

Class II and Class III Hangars

Class II and Class III hangars are not as big as Class I hangars. Because of this fact, they do not require all of the fire safety items as required for a Class I hangar.

The big difference between Class II and Class III is that Class II hangars are required to have a fire protection system installed while Class III does not.

So how would Jeffy simply describe the difference? You're not going to get a Boeing 747 into a Class II hangar! This is probably the most common type of maintenance hangar you will see on an airport.

In regards to a Class III hangar? The most common type of Class III hangar that a firefighter will see is the small little hangar, referred to as a T-hangar.

When we talk about fire inspections in hangars, the Class I and II are most likely going to be the only hangars inspected by your fire prevention bureau. Class III hangars are usually owned by the airport and rented out to private individuals for storing their aircraft. That does not mean that there are no hazardous materials or other fire hazards inside! Just think of a T-hangar along the same lines as your neighbor's garage! Whatever you can expect to find in your neighbor's garage you can expect to find in a T-hangar!

Class IV Hangars

Class IV hangars are not all that common yet, so we will defer that discussion to another time...maybe! When all else fails, read NFPA 409!

PAINT HANGARS

Because of their unique hazards, paint hangars have received their very own chapter

in NFPA 409!

First, the hangars are basically treated like a Class I hangar. They need to meet all of the fire safety requirements.

Additionally, they must meet all of the requirements for Class I, Division I as found in the Electric Code, NFPA 70. Again, in an effort to keep things simple, think "explosion proof." Did the word "explosion" raise red flag in your mind? Hope so!

GROUNDING

One last subject that we need to touch on: grounding.

Chapter 5.15 of the code discusses grounding. The code states that aircraft are to be grounded "while aircraft are stored or undergoing servicing in a hangar..."

Doesn't happen! Well, in a lot of cases it doesn't happen! What I have seen is that most maintenance operations are not aware of this requirement. Some fire inspectors do not enforce it. And then, it just takes too much effort for the maintenance technician to hook up the grounding cable.

One of the big issues with grounding aircraft is that the grounding cables running helter-skelter across the hangar floor presents a serious trip hazard for the employees (as well as you when you are dragging a fire hose across the hangar floor). Speaking from experience, you trip over the cable which in turn causes the clamp on the aircraft to become dislodged and sail across the hangar striking another aircraft. This results in a chip in the paint on the other aircraft that someone has to touch-up which costs money!

So, as I said, "It doesn't happen."

One other potential issue is that all grounding connections must be bare metal to bare metal. Some technicians are not aware of this and will attach the ground-

ing clamp to a painted part on the airplane. A single layer of paint is enough to insulate the aircraft and prevent the charge from leaving the aircraft through the grounding cable.

And finally, if a company is serious about safety, they will have a licensed electrician check each of the grounding points in the hangar floor to verify that they are indeed good grounds. They will then paint the date that the ground was checked next to the ground, making it easy for the fire inspector to verify that the grounds are good-to-go!

CLOSING

In the previous article, we discussed what operations could occur in an aircraft hangar. In this article we addressed some of the many fire code requirements and how they can affect fire suppression operations. This information is based on the requirements as outlined in NFPA 409. Actual requirements will be dictated by local fire codes, based on the interpretation of your Fire Marshal! Trust me, all Class I hangars are not designed the same!

In the next issue of *Rocket Science for Firefighters*, we will be discussing some of the considerations when attacking a fire inside of a hangar.

If you wish to discuss any of the above items further, please feel free to contact Jeff at JeffRiechmann@cs.com. Under subject, please put *Hey, Knucklehead!*

So until next time, remember, **Everyone Goes Home!**