

# ROLLS-ROYCE CORP.

*Expires: March 2, 2009*



Prime Users Holding  
Nadcap User Compliance and Audit Program  
(NUCAP)  
Certificate & Scope of Approval



January 20, 2009

Mr. Tom Brandenburg  
Rolls-Royce Corp.  
2355 S. Tibbs Avenue #N16B  
Indianapolis, Indiana 46241

Mr. Mark Emmerson  
Rolls-Royce Corp.  
2355 S. Tibbs Avenue #N16B  
Indianapolis, Indiana 46241

Dear Messers Brandenburg and Emmerson:

Following a request to the NUCAP Management Council, this letter is formal notification that your NUCAP approval period from January 31, 2009 to **March 2, 2009.**

You will **NOT** receive a revised certificate. This letter will serve as evidence of the accreditation extension.

If you have any questions concerning the NUCAP Process, please contact PRI Headquarters at (724)772-8660.

Sincerely,

A handwritten signature in black ink that reads "Lisa Shultz". The signature is written in a cursive, flowing style.

Lisa Shultz  
Prime Support Engineer  
Industry Managed Programs, Research & Development

LS/dlh

Enclosures

Certificate(s)  
Scope of Approval  
Logo Sheet



January 10, 2008

Mr. Tom Brandenburg  
Rolls-Royce Corp.  
2355 S. Tibbs Avenue #N16B  
Indianapolis, Indiana 46241

Mr. Mark Emmerson  
Rolls-Royce Corp.  
2355 S. Tibbs Avenue #N16B  
Indianapolis, Indiana 46241

Dear Messers Brandenburg and Emmerson:

Your facility has been approved for NUCAP. Please note that your NUCAP certificate is valid until **January 31, 2009**. Accordingly, we have enclosed your certificate(s) of approval, your scope of approval, and logo sheet.

**Please note that if any changes occur within your company (i.e., ownership, key managerial staff, equipment, company name, quality manager, address, etc.) that may affect your capability or scope of approved activities, you are required to notify PRI Staff by completing the "Notification of Change/Request for Revised Certification" form located in [eAuditNet.com/Resources/Public Documents/General Documents](http://eAuditNet.com/Resources/Public/Documents/General Documents), immediately.**

We would like to congratulate you on your achievement in meeting the stringent requirements of NUCAP Approval.

If you have any questions concerning the NUCAP Process, please contact PRI Headquarters at (724)772-8660.

Sincerely,

A handwritten signature in black ink, appearing to read "Lisa Shultz". The signature is fluid and cursive.

Lisa Shultz  
Prime Support Specialist / NUCAP Coordinator  
Industry Managed Programs, Research & Development

LS/dlh  
Enclosures  
Certificate(s)  
Scope of Approval  
Logo Sheet



*In accordance with Program Document PD3000, to the revision in effect at the time of the audit, this certificate is granted and awarded by the authority of the Nadcap Users Compliance and Approval Program (NUCAP) Management Council to:*

## **ROLLS-ROYCE CORP**

*at*

*See Attached Supplement*

*They have demonstrated conformance and are awarded approval for specific services, listed in the Scope of Approval to the revision in effect at the time of the audit for:*

***Chemical Processing, Coatings, Heat Treating, Non-Destructive Testing,  
Nonconventional Machining, Surface Enhancement and Welding***

*Expiration Date: January 31, 2009*

*Certificate Number: 121402*

*Issue Date: January 10, 2008*

A handwritten signature in black ink, appearing to read "W. G. Wagner". The signature is written in a cursive style and is positioned above a horizontal line.

*William G. Wagner, Managing Director*



## SCOPE OF APPROVAL NUCAP

Approval Date: January 10, 2008  
Expiration Date: January 31, 2009

Audit #121402  
Certificate #121402

**Rolls-Royce Corporation  
Plant 5  
2355 South Tibbs Avenue  
Indianapolis, Indiana 46241**

**Chemical Processing, Coatings, Heat Treating, Nondestructive Testing,  
Nonconventional Machining, Surface Enhancement and Welding**

In recognition of the successful completion of the PRI evaluation process, approval is granted to this facility to perform the following:

### **Chemical Processing (AC7108)**

AC7108      Chemical Cleaning: Alkaline, Semi-Aqueous, Solvent, Titanium (Acid, Alkaline), Ultrasonic  
Conversion/Phosphate Coatings: AMS 2473, AMS 2475, AMS 2481, AMS 2485, Customer Specification / Other  
Plating: Copper (AMS 2418), Electroless Plating Nickel (AMS 2404, AMS 2405), Nickel Plating (AMS 2403), Silver Plating (AMS 2410, AMS 2412)  
Stripping: Customer Specifications  
AC7108/1      Paint/Dry Film Coatings: Customer Specifications

### **Coating (AC7109)**

AC7109/1 -    Thermal Spray:  
                  Oxy/Fuel Powder Spray  
                  Oxy/Fuel Wire Spray  
                  Plasma Thermal Spray  
AC7109/3 -    Cementation Processes:  
                  Slurry Process – Dip  
                  Slurry Process – Spray

**Coating (AC7109) (Cont'd.)**

- AC7109/4 - Stripping:
  - Chemical
  - Mechanical – Grit Blast
  - Mechanical – Machining
- AC7109/5 - Coating Evaluation Laboratory Practices:
  - Metallography
  - Specimen Preparation
  - Surface Finish
  - Thickness – Mechanical
  - Thickness – Metallographic
  - Visual – Microscopic
- AC7109/6 - Plating of Coated Parts: Customer Specification
- AC7109/7 - Heat Treating for Suppliers of Coatings

**Heat Treating (AC7102)**

- AC7102 - Cryogenic Treatments
  - Die/Press Quenching
  - Nickel and Cobalt Alloys: Customer Specification / Other
  - Plating (Braze Prep Only)
  - Stainless Steels: Customer Specification / Other
  - Stainless and PH Stainless Steels: Customer Specification / Other
  - Steels: Customer Specification / Other
  - Titanium Alloys: (Age, Anneal, and/or Duplex Anneal, & Stress Relieve),  
Customer Specification / Other
  - Vacuum Heat Treating: Customer Specification / Other
- AC7102/1 - Brazing: Furnace, Vacuum Furnace
- AC7102/3 - Carburizing: Customer Specification / Other
- AC7102/4 - Nitriding: Customer Specification / Other
- AC7101/3 - Materials Test Lab – Mechanical Testing:
  - (A) Room Temperature Tensile
- AC7101/4 - Materials Test Lab – Metallography & Microhardness:
  - (L) Metallography (General)
  - (L5) Near Surface Examinations – Microhardness
  - (L6) Near Surface Examinations – Diffusion Coatings
  - (L7) Near Surface Examinations – IGA/IGO
  - (L8) Near Surface Examinations – Alpha Case: Wrought
  - (L9) Near Surface Examinations – Alpha Case: Casting
- AC7101/5 - Materials Test Lab – Hardness:
  - (M1) Hardness – Brinell
  - (M2) Hardness - Rockwell

Approval Date: January 10, 2008  
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**Nondestructive Testing (AC7114 / AC7114S):**

AC7114/1 - Liquid Penetrant Survey  
AC7114/1S - S-U6 Rolls-Royce Corp.  
AC7114/2 - Magnetic Particle Survey  
AC7114/2S - S-U6 Rolls-Royce Corp.  
AC7114/4 - Radiography  
AC7114/4S - S-U6 Rolls-Royce Corp.  
AC7108/2 - Etching: Nital, Temper

**Nonconventional Machining (AC7116)**

AC7116/3 - Electrical Discharge Machining EDM: Sinker, Wire  
AC7116/4 - Laser Beam Machining LBM: Cutting

**Surface Enhancement (AC7117)**

AC7117 - Shot Peening, Peen Forming, Glass Bead Peening:  
Automated – AMS 2430, AMS-S-13165, Customer Specification / Other  
Manual – Customer Specification / Other

**Welding (AC7110)**

AC7110/1 - Brazing:  
Baseline (All Audits)  
Torch  
AC7110/3 - Electron Beam Welding  
AC7110/4 - Resistance Welding:  
Baseline (All Audits)  
Projection  
Seam  
Spot  
AC7110/5 - Fusion Welding:  
Foundry In-Process Completion/Repair Welding of Castings,  
Gas Tungsten Arc Welding  
AC7110/9 - Percussion Stud Welding

**Rolls-Royce Corporation  
Plant 8  
2001 South Tibbs Avenue  
Indianapolis, Indiana 46241  
Satellite Facility of Plant 5**

**Chemical Processing, Heat Treating, Nondestructive Testing,  
Nonconventional Machining and Welding**

In recognition of the successful completion of the PRI evaluation process, approval is granted to this facility to perform the following:

**Chemical Processing (AC7108)**

AC7108 - Chemical Cleaning: Acid, Alkaline, Solvent, Ultrasonic  
Plating: Copper – AMS 2418, Customer Specification  
Stripping: Customer Specification

**Heat Treating (AC7102)**

AC7102 - Cryogenic Treatments  
Nickel and Cobalt Alloys: Customer Specification  
Plating  
Stainless Steels: Customer Specification  
Stainless and PH Stainless Steels: Customer Specification  
Steels: Customer Specification  
Titanium Alloys: Customer Specification  
Vacuum Heat Treating: Customer Specification

AC7102/1 - Brazing: Furnace, Vacuum Furnace

AC7102/3 - Carburizing: Customer Specifications / Other

AC7102/4 - Nitriding: Customer Specification / Other

AC7101/4 - Materials Testing – Metallography & Microhardness:  
(L) Metallography (General)  
(L5) Near Surface Examinations - Microhardness  
(L6) Near Surface Examinations – Diffusion Coatings  
(L7) Near Surface Examinations – IGA/IGO  
(L8) Near Surface Examinations – Alpha Case: Wrought  
(L9) Near Surface Examinations – Alpha Case: Casting

AC7101/5 - Materials Testing - Hardness:  
(M2) Hardness - Rockwell

Approval Date: January 10, 2008  
Expiration Date: January 31, 2009

Audit #121402  
Certificate #121402

**NonDestructive Testing (AC7114 / AC7114S)**

AC7114/1 - Liquid Penetrant Survey  
AC7114/1S - S-U6 Rolls-Royce Corp.  
AC7114/2 - Magnetic Particle Survey  
AC7114/2S - S-U6 Rolls-Royce Corp.  
AC7114/4 - Radiography  
AC7114/4S - S-U6 Rolls-Royce Corp.

**Welding (AC7110)**

AC7110/1 - Brazing:  
Baseline (All Audits)  
Torch  
AC7110/ 4 - Resistance Welding:  
Baseline (All Audits)  
Spot  
AC7110/5 - Fusion Welding

Approval Date: January 10, 2008  
Expiration Date: January 31, 2009

Audit #121402  
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**Single Crystal Operations (SC)  
Division of Rolls-Royce Corporation  
5601 Fortune Circle  
Indianapolis, Indiana 46241**

**Nondestructive Testing**

In recognition of the successful completion of the PRI evaluation process, approval is granted to this facility to perform the following:

**NonDestructive Testing (AC7114 / AC7114S)**

AC7114/1 - Liquid Penetrant Survey  
AC7114/1S - S-U6 Rolls-Royce Corporation