QNP	**Control of Nonconforming Outputs: OP-87-01 Rev NC**
Control of Nonconforming Outputs	Effective Date: 5-17-18 Owner Approval by Andrew Adams, QA Manager on 5-17-18 Management Approval by Craig O. Garneau, President on 5-17-18 *Printed copies of this document are for information purposes only and are uncontrolled. Printed copies are not valid after the date of printing.*

1. Purpose

To establish a process for ensuring that outputs that do not conform to their requirements are identified and controlled to prevent unintended use or delivery.

2. Responsibility

The table below identifies QNP personnel and their responsibility relating to this procedure:

Person	Responsibility
Receiving Personnel	Verify that materials provided by suppliers meet customer/QNP requirements. Ref: OP-84-02, Verification of Purchased Product. Alert an MRB Member, and identify nonconforming materials with a Hold Tag, FM-87-02, as appropriate
Inspection Personnel	Perform inspections to verify that products meet all applicable requirements. Ref: OP-86-01, Production Inspections. Alert a Department Supervisor or MRB member, and identify nonconforming materials with a Hold Tag, FM-87-02 as appropriate.
Production Personnel	Maintain production standards. Alert a Department Supervisor or MRB member, and identify nonconforming materials with a Hold Tag, FM-87-02 as appropriate.
MRB Members	Evaluate and disposition nonconforming materials to be reworked or scrapped Obtain customer concessions as necessary. Document actions taken to contain, control, and correct nonconformities on the appropriate forms.
Quality Assurance Manager	Track trends in escapes/nonconformities. Escalate corrective action requirements as necessary.

3. Applicable Forms and References

The table below identifies the code number and title of documents and references applicable to this procedure;

Form/Reference Number	Title
AS9100	Quality Management Systems - Requirements for Aviation, Space and Defense Organizations
OP-76-01	Control of Inspection, Measuring and Test Equipment
OP-81-01	Quality Planning
OP-84-01	Purchasing
OP-84-02	Verification of Purchased Product
OP-84-03	Counterfeit Avoidance and Mitigation
OP-85-02	Product Identification, Traceability and Inspection Status
OP-85-03	Control of Customer Property
OP-86-01	Production Inspections
WI-86-07	Visual Inspection Acceptance Standard
WI-87-01	Customer Complaints
FM-81-01	Shop Order
FM-86-01	Production Inspection Form
FM-87-01	Escape Form
FM-87-02	Hold Tag
FM-87-03	Repairable/Rework Tag
FM-87-04	Scrap Tag
FM-102-01	Corrective Action Request

4. Nonconforming Outputs

4.1 - Nonconforming outputs at QNP are typically found as materials or products that do not meet:

- Customer blueprint/design/purchase order requirements
- Customer specification requirements
- Government/Military/Regulatory Agency/Other specification requirements
- Standards set by QNP - example: WI-86-07, Visual Inspection Acceptance Standard

4.2 - Nonconforming products may include:

Source of Nonconforming Outputs	Also controlled by policies from
Customer supplied materials	OP-85-03, Control of Customer Property
Incoming materials purchased from external suppliers	OP-84-02, Verification of Purchased Product
In-Process materials at QNP	OP-86-01, Production Inspections & related work instructions
Finished products detected during final inspection at QNP	
Finished products detected by customers	WI-87-01, Customer Complaints

5. Initial Containment

5.1 - All employees at Quality Name Plate are responsible for quality, and have the authority to initiate action to contain nonconforming or suspect materials.

5.2 - Any output that is inspected and passed to the next production step is assumed to be in compliance to requirements. Ref: OP-85-02 Product Identification, Traceability, and Inspection Status.

5.3 - Once identified, nonconforming materials should be labeled with a HOLD tag, FM-87-02, and moved to a designated nonconforming product area if practical.

6. Designated Nonconforming Product Areas

6.1 - Segregated areas for nonconforming product are located throughout the company and identified with signs, floor tape, or other appropriate means.

Sample NCP Sign

6.2 - See the table below for appropriate uses of the nonconforming product areas.

Appropriate materials for designated Nonconforming Product areas	
Nonconforming Product	**Yes**
Suspected Nonconforming Product	**Yes**
Product that has lost its identification so that its inspection status cannot be determined	**Yes**
Product that cannot be processed without Management or MRB intervention	**Yes**
Hold, Rework, and Scrap tags or other reference materials/forms for use by the MRB	**Yes**
Inappropriate materials for designated Nonconforming Product areas	
Conforming product awaiting further processing	**No**
Supplies, racks, or miscellaneous clutter that should be stored elsewhere	**No**
Personal Items	**No**

6.3 - When it is not practical to move product to a designated nonconforming product area, the product may be conspicuously marked with an appropriate tag or marker to prevent unintended use.

6.4 - Suspected nonconforming product, or product awaiting MRB intervention should not be removed from a designated nonconforming product area without MRB approval.

6.5 - Nonconforming product once identified shall not be used in production without the approval of the MRB.

7. Material Review Board (MRB)

7.1 - The purpose of the Material Review Board (MRB) is to:

- Review nonconforming product exposed during:
  - Receiving Inspection
  - Production Inspections
  - Final Inspection
- Decide on the disposition of nonconforming product.
- Ensure that dispositioned materials are scrapped, reworked, or processed appropriately.

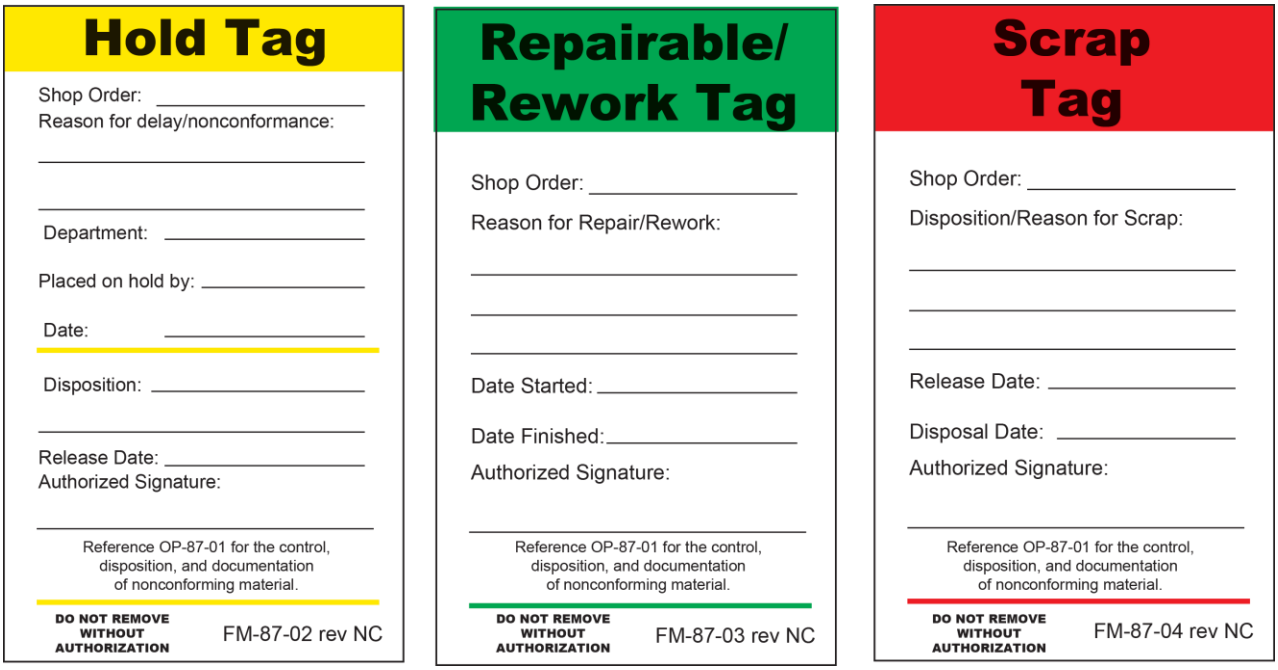
7.2 - Members of the Material Review Board have the experience, knowledge, and training necessary to make the appropriate decisions regarding the disposition of non-conforming material, and are identified in QNP's FileMaker Employee Training Database.

7.3 - The qualifications, scope of approval, and authority by which employees are members of the Material Review Board are defined and documented within their training records. Typically, the Material Review Board shall consist of one or more of the following personnel as required:

- Quality Assurance Manager
- President
- Vice President
- Department Supervisors/Lead Inspector
- Personnel determined to have the appropriate experience, knowledge and training.

8. Hold, Rework and Scrap Tags

8.1 - The following markers are used to identify and control nonconforming products/materials;



8.2 - As appropriate, these tags should be retained as quality records to preserve evidence of the MRB member's dispositions. Photos records of these tags may be stored in our "Hold Tag Records" database as an alternative to physically storing paper records.

9. Escape Forms and Corrective Actions

9.1 - Actions taken to contain/control/correct nonconformities are documented on Escape Forms, FM-87-01, and Corrective Action Request Forms, FM-102-01.

Record/Form	Uses
Escape Form, FM-87-01	• Document a nonconformity found in a single order or from a batch of materials that were processed together. • Document a customer complaint. Ref: WI-87-01, Customer Complaints
Corrective Action Request, FM-102-01	• Escalate the action taken in response to a nonconformity due its nature/severity/impact on our business. • Address trends in nonconformities that have been revealed by multiple Escape Forms, FM-87-01 • Request action from an external supplier in response to nonconforming/counterfeit products received - Ref: OP-84-01, Purchasing and OP-84-03, Counterfeit Avoidance and Production • Other functions per OP-91-01, Corrective Action

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9.2 - Escape Forms, FM-87-01, are retained as quality records which identify/describe:

- The specific lot(s)/identifiers of the nonconforming product
- The source/root cause of the nonconformity
- The department/personnel/customer who initially detected the nonconformity
- Actions taken to contain/control/correct the nonconformance
- Actions taken to prevent future recurrence of the nonconformity
- Any concessions obtained
- Personnel responsible for decisions/dispositions/concessions

9.3 - The level of detail and amount of documentation found in individual Escape Form Records shall be appropriate to the nature/cost/severity of the nonconformance.

9.4 - Trends in escapes/nonconformities are collated monthly and posted on our Escape Goal Board. This data is also reviewed during Management Review Meetings.

10. Containment

10.1- Action should be taken to contain the effect of a nonconformity on other processes and products. The appropriate action taken to identify and contain the effect on other processes or product, may depend on the nature and severity of the nonconformity.

10.2 - When documenting an escape on form FM-87-01, an evaluation of whether the cause of the original nonconformity resulted in other products or processes to become nonconforming should be recorded.

10.3 - If an item of measuring or test equipment is determined to be out of calibration, product inspected by that item should be controlled and evaluated for potential nonconformities in accordance with the policies of OP-760-01, Control of Inspection, Measuring and Test Equipment.

11. Notification of Interested Parties

11.1 - If a nonconformance is discovered after product has shipped, the customer is to be notified without undue delay (same business day if possible) with a clear description of the non-conformity and the information necessary to identify any affected parts. The Escape Form, FM-87-01 shall be used to document the actions taken to alert the customer and control the nonconforming product. When appropriate, affected suppliers, distributors, internal departments, or regulatory authorities shall be notified in a timely manner as well.

11.2 - If a nonconformance will cause parts to arrive late per a customer's dock date, the appropriate personnel should notify the customer in a timely manner.

12. Counterfeit Product

12.1 - Counterfeit, or suspect counterfeit, products are prevented from reentry into the supply chain by the policies of operating procedure, OP-84-03, Counterfeit Avoidance and Mitigation.

13. Acceptance Under Concession

13.1 - When a nonconformity results in a departure from contract requirements, QNP does not disposition nonconforming product as "use-as-is" unless specifically authorized by the customer or appropriate regulatory agency.

13.2 - Customer authorization shall be accepted per the conditions and requirements of the customer's quality management system/relevant specifications. (e.g. - documented through the appropriate forms or authorized by personnel with the appropriate qualifications, etc.)

13.3 - Records of the authorization shall be documented and maintained on/with the Shop Order, FM-81-01, Production Inspection Form, FM-86-01, and/or Escape Form, FM-87-01.

14. Rework/Repair

14.1 - Reworked/Repaired product is to be re-inspected to all of its original requirements before being released back into production.

15. Scrap

15.1 - Raw materials or product intended for Commercial, Tier 2, or Tier 3 customers that is dispositioned for scrap may be discarded in a controlled scrap barrel.

15.2 - Product intended for Aerospace or Tier 1 customers that is dispositioned for scrap shall be rendered unusable/destroyed. This may be accomplished by:

- Shearing/cutting parts in half
- Bending/distorting parts past the point of reclamation
- Defacing with permanent marker or paint

16. Initial action in response to identified nonconforming product

Follow the steps below when a nonconformity is discovered:

Step	Action	Person(s) Responsible
1	Nonconforming product is identified. Ref: • OP-86-01, Production Inspections • OP-84-02, Verification of Purchased Product • OP-85-03, Control of Customer Property • Other	Production/Inspection Personnel
2	Halt production/processing, and notify the department supervisor or lead inspector.	Production/Inspection Personnel
3	Review the nonconforming product.	Department Supervisor/Lead Inspector
4	Identify/Label the nonconforming product with a Hold Tag, FM-87-02.	Department Supervisor/Lead Inspector or Production/Inspection Personnel
5	Notify a member of the Material Review Board to review the nonconforming product and applicable documentation.	Department Supervisor/Lead Inspector or Production/Inspection Personnel
6	Decide on the disposition of the nonconforming material.	MRB Member
7	Record the results of the disposition decision on the Hold tag and/or other documentation. If appropriate, record the nature of the nonconformance and any subsequent actions taken on an Escape Form, FM-87-01.	MRB Member
8	As appropriate, process materials per; • **17. Repair/Rework** • **18. Reject/Scrap** • **19. Rerun Order**	MRB Member
9	As appropriate, take action to contain the effect on other products or processes.	MRB Member Department Supervisor Production Personnel

17. Repair/Rework Disposition

Follow the steps below when product is dispositioned for rework/repair:

Step	Action	Person(s) Responsible
1.	Determine that nonconforming product can be reworked so that all features will meet requirements.	Material Review Board Member
2.	If appropriate, affix a Repair/Rework Tag, FM-87-03, to the product	Material Review Board Member
3.	Ensure that instructions for rework/repair are clearly documented and forwarded to the appropriate personnel.	Material Review Board Member
4.	Perform rework/repair operations.	Production Personnel
4.	Inspect reworked materials to original requirements.	Material Review Board Member Inspection Personnel
5.	Maintain documented evidence of the rework and forward materials to the next appropriate process.	Material Review Board Member

18. Scrap Disposition

Follow the steps below when product is dispositioned for scrap:

Step	Action	Person(s) Responsible
1.	Determine that nonconforming product cannot be reworked/repaired or returned to a condition where all requirements are met.	Material Review Board Member
2.	Ask: Can materials be immediately scrapped/disposed of? • If No: Go to 3 • If Yes: Go to 5	Material Review Board Member
3.	Affix a Scrap Tag, FM-87-05, to the product	Material Review Board Member
4.	Place the nonconforming materials in a controlled area to prevent accidental use or delivery.	Material Review Board Member

5.	Scrap/dispose of the nonconforming materials as appropriate.	Material Review Board Member
6.	Retain documented evidence as necessary. If appropriate proceed to **19. Rerun Parts**	Material Review Board Member

19. Rerun Parts

Follow the steps below to produce replacement parts for a scrapped lot:

Step	Action	Person(s) Responsible
1.	Determine that an order must be run again due to a nonconformance.	Material Review Board Member
2.	Forward the appropriate documentation/information to the Quality Assurance Team, or appropriate personnel.	Material Review Board Member
3.	Document the nonconformance and other necessary information on an Escape Form, FM-87-01.	Quality Assurance Team Member
4.	Amend the original Shop Order, FM-81-01, or create a new Shop Order to produce the replacement parts. Ref: OP-81-01, Quality Planning. Also; • Ensure that information regarding the initial nonconformance is highlighted or travels with the new order, along with clear instructions on how the nonconformance will be corrected/avoided. • Staple a red Rerun tag to the top flap of the Shop Order Envelope. • Assign an appropriate ship date. • Initial and date any corrections/changes to the production plan.	Quality Assurance Team Member
5.	Put the Shop Order into production.	Quality Assurance Team Member

20. Records/Objective Evidence

The retention duration for records referenced in this procedure are available on-line in the FM-75-01 Master Document List with Revision History.

Records are maintained in accordance with OP-75-01 Control of Documented Information.

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21. Revision History

Revision, approved date, effective date, and a document change summary for this document is located on-line in the FM-75-01 Master Document List with Revision History.

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