# Cleaning No-Cleans – Why Would You?
## Session Questions and Answers

**Q: How often would you suggest a validation on cleaning should be done?**

**A:** It depends on what the products are and how often you're changing them. I would spend time with your cleaning suppliers, chemistry or machine companies, and I would probably do a validation. It depends on what your end customers are looking for, but every couple of months make sure that everything is in line in terms of how you're testing your chemistry and your concentration. Also, how long the chemistries are going to last, nozzles, water quality, all of that you can do day to day. Also, look at it from a full process perspective. I would do that every couple of months.

**Q: Can you mix water soluble and no-clean? For example, using water soluble paste and then no-clean for secondary components.**

**A:** Yes and no. It's kind of application specific. If all the materials can be advised by your chemistry company then we can help determine the feasibility of that to make sure that the chemistry will work for both of those. Historically we can see that, but we want to have a conversation about the actual products that we're talking about, not just a broad format.

**Q: Can I still conformal coat no-clean boards without cleaning?**

**A:** You possibly could. That's really a conversation between the flux manufacturer and the manufacturer that conformal coats the material. They work together to determine when that can work, and they'll be able to dial in the process stuff. We really need to have that conversion with those guys. It's not as much on our end.

**Q: Is a ROSE test an acceptable way to conform cleanliness of no-clean flux boards?**

**A:** The ROSE test was implemented in the 1970s and then no-clean's really didn't come in until the 1990s. Some of those no cleans and some of the other contaminants aren't ionic enough to show up in a ROSE test. Per the J-standard of 2020, ROSE has it's place, but we also need to be looking at other testing confirmation processes.

**Q: Are different cleaning parameters, such as time, temperature, chemistry, and concentration required for when I use both no-clean and RMA fluxes in the same machine?**

**A:** Yes and no. Sometimes those can be used the same, sometimes the parameters are going to change, sometimes the chemistry needs to change or the time in the machine needs to change. What we really need to do is look at that on an individual basis. I don't want to paint with a broad brush that says every one of these will work because what we like to do is make sure all of our answers are really specified to your application. Once we know what those fluxes are, what the pace and machine settings are, then we can start to dig into that and see what experience and our library of knowledge says.