

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 145**

[Docket No. FAA-2006-26408]

RIN 2120-A153

**Repair Stations****AGENCY:** Federal Aviation Administration (FAA), DOT.**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to amend the regulations for repair stations by revising the system of ratings and requiring repair stations to establish a quality program. The FAA also proposes additional changes critical to maintaining safety. These include requiring a repair station to maintain a capability list, designating a chief inspector, and having permanent housing for its facilities, equipment, materials, and personnel. In addition, this proposal also specifies those instances when the FAA may deny a repair station certificate. The proposal looks at the particular cases where a previously held certificate has been revoked. Lastly, the FAA proposes to clarify recent revisions to the repair station regulations. This action is necessary to reflect changes in aviation technology and repair station business practices.

**DATES:** Send your comments on or before March 1, 2007.**ADDRESSES:** You may send comments identified by Docket Number FAA-2006-26408 using any of the following methods:

- *DOT Docket Web site:* Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.

- *Government-wide rulemaking Web site:* Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- *Mail:* Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001.

- *Fax:* 1-202-493-2251.

- *Hand Delivery:* Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For more information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

*Privacy:* We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. For more information, see the Privacy Act discussion in the **SUPPLEMENTARY INFORMATION** section of this document.

*Docket:* To read background documents or comments received, go to <http://dms.dot.gov> at any time or to Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:**

George W. Bean, General Aviation and Repair Station Branch, AFS-340, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267-3109; facsimile (202) 267-5115, e-mail [George.W.Bean@faa.gov](mailto:George.W.Bean@faa.gov).

**SUPPLEMENTARY INFORMATION:****Comments Invited**

The FAA invites interested persons to take part in this rulemaking by sending written comments, data, or views. We also invite comments about the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. We ask that you send us two copies of written comments.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel about this proposed rulemaking. The docket is available for public inspection before and after the comment closing date. If you wish to review the docket in person, go to the address in the **ADDRESSES** section of this preamble between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. You may also review the docket using the Internet at the web address in the **ADDRESSES** section.

*Privacy Act:* Using the search function of our docket Web site, anyone can find and read the comments received into any of our dockets, including the name of the individual sending the comment (or signing the comment on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477-78) or you may visit <http://dms.dot.gov>.

Before acting on this proposal, we will consider all comments we receive

by the closing date for comments. We will consider comments filed late if it is possible to do so without incurring expense or delay. We may change this proposal because of the comments we receive.

If you want the FAA to acknowledge receipt of your comments on this proposal, include with your comments a pre-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it to you.

**Proprietary or Confidential Business Information**

Do not file in the docket information that you consider to be proprietary or confidential business information. Send or deliver this information directly to the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this document. You must mark the information that you consider proprietary or confidential. If you send the information on a disk or CD ROM, mark the outside of the disk or CD ROM and also identify electronically within the disk or CD ROM the specific information that is proprietary or confidential.

Under 14 CFR 11.35(b), when we are aware of proprietary information filed with a comment, we do not place it in the docket. We hold it in a separate file to which the public does not have access, and place a note in the docket that we have received it. If we receive a request to examine or copy this information, we treat it as any other request under the Freedom of Information Act (5 U.S.C. 552). We process such a request under the DOT procedures found in 49 CFR part 7.

**Availability of Rulemaking Documents**

You can get an electronic copy using the Internet by:

- (1) Searching the Department of Transportation's electronic Docket Management System (DMS) Web page (<http://dms.dot.gov/search>);

- (2) Visiting the Office of Rulemaking's Web page at <http://www.faa.gov/avr/arm/index.cfm>; or

- (3) Accessing the Government Printing Office's Web page at <http://www.gpoaccess.gov/fr/index.html>.

You can also get a copy by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267-9680. Make sure to identify the docket number, notice number, or amendment number of this rulemaking.

### Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in title 49, subtitle VII, part A, subpart III, section 44701, General requirements, and Section 44707, Examining and rating air agencies. Under section 44701, the FAA may prescribe regulations and standards in the interest of safety for inspecting, servicing, and overhauling aircraft, aircraft engines, propellers, and appliances. It may also prescribe equipment and facilities for, and the timing and manner of, inspecting, servicing, and overhauling. Under section 44707, the FAA may examine and rate repair stations.

This regulation is within the scope of section 44701 since it establishes new regulations for a repair station to establish a quality program, requires a repair station to maintain a capability list, designate a chief inspector, and have permanent housing for all its facilities, equipment, materials, and personnel. This regulation is within the scope of section 44707 since it revises the system of ratings for repair stations and specifies those instances when the FAA may deny the issuance of a repair station certificate, especially when a previously held certificate has been revoked.

### Background

In 1975, industry participants in the FAA's First Biennial Operations Review recommended that the agency revise Title 14, Code of Federal Regulations (CFR) part 145, Repair Stations. The FAA subsequently adopted minor amendments to part 145; however, the FAA did not make any major revisions until November 22, 1988 (Amendment No. 145-21, 53 FR 47376). In that amendment, the FAA expanded the scope of work that U.S.-certificated repair stations located outside the United States may perform. It also allowed certain repair stations to contract maintenance functions to noncertificated entities under specific conditions.

The FAA held four public meetings in 1989 as part of a regulatory review of 14 CFR part 43, Maintenance, Preventive Maintenance, Rebuilding, and Alteration, 14 CFR part 65, Certification: Airmen Other than Flight Crewmembers, subpart E, Repairmen,

and 14 CFR part 145. These meetings provided a forum for the public to comment on possible revisions to the rules governing repair stations. More than 500 representatives of repair stations, airlines, unions, manufacturers, foreign governments, industry organizations, and individuals attended the meetings.

The goal of the meetings was to gather enough factual information from the public to decide whether the FAA should revise the repair station regulations, and if so, to determine what revisions the FAA should make. To prepare for the meetings, the FAA identified several areas of the repair station rules that might need revision. These areas were:

- Organization and format;
- Ratings and classes;
- Operations and inspection procedures;
- Manufacturers' maintenance facilities;
- Contracting of maintenance by repair stations;
- Repair station privileges;
- Facility, housing, and equipment requirements;
- Recordkeeping and report requirements; and
- Management, inspection personnel, and repairmen qualifications.

Participants discussed these issues at the FAA public meetings and sent written comments to Docket No. 25965, which the FAA set up for the regulatory review. Responses from participants at the meetings and comments received in the docket showed a need to revise and update repair station regulations.

After considering the comments and data collected, the FAA issued Notice of Proposed Rulemaking No. 99-09, "Part 145 Review: Repair Stations" (64 FR 33142, June 21, 1999). On July 30, 2001, the FAA issued "Repair Stations; Final rule with request for comments and direct final rule with request for comments" (66 FR 41088, August 6, 2001). The FAA requested comments on removing appendix A from part 145, which the FAA had not proposed originally, and on the paperwork burden. In that final rule, the FAA:

- Reorganized and clarified certain subparts and sections of part 145;
- Removed limited ratings for manufacturers' maintenance facilities;
- Changed repair station housing and equipment requirements;
- Included rules for exchanging equipment among satellite repair stations and for leasing equipment;
- Required repair stations to develop a repair station manual that prescribes its operating procedures;
- Required repair stations to develop a quality control manual that is similar

to the previously required inspection procedures manual;

- Provided for the operation of satellite repair stations;
- Expanded the scope of contract maintenance; and
- Required repair stations to develop a training program.

Although the FAA proposed a new system of ratings and classes in Notice No. 99-09, the FAA kept the existing system in the final rule.

The FAA received a significant number of comments opposing the proposal. Commenters agreed the repair station industry needs new ratings, however, they opposed the FAA's proposed system of ratings and classes. Therefore, the FAA decided to seek advice and recommendations from the affected aviation community before developing new rules for ratings and classes.

Also, the final rule did not include a quality assurance program, as proposed originally. Again, the FAA decided to seek advice and recommendations from the affected aviation community before developing new rules for quality assurance. The FAA also elected to use an established Federal advisory committee to gather information regarding ratings and quality assurance.

On October 15, 2001, FAA tasked the Aviation Rulemaking Advisory Committee (ARAC) to address ratings and quality assurance for repair stations. (66, FR 53281, October 19, 2001) The FAA asked ARAC to recommend a system of ratings for repair stations that would mitigate problems associated with the existing system and allow for growth of the aviation industry. Also, the FAA tasked ARAC to recommend a quality assurance program that would reflect industry requirements and account for the varying scope of repair station operations. Specifically, under the ratings task, the FAA tasked ARAC to:

- Review the existing system of ratings and classes contained in the current part 145 and in any other documents issued by the FAA pertaining to aeronautical repair stations.
- Review comments submitted to the FAA in response to the public meetings held in 1989 and the system of ratings proposed in June 1999 in Notice No. 99-09.
- Review challenges reported by Aviation Safety Inspectors (ASIs) under the existing system of ratings.
- Identify the challenges that aeronautical repair stations encounter under the existing system of ratings and classes, including those pertaining to:

- Current business practices that are not regulated that may require some form of control;
- Provisions in the current regulation that prevent repair stations from performing desired business practices; and
- Enforcement problems associated with the current regulations.
  - Draft a Technical Report that:
- Presents a review of the existing system of ratings and classes;
- Identifies various choices for rating systems;
- Identifies the advantages and disadvantages of each option;
- Provides economic information for each of the alternative rating systems; and
- Recommends a preferred system of ratings.

Under the quality assurance task, the FAA tasked ARAC to:

- Review the discussion about quality assurance in the June 1999 Notice of Proposed Rulemaking (Notice No. 99–09).

- Review comments relating to quality assurance submitted to the FAA in response to the public meetings held in 1989 and the quality assurance program requirements proposed in Notice No. 99–09.

- Review current industry practices relating to quality assurance issues to:

- Identify quality assurance systems currently used by some repair stations; and
- Analyze the elements of the systems used by the aviation industry.
  - Develop a Technical Report that:
- Presents a review of regulatory requirements that comprise a quality assurance program;
- Identifies various options for regulating quality assurance programs;
- Identifies the advantages and disadvantages of each option;
- Provides information on the economic impacts of applying a quality assurance system to various segments of the repair station industry; and
- Recommends a preferred quality assurance program or system.

ARAC sent its technical reports and recommendations to the FAA on August 13, 2002. The technical reports and recommendations contain details about each of the various options. Information on ARAC is available on the ARAC Web site: <http://www.faa.gov/avr/arm/arac>.

#### Action

In this rulemaking action, the FAA proposes a new rating system for repair stations and proposes requirements for

a quality system. The FAA bases this proposed rule on the public meetings held in 1989, comments to Docket No. 25965, comments to Notice No. 99–09, and recommendations from ARAC. The FAA also proposes additional changes critical to maintaining safety. These include: requiring a repair station to maintain a capability list; designating a chief inspector; and having permanent housing for all its facilities, equipment, materials, and personnel. In addition, the proposal also specifies those instances when the FAA may deny a repair station certificate. The proposal looks at the particular cases where a previously held certificate has been revoked. Lastly, the FAA proposes several minor amendments to the July 30, 2001 final rule. These amendments are necessary to clarify the rule.

#### Section-by-Section Analysis

##### Subpart B—Certification

###### *Section 145.51 Application for Certificate*

The FAA proposes to add a provision to the application procedures that would require an applicant for a repair station certificate to provide the FAA with a letter explaining how the applicant intends to comply with the requirements of part 145. Under long-standing FAA policy and practice, repair station certificate applicants have provided this letter that the FAA refers to as a “Letter of Compliance.” Since the letter is an essential part of the application process, the FAA finds it appropriate to include a requirement to provide the letter in the regulations for application for a repair station certificate.

The FAA proposes an editorial change to current § 145.51(a)(2) (proposed § 145.51(a)(3)) to make the wording consistent with proposed § 145.211(d). It would refer to a “quality system manual” rather than a “quality control manual.”

The FAA proposes adding the words “manufacturer” and “category” to proposed § 145.51(a)(4) to ensure consistency with the capability list requirements found in § 145.215.

The FAA proposes to clarify the text of § 145.51(b) by removing the ambiguity in the relieving provision concerning the availability of the equipment at the time of certification. This ambiguity results from the phrase specifying that the equipment requirement of the paragraph could be met “if the applicant has a contract acceptable to the FAA with another person to make the equipment available to the applicant at the time of

certification. \* \* \* ” The FAA believes that the phrase lacks clarity and could be subject to arbitrary application in individual cases; i.e., one inspector might require the contract to be executed and all the equipment brought to the premises for a pre-certification inspection, while another inspector might only review the contract for the specified items. In the first example, the equipment could be returned to the supplier the next day, and not be returned to the repair station until the relevant work is being performed, as required by § 145.109(a).

Consistent with the requirement in § 145.109(a), and as noted by some of the commenters to the proposal in Notice No. 99–09, it is important that the equipment be in place when the work is being performed. That is the safety basis for the equipment requirement. If, at the time of initial certification or rating approval, an applicant has a contract acceptable to the FAA to make the equipment available when the relevant work is being performed, the FAA will be able to determine that the repair station has assessed its relevant needs, and that it has the means to obtain the pertinent equipment, tools, and test apparatus when necessary. The applicant, of course, retains the option to have the equipment, tools, and test apparatus in place during the certification process. The requirement remains in § 145.109(a) that those items be on the premises and under the repair station’s control whenever the work is being performed.

Additionally, the FAA notes that the text of existing § 145.109(a) contains a requirement to have “tools,” in addition to equipment and materials, whereas existing § 145.51(b) does not refer to tools. Section 145.109(a) currently requires a repair station to “have the equipment, tools, and materials necessary to perform the maintenance, preventive maintenance, or alterations. \* \* \* ” [and that] The equipment, tools, and materials must be located on the premises and under the repair station’s control when the work is being done.” The FAA did not include the term “tools” in § 145.51(b) because of possible uncertainty as to what tools should be required for an applicant to have on site or under contract at the time of certification. We did not believe that an applicant, in order to obtain a repair station certificate, should be required to have on site at the time of initial certification or rating approval all the particular hand tools, etc., that an individual repairman or mechanic might possess. The term “equipment” in § 145.51(b) was meant to include items the FAA would consider to be “tools”

of the repair station. For example, a repair station's equipment might include items such as machines, jigs, fixtures, basic shop tools and associated tooling, necessary for the repair station to perform the work for which it is rated, as reflected on its proposed operations specifications and capability list.

We propose to clarify the scope of the kinds of items a repair station must have for initially obtaining certification by adding both *tools* and *test apparatus* to the list of items a repair station must have either on site or under contract. While the term *equipment* could be interpreted to include many examples of each, i.e., basic shop tools and test equipment, adding the term "tools" to the regulation would ensure that an applicant for a repair station certificate also includes on site, or in the contract, certain tools necessary for the rating sought that individual mechanics or repairmen might not possess. For example, this might include tools that are of a specialized nature for the rating or other tools that might be too large or expensive, or of a limited specialized nature. For the same reasons, and for consistency with the requirements in 14 CFR § 43.13(a), we propose to add "test apparatus" to the list of items a repair station must have in place for inspection or under contract at the time of initial certification or rating approval.

The FAA also proposes to remove the modifier "technical" from the term "data" for consistency with the other sections of the rule that use the term "data."

The FAA proposes to add a new paragraph (e) to § 145.51 to detail conditions under which a person may not apply for a repair station certificate. Unless otherwise authorized by the FAA, the following persons could not apply for a repair station certificate (nor would the FAA accept such an application) for one year from the date a previously revoked certificate was surrendered pursuant to the FAA's order of revocation:

- Any person who held a repair stations certificate that was revoked; and
- Any person who had a substantial ownership interest or substantial control over the operations of a repair station that has had its certificate revoked and who materially contributed to the circumstances causing the revocation.

The proposed rule would specify that the one-year period would begin to run on the date the certificate is surrendered to the FAA pursuant to the order of revocation. This proposed paragraph parallels § 61.13(d)(2), which pertains to pilots being able to reapply for a

certificate following revocation. Under the proposed text, a person whose certificate has been revoked needs prior authorization only if the person wishes to apply before the one-year term is up. The FAA revokes repair station certificates only for serious infractions of the regulations. The FAA believes that imposing a waiting period would serve as an additional deterrent against serious violations of the repair station regulations, thereby enhancing safety in the repair station industry.

#### *Section 145.53 Issuance of certificate*

Section 145.53 identifies who is entitled to a repair station certificate and appropriate ratings. Specifically, the section states that a person who meets the requirements of part 145 is entitled to a repair station certificate and appropriate ratings. Section 145.53(b) states, "if the person is located in a country with which the United States has a bilateral aviation safety agreement, the FAA may find that the person meets the requirements of this part based on certification from the civil aviation authority of that country." The FAA proposes to amend § 145.53(b) to state that the FAA may also base such finding on certification from an authority acceptable to the FAA.

This change permits the Administrator to base such a finding on a recommendation from a civil aviation authority that may not necessarily be the civil aviation authority of the country in which the repair station is located. Recent changes in Europe, for example, have led to the European Union forming the European Aviation Safety Agency (EASA). This new agency will carry out certain civil aviation safety functions for the European Community. The FAA must consider that over a period of time the United States may enter into aircraft maintenance agreements under which the FAA may base its actions on a certification made by a civil aviation authority other than a national aviation authority. Therefore, the proposal would revise the current regulation to allow for these different types of agreements. The FAA has determined that the change has no additional technical or economic impact on the regulation.

Also, the FAA proposes to add a new paragraph to § 145.53 identifying reasons the FAA may use to deny the issuance of a repair station certificate. The FAA proposes to deny a person a repair station certificate if:

- The applicant does not meet the eligibility requirements for the certificate sought, or does not complete the certification process.

- The applicant previously held a repair station certificate that was revoked.

- The applicant intends to fill or fills a key management position, (for example, accountable manager or chief inspector), with an individual who exercised control over or who held the same or a similar position with a repair station whose certificate was revoked, or was in the process of being revoked. That individual must have materially contributed to the circumstances causing the revocation or revocation process.

- The applicant held a key management position with a repair station certificate holder whose certificate was revoked, or was in the process of being revoked. The applicant must have materially contributed to the circumstances causing the revocation or causing the revocation process.

- An individual who will have control over or substantial ownership interest in the applicant had the same or similar control or interest in a repair station whose certificate was revoked, or is in the process of being revoked. That individual must have materially contributed to the circumstances causing revocation or causing the revocation process.

The last four criteria for denial are necessary because the FAA is aware of recent instances where persons whose repair station certificates were revoked continued to operate by obtaining new repair station certificates shortly after the revocation process. In a similar situation, a key management official with decision-making authority (chief inspector) from a repair station that lost its certificate for serious maintenance-related safety violations applied for and received a new repair station certificate. That individual also became the chief inspector at the newly certificated repair station. While under the chief inspector's direction, employees of the newly certificated station performed improper maintenance on a number of propellers, one of which came apart in flight causing a fatal accident.

As a result of this incident, the National Transportation Safety Board (NTSB), in a Safety Recommendation dated February 9, 2004 (A-04-01 and A-04-02), expressed concern that the FAA did not have a mechanism for preventing individuals who were associated with a previously revoked repair station, such as the owner described above, from continuing to operate through a new repair station. The NTSB made a number of observations.

The FAA has such a mechanism in place for air carriers and other commercial operators.

14 CFR § 119.39(b) allows the FAA to deny an application for a Part 121 or 135 air carrier or operating certificate. This can occur if the applicant previously held a certificate that was revoked or if a person who exercised control over (or held a key management position in) a previously revoked operator will be exercising control over (or hold a key management position in) the new operator.

The Part 119 rule allows the FAA to deny certification to an applicant who is substantially owned by (or intends to fill a key management position with) an individual who had a similar interest in a certificate holder whose certificate

was (or is being) revoked when that individual materially contributed to the circumstances causing the revocation.

The NTSB, pointing out the safety concerns offered by the FAA when it issued the above-described rules for air carriers and commercial operators, believed the same reasoning should apply equally to Part 145 certificate holders. The FAA agrees. The proposed language is consistent with other revocations that the FAA imposes. The changes that we propose are based to a large extent on the language contained in § 119.39(b). In 1978, when the predecessor regulation to § 119.39(b) was published, the FAA stated:

Noncompliance data is a significant factor to consider with an application for an ATCO [air taxi/commercial operator] operating

certificate. Similar information has been helpful in evaluating air carrier applicants and the persons they propose for management positions. The FAA revokes an operating certificate only for a very serious infraction of the regulations. If a person contributes materially to that infraction, the fact should be considered as a factor in evaluating the new application. This does not mean the approval of the application or employment position will be automatically withheld, but that each situation will be carefully evaluated on its merits. (43 FR 46762, Oct. 10, 1978)

*Section 145.59 Ratings*

The FAA proposes to revise the ratings and classes that may be issued to certificated repair stations. A comparison of the proposed ratings with the current ratings follows.

Current Rating	Proposed Rating
<b>Airframe Rating</b>	<b>Aircraft Rating</b>
Class 1: Composite construction of small aircraft ..... Class 2: Composite construction of large aircraft ..... Class 3: All-metal construction of small aircraft ..... Class 4: All-metal construction of large aircraft .....	The Aircraft rating, which the FAA did not divide into classes, would replace the Airframe rating and its associated classes. The FAA proposes to expand the current Airframe rating to include all articles except those for which a Powerplant, Propeller, or Avionics rating is required.
<b>Powerplant Rating</b>	<b>Powerplant Rating</b>
Class 1: Reciprocating engines of 400 horsepower or less ..... Class 2: Reciprocating engines of more than 400 horsepower ..... Class 3: Turbine engines .....	Class 1: Reciprocating engines. Class 2: Turbine engines. Class 3: Auxiliary power units (APU).
<b>Propeller Rating</b>	<b>Propeller Rating</b>
Class 1: All fixed-pitch and ground-adjustable propellers of wood, metal, or composite construction. Class 2: All other propellers, by make.	This proposed Propeller rating no longer includes classes. This rating would not include the main and auxiliary rotors (airframe articles) or rotating airfoils of aircraft engines (powerplant articles). This rating would allow a repair station to remove and replace articles attached to the propeller and to remove and reinstall the propeller. Also, the rating would allow a repair station to remove, replace, install, and test the propeller.
<b>Radio Rating</b>	<b>Avionics Rating</b>
Class 1: Communication equipment ..... Class 2: Navigational equipment. Class 3: Radar equipment.	The Avionics rating would combine the Radio, Instrument, and parts of the Accessory ratings into a single rating. The proposed Avionics rating would group together items that operate electrically or electronically and that require a unique set of skills not associated with other ratings. In addition, this rating would allow repair stations to perform maintenance on in-flight entertainment units or other electronic units, as specified in their operations specifications.
<b>Instrument Rating</b>	
Class 1: Mechanical. .... Class 2: Electrical. Class 3: Gyroscopic. Class 4: Electronic.	
<b>Accessory Rating</b>	<b>Component Rating</b>
Class 1: Mechanical accessories that depend on friction, hydraulics, mechanical linkage, or pneumatic pressure for operation. Class 2: Electrical accessories that depend on electrical energy for their operation. Class 3: Electronic accessories that depend on an electron tube, transistor, or similar device.	The Component rating would allow a repair station to perform maintenance, preventive maintenance, and alterations on individual component parts that are not installed on or in aircraft, powerplant, propeller, or avionics equipment. The Component rating would include any item that is not a complete aircraft, powerplant, propeller, or avionics article.

Current Rating	Proposed Rating
<b>Limited Rating (§ 145.61)</b>	<b>Limitations to a Rating (§ 145.61)</b>
For airframes; engines; propellers; instruments; radio equipment; accessories; landing gear; components; floats; nondestructive inspection, testing, and processing; emergency equipment; rotor blades by make and model; aircraft fabric work; and other purposes.	In response to industry and ARAC recommendations, the FAA would no longer issue limited ratings. Instead, the FAA would issue limitations to the rating of a certificated repair station governing maintenance or alterations on a particular type of aircraft, powerplant, propeller, avionics, or component part thereof for which part 43 applies.
<b>Limited Rating for Specialized Service (§ 145.61)</b>	<b>Specialized Service Rating (§ 145.63)</b>
For example, landing gear components; nondestructive inspection, testing, and processing; emergency equipment; aircraft fabric work; and any other specialized service the FAA finds appropriate for this rating.	The proposed Specialized Service rating is substantially the same as the existing Limited Specialized Service rating. The FAA would issue the Specialized Service rating to a repair station that performs only specific processes associated with the maintenance, preventive maintenance, and alterations of an aviation article.

### Aircraft Rating

Currently, the FAA may issue a repair station an Airframe rating with any of four class ratings: Classes 1, 2, 3, and 4. These classes are based on aircraft weight (large or small as defined in 14 CFR § 1.1) and construction (composite or all-metal). The FAA finds that issuing ratings for aircraft based on their construction is no longer appropriate because modern aircraft are no longer built of either all composite material or all metal. Further, the FAA finds that classifying aircraft by weight is no longer appropriate. The FAA proposes to remove the Airframe rating and its associated class ratings and establish an Aircraft rating without classes.

In its technical report, ARAC noted that in 1962, most aircraft had a dope and fabric or wood construction. The aviation industry commonly referred to aircraft made from a combination of wood, fabric, and metal materials as aircraft with a "composite" construction. ARAC noted that a better description of the term "composite" may have been "not-all metal." The term "composite material" also refers to carbon-carbon compounds and advanced polymers.

Many modern aircraft have an airframe made of both metal and composite materials. The airframe is metal while certain portions, such as control surfaces and fairings, are composite materials. This causes confusion among FAA inspectors and the aviation industry over how much of an airframe must be of composite or metal construction for various class ratings within the Airframe category.

Since defining "composite" is difficult and the current classes are no longer suitable for the repair station industry, the FAA has tentatively determined that a better approach is to adopt general ratings. ARAC found that a repair station rating based solely on the type or variety of material in aircraft

construction is unduly restrictive. These factors no longer determine the scope of work repair stations are able to perform under the Airframe rating. ARAC found that airframe maintenance capabilities do not depend on the materials used in aircraft construction.

Further, ARAC found that classification of ratings by weight is no longer appropriate. Historically, the FAA and the aviation industry used the weight classification of small and large aircraft to distinguish aircraft used in commercial air carrier service from general aviation aircraft. Commercial operations normally used aircraft over 12,500 pounds while general aviation typically used smaller aircraft. This distinction also reflected the relative complexity of the aircraft. Today, however, aircraft weight does not reflect the complexity or intended use of an aircraft.

The Aircraft rating, which is not divided into classes, would replace the Airframe rating and its associated classes. Under the Aircraft rating, a repair station could perform maintenance, preventive maintenance, and alterations on the complete aircraft, except those articles for which a Powerplant, Propeller, or Avionics rating is required. Replacing the current Airframe rating with an Aircraft rating would allow for inclusion of future technological advancements in aircraft construction. The Aircraft rating would allow the repair station to work on the aircraft electrical distribution system external to avionics units. In addition, a repair station could remove, replace, install, and test any powerplant, propeller, or avionics equipment to perform its rated work on the complete aircraft and approve it for return to service if the repair station has the capabilities.

At the time of application, the FAA would require an applicant for an Aircraft rating to identify the manufacturer, type, make, model, or

series of aircraft on which the repair station intends to perform maintenance, preventive maintenance and alterations. The repair station must list the aircraft on its capability list, which would be required by § 145.215. The FAA would require the repair station to demonstrate that it has on its premises and under its control the necessary housing, facilities, equipment, tools, test apparatus, trained personnel, and data to perform the maintenance, preventive maintenance, and alterations on the aircraft listed.

After the FAA certifies a repair station, the repair station could add additional capabilities as needed. The repair station could change its capability list after performing a self-evaluation that is part of the repair station's quality system. This internal review would ensure that the FAA could evaluate the work being performed under the rating and confirm that a repair station has the capabilities to perform the specified maintenance, preventive maintenance, and alterations.

It is not the FAA's intent to allow a repair station to change its ratings simply by performing the self-evaluation. The self-evaluation is used to add capabilities to its capability list that are within the scope of its rating. Aircraft-rated repair stations would be required to list the type, make, model, or series of aircraft on its capability list. The Aircraft rating, along with the types of aircraft the repair station may maintain, constitutes its rating. An Aircraft-rated repair station could not add different aircraft types to its capability list by performing the self-evaluation. For example, if its operations specifications authorize the repair station to maintain B-737 aircraft types, and it was currently maintaining only B-737-100-500 models, it could perform the self-evaluation to add other B-737 models to its capability list, but it could not add B-757 aircraft.

The word "aircraft type" when used in the text associated with an Aircraft rating is defined in 14 CFR part 1 and means those aircraft that are similar in design. Examples include: DC-7 and DC-7C; 1049G and 1049H; and F27 and F27F.

#### Powerplant Rating

The current Powerplant rating has three classes: Class 1: Reciprocating engines of 400 horsepower or less, Class 2: Reciprocating engines of more than 400 horsepower, and Class 3: Turbine engines.

When the FAA established the current Powerplant ratings, reciprocating radial engines that produced more than 400 horsepower powered nearly all large aircraft. In its report, ARAC noted that these engines differed substantially from the horizontally opposed reciprocating engines with less than 400 horsepower that manufacturers used to power general aviation aircraft. Distinguishing powerplant classes by horsepower was helpful considering the engines in use at that time. Today, however, it is possible for small horizontally opposed reciprocating engines to produce more than 400 horsepower. Further, most modern transport category aircraft have turbine engines, and manufacturers no longer produce high horsepower radial engines. ARAC determined, therefore, that separate classes for reciprocating engines are no longer useful.

When the FAA established the current Powerplant rating, manufacturers were just beginning to use turbine engines on civil aircraft. Therefore, the FAA found it appropriate to establish a class for turbine engines.

Unlike the other ratings, the FAA would retain classes for the Powerplant rating. The Powerplant rating still has natural and permanent divisions between reciprocating, turbine, and APU engines. Engines do not cross the boundaries between these classes. This would not be true for the other ratings, especially the Aircraft rating.

Under the proposed rating system, a repair station holding a new Powerplant rating may perform maintenance, preventive maintenance, and alterations of the powerplant and all components necessary for the powerplant to work properly. The proposed Powerplant rating includes aircraft engines, as defined in 14 CFR 1.1, and auxiliary power units.

An Auxiliary Power Unit (APU) refers to any gas turbine-powered unit delivering rotating shaft power or compressed air, or both, that is not intended for the propelling of an aircraft. APUs often drive aircraft generators and air-conditioning packs.

In some cases APUs also can be used as an additional source of energy to start the primary aircraft engines. The design configurations of some aircraft rely on an APU for provisional back-up electrical power in flight in the event of a failure of the primary power sources. The APU has been included in the Powerplant rating due to its similarity to an aircraft turbine engine.

The proposed rating, therefore, would still have 3 classes. However, the classes would be organized as follows:

- Class 1: Reciprocating engines, combining current Classes 1 and 2;
- Class 2: Turbine engines, encompassing current Class 3; and
- Class 3: Auxiliary power units (APU).

This rating, like the Aircraft rating, would allow repair stations to remove and replace propellers and powerplant components, as needed, and to perform powerplant maintenance, preventive maintenance, and alterations. Powerplant-rated repair stations also could remove and replace nacelles and fairings because most engine work cannot be performed unless the repair station removes these items. However, this rating would not allow the repair station to remove or replace engines. To perform this function, the repair station would, at a minimum, have to hold an Aircraft rating with a limitation to remove and replace engines. Also, this rating would not allow a repair station to perform maintenance, preventive maintenance, and alterations on the aircraft or propeller.

An application for the Powerplant rating must include a list of the make, model, or series of all powerplant articles that the repair station intends to maintain. The repair station must list these articles on its capability list. The repair station may add different makes and models of engines within its class rating to its capability list by following the self-evaluation procedures of the repair station's quality system. The FAA does not intend that a repair station alter its rating by adding powerplants outside the scope of the powerplant class the repair station is rated to maintain. This means a Class 1-rated repair station cannot add a Class 2 powerplant simply by performing a self-evaluation. This would be considered a change of rating, and must be handled through the certification process.

#### Propeller Rating

Under the current regulations, a repair station holding a Class 1 Propeller rating may perform maintenance, preventive maintenance, and alterations on all fixed-pitch and ground-adjustable propellers of wood, metal, or composite construction. A repair station holding a

Class 2 Propeller rating may perform maintenance, preventive maintenance, and alterations on all other propellers by make.

In its report, ARAC noted that this distinction is based on the different levels of complexity between a propeller with no moving parts and a propeller with a mechanical system that controls the pitch of the propeller while operating. ARAC also noted that aircraft with small reciprocating engines generally have fixed pitch propellers, while aircraft with high horsepower engines have variable pitch propellers. ARAC found that, although varying levels of complexity exist for propellers, most repair stations performing maintenance on propellers hold both class ratings. Therefore, ARAC recommended that the FAA eliminate class ratings that distinguish the types of propellers.

The proposed Propeller rating would allow a repair station to perform maintenance, preventive maintenance, and alterations on propellers. This rating does not include the main and auxiliary rotors (airframe articles) or rotating airfoils of aircraft engines (powerplant articles). This rating would allow a repair station to remove and replace control components attached to the propeller. Also, the rating would allow a repair station to remove, replace, install, and test the propeller. However, it would not allow a repair station to perform installations that would constitute a major alteration to an aircraft or aircraft engine.

An applicant for a Propeller rating must list the make, model, or series of propellers to be included on its capability list. The repair station could add makes or models of propellers to its capability list by following the self-evaluation procedures of the repair station's quality system. Although a repair station holding a Propeller rating could remove and install the propeller on an aircraft engine, it could not perform any maintenance, preventive maintenance, or alterations on the aircraft, aircraft engine, or airframe. For example, a repair station that intends to install propellers of a different make and model using a supplemental type certificate (STC) would be required to hold a Propeller rating and would need an Aircraft rating, with the necessary limitation.

#### Avionics and Component Ratings

The proposed Avionics and Component ratings present different challenges to the rating system because of the sheer volume of articles that can be addressed by the ratings, the variety of these articles, and the number of

manufacturers of similar articles. Providing only the make, model, or series of these articles may not provide the necessary information to determine what requirements the repair station must meet in order to be eligible for a rating. As a result, the FAA must include a requirement for the name of the manufacturer of the articles to be included in the capability list. Also, the FAA proposes a requirement that the capability list for a repair station certificated to maintain avionics or component articles be separated by categories to make it easier for both the repair station's customers and the FAA to ascertain the capabilities of the repair station.

The inclusion of the manufacturer on the capability list is necessary because, unlike the aircraft or powerplant manufacturers, there are several manufacturers who produce similar articles, such as radios, integrated electronic units, pumps, and actuators. Because the rule requires repair stations to use the data, tools, and equipment recommended by the manufacturer, these items will differ between manufacturers even though the articles may be similar in design. Also, since repair stations will be performing self-evaluations to add items to their capability lists, not identifying the different items required for articles produced by different manufacturers could make it difficult for a repair station to determine if it has the capability to maintain articles from various manufacturers.

Identifying the manufacturer would assist the FAA in separating the capability list into categories. The category headings can be broad to encompass several similar articles, but should be detailed enough so that a cursory review can determine the types of articles maintained by the repair station. Examples of categories may include: radios, instruments, integrated modules, hydraulic pumps, fuel pumps, hydraulic actuators, brakes, integrated entertainment systems, cargo loading units/pallets, or cargo floor tracks and locks. Under these categories, the repair station would list each article by manufacturer, make, model, or series.

#### Avionics Rating

The Avionics rating would combine the current Radio, Instrument, and parts of the Accessory ratings into a single rating. This rating would include all articles used for aircraft communication, navigation, and operation that operate electrically or electronically.

The proposed Avionics rating groups together items that operate electrically or electronically and that require a

unique set of skills not associated with other ratings. In addition, this rating would allow repair stations to perform work on in-flight entertainment units or other electronic units. The current rating and classification system does not have a rating or class that clearly includes in-flight entertainment electronics. In its report, ARAC stated that although the aviation industry typically does not consider these devices as avionics equipment, the FAA should include them with other electronic devices that require similar skills to maintain.

The current Radio rating consists of three classes: Class 1: Communication equipment, Class 2: Navigation equipment, and Class 3: Radar equipment. In its report, ARAC indicated that technological advances in avionics have led to much controversy over this categorization of equipment. ARAC noted that modern avionics equipment typically integrates communication and navigation functions into a single avionics appliance. Radar and radio equipment that operate using pulse technology also serve communication and navigation functions. Therefore, repair stations performing work on avionics equipment often hold a Radio rating with all three of the classes.

The current Instrument rating consists of four classes: Class 1: Mechanical, Class 2: Electrical, Class 3: Gyroscopic, and Class 4: Electronic. The FAA established these classes based on the technology available at the time. However, ARAC notes that today, most instruments operate using a combination of these principles. Therefore, class distinctions are no longer appropriate.

The current Accessory rating has three classes. Class 1: Mechanical includes accessories that depend on friction, hydraulics, mechanical linkage, or pneumatic pressure for operation. Class 2: Electrical includes accessories that depend on electrical energy for their operation and generators. Class 3: Electronic includes accessories that depend on the use of an electron tube, transistor, or similar devices. Similar to the Instrument rating, the classes for the Accessory rating identify the article's principle of operation. Many articles maintained under this rating use a combination of principles, thus requiring repair stations to hold all the class ratings for an Accessory rating.

The proposed Avionics rating would allow a repair station with the required capabilities to remove and reinstall access panels, brackets, or clamps in accordance with the manufacturer's instructions on aircraft, powerplants, or

propellers, as needed, to gain access to avionics equipment or instruments. The repair station also could remove, replace, install, and test the avionics equipment on an aircraft, provided the repair station does not alter the aircraft. An Avionics-rated repair station would not be authorized to remove articles that it was not rated to reinstall. To perform a major or minor alteration to an aircraft, powerplant, or propeller, a repair station would be required to hold the appropriate additional ratings.

As with the Aircraft, Powerplant, and Propeller ratings, a repair station with an Avionics rating would have to identify on its capability list the articles that it intends to maintain. Unlike the other ratings, in addition to identifying the article by make or model and series, the Avionics-rated repair station must also include the manufacturer and the category of the article, such as communication, navigation, pulsed (radar), mechanical, electric, gyroscopic, or electronic.

#### Component Rating

The Component rating would allow a repair station to perform maintenance, preventive maintenance, and alterations on individual uninstalled component parts that are included on or in aircraft, powerplant, propeller, or avionics equipment. The Component rating would include any item that is not a complete aircraft, powerplant, propeller, or avionics article. However, a Component-rated repair station must have a limitation to an Aircraft, Powerplant, or Propeller rating to remove and install articles. A repair station with an Aircraft, Powerplant, Propeller, or Avionics rating would not need a Component rating to work on items associated with its respective rating and capabilities. For example, an Aircraft or Powerplant-rated repair station would not need a Component rating to perform work on an airfoil surface, engine case, or other parts of the aircraft or powerplant, as applicable.

The capability list for this rating must provide enough detail to ensure that a repair station has the appropriate housing, facilities, equipment, tools, test apparatus, training, personnel, and data at certification and when the work is being performed. The FAA agrees with ARAC's recommendation that a repair station list the general part nomenclature of an item, and that it is unnecessary to list articles by part number. The capability list would have to identify each component by manufacturer, make, model, or other nomenclature as designated by the manufacturer.

*Section 145.61 Limitations to Ratings*

In response to industry and ARAC recommendations, the FAA would no longer issue limited ratings. Instead, the FAA would issue limitations to the rating of a certificated repair station governing maintenance, preventive maintenance, or alterations on a particular type of aircraft, powerplant, propeller, avionics unit, or component part thereof. Currently, the rule allows for limited ratings based on the repair station performing maintenance, preventive maintenance, or alterations on particular makes or models of aircraft, powerplants, or propellers. However, as the repair industry has become more specialized, the concept of limited ratings had to be stretched to apply to repair stations performing only certain maintenance, preventive maintenance, or alteration functions on one or several makes/models of articles. Eliminating limited ratings would allow more flexibility in determining what rating an applicant or a repair station should obtain. For example, if a repair station intends to perform only a specific maintenance, preventive maintenance, or alteration function, such as interior configuration work or aircraft painting, the FAA would issue the repair station an Aircraft rating and list that function as a limitation on the repair station's operations specifications. The repair station's operations specifications would specify the rating to which the limitation applies and the limitation to that rating in sufficient detail to describe the maintenance capabilities of the repair station.

*Section 145.63 Specialized Service Rating*

Currently, the FAA issues limited ratings to repair stations to perform maintenance, preventive maintenance, and alterations to airframes, engines, propellers, instruments, radio equipment, accessories, landing gear components, emergency equipment, rotor blades, and floats, and to perform specialized services.

The proposed Specialized Service rating is substantially the same as the existing Limited Specialized Service rating. The Specialized Service rating would allow a repair station to perform a specific process associated with the maintenance, preventive maintenance, or alteration of an article; this work might not constitute a complete repair sufficient to approve an article for return to service. The repair station's operations specifications would contain the specification used in performing that specialized service. The

specification could be a military-, industry-, or applicant-developed specification that was approved by the FAA. Examples of specialized services would include, but not be limited to, non-destructive testing or inspection, welding, heat treating, plating, and plasma spraying.

There are three situations in which the FAA would issue a Specialized Service rating. The FAA would issue this rating to a repair station that:

- Performs only a specific process;
- Has in-house capabilities to perform the specific process but the work being requested is not within the scope of its rating; or
- Performs a function not found in the manufacturer's data.

If specialized service tasks are contained within a repair station's data for existing ratings, the repair station would not require an additional rating to perform that service. For example, if an Aircraft-rated repair station wants to perform plating on a propeller part, it would need a Specialized Service rating to perform the operation on the propeller part. If, however, a Powerplant-rated repair station has the in-house capability to perform x-ray inspections, it would not need to have a Specialized Service rating to perform that same maintenance for another repair station on powerplant articles for which it is already rated.

The Specialized Service rating would require the repair station to have the housing, facilities, equipment, tools, test apparatus, trained personnel, and data to perform the process on an aviation article. The process specification on the operations specifications would set forth the minimum standards for performing the generic process (specialized service). For example, the process specification would include an explanation of the housing, facilities, equipment, tools, test apparatus, trained personnel, and data necessary to perform the overall process. The applicable manufacturer's maintenance manual, air carrier manual, or other data acceptable to or approved by the FAA would define the specific parameters associated with performing the process on the particular aviation article.

*Section 145.101 General*

The current section states that a certificated repair station must provide housing, facilities, equipment, materials, and data that meets the applicable requirements for the issuance of the certificate and rating the repair station holds. The FAA proposes to revise this section specifically to require repair stations to provide tools and test

apparatus as already required in § 145.109 of this part.

*Section 145.103 Housing and Facilities*

Paragraph (a)(1) of this section requires each certificated repair station to provide housing for the facilities, equipment, materials, and personnel consistent with its ratings. The FAA proposes to revise this section to require "permanent" housing. It has long been FAA policy that repair stations, unlike other certificate holders, have a permanent fixed location from which to operate. The proposed rule would not prohibit these certificate holders from having mobile capabilities. It would, however, reinforce the need for repair stations to provide adequate assurance that work is performed in the best of environments and to the best of standards. This means protection of workers from unfavorable weather conditions so that their performance and the airworthiness of the articles they are maintaining is not adversely affected by those weather conditions. Repair stations would be required to provide suitable housing to protect the articles being maintained from contamination, foreign object debris, or conditions that may promote corrosion or other deteriorating conditions.

Further, the FAA is proposing to add new paragraph (d) to allow a repair station to use multiple fixed locations in performing maintenance, preventive maintenance, and alterations under its repair station certificate if the locations are within close proximity to the principal base of operations. These locations should be able to be reached in a reasonable amount of travel time so that FAA inspectors could provide the same level of surveillance at each fixed location. Such fixed locations should be located within the same geographic boundary of the FAA office with oversight responsibility for the repair station. Any fixed location outside of the geographic boundary of the FAA office with oversight responsibilities must either be certificated as a satellite repair station and meet the requirements of § 145.107, or it must obtain its own repair station certificate under the provisions of § 145.51 and § 145.53. Repair stations would be required to obtain a certificate for each fixed location outside of such boundaries as a satellite or stand-alone repair station.

*Section 145.107 Satellite Repair Stations*

The FAA proposes to change paragraph (a) of this section to clarify the requirements for a satellite repair station. The FAA also proposes to remove the restriction that a satellite

repair station may not hold a rating not held by the certificated repair station with managerial control. The FAA would not impose additional restrictions on satellite repair stations that do not apply to other repair stations.

Additionally, the FAA proposes to add a new paragraph stating that a satellite repair station may use the same repair station and quality system manuals as the repair station with managerial control. If a satellite repair station intends to use these manuals, it would have to identify any specific processes or procedures unique to the satellite repair station in appendices or sections of the manuals.

Finally, the FAA proposes to change paragraph (b) to state that inspection personnel may be away from the premises, but must be readily available. This language eliminates the need to specify that personnel be available by telephone, radio, or other electronic means. They would have to be readily available regardless of the means of communication.

#### *Section 145.109 Equipment, Tools, Test Apparatus, Materials, and Data Requirements*

The FAA proposes to amend this section to add the word “tools” to the heading to make it consistent with the requirement currently in the text of the section and to meet the agency’s intent. The text of existing § 145.109(a) requires that each repair station have on the premises and under its control the equipment, *tools*, and materials necessary to perform the requisite work when it is being performed. The requirement in this section to have on site the equipment and tools “necessary to perform the maintenance, preventive maintenance, or alterations \* \* \*” may in some instances be more comprehensive than the requirement in § 145.51(b) for those items at the time of initial certification or rating approval. As explained previously in this preamble, an applicant for a repair station certificate does not have to have on site or under contract at the time of initial certification or rating approval all of the individual hand tools that its employees may possess and need when they are performing the work of the repair station.

We propose to add *test apparatus* to the list of items that a repair station must have on the premises and under its control when it is performing work for the reasons previously stated in the § 145.51(b) discussion. This would remove potential uncertainty surrounding whether a necessary piece of test apparatus was considered to be

“equipment” or “tools” or neither. In addition, including *test apparatus* would be consistent with the requirements in 14 CFR § 43.13(a). Accordingly, we are revising the section heading to include test apparatus.

Finally, we also propose to amend the text of § 145.109(a) for clarification and ease of understanding.

#### *Section 145.151 Personnel Requirements*

The FAA proposes to add the requirement that repair stations designate a chief inspector. Although this position was not previously required, prior to the 2001 amendments, former § 145.43 required each repair station to have and maintain a roster listing, among other personnel, its “inspection personnel, including the names of the chief inspector.” Many repair stations already have or have previously had a chief inspector as part of their staff. The FAA has received numerous requests to add the chief inspector requirement to this rule. This position is considered a critical function and is necessary to ensure the airworthiness of the articles a repair station maintains. There needs to be a technical person with the responsibility for regulatory compliance as well as the quality control duties. This person may be required to make critical decisions or countermand an errant finding from a quality control inspector. The quality of a product is directly related to the safety of the product. Part 121 of 14 CFR requires air carriers to have a chief inspector. This rulemaking will help to harmonize parts 121 and 145.

#### *Section 145.155 Inspection Personnel Requirements*

The FAA proposes to amend this section to set forth the experience requirements for the chief inspector position. Specifically, the FAA proposes to require the chief inspector of a repair station located within the United States be certificated under part 65. The FAA also proposes to add experience requirements for the chief inspector. Any person designated as a chief inspector for a repair station located either within or outside the United States must have at least 3 years of experience using the various types of inspection equipment and techniques appropriate for any article to be inspected. This includes the procedures, practices, inspection methods, materials tools, machine tools, and equipment generally used in the maintenance and alteration of articles for which the repair station is rated.

Currently, before mechanics can obtain an inspection authorization, they

must exercise the privileges of their certificate for a minimum of 3 years to demonstrate the competency needed to make judgment calls necessary to sign off on certain aircraft inspections. The FAA believes a chief inspector should meet similar criteria since the types of decisions that a mechanic with an inspection authorization and a chief inspector make are frequently similar and often just as critical.

The FAA proposes changes to § 145.155(a)(2) to ensure consistency with proposed § 145.155(d) by specifying that an inspector must be proficient in the use of “inspection equipment and techniques” rather than the more restrictive “inspection equipment and visual inspection aids.”

#### *Section 145.161 Records of Management, Supervisory, and Inspection Personnel*

The FAA proposes to amend this section to reflect proposed changes to § 145.151 that require repair stations to designate a chief inspector. The proposed amendment would require that repair stations include the name of the chief inspector in the roster of inspection personnel required in paragraph (a)(2) of this section.

In addition, the FAA proposes to remove the requirement to include the total years of experience in the summaries of employment required in current paragraph (a)(4)(ii) of this section. Current paragraphs (a)(4)(iii) and (iv) already require past relevant employment experience as well as the scope of present employment. The current separate requirement to maintain a record of total years of experience of an individual is therefore redundant. Additionally, proposed paragraph (a)(4)(ii) includes a requirement to list past relevant employment with “position, and type of maintenance performed.” It was necessary to include the word “position” since some management personnel may not have performed maintenance.

#### *Section 145.203 Work Performed at Another Location*

After redesignating the introductory text of the section, the FAA proposes adding a new paragraph that would require a repair station to obtain approval in writing prior to conducting any maintenance, preventive maintenance, and alterations outside of its domicile country. The current rule authorizing work to be performed at another location does not include specific provisions for a repair station to perform work under its certificate at a location outside the geographic borders

of the country where the repair station is located or domiciled. The proposal would require the repair station to obtain authorization to perform the work from the country in which the work is to be performed. It would also require the repair station to submit evidence of that authorization and a description of the procedures to be used to the FAA.

FAA policy currently allows an Aircraft-rated repair station located outside the United States that is also an operator holding an FAA Letter of Authorization per 14 CFR § 129.14, to qualify for geographic authorization under its Aircraft rating. This authorization ensures that U.S.-registered aircraft are maintained in accordance with a program approved by the FAA. The proposal would standardize the practice used to permit repair stations to perform work outside the country in which they are domiciled.

*Section 145.205 Maintenance, Preventive Maintenance, and Alterations Performed for Certificate Holders Operating Under Parts 121, 125, or 135, or for Foreign Air Carriers or Foreign Persons Operating U.S.-Registered Aircraft in Common Carriage Under Part 129*

The FAA proposes to clarify the requirements of the current section. Specifically, the FAA would add a requirement clarifying that certificated repair stations performing maintenance, preventive maintenance, and alterations for an air carrier or commercial operator conducting operations under parts 121 or 135, a certificate holder conducting operations under part 125, or a foreign air carrier or foreign person operating U.S.-registered aircraft under part 129 must comply with the applicable parts of this chapter. The FAA would also add the wording, "appropriately rated," to § 145.205(d) to ensure that a repair station would not perform line maintenance on articles that are outside the scope of its repair station certificate and ratings.

*Section 145.211 Quality System*

The FAA proposes to expand the quality control system requirements in existing § 145.211 to include elements of a more complete quality system for repair stations. While the FAA would keep the existing quality control elements, this proposal would add requirements for additional management oversight and follow-up. The FAA would also add a requirement for a repair station to establish an internal evaluation program. The FAA believes that if repair stations conduct

periodic internal evaluations of their processes and procedures, they could discover problem areas and take corrective actions before improper maintenance, preventive maintenance, or alterations are performed. Aviation safety would be enhanced accordingly.

Existing § 145.211 requires a final inspection of maintained articles. However, if the underlying benchmark processes or procedures against which the articles are being evaluated are flawed, defective articles can be and sometimes are approved for return to service. Such defective articles installed on aircraft have resulted in accidents involving damage to or loss of aircraft, and personal injuries and loss of life. At a minimum, these errors are costly and require the parts to be reworked or scrapped.

Under the proposed quality system requirements, a repair station would conduct internal evaluations of its operations and establish a management review and follow-up system. These two elements represent a significant part of the expansion the FAA would require of the existing quality control system.

The addition of an internal evaluation requirement would help ensure that repair stations' manuals comply with FAA regulations and that their operations conform to their manuals. In addition, a meaningful internal evaluation should identify deficiencies and generate an action plan to correct the deficiencies. Internal evaluations would also provide the information required by management to answer the following questions:

- Are our ongoing evaluations identifying and eliminating problems?
- Are our processes effective?

Management review and follow-up evaluations would determine the effectiveness of the internal evaluations. Management review and follow-up enhance the internal evaluation by—

- Analyzing the action plans to ensure compliance with regulations and good repair station practices;
- Conducting reviews to determine the extent to which the action plans are correcting problems identified by ongoing internal evaluations;
- Reviewing the over-all results of the internal evaluations to see if the ongoing evaluations are identifying and correcting deficiencies before the deficiencies result in product returns.

Below are two examples of FAA programs and procedures designed to identify and address problems that can occur. The illustrations are intended to show how a quality system with active management oversight and follow-up could prevent or limit the severity of

these problems brought about in maintenance systems.

The FAA's system of Airworthiness Directives (ADs) is the source of examples of defects that could lead to unsafe conditions. An AD is issued for a particular product when the FAA finds that an unsafe condition exists in that product and that the same unsafe condition is likely to exist or develop in other products of the same type design. Most ADs are issued to correct a design or a maintenance/inspection program deficiency. Sometimes, however, they are issued to correct an improper repair of a product if the improper repair was performed, or was likely to have been performed, on multiple units of the same product. An AD describes the unsafe condition and prescribes the actions required to correct it. Each AD specifies the models of the affected product to which it applies. ADs are legally enforceable rules. As such they are published in the **Federal Register** as amendments to 14 CFR 39.13. Below is an example of a corrective action taken through the FAA's AD program.

In 1998, the FAA issued an AD directed at specific reciprocating engines with crankshafts that had been repaired by a particular repair station. The FAA's data indicated that deficient process controls existed at the repair station during a particular time period causing the improper repairs. The improper repairs resulted in heat check cracking of the nitrided bearing surfaces that led to crankshaft failure due to cracking. The AD required inspections for potentially affected engines to determine applicability, an additional inspection and dimensional check of the crankshaft journals of the affected engines, and, if necessary, rework or removal from service of the affected crankshafts and replacement with serviceable parts. These actions were necessary to prevent crankshaft failure due to cracking that, in turn, could lead to in-flight engine failure and a possible forced landing.

The FAA estimated the total cost of complying with the AD to be over \$3 million. The FAA estimated that 10,000 engines would require at least the removal of the spinner, at a total cost of \$600,000, to determine whether an unsafe condition existed. The remainder of the cost was for the necessary rework on the estimated 291 engines that had been returned to service with defective crankshafts repaired by the repair station.

The FAA found that deficient process controls existed at the repair station. If a quality system had been in place, the internal evaluation could have revealed the deficient process controls. The

improper repair process could have been corrected immediately. The cost savings to U.S. operators would have been significant, and the FAA also could have avoided the costs associated with processing the AD.

Sometimes, as in the examples above, parts maintained by a repair station are approved for return to service after passing a final inspection even though they are not airworthy. This could be due either to a hidden defect or to a faulty inspection procedure. It is important to prevent these types of situations from developing. Early detection and prevention can be accomplished with a quality system in place at each repair station. Important additions to the quality system, as proposed in this notice, would include requirements that a repair station conduct periodic internal evaluations of its operations. This internal evaluation would ensure that the repair station's manuals and procedures comply with applicable regulatory requirements. It would also ensure that procedures are in place for conducting follow-up evaluations to ensure that corrective actions bring any deficiencies into compliance. The quality system requirement would include:

- A reporting system to record and maintain completed evaluations and corrective and preventive action plans,
- A schedule for conducting annual quality system evaluations,
- Corrective action procedures to ensure any deficiencies are corrected,
- Procedures for conducting follow-up evaluations to ensure corrective action(s) bring any deficiencies into compliance,
- Procedures for qualifying, training, and authorizing persons to perform internal evaluations, and
- Procedures for revising the internal evaluation system as necessary.

The internal evaluation would identify where additional quality standards are needed and validate the adequacy of existing standards and procedures. It also would help ensure that the procedures are being followed and achieve the desired results. Management review and follow-up would help ensure that all findings and discrepancies found during the internal evaluations are corrected in a timely manner and that they are effectively prevented from recurring. With the proposed comprehensive quality system, a repair station could demonstrate that it is achieving quality performance that means fewer errors, fewer delays, and improved productivity.

The FAA notes that a repair station could divide the internal evaluation into

sections, provided the entire repair station operation is evaluated within the applicable interval. For example, if a repair station's quality system requires an internal evaluation of its operations once every year, the repair station could evaluate different divisions of its operations separately, provided it evaluates its entire operation within the 1-year timeframe.

Quality systems with internal evaluations and management follow-up, such as the FAA is proposing here, have benefited manufacturers and service organizations that have adopted them. While initial costs are associated with adopting a quality system, organizations have realized long-term benefits. Such benefits have been in the form of reduced errors and delays that resulted in increased productivity. Requiring repair stations to adopt the additional quality system elements would increase their productivity, reduce errors and delays, and ultimately reduce the number of aircraft accidents and incidents.

As with other regulatory requirements in this part, the expanded quality system could be tailored to meet the needs of individual repair stations. If a large complex repair station requires a comprehensive quality system including full-time auditors and an auditing schedule, the proposed requirements provide the flexibility for such individually-developed systems. If, however, a small repair station with few ratings or limited capabilities requires only internal management review of its procedures to verify compliance with the regulations, it will have the flexibility to do so. Whether an internal evaluation is done by a professional team or by a repair station manager, the goals are the same: to—

- Ensure the repair station's procedures and data comply with applicable regulatory requirements,
- Ensure the procedures are still effective and appropriate for the work performed,
- Ensure the procedures are being followed, and
- Verify that the desired level of quality is achieved.

The FAA would further complement the proposed quality system by including a requirement that all repair stations maintain a suspected unapproved parts (SUP) program acceptable to the FAA. The FAA has a program to track SUP. Within the SUP program's parts reporting database, the FAA tracks parts that have been approved for return to service but that were subsequently found not to have been maintained in accordance with the current manufacturer's instructions or

other data approved by the FAA. In a search of the SUP program database, the FAA found that from October 1998 to May 2004, there were 238 cases involving repair stations and suspect parts. Of those cases, 219 involved parts that had not been maintained in accordance with the current manufacturer's instructions or other data approved by the FAA. Had these parts not been found and replaced by correctly maintained parts, those 219 cases of unapproved parts potentially could have resulted in accidents or incidents. It is likely that the more comprehensive quality system proposed here could have resulted in finding and correcting the underlying deficiencies before the parts were approved for return to service. Currently there is no rule requiring repair stations to participate in FAA's SUP program.

The FAA's existing SUP program was established in 1993 to coordinate the agency's efforts to minimize safety risks posed by the entry of "unapproved" aircraft parts into the U.S. aviation inventory and their installation on aircraft. The program, established by FAA Order 8120.10: (Suspected Unapproved Part Program, September 23, 1993), provides for the reporting and investigating of suspected unapproved parts. The SUP office was created in 1995. FAA published guidance for this program in AC 21-29, Detecting and Reporting Suspected Unapproved Parts. As a result, most repair stations already maintain a SUP program. FAA proposes to formalize this current practice by incorporating it into the rule.

As a matter of practice, the proposed additional quality elements are already being done by some repair stations. Most repair stations have incorporated a SUP program in accordance with current guidance for part 145 repair stations. Repair stations already implementing these features would incur no new costs. The FAA proposes to formalize a number of existing practices by making them part of the rule.

#### *Section 145.215 Capability List*

Under the current rule, a certificated repair station with a Limited rating may perform maintenance, preventive maintenance, and alterations on an article if the article is listed on its current capability list acceptable to the FAA or on the repair station's operations specifications. Under the provisions of the current rule, use of a capability list is optional since repair stations can also maintain their capabilities on their operations specifications. However, the FAA finds that a mandatory capability list is

necessary to maintain safety under the system of ratings proposed in this notice. The capability list would now be referenced on the operations specifications under the applicable rating.

The proposed rating system would not provide a separation between articles, such as large vs. small aircraft, or communication vs. navigation equipment. In addition, the proposed rating system would be more general, and new technologies could be encompassed under the rating system without requiring an amendment to the rule. It is imperative to maintain a document that identifies the actual capabilities of a repair station. To accomplish this, all FAA-certificated repair stations would be required to maintain a capability list. The FAA further proposes that capability list revisions be available to the FAA within 30 business days of the revision.

Further, FAA proposes to redesignate paragraphs (c) and (d) as (d) and (e) respectively and insert a new paragraph (c) to require the capability list for Avionics- and Component-rated repair stations be organized by category of article and identify the manufacturer. The inclusion of the manufacturer on these capability lists is necessary because, unlike the aircraft or powerplant manufacturers, there are several manufacturers who produce similar articles, such as radios, integrated electronic units, pumps, and actuators. Because the rule requires repair stations to use the data, tools, test apparatus, and equipment recommended by the manufacturer, it is easy for these items to differ among manufacturers even though the articles may be similar in design. Also, since repair stations will be performing self-evaluations to add items to their capability lists, not identifying the different data, tools, test apparatus, and equipment among manufacturers could make it difficult for a repair station to determine if it indeed has the capability to maintain articles from various manufacturers.

The FAA would also amend current requirements for a repair station to perform a self-evaluation by prohibiting a repair station with an Aircraft or Powerplant rating from performing a self evaluation to add a different type of aircraft or powerplant to their ratings, respectively. The FAA did not intend for a repair station to make such a change to its ratings through the self evaluation process.

#### *Section 145.217 Contract Maintenance*

The FAA proposes revisions to this section to provide clarification of

contract maintenance. The proposal would revise the current rule by removing the requirement in current paragraph (a)(1) that maintenance functions contracted to all outside sources be approved by the FAA. Only a maintenance function contracted to an outside source not certificated under part 145 would have to be approved. A repair station contracting a maintenance function to a repair station certificated under part 145 would not have to comply with the proposed requirements of paragraph (b).

#### *Section 145.223 FAA Inspections*

Section 145.223 would be revised to prohibit a repair station from contracting for the performance of a maintenance function on an article with a non-FAA-certificated maintenance provider under the terms of an aviation safety agreement unless the contract specified that the FAA has the right to inspect and observe the performance of work. If the article is subject to the airworthiness regulations of another civil aviation authority the contract must specify that the FAA may inspect and observe the work on behalf of that civil aviation authority. A repair station would be prohibited from approving the article for return to service after the performance of the work unless these provisions were met.

#### **Paperwork Reduction Act**

Under the procedures established by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number. This proposed rule contains a "collection of information" as that term is defined by OMB at 5 CFR part 1320. As a result, the FAA proposes to review the currently approved collection of information (*OMB Control Number: 2120-0682*).

*Agency:* Federal Aviation Administration (FAA).

*Title:* Part 145—Repair Stations.

*Type of Request:* Revision of Currently Approved Collection of Information.

*OMB Control Number:* 2120-0682.

*Form Number:* This collection of information will not use any standard forms.

*Requested Expiration Date of Clearance:* At present Control Number 2120-0682 is scheduled to expire on February 28, 2009. The FAA does not anticipate asking for an extension of this collection.

#### *Summary of the Collection Information*

In the "Paperwork Reduction Act" section of the August 6, 2001 Repair Station Final Rule (66 FR 41112), the FAA discussed the consequences of its proposed collection of information. Comments were invited on this proposal. As a result of this proposed rule, the FAA would amend its description of information in the 2001 final rule as follows. The final rule estimated the burden hours for a repair station's quality control manual and capability list requirements. The paperwork burden in the proposed rule was anticipated in the hours estimated in the 2001 final rule. This proposed rule would require repair stations to develop an internal evaluation program and a reporting system to record and maintain completed evaluations and corrective action plans. The FAA estimates that a small repair station would require 300 man-hours initially to establish a quality system. A large repair station would require 3 man-years initially. We estimate that the burden for developing the quality evaluation and reporting program would be less than that required to develop the entire quality system. Most of the paperwork involved is already part of the overall quality system. Furthermore, there is not requirement that any of the quality system reports be submitted to the FAA. The reporting and retention of evaluation and corrective action plans may be recorded and maintained electronically or in a format chosen by the individual repair station.

The FAA estimates that the administrative burden to repair stations to prepare a capability list would require 4 hours of maintenance management time plus 4 hours of administrative support personnel time for small repair stations and corresponding times of 8 hours for large repair stations.

#### **International Compatibility**

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has reviewed the corresponding ICAO Standards and Recommended Practices and has identified no differences with these regulations.

#### **Economic Assessment**

Proposed changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs each Federal agency

to propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (19 U.S.C. §§ 2531–2533) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act also requires agencies to consider international standards and, where appropriate, use them as the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Public Law 104–4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of \$100 million or more annually (adjusted for inflation.)

In conducting these analyses, FAA has determined this rule (1) would create a safer flying environment and is a “significant regulatory action” as defined in section 3(f)(4) of Executive Order 12866 and is “significant” as defined in DOT’s Regulatory Policies and Procedures; (2) will not have a

significant economic impact on a substantial number of small entities; (3) will not affect international trade; and (4) does not impose an unfunded mandate on state, local, or tribal governments, or on the private sector. These analyses, available in the docket, are summarized below.

*Total Costs and Benefits of This Rulemaking*

The estimated quantifiable net cost of this proposed rule for the period 2004–2013 is \$144.8 million (\$108.8 million, discounted) over 10 years. The cost to a small repair station that currently does not have a quality system is estimated at \$34,500 (\$25,600 discounted) over 10 years. The cost to the approximately half of the small repair stations that already have quality systems would be minimal.

This proposal would require repair stations to conduct periodic internal evaluations that could discover problem areas and to take corrective actions before improper maintenance, preventive maintenance, or alterations are done. Such actions would result in both quantifiable and non-quantifiable benefits. If the rule prevents all the accidents or incidents that may be associated with repair station failure to take corrective actions, the potential benefits of the rule (based on the related

accident or incident history) could be as much as \$164.7 million (\$119.3 million, discounted) over 10 years. However, the FAA does not claim adoption of the proposed rule would result in the elimination of all repair station related accidents or incidents.

*Who Is Potentially Affected by This Rulemaking*

All certificated repair stations would have to develop and follow a quality system and capability list. The FAA would issue new certificates to all repair stations to implement the proposed new rating system.

*Our Cost Assumptions and Sources of Information*

- Discount rate—7%
- Period of analysis—2004–2013
- Monetary values expressed in 2003 dollars
- Value of:
  - fatality avoided—\$3 million
  - serious injury avoided—\$580,700
  - minor injury avoided—\$42,900

Source: U.S. Department of Transportation, Federal Aviation Administration, Office of Aviation Policy, Plans, and Management Analysis Bulletin dated February 2002 (APO–02–1)

Labor rates:

TABLE 1.—PERSONNEL COST ESTIMATES  
[2003 dollars]

Item	Small repair station	Average	Large repair station
Value of 1 hour of FAA administrative support personnel time (GS–5, Step 5). <sup>1</sup>		\$19.01	
Value of 1 hour of FAA administrative support personnel time (GS–7, Step 5) <sup>1</sup>		23.55	
Value of 1 hour of FAA inspector personnel time (GS–13, Step 5) <sup>1</sup>		49.67	
Value of 1 hour of FAA inspector personnel time (GS–14, Step 5) <sup>1</sup>		58.69	
Value of 1 hour of Repair Station General Manager time <sup>2</sup>	\$38.96	58.50	90.27
Value of 1 hour of Repair Station 1st Line Supervisor time <sup>2</sup>	25.56	33.25	42.22
Value of 1 hour of Repair Station Mechanic and Service Technicians time <sup>2</sup>	20.25	24.95	30.59
Value of 1 hour of Repair Station Office Manager time <sup>2</sup>	16.20	21.07	27.50
Value of 1 hour of Repair Station Accounting Clerk time <sup>2</sup>	15.12	18.93	23.69

<sup>1</sup> U.S. Office of Personnel Management, 2003 General Schedule Locality Rates of Pay for Washington-Baltimore hourly rate multiplied by 1.3245 for benefits. Benefit value from Table 4–5 U.S. DOT, FAA Office of Policy and Plans, *Economic Analysis of Investment and Regulatory Decision—A Guide* (FAA–APO–98–4: January 1996).

<sup>2</sup> U.S. Dept. of Labor 2001 *National Industry Specific Occupational Employment and Wage Estimates—SIC 372—Aircraft and Parts* median hourly rate multiplied by 1.2345 for benefits and by 1.0239 for inflation. “Small” and “Large” calculated by multiplying the 25th and 75th percentiles for total occupational title to average SIC 372 salary for that occupation. Benefit value from Table 4–5 FAA–APO–98–4.

Aircraft Values:

Aircraft type	Cost	Aircraft type	Cost
Population weighted replacement cost for Part 91, 133, and 137 aircraft	\$582,030	Population weighted replacement cost for Part 135 aircraft	741,475
Population weighted restoration cost for Part 91, 133, and 137 aircraft	148,295	Population weighted restoration cost for Part 135 aircraft	159,445
		Population weighted restoration cost for Scheduled Part 121 aircraft	2,453,000

Note: Cost is based on FAA, Office of Aviation Policy and Plans, *Economic Values for Evaluation of FAA Investment and Regulatory Programs* (FAA–APO–98–8: June 1998) pages E–4, E–5 adjusted to 2003 cost using the PPI change of 11.5%.

Other References:

ARAC for Air Carrier and General Aviation Maintenance: "A Report on requiring a Quality Assurance System in Part 145 of title 14, Code of Federal Regulations" May 2002

ARAC for Air Carrier and General Aviation Maintenance: *A Report on proposed rule changes to Sections 145.31 and 145.33 of title 14, Code of Federal Regulations*" May 2002

#### *Alternatives We Considered*

New rating systems and a quality assurance program had been proposed in NPRM No. 99-09. The 2001 Final Rule did not include either proposal since the FAA received a significant number of comments opposing the proposals. FAA tasked ARAC to address these two issues. ARAC, after reviewing various alternatives, sent its technical reports and recommendations to FAA. The FAA is making this proposal based on recommendations from ARAC, and comments received from the public.

#### **Benefits of This Rulemaking**

The additional management oversight and follow-up required by this proposed rule has potential benefits. These potential benefits include fostering an operating environment of constant awareness of potential sources of failure in repair processes and correction of deficient process controls. This awareness and corrective action could preclude in-flight failures and the possibility of accidents.

An analysis of National Transportation Safety Board (NTSB) data from July 1997 through June 2003 indicated there were 1,762 accidents coded by the NTSB in the "narrative" or "probable cause" sections containing the word "maintenance." The FAA determined that of these 1,762 accidents, there were 58 over the six-year period that can be interpreted to mean a repair station accomplished the maintenance that may have caused or contributed to the accident. These 58 accidents resulted in a total of 19 fatalities, 17 serious injuries, and 27 minor injuries. 43 aircraft sustained substantial damage and 15 aircraft were destroyed. The average was used to estimate the potential values. In total, the FAA calculates the potential value of preventing all accidents that can be interpreted to mean a repair station accomplished the maintenance could be as high as \$146.3 million, or \$102.8 million discounted, over 10 years.

Preventing Airworthiness Directives (ADs) that are issued to correct improper maintenance done on aircraft parts is another area where a quality system would be of benefit. Some ADs are issued to correct an improper repair

of a product if the improper repair was performed, or was likely to have been performed, on multiple units of the same product. The FAA reviewed four AD cases attributable to repair station related quality problems that may have been prevented by a quality system. The total estimated cost to U.S. operators of these ADs is \$18.4 million or \$16.5 million, discounted. More importantly, if a quality system had been in place, internal evaluations could have revealed the deficient process controls. The improper repair process could have been corrected immediately and prevented possible in-flight mechanical failures and the resulting consequences.

The potential discounted quantitative benefits of the rule could be as high as \$119.3 million, if the rule were 100 percent effective in eliminating accidents that can be interpreted to mean a repair station accomplished the maintenance (at \$102.8 million) and preventing AD cases attributable to repair station related quality problems (estimated to cost U.S. operators \$16.5 million). However, it is unreasonable to assume the rule would eliminate all accidents or incidents that may be associated with repair station activity. Also, the FAA cannot determine at this time what portion of those accidents or incidents would be eliminated as a result of this rulemaking. Therefore, the FAA cannot quantify the benefits of this rulemaking.

There would also be unquantified benefits. The proposed rating system and capability list would allow repair stations to incorporate future technological advancements in the aviation industry on its capability list as provided by § 145.215. Additionally, it would provide the FAA with the tools necessary for uniform interpretation and enforcement of the requirements. Experience in other industries has shown that the establishment of a quality system could lead to cost savings and reductions in errors and customer complaints.

#### *Costs of This Rulemaking*

From 2004 to 2013, the total cost of the proposed rule would be approximately \$145.0 million before cost-savings of \$0.2 million giving a net cost of \$144.8 million (\$108.8 million, discounted). The repair station industry would incur net costs of \$136.6 million (\$101.2 million, discounted) and the FAA would incur costs of \$8.2 million (\$7.6 million, discounted). The costs associated with the quality assurance program account for over 90 percent of the total costs of the proposed rule.

#### **Regulatory Flexibility Determination**

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the Regulatory Flexibility Act.

In many cases, the Small Business Administration suggests that "small" represents the impacted entities based on annual revenue. For this proposed rule, a small entity is defined as "Other Support Activities for Air Transportation" (North American Industrial Classification System 488190) with revenues of \$6 million or less. Revenue data compiled by Dun and Bradstreet indicates that some 2,354-repair stations have revenues of \$6 million or less and that the average revenue per small entity is \$1,272,500. The initial cost per small repair station to implement the quality system is estimated at \$8,700 and this cost would not be incurred by approximately half of the small repair stations that already have voluntarily implemented quality systems. However, these repair stations would incur some additional minimal costs to comply with the proposed requirement. In addition, a small repair station would incur administrative costs of \$490 to comply with the rating system and the capability list requirements. The \$490 consists of \$325 for rating system costs, and \$165 to prepare a capability list. The total initial cost for a small repair station without a quality system is \$9,200 (\$8,700 + \$490) or approximately seven-tenths of one percent of the average small repair station's annual revenue. The annual cost for a small repair station to maintain the quality system is estimated at \$2,900. The FAA does not find the costs associated with this proposal to be a significant burden.

The FAA certifies that this proposed rule would not have a significant economic impact on a substantial number of small entities. The FAA seeks public comments regarding this finding and requests that all comments be accompanied with detailed supporting data.

#### **Trade Impact Assessment**

The Trade Agreements Act of 1979 prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary

obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

The proposed rule is not expected to affect trade opportunities for U.S. firms doing business overseas or for foreign firms doing business in the United States. Furthermore, the proposed rule is consistent with the terms of several trade agreements to which the United States is a signatory, such as the Trade Agreements Act of 1979 (19 U.S.C. 2501 et seq.), incorporating the Agreement on Trade in Civil Aircraft (31 U.S.T. 619) and the Agreement on Technical Barriers to Trade (Standards) (19 U.S.C. 2531), as well as the General Agreement on Trade in Services (19 U.S.C. 3511). The proposed revision to part 145 is also consistent with 49 U.S.C. 40415, formerly 1102(a) of the Federal Aviation Act of 1958, as amended, which requires the FAA to exercise and perform its powers and duties consistently with any obligation assumed by the United States in any agreement that may be in force between the United States and any foreign country or countries.

#### Unfunded Mandates Assessment

The Unfunded Mandates Reform Act of 1995 (the Act) is intended, among other things, to curb the practice of imposing unfunded Federal mandates on State, local, and tribal governments. Title II of the Act requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of \$100 million or more (adjusted annually for inflation) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a "significant regulatory action." The FAA currently uses an inflation-adjusted valued of \$120.7 million in lieu of \$100 million.

This proposed rule does not contain such a mandate. The requirements of Title II of the Act, therefore, do not apply.

#### Executive Order 3132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. We determined that this action will not have a substantial direct effect on the States, or the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government, and therefore does not have federalism implications.

#### Environmental Analysis

FAA Order 1050.1E identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this proposed rulemaking action qualifies for the categorical exclusion identified in paragraph 312(d) and involves no extraordinary circumstances.

#### Energy Impact

The energy impact of the notice has been assessed in accordance with the Energy Policy and Conservation Act (EPCA) Public Law 94-163, as amended (42 U.S.C. 6362) and FAA Order 1053.1. We have determined that the proposed rule is not a major regulatory action under the provisions of the EPCA.

#### List of Subjects in 14 CFR Part 145

Air carriers, Air transportation, Aircraft, Aviation safety, Recordkeeping and reporting, Safety.

#### The Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend Part 145 of Chapter I of Title 14, Code of Federal Regulations as follows:

#### PART 145—REPAIR STATIONS

1. The authority citation for part 145 is revised to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701-44702, 44707, 44709, 44717.

2. Revise § 145.51(a) and (b) and add new paragraph (e) to read as follows:

##### § 145.51 Application for certificate.

(a) An application for a repair station certificate and rating must be made in a format acceptable to the FAA and include the following:

(1) A Letter of Compliance detailing how the applicant will comply with this chapter;

(2) A repair station manual acceptable to the FAA as required by § 145.207;

(3) A quality system manual acceptable to the FAA as required by § 145.211(d);

(4) A list by manufacturer, type, make, model, or category, as appropriate, of each article for which the application is made;

(5) An organizational chart of the repair station and the names and titles of managing and supervisory personnel;

(6) A description of the housing and facilities, including the physical address, in accordance with § 145.103;

(7) A list of the maintenance functions, for approval by the FAA, to be performed for the repair station under contract by another person in accordance with § 145.217; and

(8) A training program for approval by the FAA in accordance with § 145.163.

(b) The equipment, tools, test apparatus, personnel, data, housing, and facilities required for the certificate and rating, or for an additional rating, must be in place for inspection at the time of certification or rating approval by the FAA. However, the requirement to have the equipment, tools, and test apparatus in place at the time of initial certification or rating approval may be met if the applicant has a contract acceptable to the FAA with another person to make the equipment, tools, and test apparatus available to the repair station at any time it is necessary when the relevant work is being performed.

\* \* \* \* \*

(e) Unless otherwise authorized by the FAA, neither the holder of a repair station certificate that has been revoked, nor any person who had a substantial ownership interest or substantial control over the operations of a repair station that has had its certificate revoked and who materially contributed to the circumstances causing the revocation, may apply for a repair station certificate until one year after the date the certificate is surrendered to the FAA pursuant to the order of revocation.

3. Revise § 145.53 to read as follows:

##### § 145.53 Issuance of certificate.

(a) Except as provided in paragraph (c) of this section, a person who meets the requirements of this part is entitled to a repair station certificate with appropriate ratings prescribing such operations specifications and limitations as are necessary in the interest of safety.

(b) If the person is located in a country with which the United States has a bilateral aviation safety agreement, the FAA may find that the person meets the requirements of this part based on a certification from the civil aviation authority of that country or an authority acceptable to the FAA. This certification must be made in accordance with implementation procedures signed by the Administrator or the Administrator's designee.

(c) An application for a repair station certificate may be denied if the FAA finds that:

(1) The applicant does not meet the eligibility requirements for the certificate sought, or does not complete the certification process;

(2) The applicant previously held a repair station certificate that was revoked;

(3) The applicant intends to fill or fills a key management position, including the position of accountable manager or chief inspector, with an individual who exercised control over or who held the same or a similar position with a repair station whose certificate was revoked, or was in the process of being revoked, and that individual materially contributed to the circumstances causing the revocation or causing the revocation process;

(4) The applicant held a key management position, including the position of accountable manager or chief inspector, with a repair station whose certificate was revoked, or was in the process of being revoked, and the applicant materially contributed to the circumstances causing the revocation or causing the revocation process; or

(5) An individual who will have control over or substantial ownership interest in the applicant had the same or similar control or interest in a repair station whose certificate was revoked, or was in the process of being revoked, and that individual materially contributed to the circumstances causing revocation or causing the revocation process.

4. Revise § 145.59 to read as follows:

**§ 145.59 Ratings.**

The following ratings are issued under this subpart:

(a) *Aircraft rating.* (1) A certificated repair station with an Aircraft rating listed on its operations specifications may perform maintenance, preventive maintenance, and alterations on complete aircraft that are listed on the repair station's capability list required by § 145.215.

(2) A certificated repair station with an Aircraft rating may not perform maintenance, preventive maintenance, and alterations on those articles for which a Powerplant, Propeller, or Avionics rating is required, unless the repair station possesses the appropriate rating.

(3) A certificated repair station with an Aircraft rating is not required to obtain a separate Component rating to maintain articles associated with its rating and capabilities.

(b) *Powerplant rating.* (1) A certificated repair station with a Powerplant rating listed on its operations specifications may perform maintenance, preventive maintenance, and alterations on a powerplant listed on the repair station's capability list required by § 145.215 under the following class ratings:

(i) Class 1: Reciprocating engines.

(ii) Class 2: Turbine engines.

(iii) Class 3: Auxiliary Power Units (APU).

(2) A certificated repair station with a Powerplant rating may not perform maintenance, preventive maintenance, and alterations on those articles associated with another rating, unless the repair station possesses the appropriate rating.

(3) A certificated repair station with a Powerplant rating is not required to obtain a separate Component rating to maintain articles associated with its rating and capabilities.

(c) *Propeller rating.* (1) A certificated repair station with a Propeller rating listed on its operations specifications may perform maintenance, preventive maintenance, and alterations on propellers that are listed on the repair station's capability list required by § 145.215, including individual component parts that are installed on or in those propellers.

(2) A certificated repair station with a Propeller rating may not perform maintenance, preventive maintenance, and alterations on those articles associated with another rating, unless the repair station possesses the appropriate rating.

(3) A certificated repair station with a Propeller rating is not required to obtain a separate Component rating to maintain articles associated with its rating and capabilities.

(d) *Avionics rating.* (1) A certificated repair station with an Avionics rating listed on its operations specifications may perform maintenance, preventive maintenance, and alterations on aircraft electrical and electronic systems and components, instruments, radios, integrated modular systems, in-flight entertainment units, or other electrical and electronic articles that are listed on the repair station's capability list required by § 145.215.

(2) A certificated repair station with an Avionics rating may remove and reinstall access panels, brackets, or clamps in accordance with the applicable maintenance instructions on aircraft, powerplants, or propellers, as needed, to gain access to those articles authorized in § 145.59 (d)(1).

(3) A certificated repair station with an Avionics rating may remove, replace, install, and test the avionics equipment on an aircraft.

(4) A certificated repair station with an Avionics rating must have a limitation in accordance with § 145.61 to an Aircraft, Powerplant, or Propeller rating to perform a major or minor alteration.

(e) *Component rating.* (1) A certificated repair station with a

Component rating listed on its operations specifications may perform maintenance, preventive maintenance, and alterations on articles listed on the repair station's capability list required by § 145.215 that are not installed on an aircraft, powerplant, propeller, or avionics article.

(2) A certificated repair station with a Component rating must have a limitation in accordance with § 145.61 to an Aircraft, Powerplant, or Propeller rating to remove or install articles on those products.

5. Revise § 145.61 to read as follows:

**§ 145.61 Limitations to ratings.**

(a) The FAA may issue limitations to the ratings of a certificated repair station that maintains or alters only a particular type of aircraft, powerplant, propeller, avionics, component, or part thereof, that is listed on the repair station's capability list required by § 145.215. A limitation to a rating may be issued for a:

(1) Specific make and model aircraft, powerplant, or propeller.

(2) Constituent part of any part.

(3) Specific maintenance function or process.

(b) The repair station's operations specifications must identify the rating in § 145.59 to which the limitation applies and the limitation to that rating must describe the maintenance capabilities of the repair station in sufficient detail.

6. Add § 145.63 to read as follows:

**§ 145.63 Specialized Service ratings.**

(a) The FAA may issue a Specialized Service rating to a certificated repair station that:

(1) Performs a specialized maintenance function that requires equipment and skills not ordinarily performed under another repair station rating;

(2) Performs a maintenance function on articles not covered by its rating; or

(3) Performs a maintenance function that is not described in the manufacturer's data.

(b) A specialized maintenance function must be performed in accordance with an FAA-approved process specification.

(c) The repair station's operations specifications must contain the specification used to perform the specialized service. The specification may be:

(1) A current industry or military specification approved by the FAA.

(2) A specification developed by the applicant and approved by the FAA.

(d) A certificated repair station may, under its Specialized Service rating, perform only the specialized services

that are listed on the repair station's capability list required by § 145.215.

7. Revise § 145.101 to read as follows:

**§ 145.101 General.**

A certificated repair station must provide housing, facilities, equipment, tools, materials, and data that meet the applicable requirements for the issuance of the certificate and any rating the repair station holds.

8. Revise § 145.103(a)(1), (b), and (c) and add new paragraph (d) to read as follows:

**§ 145.103 Housing and facilities requirements.**

(a) \* \* \*

(1) Permanent housing for the facilities, equipment, materials, and personnel consistent with its ratings.

\* \* \* \* \*

(b) A certificated repair station with an Aircraft rating must provide suitable permanent housing to enclose the largest type and model of aircraft listed on its capability list.

(c) A certificated repair station may perform maintenance, preventive maintenance, and alterations on articles outside of its permanent housing if it provides suitable facilities that are acceptable to the FAA and meet the requirements of § 145.103(a) and part 43 of this chapter.

(d) A certificated repair station may apply to use additional fixed locations within close proximity to the certificated repair station and to each other to perform the maintenance, preventative maintenance, alterations, for which it is rated.

(1) The repair station's request must be approved by the FAA before exercising the privileges of its certificate and ratings at each additional fixed location.

(2) Any fixed location outside of the geographic boundary of the FAA office with oversight responsibility for the repair station must either be certificated as a satellite repair station and meet the requirements of § 145.107, or must obtain its own repair station certificate under the provisions of § 145.51 and § 145.53.

9. Revise § 145.107(a) and (b) to read as follows:

**§ 145.107 Satellite repair stations.**

(a) A certificated repair station under the managerial control of another certificated repair station may operate as a satellite repair station with its own certificate issued by the FAA. A satellite repair station:

(1) Must meet the requirements for each rating it holds;

(2) Must submit a repair station manual acceptable to the FAA;

(3) Must submit a quality system manual acceptable to the FAA; and

(4) May submit the same repair station and quality system manuals as the repair station that exercises managerial control over the satellite repair station. The manuals must identify any specific processes or procedures unique to the satellite repair station in appendices or additional sections.

(b) Unless the FAA indicates otherwise, personnel and equipment from the certificated repair station with managerial control and each satellite repair station may be shared. However, inspection personnel must be designated for each satellite repair station and be available at the satellite repair station any time a determination of airworthiness or an approval for return to service is made. In other circumstances, inspection personnel may be away from the premises but must be readily available.

\* \* \* \* \*

10. Revise § 145.109, section heading, paragraph (a), and paragraph (d) introductory text to read as follows:

**§ 145.109 Equipment, tools, test apparatus, materials, and data requirements.**

(a) Except as otherwise prescribed by the FAA, when a repair station is performing work under its repair station certificate and operations specifications, the repair station must have on the premises and under its control the equipment, tools, test apparatus, and materials necessary to perform the maintenance, preventive maintenance, or alterations in accordance with part 43.

\* \* \* \* \*

(d) A certificated repair station must maintain, in a format acceptable to the FAA, the documents and data required for the performance of maintenance, preventive maintenance, and alterations under its repair station certificate and operations specifications in accordance with part 43. The following documents and data must be current, available, and accessible when the relevant work is accomplished:

\* \* \* \* \*

11. Revise § 145.151 to read as follows:

**§ 145.151 Personnel requirements.**

Each certificated repair station must:

(a) Designate a repair station employee as the accountable manager;

(b) Designate a repair station employee as the chief inspector;

(c) Provide qualified personnel to plan, supervise, perform, and approve for return to service the maintenance, preventive maintenance, and alterations

performed under the repair station certificate and operations specifications;

(d) Ensure it has a sufficient number of employees with the training, knowledge, and experience in the performance of maintenance, preventive maintenance, and alterations authorized by the repair station certificate and operations specifications to ensure all maintenance is performed in accordance with part 43; and

(e) Determine the abilities of its noncertified employees performing maintenance, preventive maintenance, and alterations based on training, knowledge, experience, or practical tests.

12. Revise § 145.155 (a)(2) and add new paragraphs (c) and (d) to read as follows:

**§ 145.155 Inspection personnel requirements.**

(a) \* \* \*

(1) \* \* \*

(2) Proficient in using the various types of inspection equipment and techniques appropriate for the article being inspected.

\* \* \* \* \*

(c) The chief inspector of a repair station located within the United States must be certificated under part 65.

(d) Personnel designated as chief inspectors for certificated repair stations within and outside the United States must have at least three years experience using the various types of inspection equipment and techniques appropriate for the article being inspected.

13. Revise § 145.161(a)(2) and (a)(4)(i), (ii), (iii), and (iv) and remove paragraph (a)(4)(v) to read as follows:

**§ 145.161 Records of management, supervisory, and inspection personnel.**

(a) \* \* \*

(2) A roster with the names of all inspection personnel, including the chief inspector;

\* \* \* \* \*

(4) \* \* \*

(i) Present title.

(ii) Past relevant employment with names of employers, periods of employment, positions, and types of maintenance performed.

(iii) Scope of present employment.

(iv) The type of mechanic or repairman certificate held and the ratings on that certificate, if applicable.

\* \* \* \* \*

14. Amend § 145.203 by redesignating the introductory text as paragraph (a), redesignating paragraphs (a) and (b) as paragraphs (a)(1) and (a)(2) respectively, and adding new paragraph (b) to read as follows:

**§ 145.203 Work performed at another location.**

\* \* \* \* \*

(b) A certificated repair station may not perform maintenance, preventive maintenance, or alterations outside its domicile country unless:

(1) The repair station obtains authorization from the country where the work is to be performed;

(2) The repair station submits a request to the FAA accompanied by:

(i) A description of the procedures that will be used to ensure that repair station personnel adhere to the procedures identified in its manual;

(ii) Evidence of authorization to perform the work from the country where that work is to be performed.

(3) The performance of that work has been approved in writing by the FAA prior to its commencement.

15. Revise § 145.205(a), (b), (c), and (d) introductory text to read as follows:

**§ 145.205 Maintenance, preventive maintenance, and alterations performed for certificate holders operating under parts 121, 125, or 135, or for foreign air carriers or foreign persons operating U.S.-registered aircraft in common carriage under part 129.**

(a) A certificated repair station that performs maintenance, preventive maintenance, or alterations for an air carrier or commercial operator that has a continuous airworthiness maintenance program under part 121 or part 135 must comply with the applicable parts of this chapter and follow the air carrier or commercial operator's program and applicable sections of its maintenance manual.

(b) A certificated repair station that performs inspections for a certificate holder conducting operations under part 125 must comply with the applicable parts of this chapter and follow the operator's FAA-approved inspection program.

(c) A certificated repair station that performs maintenance, preventive maintenance, or alterations for a foreign air carrier or foreign person operating a U.S.-registered aircraft under part 129 must comply with the applicable parts of this chapter and follow the operator's FAA-approved maintenance program.

(d) Notwithstanding the housing requirement of § 145.103(b), the FAA may grant approval for an appropriately-rated repair station to perform line maintenance for an air carrier or commercial operator conducting operations under part 121 or part 135, or a foreign air carrier or foreign person operating a U.S.-registered aircraft in common carriage under part 129, on any aircraft operated by that air carrier,

commercial operator, or person, provided:

\* \* \* \* \*

16. Revise § 145.211 to read as follows:

**§ 145.211 Quality system.**

(a) A certificated repair station must establish and maintain a quality system acceptable to the FAA that ensures—

(1) The maintenance, preventive maintenance, and alterations performed by the repair station and its contractors result in articles that are airworthy with respect to the work performed—

(2) The repair station's procedures are complied with and are appropriate for the ratings it holds and the complexity and scope of the maintenance accomplished; and

(3) The repair station remains in compliance with the applicable regulations of this chapter.

(b) The quality system must include the following elements:

(1) An inspection system and procedures for

(i) Inspecting incoming raw materials and articles to ensure acceptable quality;

(ii) Performing preliminary inspection of all articles that are maintained;

(iii) Inspecting all articles that have been involved in an accident or incident for hidden damage before maintenance, preventive maintenance, or alteration is performed; and

(iv) Performing final inspection and approval for return to service of maintained articles.

(2) An internal evaluation program to ensure the repair station's manuals and procedures comply with the requirements of this part.

(3) A reporting system to record and maintain completed evaluations and corrective action plans.

(4) A schedule for conducting annual quality system evaluations.

(5) A corrective action procedure to ensure any deficiencies are corrected.

(6) Procedures for conducting follow-up evaluations to ensure corrective action(s) bring any deficiencies into compliance.

(7) Procedures for qualifying, training, and authorizing persons to perform quality system internal evaluations.

(8) Procedures for revising the repair station's internal evaluation system as its ratings or capabilities change and for notifying the FAA certificate holding district office of revisions to its quality system.

(9) Procedures for establishing and maintaining proficiency of inspection personnel.

(10) Procedures for establishing and maintaining current data for maintaining articles.

(11) Procedures for establishing and maintaining a suspected unapproved parts program.

(12) Procedures for qualifying and surveilling noncertificated persons who perform maintenance, preventive maintenance, or alterations for the repair station.

(13) Procedures for calibrating measuring and test equipment used in maintaining articles, including the intervals at which the equipment will be calibrated.

(c) A certificated repair station must make its quality system evaluations and its corrective action plans available for inspection by the FAA.

(d) A certificated repair station must prepare and keep current a quality system manual in a format acceptable to the FAA that includes the following:

(1) A description of the elements defined in § 145.211(b).

(2) References, where applicable, to the manufacturer's or other applicable inspection standards for a particular article, including reference to any data specified in those standards.

(3) A sample of the inspection and maintenance forms and instructions for completing such forms or a reference to a separate forms manual.

(4) Procedures for revising the quality system manual required under this section.

(5) Procedures for notifying its certificate holding district office of revisions to its quality system manual.

(e) Repair station personnel must follow the quality system manual when performing maintenance, preventive maintenance, and alterations under the repair station certificate and operations specifications.

17. Revise § 145.215 to read as follows:

**§ 145.215 Capability list.**

(a) Each certificated repair station must establish and maintain a capability list acceptable to the FAA that includes all the articles for which it is rated to perform maintenance, preventive maintenance, and alterations.

(b) The capability list for each certificated repair station must identify each article by manufacturer and the type, make, model, category, or other nomenclature designated by the article's manufacturer and be available in a format acceptable to the FAA.

(c) The capability list for a certificated repair station with an Avionics or Component rating must also be organized by category of article.

(d) An article may be listed on the capability list only if the article is within the scope of the ratings of the repair station's certificate, and only after

the repair station has performed a self-evaluation in accordance with the procedures described in its repair station manual.

(1) The repair station must perform this self-evaluation to determine that the repair station has the housing, facilities, equipment, tools, test apparatus, material, data, processes, and trained personnel in place to perform the work on the article in accordance with part 145.

(i) A repair station with an aircraft rating may not perform a self-evaluation to add a different type of aircraft to its Aircraft rating.

(ii) A repair station with a Powerplant rating may not perform a self-evaluation to add a different class powerplant to its Powerplant rating.

(2) The repair station must retain the documentation of the self-evaluation and ensure that completed self-evaluations are available to the FAA.

(e) Within 30 business days of listing an additional article on its capability list, the repair station must provide its FAA certificate holding district office with a copy of the revised capability list in accordance with the procedures described in its repair station manual.

18. Revise § 145.217(a) and (b) and add new paragraph (d) to read as follows:

**§ 145.217 Contract maintenance.**

(a) A certificated repair station may contract a maintenance function

pertaining to an article to an outside source provided the repair station maintains and makes available to its certificate holding district office, in a format acceptable to the FAA:

(1) The maintenance functions contracted to each outside facility; and

(2) The name of each outside facility to which the repair station contracts maintenance functions and the type of certificate and ratings, if any, held by each facility.

(b) A certificated repair station may contract a maintenance function pertaining to an article to a person not certificated under part 145 provided:

(1) The FAA approves the maintenance function;

(2) The noncertificated person follows a quality system equivalent to the system followed by the certificated repair station;

(3) The certificated repair station remains directly in charge of the maintenance performed by the noncertificated person; and

(4) The certificated repair station verifies, by test and/or inspection, that the maintenance, preventive maintenance, and alterations have been performed satisfactorily by the noncertificated person and that the article is airworthy before approving it for return to service.

\* \* \* \* \*

(d) A certificated repair station may not contract any maintenance functions

for which it is not rated to a noncertificated person.

19. Amend § 145.223 by revising paragraph (c) and adding new paragraph (d) to read as follows:

**§ 145.223 FAA inspections.**

\* \* \* \* \*

(c) A certificated repair station may not contract for the performance of a maintenance function on an article with a noncertificated person when the maintenance function is to be performed under the terms of an aviation safety agreement and the article is subject to the airworthiness regulation of another civil aviation authority unless the contract with the noncertificated person specifies that the FAA may inspect and observe the performance of the work on behalf of that civil aviation authority.

(d) A certificated repair station may not approve any article for return to service on which a maintenance function was performed by a noncertificated person if the noncertificated person does not permit the FAA to inspect and observe the performance of the work as described in paragraphs (b) and (c) of this section.

Issued in Washington, DC on November 27, 2006.

**James Ballough,**  
*Director, Flight Standards Service.*

[FR Doc. 06-9479 Filed 11-30-06; 8:45 am]

**BILLING CODE 4910-13-P**