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1a) Failure in leak test in thermal batteries are :-

→ Identify & document, isolate the non conforming Product.

→ Perform a root cause analysis (RCA) to understand the failure

→ Implement corrective & preventive action.

Document the non conformance in a Non conformance report

→ conduct an internal audit to verify compliance

→ Notify relevant stakeholders

clauses are :-

8.7 :- * Control of Non conforming Output.

10.2 :- * Non conformity & corrective Action

1b) Sequences of steps :-

1) Identification :- Detect & document the leak test failure

2) Containment :- Quarantine affected products to prevent use.

3) Investigation :- perform failure analysis & identify root cause

4) Corrective Action :- Implement corrective measures to resolve the issue

5) Verification :- Re-test & monitor the effectiveness of corrective action.

6) Documentation :- Record action taken & update work procedure

1c) Responsible parties :- → Quality control (QC) Team.

→ Production Team

→ Design Team

2a) Responsible Department & Action plans

→ Department :- Supply chain Management & QC

→ Actions :- * Implement & counterfeit parts.

* perform supplier audit & verification

* Maintain records of authentic traceability

→

2 b) Roles of purchase, QC, & other Department :-

→ Purchase :- Ensure Procurement from AS9100 - compliant Suppliers.

1

→ Quality :- Inspect & verify.

2 c) Steps for Handling counterfeit Discovery :-

1) Immediate Quarantine :- Isolate counterfeit product.

2) Notify Stakeholder :- Inform management.

3) Root cause :- Investigate Sources.

4) corrective Action :- Replace counterfeit & review the procurement policies.

→ clauses are

* AS9100D 8.1.5 (Prevention of counterfeit parts)

3a) :- Incorporating changes into QMS :-

→ update QMS document

→ conduct training for affected personal

→ Give Awareness for using of QMS

→ The to

2

g) Communicating changes :-

- Issue a formal Notice to customers & Suppliers
- Update Material Safety data Sheet (MSDS)

g) Steps & Responsibilities :-

- Regulatory Analysis :- Compliance team reviews new regulations.
- Process Revision :- Update procedures & work instructions.
- Supplier coordination :- Ensure external partners comply.

• Required Document

- * Change Management Record
- * Update QMS Manual

ASQ1000 clause 6.1 (Action to Address Risks)

4) Customer Complaint About Thermal Battery Failure

→ customer Support & Quality Assurance

- * Record the complaint.
- * Investigate failure root cause
- * Implement corrective actions.

ub) Analysis & Risk Management

- > Perform Failure Mode & Effect Analysis.
- > Evaluate Impacts on product performance & Safety

4c) Preventing Recurrence :-

(2)

- > Strengthen Suppliers controls.
- > Enhance testing protocols.

d) clause :- 10.2 :- Non conformity & corrective Action.

5) Suppliers Shortage Management :-

a) Addressing Key Suppliers Shortage :-

- * Identify alternative Suppliers
- * Expedite procurement processes
- * Notify affected customer.

(2)

b) Evaluating Alternative Suppliers

- * Step 1 :- Supplier Qualification.
- * Step 2 :- Risk Assessment.
- * Step 3 :- Document & Audit

(2)

→ AS9100 clause :- 8.4 (Control of Externally provided Product)

6) Material Defect Identified During Inspection

a) Responsible Department & Impact Evaluation:

→ Department Quality Control (QC) & Materials Inspection

→ Steps Evaluate Impact:-

1) Isolate & document nonconforming materials

2) Assess whether the defect affect product safety or performance

3) Analyze how the defect impacts production timeline & delivery

4) Communicate finding to relevant Stakeholders

• Relevant AS9100D clause 8.7 (Control of Nonconforming outputs)

6b) Verification of Similar Material from previous Batches:-

→ Perform traceability checks on previous lots.

→ Review material certification & batch records

→ Conduct additional chemical composition tests on Past Inventories.

6c) Preventive Measure to Avoid Recurrence

→ Implement Suppliers audits for quality assurance

→ Strengthen Incoming inspection protocols.

→ Require Certificates of conformance (Coc) for all raw

→ clauses :- 8.4.2 : Suppliers controls

10.2 : corrective Action

7) Key Materials phases out in Thermal Battery Manufacturing

a) Identification Alternative Materials

→ Engage with approval Suppliers for Substitute materials

① Perform market research for equivalent or Superior alternatives

b) Validating Alternative compatibility

→ Conduct design validation test

② Perform First Aritcal Inspection for new material

A) Verify compliance with customer & regulatory requirement

c) Communicating changes to customers

→ Issue formal Engineering change Notice

③ Provide advance notice with updated product specification

d) Managing Risks of New components in critical Application

④ Perform Failure Mode & Effect Analysis

→ Implement stress testing & long term reliability studies

→ Ensure traceability & supplier certification for new material.

clause : - 8.3.6 (Design & Development changes) ✓
8.4.3 (Information for External providers)

choose the correct answer

- ① b). 8 ✓
 - ② e). All ✓
 - ③ b). Leadership Team ✓
 - 4) e) only A & C ✓
- ②