shall be performed on a random sample(s) for each lot of raw material received in accordance with QA Group Procedure.

9.1.2. Receiving Inspection shall verify that the incoming raw material is being received from either a “preferred” producer or an “approved” producer and shall record all the relevant information of the incoming raw material (per para. 8.4.5.3).

9.1.3. Receiving Inspection shall then record the heat-melt number and raw material manufacturer's code of the in-coming lot of raw material.

9.1.4. Laboratory testing frequencies shall be in accordance with Fig. 2 for raw material manufactured by an “approved” producer where lots are grouped and recorded per Producer and Material Group (refer to para. A17).

9.1.5. Laboratory testing frequencies shall be in accordance with Fig. 3 for raw material manufactured by a “preferred” producer where lots are grouped and recorded per Producer and Material Group (refer to para. A17). Except for aluminum 6061 tubes which shall have a testing frequency in accordance with Fig. 2, similar to an “approved” producer.

9.1.6. For “non-approved” producer, if required by QA (refer to para. 8.4.5.2), each in-coming lot shall be tested.

9.1.7. Receiving Inspection shall determine in accordance with Fig. 2 or Fig. 3, as applicable, whether the in-coming lot requires laboratory testing and shall send a sample for testing in accordance with requirements of para. 9.2.

~~“Abbreviated Test” shall always be performed when “Acceptance Test” is performed on a lot of raw material.~~

9.2. Sampling

9.2.1. For Receiving Inspection

Sufficient samples shall be inspected as per para. 9.1.1.

9.2.2. For Laboratory Testing

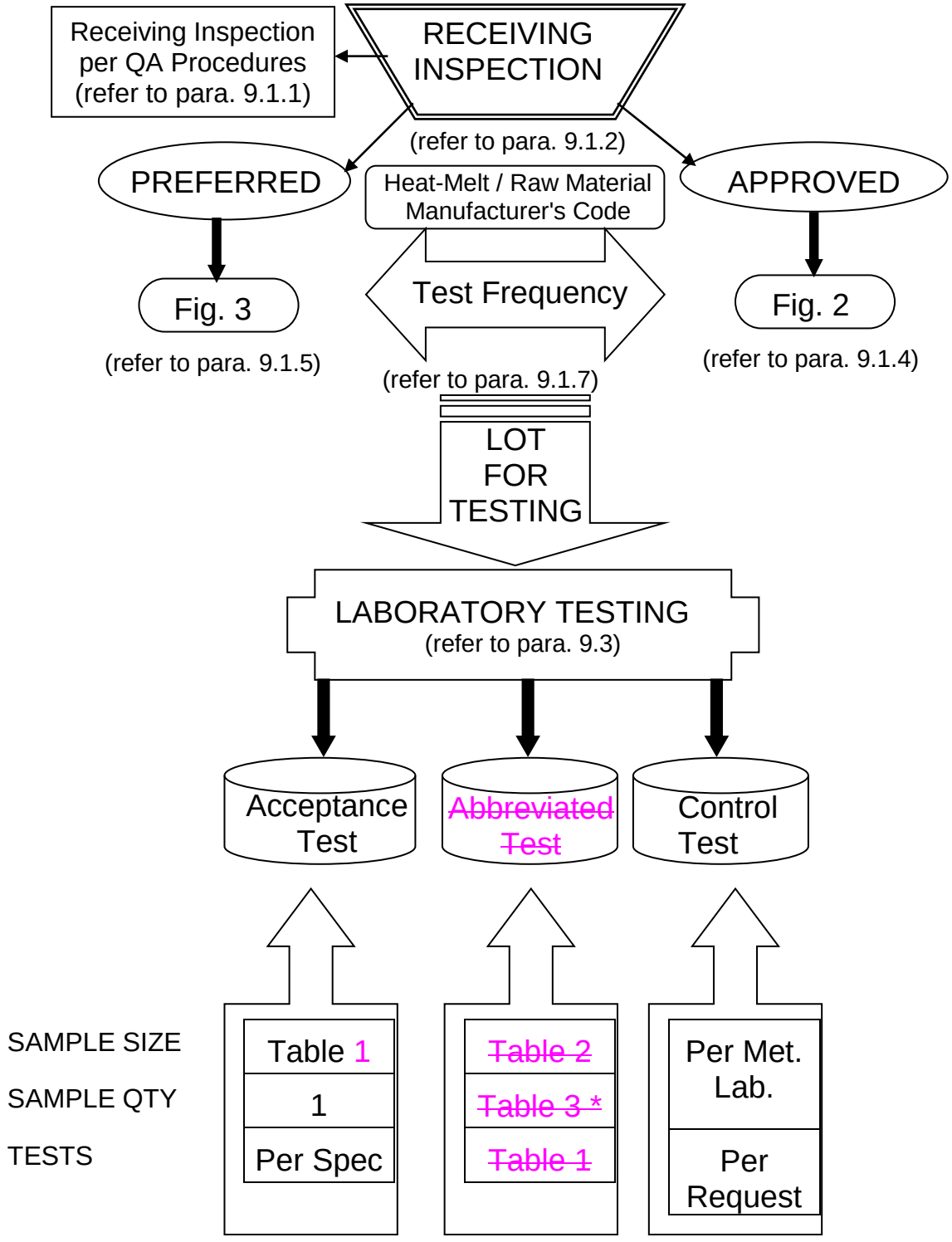
When a lot is sent for laboratory testing, the size and number of sample(s) required, as determined herein, depends on the type of testing to be performed.

9.2.2.1. Type of testing may be one or a combination of the following:

a. Acceptance Test (refer to para. 9.3.2 and A14)

b. Control Test (refer to para. 9.3.3 and A15)

~~c. Abbreviated Test (refer to para. 9.3.4 and A16)~~



~~* 6061 Tubes per Table 4~~

Figure 1 - General Flow Chart of Acceptance Testing Procedures

9.2.2.2. Determine sample size for “Acceptance Test” ~~and “Abbreviated Test”~~ from Table 1. ~~In general the quantity of samples sent for the “Abbreviated Test” shall be in accordance with Table 3. For 6061 aluminum tubes the “Abbreviated Test“ shall be sampled in accordance with Table 4, of a length per Table 2 for each tube tested.~~

9.2.2.3. Sample size for “Control Test” shall be in accordance with para. 8.4.6.2 criteria.

9.2.2.4. The rolling direction shall be appropriately indicated on the samples cut from sheet and plate products.

9.2.2.5. Samples shall be accompanied by the C.O.T. received with shipment.

~~Table 3 - Sampling Plan for Abbreviated Testing 1/~~

~~LOT SIZE (Units)~~	~~No. of SAMPLES~~
~~2 – 8~~	~~2~~
~~9 - 15~~	~~2~~
~~16 - 25~~	~~3~~
~~26 – 50~~	~~5~~
~~51 – 90~~	~~5~~
~~91 – 150~~	~~8~~
~~151 – 280~~	~~13~~
~~281 – 500~~	~~20~~
~~501 – 1200~~	~~32~~
~~1201 – 3200~~	~~50~~

~~NOTE: 1/ Reference ASQC Z1.4 Table 1, Level I for Single Sampling~~

~~Table 4 - Sampling Plan for Abbreviated Testing of Aluminum Tubes 1/~~

~~LOT SIZE (Units)~~	~~No. of SAMPLES~~
~~2 – 8~~	~~2~~
~~9 - 15~~	~~3~~
~~16 - 25~~	~~5~~
~~26 – 50~~	~~8~~
~~51 – 90~~	~~13~~
~~91 – 150~~	~~20~~
~~151 – 280~~	~~32~~
~~281 – 500~~	~~50~~
~~501 – 1200~~	~~80~~
~~1201 – 3200~~	~~125~~

~~NOTE: 1/ Reference ASQC Z1.4 Table 1, Level II for Single Sampling~~

9.3. Laboratory Testing

9.3.1. If the lot fails to conform to the receiving inspection requirements (refer to para. 8.4.4) no sample shall be sent to the laboratory for further testing.

NOTE: Receiving Inspection QA Inspector Supervisor may send at his discretion this lot for laboratory inspection.

9.3.2. For "Acceptance Test" the raw material shall be tested for all the tests required by the respective procurement specifications and this PS. When hardenability test is required in the respective procurement specification, it shall be substituted in Response to Heat Treatment (including mechanical tests: tensile and yield strength and elongation) according to the respective procurement specification, as first choice, or the relevant IAI PS.

9.3.3. For "Control Test" only tests requested by QA receiving inspection or as decided by METD shall be performed.

9.3.4. ~~For "Abbreviated Test" only tests required in Table 1 shall be performed.~~

9.3.5. All tests shall be performed in accordance with and shall conform to the requirements of the applicable procurement specification and this PS.

9.4. Conformance

9.4.1. The lot of raw material tested in accordance with the procedures of this PS, shall be considered acceptable for use when all test results were found conforming to the relevant procurement specification requirements and accompanied by a laboratory test report issued by an IAI Ltd approved laboratory (refer to para. 8.4.6) attesting to this fact.

9.4.2. If while performing "Acceptance Test", for any reason one or more laboratory acceptance tests were not performed and all the test results of the performed tests meet the requirements, the laboratory shall only issue a laboratory control test report covering all the test results but without any recommendations for QA disposition.

9.5. Non Conformance

The following procedure shall be followed in the case of failure of any one of the tests:

9.5.1. A laboratory test report shall indicate in what tests the raw material failed to meet the requirements of the procurement specification.

9.5.2. Stores inspection shall refer the non-conformance for evaluation to the material review board (MRB) or reject the lot (without MRB).

9.5.3. After rejection of a lot of raw material the next three (for "Approved" producer) or two (for "Preferred" producer) consecutive lots from the same manufacturer shall be tested for acceptance test as indicated in the applicable test plan in Fig. 2 and Fig. 3, respectively. In addition, a "Control Test" on the next two lots from the rejected raw material catalog number shall be tested for the property that failed to meet requirements in the original rejection.

10. QUALITY ASSURANCE

NOTE: When Quality Assurance is mentioned in this PS it shall refer to either an IAI Divisional Quality Assurance department or a Quality Assurance department at an IAI approved framework agreement supplier or subcontractor.

10.1. Quality Assurance shall be responsible for enforcing all the requirements of this PS.

10.2. Quality Assurance shall ensure that all the equipment that requires calibration are checked by an approved Standards Laboratory as per Quality Assurance requirements.

10.3. All records of inspection, calibration and product testing shall be maintained in accordance with and retained for a period specified in the relevant Group Quality Assurance Procedures.

10.4. Training and refreshing of personnel involved in the implementation of this PS shall be in accordance with Group Quality Assurance Procedures.

11. SAFETY

NOTE: Foreign subcontractors shall follow local safety provisions and regulations.

12. ENVIRONMENTAL REQUIREMENTS

NOTE: Foreign subcontractors shall follow local environmental provisions and regulations.

This PS references other process specifications that use materials and processes that may have an effect on the environment. It is mandatory to handle the material and dispose of wastes in accordance with the appropriate environmental requirements specified in the applicable PS, or in accordance with applicable “MSDS” (“Material Safety Data Sheet”), or in instructions of Safety and Environment department.

NOTE: Where no requirements exist, contact Materials Engineering & Technology Development, Engineering & Development Center ~~Aviation~~ ~~Division~~, IAI.

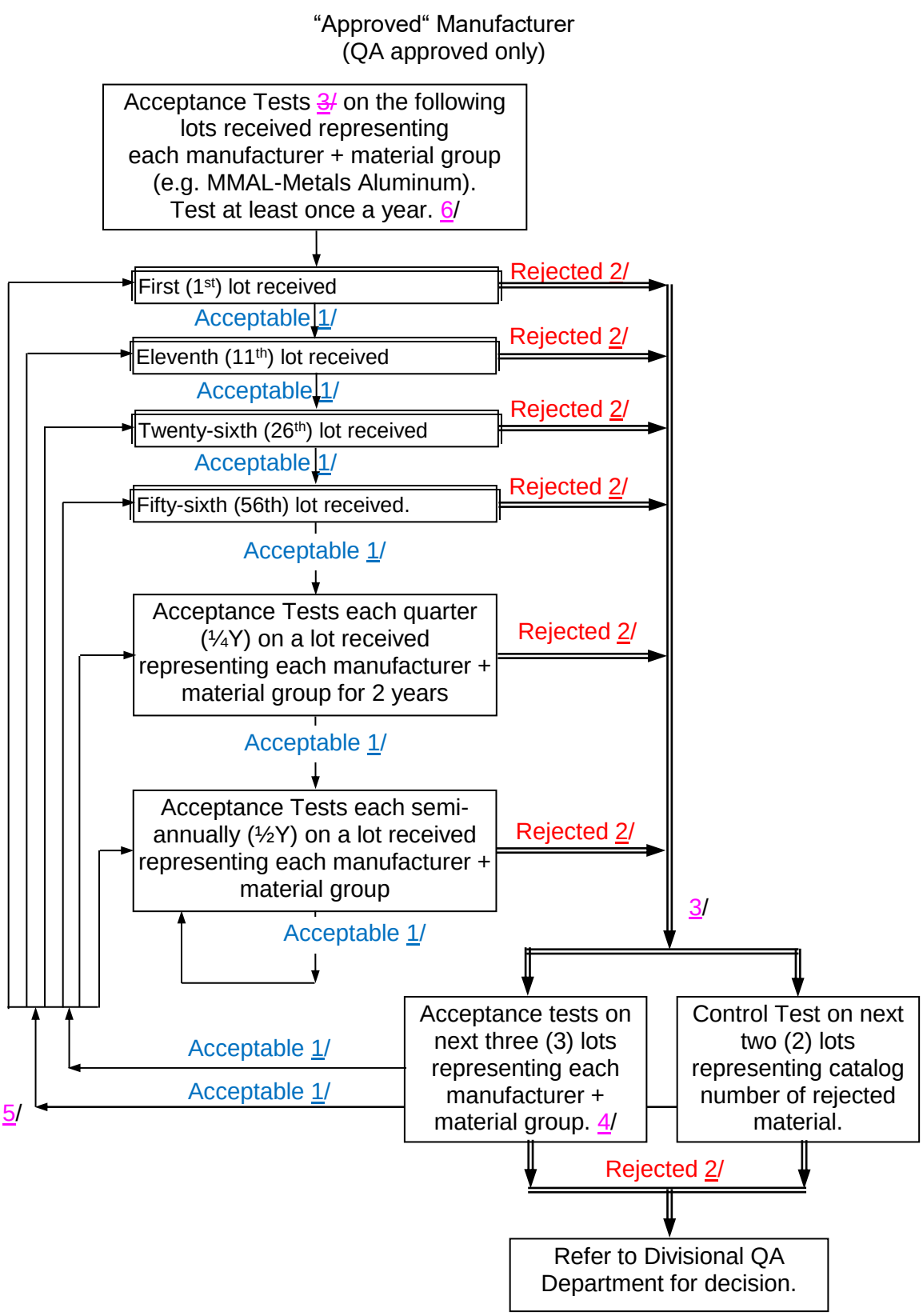


Figure 2 - Laboratory Testing Plan for "Approved" Producers

NOTES to Figure 2: (previous page)

1/ The results of all tests meet the requirements of the applicable procurement specification.

2/ The results of at least one test do not meet requirements.

~~For "Acceptance Test" the applicable "Abbreviated Test" shall be performed.~~

3/ Next three lots from manufacturer shall be acceptance tested. In parallel the next two lots from the rejected raw material catalog number shall be tested as well for the property that failed to meet requirements.

4/ If one of the lots for the Acceptance Tests performed after the rejection is the same as the rejected raw material catalog number only one more additional lot need be control tested.

5/ Return to stage where lot was originally rejected.

6/ In a case where a manufacturer has been tested only yearly resume counting of lots from position in stage that was interrupted.

NOTES to Figure 3: (next page)

1/ The results of all tests meet the requirements of the applicable procurement specification.

2/ The results of at least one test do not meet requirements.

~~For "Acceptance Test" the applicable "Abbreviated Test" shall be performed.~~

3/ Next two lots from manufacturer (+ material group) shall be acceptance tested. In parallel the next two lots from the rejected raw material catalog number shall be tested as well for the property that failed to meet requirements.

4/ If one of the lots for the Acceptance Tests performed after the rejection is the same as the rejected raw material catalog number only one more additional lot need be control tested.

5/ Divisional QA shall decide whether to down-grade status of "Preferred" Producer.

6/ Return to stage where lot was originally rejected.

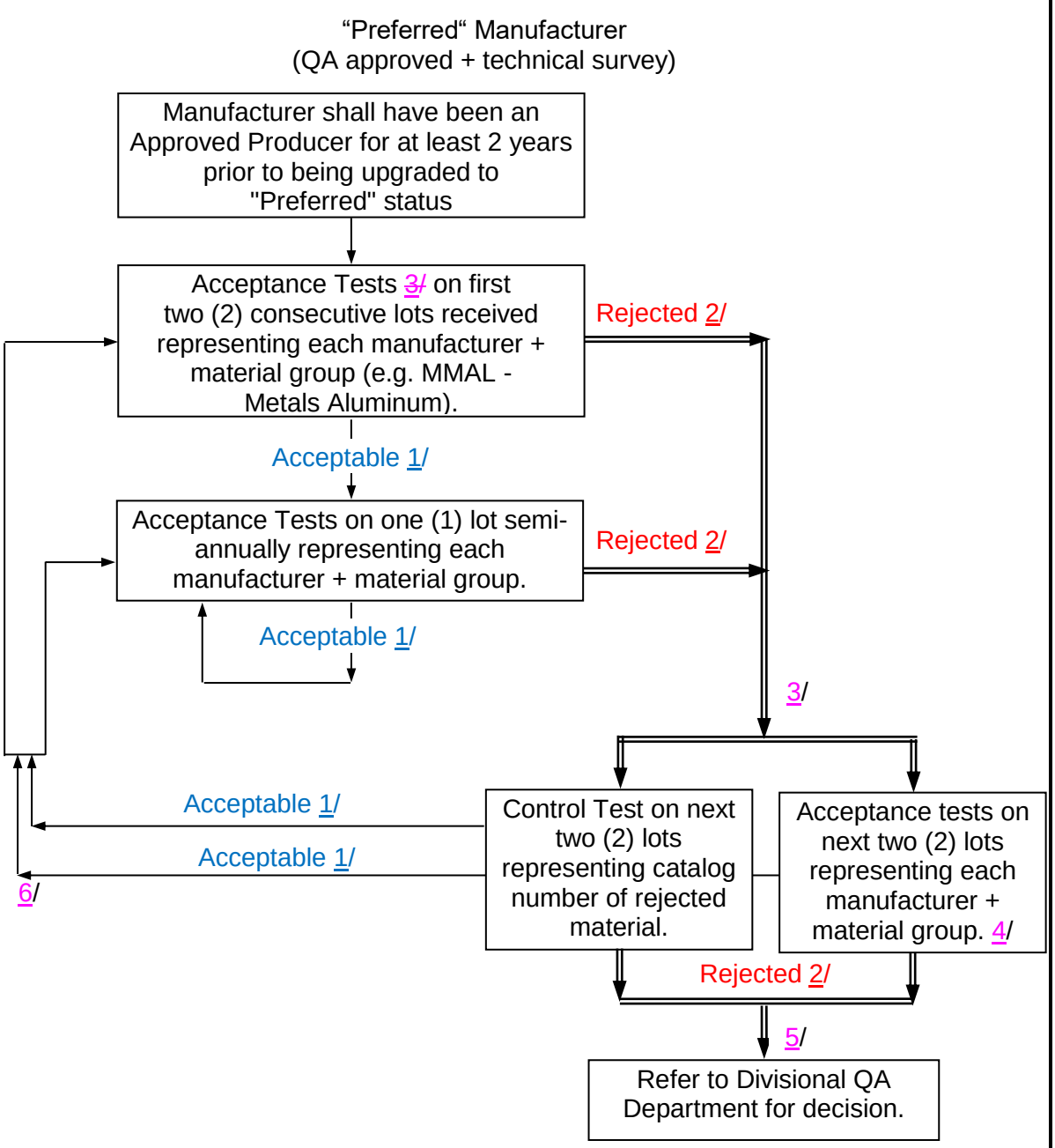


Figure 3 - Laboratory Testing Plan for "Preferred" Producers

APPENDIX A - DEFINITIONS OF TERMS

A1. **RAW MATERIAL**

Wrought material in the form of plate, sheet, strip, coil stock, bar, rod, wire, extruded shapes, and tubes.

A2. **LOT**

A collection of units of raw material from the same producer ordered to the same material (procurement) specification, form (sheet, bar, etc.) of the same alloy (chemical composition), condition (temper) by a single producer belonging to the same "heat-melt" combination (refer to para. A3), but may be of different thicknesses, and/or sizes. (i.e. Supplier Code + Material Code + Heat-Melt Combination)

A3. **HEAT-MELT COMBINATION**

Raw material produced from the same cast and heat treated in the same heat treatment batch.

A4. **SUPPLIER CODE**

Identification number, composed of alpha-numeric combination, use to identify one-to-one the producer or supplier/vendor at IAI.

A5. **MATERIAL CODE**

Identification number, composed of alpha-numeric combination, used to identify form, alloy, condition and specification combination of the material.
(e.g. 1A6374P: Aluminum 2024 Round Bar, T851, per AMS-QQ-A-225/6A).

A6. **PRODUCER**

The entity that manufactures the raw material. The producer may or may not be the “Vendor/Supplier”. Supplier approvals shall be accomplished in accordance with the IAI Company Procedure 310.01.03.

A6.1 Preferred Producer: A producer that has been approved in accordance with Quality Assurance divisional procedures and has successfully passed a technical survey (refer to para. A16) and has been an Approved Producer for IAI for at least 2 years.

A6.2 Approved Producer: A producer that has been approved only by Quality Assurance in accordance with Quality Assurance divisional procedures and has not, or as yet, successfully passed a technical survey.

A6.3 Non-Approved Producer: A producer that has not been approved by Quality Assurance in accordance with Quality Assurance divisional procedures.

A7. **VENDOR/SUPPLIER**

The entity supplying IAI Ltd. with raw material specifically defined in a purchase order or contract. The vendor/supplier may be a producer, sub-contractor, approved distributor, or wholesaler.

A8. **PROCUREMENT SPECIFICATION**

An applicable standard, showing the quality assurance requirements for a product to be met for conformance.

A9. **SAMPLE**

One or more pieces of metal taken at random from a lot of products and representing the lot to be tested.

A10. **SPECIMEN**

A test piece cut from the sample to be tested.

A11. **SAMPLE PLAN**

A statement of the sample size to be used.

A12. **QUALITY ASSURANCE**

A planned and systematic pattern of all the actions necessary to provide adequate confidence that the product conforms to the requirements.

A13. **LABORATORY DESTRUCTIVE TEST**

All the mechanical, metallurgical and chemical tests performed by any approved metallurgical laboratory.

A14. **ACCEPTANCE TEST**

All tests required by procurement specification and this PS intended to prove that the lot of raw material conforms to the requirements of the applicable specification.

A15. **CONTROL TEST**

Partial acceptance testing by choosing one or more tests required by procurement specification (e.g. metallographic examination and/or tensile testing) in order to indicate the conformance of a lot of raw material to the requirements of the property(ies) tested to the applicable procurement specification. Tests to be performed shall be chosen by Materials Engineering and Technology Department (METD) metallurgical laboratory and CAG QA Department.

~~Abbreviated Test~~

~~One or more tests chosen, usually from the procurement specification, to be indicative of the uniformity and quality of the lot of raw material.~~

A16. **TECHNICAL SURVEY**

A technical survey verifying the metallurgical, mechanical, and chemical testing capabilities of the producer's laboratories or laboratory used by producer to perform all qualification and acceptance tests required by procurement specification. This survey shall be performed periodically in accordance with QA Group Procedures by the METD department representatives or in conjunction with QA representative.

A17. MATERIAL GROUP

All raw material from the same family of materials are grouped together regardless of form, alloy, condition, or specification. For example all aluminum alloys such as 2024, 6061, 7050, 7075, etc. are considered the same material group, within IAI when identified as MMAL and outside IAI when identified as an Aluminum Alloy.

APPENDIX B – SPECIAL TESTS

B1. SPECIAL TESTS

Surface condition and passivation tests shall be performed on all lots of austenitic stainless steel tubes as follows:

B1.1 Surface Condition Test

a. Select two (2) sample tubes from each lot sent to the metallurgical laboratory for non-destructive testing. Using a stainless steel wire, force wads of firmly compacted clean white cloth through the inside diameter of each tube. Any soiled area present on the wad shall be examined at x10 magnification for the presence of grit, metallic particles, or other potentially detrimental materials.

The presence of particles, green color or intense discoloration shall be cause for rejection. Slight discoloration of the cloth, without the presence of particles is acceptable.

In case of subcontractor out of Israel, this test shall be performed by the subcontractor.

B1.2 Passivation Test

From each lot of tubing sent to the metallurgical laboratory for "Acceptance Test", test the inner and outer surfaces of two sections, each 30 cm (1 ft) in length, for salt spray test per PS231900 para. 12.6.3.