FERROHOLM METALS LTD

Quality Procedure QP-014: Incoming Superalloy Scrap Inspection & Certification

1. Purpose

This procedure defines how incoming nickel, cobalt and titanium superalloy revert and scrap material is inspected, sampled and certified before it is released into site inventory for reprocessing. It applies to all goods-in material arriving from approved suppliers under active supply agreements.

2. Scope

Covers all superalloy revert grades handled at the Hereford site, including turbine blade revert, machining swarf, solid bar drops and mixed foundry returns. Excludes ferrous and non-superalloy scrap, which is governed separately under QP-009.

3. Responsibilities

- Goods-In Technician: performs initial visual inspection and documentation check on arrival.
- Quality Inspector: carries out sampling, XRF verification and grade confirmation.
- Quality Manager: authorises release to inventory or raises a non-conformance.
- Supplier: provides a valid material certificate (Cert of Analysis) with every consignment.

4. Procedure

4.1 Arrival and documentation check

- Confirm the delivery note matches the purchase order reference.
- Confirm a Certificate of Analysis (CoA) has been supplied. Material without a CoA is quarantined, not rejected outright, pending supplier follow-up.
- Log arrival time, supplier, consignment weight and lot number in the Goods-In register.

4.2 Visual inspection

- Check for contamination: oil, coolant residue, non-metallic inclusions, mixed grades within one container.
- Check for radioactive contamination using the site's fixed portal monitor before any material is unloaded.
- Photograph any consignment showing visible contamination or grade mixing, and attach to the lot record.

4.3 Sampling and XRF verification

- Take a minimum of three spot samples per tonne, or one sample per container for consignments under one tonne.
- Verify alloy grade against the supplier CoA using the handheld XRF analyser.
- A variance of more than 0.5% on any key element (nickel, cobalt, chromium, titanium) against the CoA triggers a full re-test before release.

4.4 Release or non-conformance

- Where sampling confirms the declared grade within tolerance, the Quality Inspector signs the lot record and the material is released to inventory under its confirmed grade code.
- Where sampling does not confirm the declared grade, or contamination is found, the Quality Manager raises a non-conformance report (NCR) and the lot remains quarantined until resolved.

- NCRs are logged in the site quality system and closed only once a corrective action is agreed with the supplier.

5. Records

Record	Retained by	Retention period
Goods-In register entry	Quality department	7 years
Certificate of Analysis	Quality department	7 years
XRF verification result	Quality department	7 years
Non-conformance report (NCR)	Quality Manager	10 years

6. Related documents

- QP-009: Ferrous and Mixed Scrap Inspection Procedure
- QP-021: Non-Conformance Reporting
- WI-014A: XRF Analyser Calibration and Use

Document owner: Quality Manager · Review cycle: annual · Last reviewed: March 2026

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