

# Counterfeit Avoidance, Mitigation and Control Policy

## Summary

This document defines the Company Policy to ensure against Counterfeit components or piece parts from entering the business, or supply chain and the operational procedures that implement that policy.

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## 1. Introduction

1.1 The presence of electrical components in the global supply chain that are deliberately counterfeited, recovered scrap or retrieved faulty product (referred to as Counterfeit herein) creates serious risks for the entire supply chain and its end user customers.

## 2. Purpose

2.1 The purpose of this policy is to document Aerco's Counterfeit Avoidance, Mitigation, Detection and Disposition processes to prevent counterfeit goods from entering our supply chain or tarnishing Aerco's positive brand name.

## 3. Mitigating Risk

3.1 Aerco mitigate the risk of distributing counterfeit goods by controlling products received. This is done in a manner of ways: from having an approved suppliers list, product inspection, use of a third party test house if required, and maintaining a 2-tier system for customers wishing to further mitigate risks, in accordance with AS6081.

3.2 The primary way in which Aerco mitigates counterfeit risks, is by always selecting sources of products in a specified manner. This is covered in more detail in Section 6. Supply Chain Mitigation and Selective Sourcing.

3.3 Aerco is a member of the ERAI and have subscribed to the product and company alerts. ERAI is the single biggest database of counterfeit products and company's dealing with them, whether accidental or not. When an ERAI Alert is received, the Counterfeit Lead will check these against our existing stock and orders, then take appropriate action if required.

3.4 If further mitigation is required, a process has been augmented for customers wishing to purchase; 'In Accordance with AS6081'. The additional checks and procedures are explained further in this document, but it's purpose is to enable our customers to buy with confidence in a changing market.

## 4. Policy

4.1 Aerco operates a policy designed to eliminate all possibilities of Counterfeit products being allowed to enter into Aerco's stock, be supplied to our customers, or enter our supply chain.

The policy operates through a management commitment of a zero tolerance policy towards counterfeit products, education of staff, and management review of our supply chain.

## 5. Responsibilities

### Counterfeit Lead

- Look after ERAI membership, and process all alerts received. Share knowledge with relevant senior managers.
- Co-ordinate any investigations into suspect parts.
- Primary point of contact for the test house regarding: quotes, testing and report verification.
- Support sales team with any 'in accordance with AS6081' enquiries/orders.



- Sign off counterfeit mitigation aspect of: sales quotes, contract review and orders.

#### **Quality Manager**

- Raising an MDR and notifying governing bodies (as per Appendix 1), if counterfeit or suspect goods are received.
- Sign off counterfeit mitigation aspect of: sales quotes, contract review and orders.

#### **Production Director - responsible for all Counterfeit Deputy roles and responsibilities**

- Support counterfeit lead with any excessive workloads.
- Cover the counterfeit leads work when on annual leave/sick.
- Distribute any product alerts and associated workloads amongst their product manager team, once processed by the Counterfeit Lead.
- Sign off counterfeit mitigation aspect of: sales quotes, contract review and orders.

#### **Sales Team**

- Co-ordinate sales .
- Select source of supply during quote stage, which dictates the needs for testing or not.
- Invoke 'In accordance with AS6081' process flow by selecting relevant quality clauses.
- Carrying out contract review.
- See OP001 and OP036 for further details.

#### **Purchasing**

- Purchasing products from specified sources.
- Raising PO's for test houses, as 'In accordance with AS6081' process is required.
- See OP002 for further details.

#### **Product Managers**

- Update product files with all relevant info.
- Support the Counterfeit Lead if workloads are excessive, to be instructed by the Production Director.
- Pick up and process ERAI alerts in Counterfeit Leads absence. To be organised and agreed with Production Director.

#### **All Senior Managers**

- Support the counterfeit lead and act in a timely manner on recommendations made.
- Support the zero tolerance policy towards counterfeit products reaching Aerco's supply chain.

#### **Warehouse Staff / Goods In**

- Receiving and inspecting products from suppliers
- Photography and image processing of grey market sourced products
- See OP003 for further details.

## 6. Supply Chain Management + Selective Sourcing

6.1 Aerco only places orders with suppliers who are on the Company’s Approved Supplier List (ASL).

6.2 The table below is a visual aid to better understand Aerco’s counterfeit mitigation and product sourcing options:

		Counterfeit Mitigation Options	
		Standard Route	‘In accordance with AS6081’ Route
Product sourcing requirements	Original Component Manufacturer	✓	✓
	Franchised / Authorised Distributor	✓	✓
	Non-authorized distributor With full paper trail – inc. C of C	✓	✓ + Counterfeit testing required – Ref: PS018
	Non-authorized distributor With no paper trail – no C of C	Written permission from customer is required for Aerco to make this sale.  Ref: CF145	✓  + Counterfeit testing required – Ref: PS018

## 7. Procedure

### 7.1 Standard Route:

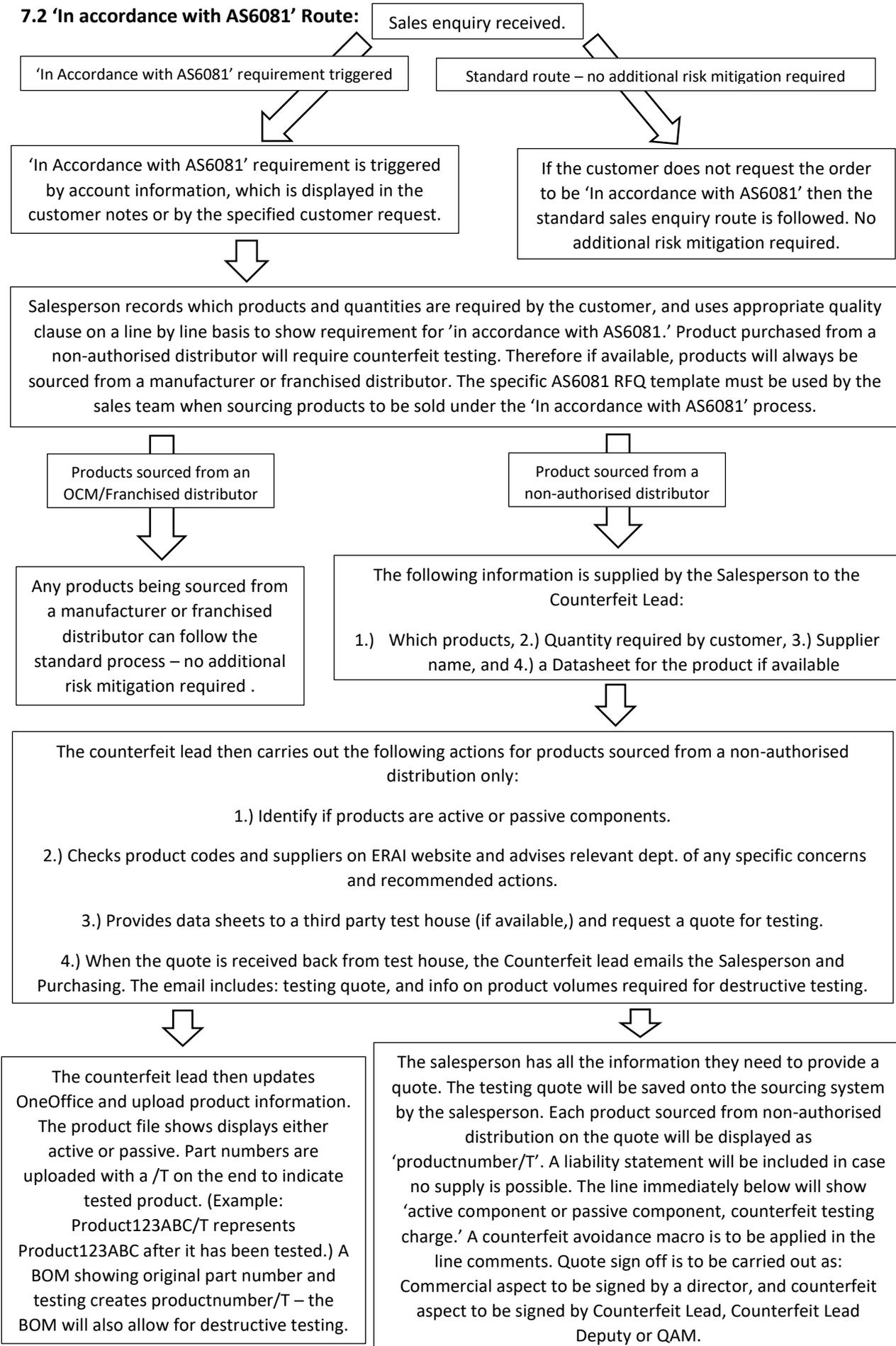
Sales enquiry is received. Sales team provide a quote, always sourcing from the ASL, and preferably using OCM/OEM or a franchised distributor (ref: OP001 Sales order processing, and OP010 Supplier Approval)

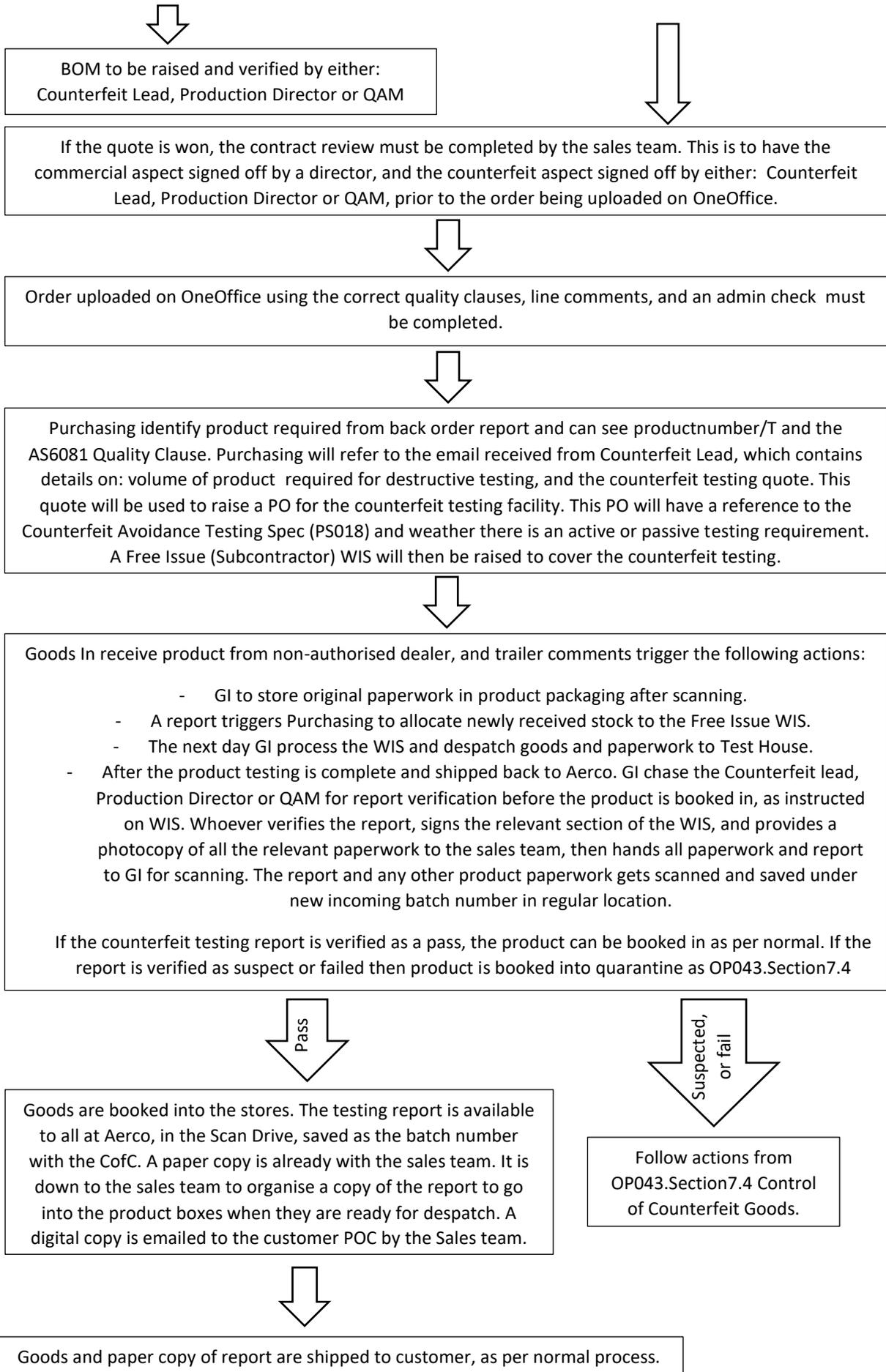
If the quote is won, the product is purchased from the agreed source (ref: OP002 Purchasing).

The product is inspected by Aerco’s Goods In Dept when received (ref: OP003 Goods In.)

Any grey market sourced parts are photographed and images saved under Aerco’s batch number. The images are made available on Aercosys to all Aerco staff for internal use (ref: OP003 Goods In.)

The product is put into stores until it is time to ship the goods to the customer. Despatch then process the goods and organise shipment (ref: OP006 Despatch.)

**7.2 'In accordance with AS6081' Route:**





### 7.3 Counterfeit Testing

**7.3.1** Aercos will organise a testing facility to test products in accordance with AS6081 if required by the customer. A report will be provided, declaring the products have either: passed all tests indicating the products are not counterfeit, failed the tests indicating the products are counterfeit, or are suspected of being counterfeit. Only products which have passed the tests will be put into stock. Any product with any other test results will be presumed to suspect, and therefore treated as if counterfeit.

**7.3.2** There are different testing requirements for active and passive components. Parts can be distinguished as active or passive by looking at the product on product enquiry, within OneOffice. If this field is not populated or has TBC, Product Management are to be informed and they are to input the correct details.

Active component testing requires Levels; A1, A2, A3, A4, A5 and A6 v– refer to Table 1 – LOT Sampling Plan below.

Passive component testing requires levels; A1, A2, A3, and A5 – refer to Table 1 – LOT Sampling Plan below.

**7.3.3** If the customers' requests more than the minimum testing, this will be handled on a case by case basis and will be discussed with the counterfeit lead and/or senior management.

**7.3.4** Some tests are destructive, therefore the Counterfeit Lead will refer to Table 1 – LOT Sampling Plan below to make sure the correct quantitative information is relayed to the sales team. The sales team will need to allow for lost product due to destructive testing in their quote.

TABLE 1 - LOT SAMPLING PLAN

Test/Inspection	Minimum Sample Size		Level
	Lot Size 200 or greater Devices	Lot Size 1-199 Devices (See NOTE 1)	
<b>Minimum Required Tests</b>			<b>Level A</b>
<b>Documentation and Packaging</b>			<b>A1</b>
Documentation and Packaging Inspection (4.2.6.4.1) (non-destructive)	All devices	All devices	
<b>External Visual Inspection</b>			<b>A2</b>
a. General (4.2.6.4.2.1) (non-destructive)	All devices	All devices	
b. Detailed (4.2.6.4.2.2) (non-destructive)	122 devices	122 or all devices, whichever is less	
<b>Remarking &amp; Resurfacing (destructive)</b>	See NOTE 2	See NOTE 2	<b>A3</b>
Solvent Test for Remarking (4.2.6.4.3 A) (destructive)	3 devices	3 devices	
Solvent Test for Resurfacing (4.2.6.4.3 B) (destructive)	3 devices	3 devices	
<b>Radiological (X-Ray) Inspection</b>			<b>A4</b>
X-Ray Inspection (4.2.6.4.4) (non-destructive)	45 devices	45 devices or all devices, whichever is less	
<b>Lead Finish Evaluation (XRF or EDS/EDX)</b>	See NOTE 3	See NOTE 3	<b>A5</b>
XRF (non-destructive) or EDS/EDX (destructive) (4.2.6.4.5) (Appendix C.1)	3 devices	3 devices	
<b>Delid/Decapsulation Internal Analysis (destructive)</b>	See NOTE 4	See NOTE 4	<b>A6</b>
Delid/Decapsulation (4.2.6.4.6) (destructive)	3 devices	3 devices	
<b>Additional Tests (as agreed between Customer and Organization)</b>			
<b>Remarking &amp; Resurfacing (destructive)</b>	See NOTE 2	See NOTE 2	<b>A3 Option</b>
<b>Scanning Electron Microscope (4.2.6.4.3 C) (destructive)</b>	3 devices	3 devices	
<b>Quantitative Surface Analysis (4.2.6.4.3 D) (non-destructive)</b>	5 devices	5 devices	
<b>Thermal Testing</b>			<b>Level B</b>
Thermal Cycling Test (Appendix C.2)	All devices	All devices	
<b>Electrical Testing</b>			<b>Level C</b>
Electrical Testing (Appendix C.3)	116 devices	All devices	
<b>Burn-In</b>			<b>Level D</b>
Burn-In (Pre & Post) (Appendix C.4)	45 Devices	45 devices or all devices, whichever is less	
<b>Hermeticity Verification (Fine and Gross Leak)</b>			<b>Level E</b>
Hermeticity Verification (Fine and Gross Leak) (Appendix C.5)	All devices	All devices	
<b>Scanning Acoustic Microscopy (SAM)</b>			<b>Level F</b>
Scanning Acoustic Microscopy (SAM) (Appendix C.6)	As specified	As specified	
<b>Other</b>			<b>Level G</b>
Other test/inspections	As specified	As specified	

NOTES:

- For very small lot sizes, less than ten (10) devices, this "destruct" test sample size may be reduced to one (1) device at the discretion of the Cognizant Engineer with Quality Assurance concurrence and Customer approval.
- Devices for the Remarking & Resurfacing Inspection shall be selected from the Detailed External Visual Inspection lot.
- Devices with possible lead finish anomalies shall be selected from the Detailed External Visual Inspection lot.
- Devices for the Delid/Decapsulation Internal Analysis shall be selected from the Remarking & Resurfacing Inspection lot.



## 7.4 Control of Counterfeit Goods

**7.4.1** If a product is suspected or proven of being fraudulent or counterfeit, the entire lot is placed into quarantine and an MDR raised per Nonconformance procedure OP007 for managing, tracking and record keeping purposes. The supplier is suspended from the Aerco ASL pending review from senior management.

The OCM/OEM will be approached to confirm validity of the product. If Aerco receives a poor/little response, then a third party testing facility may be used to confirm validity of the product.

**7.4.2** The product will only be removed from quarantine for: investigation and testing, used to provide information to OCM/OEM, to give to a third party testing facility, or for product destruction. Suspect/Counterfeit products will not be given back to OCM/OEM. Aerco will hold a counterfeit item in quarantine for a minimum of 5 years prior to destruction, in case the product is required as evidence.

**7.4.3** Aerco may use adhesive stickers or labels for marking/identifying products, however the OCM/OEM's original labelling must be legible after removal of adhesive stickers.

**7.4.4** Aerco will provide evidence to the ERAI and other industry and government bodies – see Appendix 1 below. Reporting shall be completed within 60 days of drawing conclusion on either suspect or counterfeit, based on available evidence at the time.

**7.4.5** Product dispositioned for scrap shall be conspicuously and permanently marked, or positively controlled, until physically rendered unusable. Photographic evidence is recorded of product destruction. This will be stored for a further 5 years and be made available upon request.

**7.4.6** Aerco has a full membership to the ERAI and will adhere to the ERAI standards, if/when counterfeit/suspect products are handled/received. Aerco's counterfeit lead will inform the ERAI and the quality team will inform other relevant governing bodies and spread awareness within the retrospective industry - See appendix 1.

### Appendix 1

United Kingdom (UK)	
Crimestoppers	Contact Crimestoppers anonymously by calling +44 (0) 800 55 5111. By telephone: +44 (0) 800 55 5111 Website: <a href="http://www.fakesfundcrime.org.uk">http://www.fakesfundcrime.org.uk</a>
HM Revenue and Customs	HM Revenue and Customs <a href="http://www.hmrc.gov.uk/index.htm">http://www.hmrc.gov.uk/index.htm</a> Customs Hotline by telephone: +44 (0)800 59 5000
Intellectual Property Office Intel Hub	By telephone: + 44 (0) 1633 814535 By email: <a href="mailto:ipintel@ipo.gsi.gov.uk">ipintel@ipo.gsi.gov.uk</a> Website: <a href="http://www.ipo.gov.uk">http://www.ipo.gov.uk</a>
Ministry of Defence Police Fraud Squad	For issues relating to UK Defence. Mail: Head of Fraud Squad, MDPGA Wethersfield, Braintree, Essex. CM74AZ By telephone: + 44 (0) 1371 854203
Trading Standards Institute	By email: <a href="mailto:information@tsi.org.uk">information@tsi.org.uk</a> Information centre, TSI, 1 Sylvan Court, Sylvan Way, Southfields Business Park, Basildon, Essex, SS15 6TH Website: <a href="http://www.tradingstandards.gov.uk/">http://www.tradingstandards.gov.uk/</a>
Anti-Counterfeiting Forum	The UK Electronics Alliance (UKEA) maintains a database of fraudulent/counterfeit items primarily for U.K. organizations. Data can be submitted by anyone on the public domain of their website ( <a href="http://www.anticounterfeitingforum.org.uk/">http://www.anticounterfeitingforum.org.uk/</a> ) Submitting companies remain anonymous in the reporting of fraudulent/counterfeit items. All electronics-related companies/organizations are able to register.



## **8. Operational Procedure References**

Aerco's Counterfeit Mitigation Policy is implemented through the following OP documents:

- OP001 – Receipt and Processing of Sales Order
- OP002 – Purchasing
- OP003 – Goods In
- OP007 - Nonconformance
- OP010 – Supplier Approval
- OP036 – Sales Quotation