

Commenter:	DISPOSITION OF PUBLIC COMMENTS ON DRAFT POLICY STATEMENT ANM- 03-112-06, INTERIM POLICY ON Policy Statement on Below Deck Cargo Compartment Smoke Penetration into Occupied Areas Comment:	Disposition:
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<p><u>Boeing:</u></p>	<p>Boeing concurs with the material and intent but seeks to broaden to further applications.</p> <p><u>Requested changes:</u> (1) Include equipment bay and non-continuously occupied compartment smoke penetration to the background material.</p> <p>(2) Change item (1)(b) in the proposed policy to read as follows: “Smoke penetrating from below the passenger cabin floor into the seated areas of the passenger cabin must not rise above the armrest height. Wisps of cargo smoke penetrating into the flight deck must not penetrate more than 18 inches from the flight deck boundary. Smoke penetrating from non-continuously occupied compartments (e.g., lavatories, crew rests, video control centers, main deck cargo compartments, and galleys) must not penetrate more than 18 inches from the boundary of the continuously occupied compartment.”</p>	<p><u>FAA response:</u> (1) & (2) Boeing would like us to extend the policy beyond the original intent. While FAA agrees that it would be desirable to make this “all encompassing”, however, making this magnitude of a change is beyond the scope of the original intent and would require a completely new draft policy. Therefore, FAA declines making this change.</p>
<p><u>Cessna:</u></p>	<p>“Cessna specialists have reviewed the Proposed Policy Statement. Cessna concurs with the proposed material.”</p>	<p>No action necessary.</p>

<p><u>ATA:</u></p>	<p>“Strongly recommend that FAA state in the document that the policy apply to new certifications, and that it is not intended to require re-certification of existing systems.</p>	<p><u>FAA response:</u> Agree with the need to state that it is applicable to new or amended type certificates but not to “re-certify” airplanes that are in the fleet. However, FAA believes that in stating, “<i>Applicants should expect that the certifying officials will consider this information when making findings of compliance relevant <u>to new certificate actions.</u></i>”, we have properly noted this in the memo.</p>
<p><u>Alaska Airlines: (As part of ATA package.)</u></p>	<p>“Alaska Airlines has reviewed the reference ... and generally agree with the proposed policy statement. ...“</p>	<p>No action necessary.</p>
<p><u>American Airlines: (As part of ATA package.)</u></p>	<p>“American Airlines is in concert with the proposed clarification policy ... “However, clarification is needed in (2) of the conclusion. They propose “(2) The means of compliance demonstration should be accomplished during a flight test simulating emergency procedures likely to occur in the event of a fire during a flight (e.g., including the use of an emergency descent, approach and landing.). A separate flight test is not required. Smoke penetration testing can be part of a flight test plan for smoke detection, thus reducing the required number of test flights.”</p>	<p><u>FAA response:</u> FAA can accept this in principle – i.e., that if an applicant could propose a single test to demonstrate compliance than we might find it acceptable. However, in practice different smoke concentrations are required in the compliance demonstrations for smoke detection versus smoke penetration. For example, during smoke detection testing (i.e., to demonstrate that a cargo compartment fire can be detect within the 60 second time frame) the initial condition is “no smoke” in the compartment. An acceptable smoke source begins to produce smoke (at time = 0) and the smoke detection system must alarm within 60 seconds. This is in contrast to a smoke penetration test where a certain amount (i.e., concentration) of smoke must be present within the compartment at the start of the test (i.e., at time = 0). Of course, FAA would consider an applicant’s proposal to perform a single test to demonstrate compliance but actual</p>

		<p>testing would represent a challenge.</p> <p>Within the memo, FAA has stated that, “ <i>The general policy stated in this document does not constitute a new regulation or create what the courts refer to as a "binding norm". The office that implements policy should follow this policy when applicable to the specific project. Whenever an applicant's proposed method of compliance is outside this established policy, it must be coordinated with the policy issuing office, e.g., through the issue paper process or equivalent.</i>”</p> <p>Also, FAA notes that, “<i>Applicants should expect that the certificating officials will consider this information when making findings of compliance relevant to new certificate actions. Also, as with all advisory material, this policy statement identifies one means, but not the only means, of compliance.</i>”</p> <p>In conclusion FAA believes that this is adequately covered in the memo.</p>
<p><u>United Airlines:</u> <u>(As part of ATA package.)</u></p>	<p>“... We concur with the contents of the proposed rule and have no additional comments.”</p>	<p>No action necessary.</p>
<p><u>Roger Jones,</u> <u>Boeing DER:</u></p>	<p>“Below are my comments on the proposed guidance for class C smoke penetration: 1. Transient condition needs to have a time period limit. i.e. approximately 10 seconds (Some might</p>	<p><u>FAA response:</u> Regarding comment # 1. (a) FAA agrees that it should be understood that transient conditions are limited in scope. We hesitate to provide a specific time as there may be some processes that take up to several minutes to establish equilibrium and the function of the airflow management system is usually airplane specific. However, we</p>

	<p>take a position that the entire descent is a transient condition.) (In the event that fly-through occurs, negative cabin differential will probably last until the airplane levels off at the bottom of descent. This could be in excess of one minute. I would not consider this length of time a transient condition.)</p> <p>2. In Conclusions in line 1 a, I suggest the sentence that states No buildup of a haze is permitted be changed to No buildup of a haze in the immediate area of the smoke penetration is permitted.</p>	<p>will reiterate that transients are clearly not an entire flight phase (i.e., descent). When FAA used the term “transient” it was done with the intent that because of modulation of some component of the ECS system (e.g., a valve, a fan, etc.) this could lead to a short term change in the flow field of the interior pressurized vessel resulting in the entrance of some smoke into the cabin.</p> <p>(b) A rule-of-thumb that should be kept in mind is that smoke penetration can be acceptable if it enters the occupied area up to armrest height provided that (a) it remains dynamic - no build-up of smoke, no build-up of haze, etc. It must quickly dissipate. And, (b) there is some reason that the smoke penetrated. For example, that the airflow management system commanded a recirculation fan off/on, or that an outflow valve was commanded open/close, etc. A key point is that there has to be an explanation for the event.</p> <p>Additional text added to memo for clarification.</p> <p>Regarding comment # 2. FAA disagrees. FAA believes that someone could interpret “No buildup of a haze in the immediate area of the smoke penetration is permitted.” To mean that a buildup of smoke may be permitted elsewhere in the occupied area which is incorrect. (Also see response to 1(b)”rule-of-thumb”, above.) Therefore, FAA has decided not to incorporate this text in the memo.</p>