

Restriction of Hazardous Substances (RoHS)

OBJECTIVES

Like the rest of the electronics industry, your products will transition to Restriction of Hazardous Substances (RoHS) compliance prior to the deadlines in 2006. This includes the transition to Lead-Free Solder, and at this time, there are significant reliability uncertainties around Lead-Free Solder. Even if your product does not need to be compliant, the materials and processes that make up your product are changing. As one major consumer product team concluded, doing nothing would double the field failure rate of the electronics. Given limited resources, you and your team may not have the time or expertise to determine the areas of greatest risk and how best to manage the transition.

WHO SHOULD ATTEND

This course is intended for those involved in the transition to lead-free compliance. Like ISO9000, this typically touches about every function within a company.

OUTLINE

Introduction

- To Transition or NOT to Transition: That is NOT the question.
- Who is Exempt
- New Trends

Highlight of Some of the Risks

- Higher reflow temperatures
- Solderability and wetting
- Solder joint durability
- Adverse solder metallics
- Component packaging compatibility
- Moisture ingress ("popcorning")
- Aggressive fluxes
- Tin whiskers
- Tin pest
- PCB FR4 construction changes
- Solder voids due to inter-metallic contamination
- Shock loading

Solutions/Mitigations to the risks

- What is the industry doing to combat these new risks
- What can you do?
- BOM Scrubs
- XRF equipment
- Chemical analysis
- BOM Scrubs

Manufacturing Audits

- Manufacturing Audit Checklists
- What to look for in the audit
- Getting cross-sections at the end of the audit

New Trends/What the Future has in Store for Us

Conclusion