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March 8, 2011

BY E-MAIL TO: carol.e.giles@faa.gov  
Original by Certified Mail;  
Return Receipt Requested  
Receipt No: 7009 2250 0000 4119 2402

Carol E. Giles  
Manager, Aircraft Maintenance Division (AFS-300)  
Federal Aviation Administration  
950 L'Enfant Plaza, S.W., 5<sup>th</sup> Floor  
Washington, DC 20591-0001

RE: Maintenance Fabrication

Dear Carol:

Several members of the association have contacted us recently with questions regarding the fabrication of detail parts by maintenance personnel. Unfortunately, the impetus for one of those questions was the receipt of a letter of investigation from the FAA.

Although the issues raised are clearly addressed in a legal interpretation from the FAA Office of Chief Counsel and supported by existing FAA guidance, it is apparent that industry confusion is the result of individual FAA inspector misunderstandings. Due to that fact, we find it necessary to ask your office for an immediate notification, sent to the entire FAA inspector workforce, summarizing the FAA's position on maintenance personnel fabricating parts as outlined in this letter.

Specifically, it must be reinforced that the fabrication by maintenance personnel is not maintenance. That point is made clear in the August 7, 2006 legal interpretation to Pratt & Whitney<sup>1</sup> which provides, in part, that:

...the fabrication of the part is not considered maintenance; rather it is the repair performed by a certificate holder that consumes the fabricated part that falls under the definition of maintenance. (*Emphasis added*)

The current industry turmoil can be remedied by emphasizing that simple statement.

Otherwise -- as is currently the case for repair stations assigned an inspector who considers fabrication a maintenance activity -- numerous questions will arise, including:

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<sup>1</sup> That legal interpretation is attached to this letter.

Ms. Carol E. Giles

March 8, 2011

Page 2

RE: Maintenance Fabrication

- A repair station contracting maintenance functions without FAA approval<sup>2</sup>
- Not performing maintenance in accordance with 14 CFR part 43

In addition to those false accusations, by wrongly categorizing the fabrication as maintenance, the FAA is shifting industry focus away from the proper execution of that activity as detailed in Advisory Circular (AC) 43-18.<sup>3</sup> As a result, the FAA should ensure its front line inspectors are fully aware of current policy regarding part fabrication by maintenance providers.

We appreciate your consideration of our proposed solution, and we look forward to the FAA's help in resolving this issue.

Sincerely,



Craig L. Fabian

Vice President Regulatory Affairs and  
Assistant General Counsel

Attachments: FAA Legal Interpretation From Rebecca MacPherson, Assistant Chief Counsel for Regulations, dated August 7, 2006.

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<sup>2</sup> Specifically, violations of Title 14, Code of Federal Regulations (14 CFR) § 145.217.

<sup>3</sup> Titled, "Fabrication of Aircraft Parts by Maintenance Personnel".



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

800 Independence Ave., S.W.  
Washington, D.C. 20591

August 7, 2006

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Pratt & Whitney  
United Technologies Research Center  
Attn: Wayne d’Etrement  
Manager  
P&W FAA Drug & Alcohol Prevention Program  
411 Silver Lane  
Mail Stop 129-08  
East Hartford, Connecticut 06108

Re: Amended FAA Drug and Alcohol Testing Regulations

Dear Mr. d’Etrement:

This letter is in response to the request of your predecessor, Richard Macklosky, dated April 3, 2006, whereby Mr. Macklosky sought a Federal Aviation Administration (FAA) legal interpretation regarding the fabrication by subcontractors of repair detail(s) as part of a maintenance action per 14 CFR Part 43 and the applicability of the drug and alcohol testing rules of 14 CFR Part 121 Appendix I and J to persons who perform such fabrication. The rules cover each employee who performs a safety-sensitive function. The safety-sensitive functions at issue in his inquiry are aircraft maintenance and preventive maintenance duties. Mr. Macklosky stated the issue is the applicability of the FAA’s new amendments to those rules that increase the pool of covered employees subject to testing by adding the phrase: “(including by subcontract at any tier).” At the present time, persons engaged in aircraft parts manufacturing are not covered by the above-referenced drug and alcohol testing rules.

The answer to this question turns on whether the fabrication of a part by a subcontractor is considered “maintenance” or the manufacture or production of the part.

Mr. Macklosky expressed an opinion that if a part is fabricated for the purpose of being incorporated into a maintenance or repair activity (he referred to this as a “repair detail”), and the fabrication is done under the quality control system of the repair station performing the repair, such fabrication should be deemed to be maintenance. Mr. Macklosky distinguished the nature of this fabricated part from the equivalent OEM (original equipment manufacturer) part by stating the part numbers are different and some blueprint requirements are different.

The recent publication of Advisory Circular (AC) 43-18 “Fabrication of Aircraft Parts by Maintenance Personnel” provides guidance for establishing a system that ensures the same level of safety for parts fabricated under 14 CFR Part 43 for maintenance or repair purposes as those produced under the production rules under 14 CFR Part 21. This system requires a certificate holder to possess the following:

- (1) Approved design data or data acceptable to the Administrator that is determined by the category classification for the part being fabricated; and
- (2) A fabrication quality control system (FQCS) to ensure each fabricated part conforms to its design data and is in a condition for safe operation.

Furthermore, the AC defines “Fabrication” as:

An act in which a part/subpart is made (fabricated) and consumed by the fabricator on the product or part thereof in the course of repair in accordance with approved or acceptable data depending on the category classification of the part being fabricated and the applicable regulations. In addition, a maintenance record entry must be made with a description of work performed, date of completion, name of person who performed the work, and a satisfactory signature and FAA certificate number.

In other words, parts design data may be approved under 14 CFR section 21.305(d) and the part fabricated under 14 CFR section 43.13(a) and (b), providing the fabricator installs the part onto or within the product or part thereof while it is undergoing maintenance or repair. Additionally, parts fabrication must be performed within the privileges and limitations of the certificate holder’s FAA authorization and ratings, and in accordance with his/her established quality control system. Since the certificate holder must control the design, manufacture, and quality of the part for eventual consumption during maintenance or repair, the certificate holder is deemed to be the fabricator, whether the certificate holder or a subcontractor produces the part.

For the purposes of Pratt & Whitney’s inquiry, we see no substantive difference in the fabrication of a part by a subcontractor under the quality controls specified in AC 43-18 and a part produced by an OEM under the requirements specified in 14 CFR Part 21. If all applicable requirements are met, either part could be used as a “repair detail” as needed in the maintenance (repair) being undertaken.

The FAA defines maintenance as “inspection, overhaul, repair, preservation, and the replacement of parts, but excluding preventive maintenance.” 14 CFR § 1.1. Preventive maintenance is defined as “simple or minor preservation operations and the replacement of small standard parts not involving complex assembly operations.” *Id.*

We do not consider the fabrication of a part in the context of Pratt & Whitney’s inquiry as falling under the definition of maintenance. Subcontractor employees who fabricate a part are not

repairing anything; rather they are producing a part, whether that production is done under a repair station's quality control system or under a manufacturer's own fabrication inspection system (FIS).

Therefore, the fabrication of the part is not considered maintenance; rather it is the repair performed by a certificate holder that consumes the fabricated part that falls under the definition of maintenance. As such, any person(s) performing the repair for an air carrier is subject to the requirements in 14 CFR Part 121, Appendix I & J.

Additionally, Mr. Macklosky raised two additional concerns that he suggested the FAA address in future guidance material. In the first concern he stated:

Many U.S. non-regulated parts brokers of aircraft parts are receiving phone calls and letters asking for their "449 Ops Specs" or letters from FAA Drug Abatement showing the broker is in compliance to the new rule.

In response, Operations Specifications (Ops Specs) paragraph 449 is specifically issued to those repair stations that have voluntarily obtained their own Antidrug and Alcohol Misuse Prevention Program. Non-regulated parts brokers are not certificated and as such, do not possess Ops Specs paragraphs, nor are they performing maintenance. Therefore, they are not required to meet the requirements contained in 14 CFR Part 121, Appendix I & J.

In his second concern, Mr. Macklosky stated:

Also, foreign certificate holders (historically non-regulated per 14 CFR Part 121 Appendix I & J) are sending letters requesting objective evidence that U.S. certificate holders and their U.S. non-certificate maintenance contractors are compliant to the regulations.

In response, any person(s) performing maintenance or preventive maintenance for a U.S. air carrier operating under 14 CFR Parts 121 and 135 are subject to the requirements contained in 14 CFR Part 121 Appendix I & J, when that work is performed in the U.S. For maintenance performed outside the U.S., the requirements contained in 14 CFR Part 121 Appendix I & J do not apply. The FAA will take into consideration Pratt & Whitney's concerns in developing future guidance material in these areas.

We hope the above answer responds to your needs.

Sincerely,

Rebecca MacPherson  
Assistant Chief Counsel for Regulations  
Office of the Chief Counsel