Materials Compliance: Avoiding Product Recalls With Platform Technology

by Valerie Kuntz and Neil Smith, Assent Compliance, Ottawa, Ontario

A high-risk supplier can ruin an entire production run and send your team to redesign. That's why more electronics companies are turning to platform technology for transparency into their supply chain.

This digital transformation was accelerated more than a decade ago when the Restriction of Hazardous Substances (RoHS) Directive was introduced. Compliance with the directive required every major electronics company to verify their old hard copy product data. If they couldn't find it, they had to collect it from their suppliers. Both operations were time-consuming in their own right.

Since then, the regulatory landscape has grown many times over. Enforcement bodies have any number of reasons to withhold your shipments and interrupt production, and with an average cost of $1.3 million USD, recalls are expensive. And that doesn't account for the cost of redesign.

To manage the data burden, electronics companies are transitioning to platform and automation technology. It provides the ability to centralize supply chain data in a secure cloud environment. Any authorized user can access the data, and all supplier engagement is stored historically, with easy reporting exports. This allows users to provide enforcement authorities with data and mitigate risk.

Platform data technology is helping the electronics industry mitigate expensive risks and keep their products on the market.

Advanced engineers are going a step further and using it to validate suppliers as an onboarding measure, before production begins. As subject matter experts in supply chain data management, we've seen other best practices from companies that know how to mitigate design change risk.

Electronics Enterprises First To Adopt Software

The largest enterprises were the first to manage the data burden with point software built to collect RoHS data. This was either developed by a third party, or internally. Some enterprises still use these today. But some companies were (and still are) using manual solutions.

Then, the regulatory landscape expanded, creating further requirements for the electronics industry. Each year, electronics companies have had a shopping list of new data to collect or update, from product composition to supplier risk. You couldn't manage that with most software, as these solutions are often built to collect one set of data.

The Value Of Up-To-Date, Verified Supplier Data

We've seen electronics products become more complex over the past decade. Subcomponents for motherboards and other electronics develop in complexity, and as electronic parts are sold into new, digitally transforming industries, the regulatory scope can be confusing.

In some industries that electronics manufacturers sell into, companies pull compliance data from a curated database. This can sometimes save them time, but it puts entire supply chains on the hook for a single piece of data that may not have been updated or verified.

We could pull from our own experiences, but there's no better example of the risks than what happened in the automotive industry last year (August, 2019). Continental and Robert Bosch made media headlines when it was discovered they had sold non-compliant circuit boards into the onboard systems of thousands of vehicles.

An automotive industry database solution was showing the circuit boards as compliant due to a RoHS exemption, but the products weren't compliant with the End-of-Life Vehicles (ELV) Directive. Any automotive

company that verified the data might have discovered it and avoided the circuit boards. Those relying on the database wouldn't.

Best Practices From Industry Leaders

Electronics engineers from companies of all sizes must keep their designs compliant with expanding requirements. Each time new substances are restricted or limited to a threshold, the software should be updated and suppliers notified of the change. Generally, materials compliance programs need the following characteristics to scale with expanding regulatory and business criteria:

- **Establish requirements in the contract**. Write compliance and code of conduct requirements into contract verbiage to build better supplier relationships.

- **Prevalidate supplier data before shipping**. Check the data of any imports before you're committed to a shipment.

- **Multilingual support**. Communicating with suppliers in their native language improves responsiveness.

- **Supplier resources**, Access to a portal to submit declarations and receive supplier training and education improves engagement and data quality.

- **Regulatory expertise**. Keeping tabs on your regulatory landscape will help you know what's coming, and how to respond proactively.

- **Platform technology.** Centralizing supply chain data management leads to cross-topical supplier evaluations against your full range of risk.

- **Standardized information.** Present data in similar formats so reports can be easily generated.

Compliance programs with these features are in a better position to manage a broad range of data types, from the RoHS Directive and the ELV Directive to human rights and responsible minerals requirements. This is especially important in the electronics industry, where many suppliers are shipping from high-risk regions and cross-topical data is so important.

That's why companies choose platforms such as Assent, which centralize all the supply chain data you need to get your products out the door to your customers. This will create the business insights you need to keep products on the market for years.

For more insight on the product compliance, corporate social responsibility, and vendor management regulations that impact electronics companies, and how platform technology can help, check out the eBook, Navigating the Compliance Landscape: Electronics.[1] For more information on Assent, contact us.[2]

References

1. Navigating the Compliance Landscape: Electronics

2. info@assentcompliance.com

About the Authors

Valerie Kuntz is manager, product compliance at Assent Compliance where she specializes in materials compliance processes for market access regulations including REACH, RoHS, the EU Medical Devices Regulation (MDR), California Proposition 65, and EU Waste Framework Directive processes. She is committed to developing and improving declaration standards, and led the working group for the International Aerospace Environmental Group's Declarable Substances List pilot project. Before joining Assent, Valerie spent 20 years at Intel, starting in materials and eventually becoming the program manager in charge of its global materials compliance program.

Neil Smith is manager, compliance & regulatory programs, at Assent Compliance where he helps companies manage their product compliance and sustainability programs with a focus on environmental health and safety (EHS). He is an energetic, effective communicator who thrives on collaborating with companies to solve their challenges. Before joining Assent, Neil was the Global Product Compliance and Sustainability Manager with Isola Group, running its EHS program, and leading worldwide regulatory and customer-driven compliance programs.

For further reading on power supply-related safety and compliance issues, see How2Power's special section on Power Supply Safety and Compliance.