CONDUCT COMPLIANCE INSPECTION
JOB FUNCTION 5

1. OBJECTIVE.

This chapter provides guidance for conducting compliance inspection. The aviation safety inspector should use this procedure to determine the compliance of regulatory requirements. Compliance inspection is a method used to determine if an installation is in compliance with regulatory requirements. Physical inspections of installations are conducted to assure compliance.

2. GENERAL

A. Any aspect of product design, for which compliance with the certification requirements cannot be ascertained through the review of drawings or reports but can be determined by on-site inspections, should receive a compliance inspection.

B. A compliance inspection is to assure that an installation complies with the regulatory requirements. This inspection should not be confused with a conformity inspection done by manufacturing inspectors. A conformity inspection is done to determine conformity to engineering data, while a compliance inspection is done to determine compliance to the regulatory requirements. A compliance inspection provides an opportunity to review an installation and its relationship to surroundings and other installations on a product.

C. The product should conform to the type design prior to conducting the compliance inspection. Findings are to be documented and included in the project data file.

D. Compliance inspections for aircraft interiors are generally more complex than other compliance inspections. This is primarily due to the many varied regulatory requirements that must be complied with, e.g., emergency lighting, emergency exit arrangement, ordinance signs, aisle widths, cockpit controls, waste containers, placards, and occupant protection. In accomplishing an interior compliance inspection, the certification team will make many determinations and, therefore, each team member should be familiar with current regulations and policy. Appendix 1 is a sample interior compliance inspection checklist.

E. Control system compliance inspections are accomplished to determine ease of control operation, strength of components, and detection of interference or deflection of control system linkages.

F. Flammable fluid fire protection compliance inspection. The regulatory requirements require separation and isolation of flammable fluid carrying lines

from ignition sources. A physical inspection of installations is required to assure compliance.

G. Hydraulic/electrical system routing requires inspection to assure that proper support and separation is maintained.

H. This inspection is performed upon completion of installation and its conformity is verified.

3.PREREQUISITES AND COORDINATION REQUIREMENTS

A. Prerequisites

(1) Knowledge of the CAA regulatory requirements.

(2) Successful completion of Airworthiness Inspector's Indoctrination Course, or previous equivalent training.

B. Coordination.

(1) Determination of operational and maintainability acceptability to the regulatory requirements is done by operations and airworthiness inspectors and may be conducted concurrently with compliance inspections.

4. REFERENCES

A. FAA Order 8110.4C, Ch. 2, Section 2-6, Paragraph f.

5. PROCEDURES

A. Determine scope of the area to be inspected for compliance.

(1) Determine which regulations apply.

(2) Review applicable regulatory requirements and technical data to identify items for inspection.

(3) Coordinate inspection requirements with the applicant and manufacturing inspectors.

(4) Notify the applicant of the area to be inspected.

(5) Request conformity inspection by manufacturing inspectors.

B. Conduct required compliance inspection.

(1) Verify aircraft or the product is in conformity.

(2) Inspect aircraft or the product with the engineering representative(s) of the applicant and determine compliance with the regulatory requirements.
(3) Document results of inspection.

C. Notification of Noncompliance.

Notify the applicant in writing when noncompliance items are found during compliance inspection. The notification will include reference to the specific regulatory requirements. The applicant must satisfactorily resolve all noncompliance prior to the CAA issuing the TC, amended TC, or STC.

D. Re-inspect the changes to verify that the non-compliance items have been adequately resolved. Verify that type design drawings have been revised to reflect the changes made that resolved the non-compliance.

Appendix 1 A sample interior compliance inspection checklist

Interior Compliance Checklist

LISTING OF APPLICABLE REGULATIONS

§ 25.562 Emergency Landing Dynamic Conditions

* Have permanent deformations been taken into account in the installation, with respect to aisles, crossaisles, passageways and exits?
* Is head strike target consistent with that tested?
* Is seat pitch within specified limits (if any)?

§ 25.785 Seats, berths etc.

* Do all seats have a TSO?
* Are there any potentially lethal objects within striking radius of the head? Bulkheads, slide containers, seat armrests etc.
* Do armrests fold up beyond the seat back?
* Do footrests incorporate any potentially injurious features (to persons attempting to deploy or stow them)? If they deploy into required crossaisles or passageways, is there a mechanical lockout in the stowed position?
* Do all seats have approved seatbelts? Is there a tendency for the seat belt shackle to become tangled or hung up on seat structure?
* Do all F/A seats have shoulder harnesses as well as lap belts?
* Is flight attendant direct view no worse than on previous arrangements? For those airplanes with this requirement as part of the certification basis, do they meet the current criteria?
* Is there a handhold for passengers to steady themselves?
* Are all projecting objects that could be contacted in flight padded?
* Are all flight attendant seats located near a required floor level exit?

§ 25.787 Stowage compartments

* Does each compartment have a weight limit placard?
* Are all compartments completely enclosed?
* Are double latches present where necessary?
* Are there provisions to account for wear and tear in service?
* Are means of latching positive with a positive indication when latched or unlatched?

§ 25.789 Retention of items of mass

* Is compartment sub-division (critical load distribution) accounted for in weight limits i.e., single carts in a two-cart stall?
* Are meal containers stowed in pairs, and is this accounted for with latches or placarding?
* Are there restraints in each direction (including aft and up)?

§25.791 Passenger information signs

* Is a passenger information sign visible from each flight attendant and passenger seat?
* If there are seats that translate or swivel, is a sign visible from each seat position?

§ 25.803 Emergency evacuation

* Are there any tripping hazards present in the aisle, crossaisles or passageways?
* Are there any other impediments (projecting objects) to rapid evacuation (head, arms legs)?
* Are there any data sheet limitations regarding passenger capacity that are relevant to the interior arrangement?
* {See also video monitors}

§ 25.807 Passenger emergency exits

* Do all clear exit openings equal or exceed the minimum required dimensions, including any protrusions from linings, hinges etc.?
* Are step-ups to and step-downs from exits within the requirements?
* Is there a flight attendant seat positioned adjacent to each Type A exit?

§ 25.809 Emergency exit arrangement

* Are exits openable from inside and outside?
* Are all exits openable within 10 seconds?
* Is the means of opening simple and obvious, i.e. could an untrained passenger do it?
* Is the means of opening protected from inadvertent operation?

§ 25.811 Emergency exit marking

* Are all of the required signs (locator, bulkhead, marking) present and visible to persons in the main aisle?
* Is the next exit sign visible from each point in the aisle?
* Are all exit signs positioned such that they lead persons to exits and not into galleys or other "dead ends"?
* Do curtains or other features, e.g. video monitors, interfere with exit sign visibility?
* Are exit operating instructions clear?
* Are exits identifiable from a distance equal to the airplane width?

§ 25.812 Emergency lighting

* Are floor proximity escape path markings continuous to exits and to the ends of aisles?
* Do baggage bars or carry-on baggage block floor prox. lights?
* Are overwing exits given additional aisle cues to draw attention to their location?
* Has the interior arrangement affected the original basis of the emergency lighting approval i.e. location of interior features, ceiling changes that might create new shaded areas?

§ 25.813 Emergency exit access

* Are all passageways unobstructed from the aisle to the exit opening, including galley features, retracted flight attendant seats and consideration of assist space?
* Are assist spaces that are 12"x20" on the floor and usable provided at all floor level exits that have slides?
* Is an assist handle provided at the assist space? (Is an assist handle required?)
* Is there an unobstructed projected opening of overwing exits for the width of a seat, including the seatback in any position? (tools are required to defeat lockouts)
* Are overwing hatches openable without interference, from the inside and outside?

§ 25.815 Width of aisle

* Are any aisle widths compromised by recline or breakover of seatbacks? At divided zones?
* Do rubstrips reduce the required aisle?
* Are curtain tiebacks readily movable, where they project into the required aisle?
* Do movable armrests that protrude into the required aisle return to the normal position when released? Are there appropriate placards for the armrests (where there are only one or two?)

§ 25.853 Compartment interiors

* Are waste compartments completely enclosed?
* Are there any areas where waste material could accumulate? Behind stowage units, sidewalls, seat armrest cavities?
* Are ashtrays installed outside all lavatories?
* Are all electrical wires protected from abrasion or crushing?
* Are all seats fireblocked?
* Has the applicant provided documentation that all materials in the cabin have been suitably tested to the applicable flammability test?

§ 25.1411 General (Safety Equipment)

* Is emergency equipment readily accessible (not requiring special skills to remove)? Consider reclined seats, stowage of other equipment, stowage of carry on baggage.
* Are emergency equipment stowage locations conspicuously and conveniently marked? Are placards as close to eye height as practicable? Are additional arrows needed to locate the specific stowage location?

* Do curtains block access to, or markings of, emergency equipment?
* Is emergency equipment protected from damage in its stowage location?
* Are there sufficient type and quantity of required items, i.e., fire extinguishers, oxygen bottles etc.?
* Are lifevests easily removable by a seated, untrained person, at all locations? Is there a placard for all seats, including the forward rows, indicating the location of the vests?
* Are there lifeline stowage provisions for all models required to have a lifeline?

§ 25.1447 Equipment Standards for oxygen dispensing units

* Are all oxygen masks reachable by 5th percentile female to 95th percentile male?
* If the activation of oxygen flow is initiated by pulling on a lanyard, does mask drop height allow donning without activation of oxygen flow? Check in lavatories.
* Are there 10% excess mask drops distributed throughout the airplane?
* Is mask presentation obvious to all occupants?
* Will mask presentation be confused by occupants of the seat row behind?
* Are all positions of translating/swiveling seats accounted for?
* Do open stowage compartment doors interfere with mask drops?
* Are masks reachable by reclined passengers in sleeper seats? Streamers may be necessary to improve reachability of the masks from that position.

SPECIAL AREAS OF ATTENTION

Galleys:

* Are there any compartment doors that could interfere with exit opening? Are they spring loaded closed?
* Are there any folding cart ramps that could be left down for takeoff and landing? Do they pose a tripping hazard?
* Are all waste compartment doors self-closing or marked to be closed when not in use?
* Are fixed items (ovens, coffee makers) installed for inspection?
* Is all wiring protected from abrasion, especially from rotable items?
* Are the load limit and "close for taxi, takeoff, and landing" placards conspicuous, even when compartment doors are open?

Lavatories:

* Does the lav door open into the aisle? Is it spring-loaded closed if evacuation flow tends to force it or keep it open?
* Are oxygen drops compatible with both standing and seated occupants?
* Are there any potential stowage areas that could lead to a fire hazard? Do these have "NO STOWAGE" placards?
* Is there an ordinance sign?
* Is there a means to unlock the lav door from the outside, without the use of tools?
* Are waste compartments designed with wear and tear in mind? (latch engagement, degree of compartment sealing)?

Video Monitors:

* Are aisle mounted monitors at least 73" off the floor, or retractable and so placarded?
* Have all sharp corners been eliminated from the monitor shroud?
* Do the monitors obscure any required exit sign?
* Is there a manual means to retract monitors that are normally powered?
* Do in-arm monitors easily break away if contacted by a passenger during turbulence? Are possible head contact surfaces padded?
* Are monitors located under sidewall stowage bins retractable?
* Can front row monitors be stowed, or become unstowed, such that they interfere with exit passageways, or other egress routes?

* Do in-arm video monitors break away easily without breaking off or, if they do break, are there any sharp or hazardous protrusions? Is the monitor capable of being re-stowed for TT&L?
* Is required placarding for stowage visible to the seated occupant?
* Is the in-arm IVS cavity "completely open or completely closed" to address the collection of flammable materials?