

CAR 4b or FAR 25, to be delivered 18 months after agreement has been reached on these regulation changes. This agreement may either be in the form of additional regulatory changes or receipt by the AIA of formal notice of agreement of the forthcoming regulation change from the FAA. It is recognized that certain of the development areas may not prove to be fruitful, in which case no recommendation for modified regulations would be forthcoming.

There is no intention on the part of industry to reduce the effort or scope of the development work which would normally take place in the industry to improve the crashworthiness or other important transport aircraft safety categories during or subsequent to the proposed 12-month development program.

FIRE-RESISTANT-MATERIALS DEVELOPMENT PROGRAM

GOALS

Phase I.—To provide in 12 months, a regulation that would result in the use of the least flammable materials which are functionally satisfactory and which can be implemented in new airplanes within 18 months of the definition of the requirement. The regulation would define flammability test methods and requirements and a statement of the material properties, compartments or areas within the scope of the regulation considered pertinent to fire safety. This regulation is to be a definite upgrading.

Phase II.—To provide a statement of material research programs containing objectives and goals which, if accomplished, would result in a truly significant improvement in compartment fire safety through materials and new test methods capable of measuring the improvements.

PROGRAM

AIA members will establish a contemporary baseline of the best existing state-of-the-art materials being used by correlating the affected material specifications in use by the industry members and analyzing the correlation. This will assure knowledge of the best available materials in each of the application categories being used.

All materials significantly better than the contemporary baseline materials will be obtained through a search of the materials suppliers and supplier-industry development and will be tested to the methods for horizontal and vertical burn proposed in Revised Item 16 submitted by AIA on 23 February 1967. To assure timely production incorporation, only those new materials which will be available in production quantities within 15 months from start of this program will be considered. Only materials which meet improved criteria resulting from the overall program will be installed in production aircraft for delivery 30 months from start of this program.

The AIA will recommend revisions to FAA regulations, Paragraphs 25.853 and 25.855, covering the upgraded standards of these materials, at the conclusion of the 12-month development program.

The scope of the above includes materials in crew, passenger and cargo compartments used in sufficient quantities or in areas which directly affect fire safety.

As a separate phase of the program, existing burn criteria will be examined to determine if more meaningful tests can be devised for use as a future standard. If these revised criteria can be established, industry will include them as a modification to the regulations for incorporation in 30 months. Considerations will include determination whether both small and large ignition sources are necessary factors of the burning criteria or whether a numerical value can replace the existing burn rate test (e.g. numerical application of flash point, heat content, self-extinguishing property, etc.). Studies based on tests, and analysis of aircraft fires will be made to determine if new testing techniques and burn criteria would be desirable.

It is recognized that since these burn criteria and materials development efforts are limited in time, it is recommended that further FAA sponsored development programs be initiated in the specific areas of (1) improved materials, and (2) test methods and criteria. It is recommended that these programs be conducted by qualified materials producers and research organizations to industry de-