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Originator: John L Cole
Business Unit: Rolls-Royce U.K. Aerospace
Tel: +44 (0) 1332 245644
Fax: +44 (0) 1332 248807

Use of SAE Aerospace Material Specifications (AMS).

For the attention of the Managing Director

Dear Sir or Madam,

Scope:

- All Rolls-Royce Aerospace make to print parts.
- This NTS is not applicable to Rolls-Royce Marine, Energy and Repair & Overhaul.

Background:

Rolls-Royce is currently undertaking a globalisation programme for material specifications. As a part of this activity there will be increased use of Aerospace Material Specifications (AMS) published by the Society of Aerospace Engineers (SAE) on our engineering drawings, instead of Material Specification Rolls-Royce (MSRR). The requirements regarding the supply of non-MSRR aerospace materials, in particular AMS grades have now been clarified within Rationalised Process Specification (RPS) 905 / 1.

A summary of the key points are highlighted below - for full details of the changes involved please refer to RPS 905 / 1.

Rules regarding the use of Non MSRR aerospace materials:

For non MSRR aerospace material the following requirements apply:

Either:

- The original mill and intermediate re-processors shall be SABRe approved and listed in Manufacturing Laboratories Catalogue (MLC) 101; Test houses shall be SABRe approved.

Or:

- In cases where the original mill and intermediate re-processors do not hold Rolls-Royce SABRe approval it is acceptable to utilise the material, provided that the original mill holds accreditation to ISO 9001 (or an agreed alternative) and conformance to material specification requirements are demonstrated by testing. Testing shall be carried out to the full requirements (including chemistry) of the material specification when the raw material is in the condition of supply. The test house must hold approval to either Rolls-Royce SABRe, Nadcap, UKAS or ISO 17025 (certificate issued by a signatory of the ILAC (International Laboratory Accreditation Co-operation) Mutual Recognition Arrangement)

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Note:

- (a) Non MSRR aerospace material shall only be used when specified by the drawing, or when allowed as a substitute for the specified MSRR
 - (b) The material shall retain the original mill identity and paperwork traceability of the full material-processing route shall be maintained
 - (c) It is not permissible to upgrade the specification from commercial to aerospace grade, even when the chemistry and mechanical properties are shown by testing to conform. This can only be done by the original mill
- The release chemistry must come from the mill's Certificate of Conformity (unless there is a requirement for product chemical analysis)
 - Mechanical property and other release testing shall be determined in accordance with the material specification after the final stage of thermo / mechanical processing to achieve condition of supply requirements

**Yours faithfully,
for Rolls-Royce plc.**



**Don Boulton.
Head of Laboratories.**

Authorised by:



**Lawrence Jenkins.
Global Supplier Development
& Quality Operations Director.**