

PODCAST EPISODE TRANSCRIPTION

Episode Summary:

In this episode Tom Bailey and Jim Jacoby (VP of Technology at Tri-Sen) discuss the API670 committee makeup, the role of control systems vendors within the committee, and if the vendors are over-represented. .

Tom: Hi, and Welcome to the Turbomachinery Controls Podcast where we will be informally discussing turbomachinery controls and turbine safety-related questions and topics. Opinions expressed here are our own and not necessarily those of Tri-Sen. I'm Tom and I'm with Jim Jacoby, Vice President of Technology here at Tri-Sen.

In this episode, we are going to be talking about some questions that have been bugging me, ever since I sat in on a webinar where the presenters, I think there were three or four of them, were all on the API 670 committee, which was cool, but they all worked for a controls hardware provider; which got me thinking.

So, I have three questions. My questions are; one, what is the makeup of the API 670 committee? Two, what is the role of solution providers? And three, are control systems vendors [solutions providers] over-represented?

You're on the API 670, what do you think?

Jim: Yes, I think the answer is yes to all of them.

Well, let's just go down through your list. Maybe just a little more history in the API committees.

The most basic or original intent of these API standards is to provide a purchasing standard for the product.

Going way back when a customer wanted to buy a compressor or steam turbine, there were several people that made them but there was not much commonality in the way they were built or the accessories that came with them. So, it was hard for the purchasers to really compare the offerings. By coming up with the standards, each of the manufacturers now basically had a target around which to build their designs.

Their proprietary design, like the aerodynamics, nobody told them how to do that [not in API]. But you know, standard definitions about the way a flange was made or equipment they used on a lube oil skid or something like that, it allowed both the purchaser and the vendor to have a common language, making it easier for people to bid apples to apples.

From the beginning, these committees have ideally been made up of both the end users and the vendors. Now, as it turns out, the vendors do a lot of the work. That's kind of how I guess they ingratiate themselves to the end users, partly. But you know, somebody has to do the work and this gives the committee somebody [somewhere] to actually go to the work of writing all of the paragraphs.

It tends to be the end-users that decide what actually goes in, so subcommittees will write the paragraphs that are updates going into these standards and then it's voted on essentially by the members, but those members tend to be the end-users. That's basically the makeup of it.

Now as I mentioned, the role of the providers is to offer input on what the newest technologies are, the direction they are going with their designs and also for them to understand what the customers need. And the also, to help with all the grunt work of putting these standards together.

When it comes to the API 670 committee, the control systems vendors are new to this standard. Initially, this was strictly vibration gear, right? So it was not until the 90s really that they started adding other protection. For 670, the controls vendors are generally there because they also sell overspeed trip equipment or now, I guess, the surge detection equipment. That really is the extent of the participation of the controls vendors in the 670 committee, it's just for that part of it. The Governors and surge controls are still not really part of that standard.

Tom: Yeah. So maybe it's just the optics of it...

Jim: That's right.

Tom: Just being sensitive [but it] just seemed weird.

(CONT.)



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Jim: Yes. What you will see-- they break the committee down into different subcommittees based on the different paragraphs that are in the standard and you would not see the guys like Woodward and Tri-Sen involved in all of the stuff that's associated with vibration and displacement, or the rod drops and stuff like that for the reciprocating because the controls guys do not participate in that. Their involvement is strictly in the parts of the standard that apply to their end of the business.

Tom: Yeah, it just sort of felt like a fox in the hen house kind of a thing, a little bit..

Jim: Yes.

Tom: Like, "hey, we have got this new technology, you guys really need it."

Jim: Yeah. When you look at the standard early on especially, they were rather prescriptive and that was something we heard from especially in the 612 committee. The end users want to get away from prescriptive standards and make it [the standards] more performance based, which I thought was a good idea because one of the things we saw early on in 670 [for the] overspeed trip[EOSD] was that it had a function in 40 milliseconds. Well, there wasn't anything magical about 40 milliseconds, there was no science behind it, that was how fast the one vendor that had a product already... that's how fast their system [product] was.

Tom: Clever of him [them] to be there to do that.

Jim: Fortunately, the last time around we got the performance standards in there [API670] now. So, if you want to know how fast your trip system needs to be, you need to figure out how fast it needs to be¹ [PTC20.1].

Tom: Right.

Jim: You need to calculate it and then determine frequency of testing and redundancy, and all those things based on the the SIL determination. That I think, was a big improvement, but there is still a lot in there, you can tell it's based around what's available and not necessarily what's the best solution.

Tom: Okay. The truth is neither here nor there but somewhere in between, probably.

Jim: That's right.

Tom: That's it for this episode. Drop us an email at turbomachinerycontrols@tri-sen.com. Let us know what you got in your mind. Thanks for listening and we will see you next time.

¹ the 40msec requirement, with respect to EOSD processing speed, is still in the API670 specification.

[END]