

In the drinking water treatment industry, guaranteeing quality materials and parts from suppliers is a key component of the manufacturing process that produces a superior final product. Accepting unverified or imperfect primary parts or materials from a supplier at the first step of production guarantees a flawed manufacturing process and in turn a flawed or inferior end product that is not ready for the marketplace.



ENSURING QUALITY CONTROL & ASSURANCE

The importance of quality control and assurance for materials received onsite from suppliers

Consequently, it is imperative that a manufacturer diligently maintains a stringent quality control and quality assurance process when dealing with materials and components provided by suppliers. In doing so, a manufacturer not only guarantees a safe and superior final product but also minimizes production and product replacement costs, maximizes production capabilities and ensures profitable long-term economic and production capacity.

By Glen Kosowski

External Audit

There exist several methods through which a manufacturer can successfully ensure quality control and assurance for procurement of materials and parts. The first is an effective external audit process done by manufacturers with outside suppliers.

An external onsite audit of suppliers provides an immediate verification of the materials and processes inputted into the production of the materials eventually delivered

to the manufacturer. Additionally, this external audit process offers an “on-the-ground” opportunity for the manufacturer to verify the personnel and step-by-step processes that go into the products eventually included in the final manufacturing process.

Engaging in an external audit allows a manufacturer to have direct access to the supplier’s manufacturing process and in turn, input into the effectiveness and quality of the product produced and delivered. An external audit process guarantees a manufacturer control of the quality and production process of supplier materials that are used in final products.

Internal Quality Check

A second method through which a manufacturer can successfully ensure quality control for procurement of materials from suppliers is an internal quality check of a supplier’s product once delivered onsite. In this method, the manufacturer verifies the quality of materials postdelivery, creating somewhat of a “second-stage” product audit in which onsite inspections guarantee that products received and intended to be included in the final stage of production are precise.

An example of an onsite inspection is through visual verification of incoming parts and the packaging of the parts. It should be completed for every receipt of product to guarantee that a container or package has not arrived damaged or water marked and all included parts and products are in working order, ready for immediate inclusion in the manufacturing process.

For another example of onsite inspection, a manufacturer should use dimensional checks to guarantee that parts delivered possess the exact measurements needed for inclusion in the final product. With the use of dimensional checks, the manufacturer

can verify that the threads are working properly, that the thickness of the component’s walls are correct, and that the size of component openings are correct.

In addition, other tests such as leak testing for cracks and pressure testing for structural integrity can be implemented onsite to guarantee quality parts and components. By completing an onsite audit of products delivered by suppliers, a manufacturer guarantees that materials included in the final production process are up to the exact specifications needed to guarantee a superior final product.

Quality Control

A manufacturer may enforce quality control for the procurement of materials from suppliers through less direct, yet effective, methods of quality assurance and quality control. By collecting Certificates of Compliance or Certificates of Analysis from suppliers, a manufacturer engages in a cross-check process through which supplier confirmation of process and product guarantees that materials received onsite by the manufacturer are up to code.

Again, these Certificates of Compliance or Analysis provide additional supplier assurance that the product delivered to the manufacturer was made according to precise manufacturer specifications needed to guarantee a superior final product.

Finally, an external third-party examination of a supplier adds a valuable check of your suppliers. Verifying that a supplier is compliant to ISO 9001:2000 or another equivalent quality standard can instill confidence in your suppliers when coupled with some of the quality control and quality assurance methods listed above. Another third-party certification is having a supplier’s components certified to NSF/ANSI

Standard 61. If a manufacturer decides to purchase a mass-produced component, using an NSF/ANSI 61-certified component is highly recommended in order to ensure the consistent quality of parts and materials.

A Final Note

If a manufacturer discovers non-conforming materials or products, there should exist a well-established area to keep the materials separated so they are not accidentally shipped or used in production.

These are just a few quality assurance and quality control examples for components and materials purchased from outside vendors, but remember that new improvements and methods should always be used in the process to ensure your quality assurance and quality control procedures are adjusting to the times and ever-changing external and internal environments.

The economic resources, time and personnel efforts dedicated to ensuring quality control for procurement of materials will benefit the manufacturing community in numerous ways. A verifiable quality control process, in particular, will result in maximized production capabilities, increased cost savings and minimized production delays. This process will benefit manufacturers, customers and the entire drinking water industry. *wqp*

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