

How to Reap Real Benefit from a Layered Process Audit

Not sure if you are getting the maximum benefit from your LPAs? It's time to leave the minimal compliance mindset behind and instead, understand and apply what LPAs can do for your company's overall performance.

Since General Motors Corp. (GM) initially introduced layered process audits (LPAs) to suppliers in 2002, hundreds of companies rushed to implement the system. Chrysler made LPAs a supplier requirement in 2004, and GM suppliers implementing GM's Quality Systems Basic Training are also required to implement LPAs. Furthermore, to reduce the variation in interpretations, the Automotive Industry Action Group (AIAG) published CQI-8—Layered Process Audits Guideline in December 2005.

However, while about one-third of North American automotive suppliers have some form of LPA in place (perhaps a bit higher among the Tier One group), some experts say that many suppliers rushed to implement the LPA strategy simply to satisfy a new customer requirement—not to examine and fully utilize the benefits of the strategy itself.

A layered process audit is an ongoing chain of simple verification checks that ensure a defined process is followed correctly. It is a powerful management tool that can improve safety, quality and cost savings by amplifying problem solving systems and making continuous improvement almost routine. Through observation, evaluation and conversations on the manufacturing floor, these checks ensure key work steps are performed properly. LPA interactions are also an excellent way for managers to show respect for frontline workers.

"To meet the new requirements, suppliers quickly created audit checksheets and questions, but never thought about what process elements and what audit questions would actually reduce risk, prevent problems, and reduce costs," notes Murray Sittsamer, president of The Luminous Group LLC. "I would guess only about half of the companies currently doing LPAs are doing them in a way that is truly helpful to their own business performance."

Sittsamer says OEMs see LPAs as one of the most powerful strategies to take a good supplier and make them better; or take a great supplier and keep their quality metrics from declining. "By assuring that standardized procedures are in place, an organization can move from minimally complying to an organization where quality and conformance to product and process requirements is the number-one priority," he says.

Benefits of LPAs

Here are some of the many benefits suppliers have realized from implementing LPAs:

- Protecting operators from injury.
- Eliminating the shipping of nonconforming products.
- Saving money because it's less costly to have fewer injuries and manufacture products correctly the first time.
- Focusing on process inputs that help achieve first-time quality.
- Ensuring that processes run correctly because you are able to personally verify them.
- Helping top management become more familiar with shop-floor activities and building a relationship between management and shop floor personnel.

"LPAs are not the typical audit of the product," Sittsamer explains. "Instead, they are an audit of the process. In a process audit, you check to see that the operator is following the defined process. LPAs ensure that the critical process parameters, such as machine settings, temperatures, flow rates and gages, were set correctly. If the defined parameters were set correctly, the process will make good parts."

The industry can learn more about LPAs through AIAG's one-day **Layered Process Audit Implementation Workshop**. This "Train-the-Trainer" course is for individuals who will be leading their site's implementation of Layer Process Audits to fulfill recent OEM requirements. AIAG also offers a **Layered Process Audit Executive Overview** for company owners, presidents, plant managers and their leadership teams. It's designed to layout the LPA strategy, including the benefits, approach, overview of what's required, leadership's role, and how to monitor LPA effectiveness.