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July 27, 2006

VIA E-MAIL TO: jim.ballough@faa.gov

VIA FACSIMILE TO: 202.267.5230

Mr. James Ballough
Director Flight Standards Service (AFS-1)
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591-0004

Re: Request for Clarification on Human Factors Training

Dear Mr. Ballough:

The Aeronautical Repair Station Association (ARSA) requests a written clarification from the Federal Aviation Administration (FAA) on repair station training requirements under 14 CFR § 145.163. Specifically, we seek to determine whether this section requires human factor training elements. If these elements are required, please provide the regulatory basis for this decision so we may inform our members. If human factor elements are not required, we respectfully request that you agree to implement adjustments to the relevant guidance material in the most expeditious manner.

The need for clarification arises from inconsistencies in Advisory Circular (AC) 145-10 and Order 8300.10. The sample training programs contained in AC 145-10, Appendix 1 (large/medium repair stations) and Appendix 2 (small repair stations), neither mention nor require human factor elements. The AC text language merely presents such training as an element that "would provide an additional margin of safety to the repair industry."¹ Thus far the AC is consistent with the regulation itself, which is task based without requirements for any particular subjects, only that the training be initial and recurrent.

Our problem lies with a note that appears at page 10 of AC 145-10, which states, in part:

NOTE: Training in maintenance human factors is an essential part of an FAA-approved training program. The repair station's submitted training program and any revision thereto must include human factors elements. (Emphasis added.)

The Airworthiness Inspector's Handbook, Order 8300.10, volume 2, chapter 160, pages 160-5 and 6, paragraph 6 also treats human factors training as a suggestion in the text with demanding notes.² Further, the Order refers persons to the AC for "additional information", which the AC does not contain.

¹ AC 145-10, paragraph 301(c)

² Order 8300.10, volume 2, chapter 160, pages 160-5 and 160-6, paragraph 6 (3) lists human factors as a subject that "should be addressed" and paragraph 6 (4) notes that the training program "may include" such training. Unfortunately the suggestions are followed by much more definitive language:

NOTE: Training in Maintenance Human Factors is an essential part of an FAA-approved Training Program. The repair station's submitted training program and any revision thereto must include human factors elements. The FAA will not prescribe what human factors elements to include, but those elements should focus on aviation maintenance, and safety related issues. If human factors were not included, their exclusion would hinder the training program approval. (See AC 145-10 for additional information.) (Emphasis added.)

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In light of the confusion on this issue, and in the importance of having a clear requirement under the FAA rules, we suggest the following changes to the AC and to the Order:

1. On page 10 of the AC:

NOTE: Training in maintenance human factors can be an important part of an FAA-approved training program; therefore the FAA encourages repair stations to submit a training program with human factor elements.

2. In Order 8300.10, volume 2, chapter 160, pages 160-5 and 6, paragraph 6:

NOTE: Training in maintenance human factors can be an important part of an FAA-approved training program and is required by EASA. The FAA should encourage repair stations to submit a training program and any revision thereto with human factor elements. While the FAA will not prescribe what human factor elements to include, the training should focus on aviation maintenance and safety related issues. Absence of human factor elements in the training program will not prohibit approval of the manual unless the organization also holds an EASA part 145 authorization.

This matter has come to our attention because members are being told by FAA aviation safety inspectors that the training manuals will not be approved without the human factors elements "required" by the Handbook. Therefore, we look forward to your prompt attention to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sarah MacLeod", with a stylized flourish at the end.

Sarah MacLeod
Executive Director

cc: Dan Bachelder, AFS-340
Rick Domingo, AFS-301