



SNS COLLEGE OF TECHNOLOGY

Vazhiyampalayam, Coimbatore, Tamil Nadu, 641035

An Autonomous Institution

Approved by AICTE New Delhi & Affiliated to Anna University Chennai

Accredited by NBA & Accredited by NAAC with “A+” Grade, Recognized by UGC

DEPARTMENT CIVIL ENGINEERING

19CEB302 - CONSTRUCTION MANAGEMENT

III YEAR / V SEMESTER

Unit 5 : QUALITY AND SAFETY MANAGEMENT

Topic 2 : Quality Control





Quality Control



Quality control in construction typically involves insuring compliance with minimum standards of material and workmanship in order to ensure the performance of the facility according to the design.

Why is quality control important?

- Quality control is important because it is the foundation of your project's success. Build it right the first time.
- Construction Quality build is dependent on a contract's quality plan.
- From the beginning of the project until the end, quality always remains at the forefront of everyone's minds.
- Poor quality can lead to a variety of problems such as defects, builds that won't last, confusion between parties involved and a lot of construction changes.
- Focusing on quality control can also improve the safety of a project



Quality Control



Quality control and preconstruction

- During preconstruction, a quality team analyzes each detail of a construction project to understand how the best implement a site-specific quality control plan.
- Build checklists and guidelines for each process, including design, safety and managing trade partners.
- Want to ensure our trade partners don't compromise quality for the sake of saving money.
- Creating an open line of communication during the preconstruction phase as a strong foundation
- Clients, designers, construction company associates and trade partners have a clear understanding of quality standards from the start, leads to more engagement, which can greatly improve the value and speed of a project.



Quality Control



What is a quality inspection?

- An inspection measures, examines, and tests one or more of the characteristics of products and compares the results with the specified requirements to establish whether traditional values is achieved.
- Inspection also refers to checking products, whereas an audit applies to analyzing the manufacturing process.
- A quality inspector usually follows a pre-established checklist, which is based on the specifications of the product.

What do quality inspectors do?

- Quality inspectors set and maintain the standards for product quality, while ensuring the correct procedures are in place to ensure compliance with those standards.



Quality Control



Duties for a quality inspector :

- Establishing quality standards for all products and services provided by a company
- Creating rules for standards and communicating them to the relevant staff to ensure quality levels are maintained
- Writing documents to outline all standards clearly to create references for employees
- Working with all management-level employees to ensure they are maintaining any new standards and compliance with all relevant regulations
- Performing random quality inspection checks on products or services to assess quality levels



Quality Control



Types of quality Controls

- Pre-Production Inspection (PPI) ...
- During Production Inspection (DPI) ...
- Pre-shipment inspection (PSI) ...
- Container loading/loading supervision (LS) ...



Pre-Production Inspection (PPI)



Conducted before the production process begins



Helps to assess the quantity and quality of the raw materials and components and whether they conform to the relevant product specifications.

The PPI includes:

- ✓ Factory's production lines & capability
- ✓ Factory's facilities & equipment
- ✓ Raw materials, main components & accessories
- ✓ Semi-finished samples
- ✓ Some finished samples





During production inspection (DPI)



Conducted while production is underway.



Useful for products that are in continuous production that have strict requirements and when quality issues have been found prior to manufacturing during an earlier PPI.

The DPI includes:

- ✓ The production status during the manufacturing process
- ✓ Production line evaluation and timeline verification
- ✓ Random sampling of semi-finished and finished products
- ✓ Verify package and packaging material details
- ✓ Overall assessment and recommendations





Pre-shipment inspection (PSI)



Conducted on finished products when at least 80% of the order has been packed for shipping.



Random samples are selected and inspected for defects against the relevant standards and procedures.

The PSI includes:

- ✓ Quantity verification
- ✓ Style and color
- ✓ Functions and safety
- ✓ Workmanship
- ✓ Size specification (if required)
- ✓ Package details
- ✓ Shipping marks





Loading supervision (LS)



Container loading and unloading inspections ensure your products are loaded and unloaded correctly. The whole process will be supervised to guarantee product's safe arrival to their final destination. The procedure:

- ✓ Record the weather/arrival time of container/container No.
- ✓ Check the inner and outer condition of container
- ✓ Check the quantity of goods loaded and record the condition of outer packaging (master cartons/pallets)
- ✓ Randomly select and open sample cartons to verify compliance with customer's specifications
- ✓ Supervise the loading process to minimize breakage and maximize space utilization
- ✓ Seal the container
- ✓ Record the seal Nos. and departure time of containers





Thank you

