

Good morning everyone, Am I audible?

Today we are gonna discuss the topic safety and liability of engineers. Before continuing, lets watch a video.

[Play] 0.35 min video

It was ValuJet Flight 592, On a sunny afternoon in May 1996, it took off from Miami International Airport, heading for Atlanta. But within a minute of leaving the runway, its electrical system started to fail and the cockpit and passenger cabin began filling with smoke. The pilot immediately called the Miami tower for permission to return. But because of the heat, control cable started melting and lost control. At the end, the plane crashed. The two pilots, three flight attendants and 105 passengers on board were killed.

Now the question is, to avoid this kind of situation, what responsibility does the engineer have to ensure safety? And how can product be designed to minimize risk?

But Before going to these questions, we should first know what safety is?

According to the American heritage dictionary, safety is freedom from damage, injury or risk. Safety is at the same time a very precise and a very vague term. It is vague because, to some extent, safety is a value judgment, but precise because in many cases, we can readily distinguish a safe design from an unsafe one. Also, we have to take care of risks. Risk is a key element in any engineering design; it is impossible to design anything to be completely risk free. How much risk is appropriate? How safe is safe enough?

With this I'm transferring control to my team mate Aniketh, he will continue further discussion.