

Counterfeit parts and conflict minerals

David Scrimshire, Managing Director of TEC Transnational, explains why counterfeit parts and conflict minerals pose a clear danger in many manufacturing sectors, and outlines practical quality management system strategies to minimise this risk

Counterfeiting in the aerospace, defence and automotive industries may have life or death consequences. Although it is clear that counterfeit parts do enter the supply chain, the time and place of their entry is unpredictable.

Most of us are aware of 'blood diamonds' – which are diamonds mined in a war zone and sold to finance an insurgency, an invading army's war efforts, or a warlord's activity.

What may be less well-known are conflict minerals, which share a similar pedigree and may inadvertently enter the supply chain. Conflict minerals include tin, tantalum, tungsten and gold (often referred to as 3TG).

What are counterfeit parts?

A counterfeit part is a fraudulent part that has been confirmed to be a copy, imitation or substitute that has been represented, identified or marked as genuine, and/or altered by a source without legal right, with intent to mislead, deceive or defraud.

Examples of a counterfeit part can include the false identification of marking or labelling, grade, serial number, date code, documentation or performance characteristics, including:

- Electrical, electronic and

electromechanical parts;

- Raw materials;
- Outsourced special processes;
- Mechanical components;
- Standard and COTs (commercial off-the-shelf) parts;
- IT and communications technology;
- And all types of 'matériel', such as the aggregate of things used or needed by any organisation for the production of its products.

What are conflict minerals?

In conflict-affected and high-risk areas of the world, organisations involved in mining and trade in minerals may be at risk of contributing to, or being associated with, serious human rights abuses and conflict.

For example, conflict minerals have, for some years, been a particular problem in minerals sourced from conflict-affected areas of the eastern Democratic Republic of Congo (DRC).

Organisations can, knowingly or unknowingly, be affected by the risk of supply chain contamination with conflict minerals.

This can occur at a number of stages, whether mining or trading in the eastern provinces of DRC, in an adjoining country, or further along the chain.

Meeting customer and international requirements

The following three standards contain requirements relating to counterfeit parts:

- AS5553:2016 Revision B
- IEC TS 62668-1:2016
- AS9100:2016 Revision D.

These documents may be augmented by 'customer-specific' requirements. Additional guidance for AS5553:2016 Revision B are now included in ARP6328.

Organisations must plan, implement, and control processes, appropriate to their operations and the product, for the prevention of counterfeit or suspect counterfeit parts use and their inclusion in product(s) delivered to the customer.

Such quality management system processes must consider:

- Training of appropriate people in the awareness and prevention of counterfeit parts.
- Application of a parts obsolescence monitoring programme.
- Controls for acquiring externally provided product from original or authorised manufacturers, authorised distributors or other approved sources.
- Requirements for assuring the traceability of parts and

components to their original or authorised manufacturers.

Companies can use the following methods to detect counterfeit parts.

- Monitoring of counterfeit parts through the supply chain or detected counterfeit parts.

Recent guidance and regulatory changes for the minerals out of the industry supply chain include:

- The OECD Due Diligence Guidance for minerals out of the industry supply chain
- The European Union Due Diligence Guidance for minerals out of the industry supply chain

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3 top tips

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counterfeit materials, the golden rule is to only use authorised suppliers.

Use the following methods to detect counterfeit parts.

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Consult the OECD Due Diligence Guidance for minerals out of the industry supply chain

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Develop a supply chain policy and communicate it to your suppliers.