

# Reduce Risk & Increase Revenue: Defining Best Practices for Ensuring High Quality Manufacturing of Wall Panels

by Jim Boyle

(Part 4 of 6)

The key to success is ensuring a quality product with a quality process.

Last month in part 3 of this series we discussed techniques that can be used to hire, train and keep the very best production, staff and management personnel. In this article, we will discuss the importance of having a company wide Documented Quality Assurance and Quality Control Program.

The first question you may ask is what's the difference between quality assurance and quality control? Is it just a distinction without any real difference? Not really! Let's define the difference with a simple definition for each:

- **Quality Assurance:** making sure you are doing the right things the right way.
- **Quality Control:** making sure the results of what you have done are what you have expected.

Quality assurance is **process oriented** while quality control is **product oriented**.

Quality assurance activities focus on the process involved in manufacturing wall panels and makes sure you are following the right steps in cutting and assembly. Quality Control activities are focused more on the completed wall panel and makes sure that the results are what you (and your customers) have come to expect.

So why do you need a QA/QC program for your wall panel manufacturing company? Wouldn't it allow you to match the expectations you or your customers have for your products? Essentially, QA/QC is a proactive effort to protect and sustain your company name, your company products, and your company profit margins. Think of a QA/QC program as a firewall against defects.

How do you get started with a company wide QA/QC program? First, acknowledge and define the process workflow throughout your organization. You all have different departments within your company (i.e., Estimating, Design, Administration, Purchasing, Production), and as a panel manufacturer you should establish and implement a quality system that is fully documented. This documented quality system must describe the processes and procedures necessary for insuring that fabricated products meet specified requirements!

You can begin by establishing "Performance Criteria" required by each department to complete a given task. These are written processes and procedures for all critical functions needed for the completion of a work element or project. If you can, try to visualize this as a series of Inputs and Outputs that are needed to move a process forward. I call this a Cross Reference Matrix, and ideally there should be a seamless flow of critical activities which are never missed; and always completed within each department.

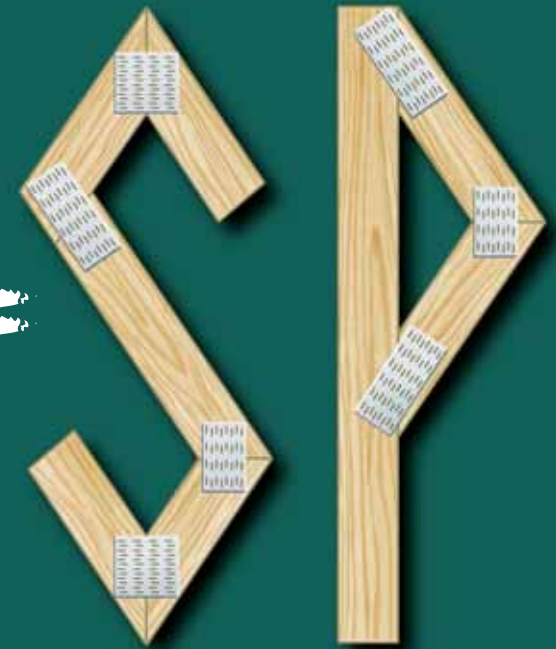
As an example on how this might work; let's look at the Production Department in a typical manufacturing setting preparing to start a new job. To start with, I've created an example Matrix of Inputs and Outputs which insure that all critical production department processes and procedures have been included and completed. To begin:

- Define the process... "Wall Panel Production"
- Who initiates the process... "Operations Department"
- What departments (or individuals) are involved... "Production Manager, Panel Designer, and Admin/Purchasing department"

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## at a glance

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## Chapter Corner

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### West Florida Truss Association

At its first board meeting of the year, the West Florida Chapter voted to move its meetings back to the first Thursday of every other month. The general membership meetings for 2008 were set for February 7, April 3, June 5 and August 7, and the annual seminar for building officials held at Robbins Engineering was set for November 7.

The topic of the February chapter meeting was updated truss responsibilities in the 2007 Florida Building Code (FBC). Featuring a roundtable review with engineers Robert Wall, Tom Albani and Dave Rambali, the evening provided many pertinent updates on the latest version of the FBC. Attendees were able to review comparisons of the 2007 FBC to the 2004 edition as they relate to trusses. Sections of significance to component manufacturers, such as FBC Chapters 16 (Structural) and 23 (Wood) were highlighted, and attendees discussed the actions that should be taken to prepare for the pending code changes. Anyone who would like a copy of the files used at the meeting may contact WTCA staff. **SBC**

For a complete calendar, go to [www.sbcindustry.com/calendar.php](http://www.sbcindustry.com/calendar.php).

## Reduce Risk & Increase Revenue (Pt 4)

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- What are the Inputs and Outputs that need to be completed before the job is delivered?

### Production—Inputs

- Receive cut sheets and production drawings from Design department
- Create production schedule
- Create delivery schedule
- Purchasing issues: Coordinate "critical lead time items" with Purchasing department
- Inventory: Coordinate current levels and impact with Purchasing department
- Delivery: Schedule raw material delivery and coordinate with Purchasing department
- Determine direct labor requirements
- Set up daily labor job/codes
- Internal change orders (if applicable)

### Production—Outputs

- Review cut sheets and production drawings
- Release cut sheets and production drawings for production
- Make change order corrections (if applicable)
- Coordinate time phased material delivery with purchasing department, including: quantities, dates, and order points
- Warehousing plan
- Verify incoming freight bill of ladings with company's POs
- Verify company's ID tags have been installed on units of raw materials coming into inventory
- Track daily inventory (loss/gain)
- Weekly production plan including daily goals for all wall types
- Monitor:
  - Daily production
  - Material usage and drop-off
  - Material Inspection Reports (MIRs) for all units
  - Production Inspection Reports (PIRs) for all wall panels
  - Final Quality Control Reports (FQCRs) for all wall panels
  - Material shortages: coordinate with purchasing department
  - QC assurances (audits) monitored on materials and production processes
  - Bundling/packaging/labeling of finished products
- Verify delivery instructions given to driver
- Verify delivery packet complete; and given to driver

Once all the Production departments Inputs/Outputs have been completed, the Matrix should automatically flow to the next downstream department or work element; where this process of checks and balances starts all over!

## Improve Wall Panel Quality Control!



Looking for a way to jumpstart the level of quality in your wall panel shop? WTCA agrees that quality assurance and quality control are critical to successfully managing and operating a wall panel manufacturing facility. What kind of quality control process does your plant have in place currently for wall panels? Are you proactive with quality or do you tend to react to problems? If you are not satisfied with your answers then consider the WTCA QC Wall Panel program.

This program helps manufacturers monitor the quality of their wall panels and provides the operation supervisors and managers with a robust data management system. It consists of inspecting wall panels and entering the data into the software program, allowing you to store data and create reports to assess plant quality. This program also offers a voluntary certification.

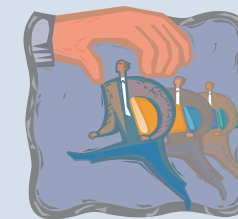
WTCA has created this program to be a practical tool plants can use to manage, benchmark, and evaluate their wall panel manufacturing. After doing inspections you can see where your problem areas lie. WTCA QC Wall Panel can assist you in refining your processes, which in turn provides assurance that your quality is meeting customers' expectations. For more information on this program, please visit [www.sbcindustry.com/wtcaqcwall.php](http://www.sbcindustry.com/wtcaqcwall.php) or contact Tony Piek at WTCA (tpiek@qualtim.com, 608/310-6713).

You may have noticed that there are dependencies between activities (inputs/outputs). Any delay of an activity...or forgetting to complete an activity, will impact the scheduled completion time, and usually the overall quality of the product... or work being performed.

A Quality System is only as good as the processes that you design into it; and the enforcement of those processes. It's really unfortunate, but more often than not, I see leadership and management become complacent about enforcing the processes, procedures, and personnel training necessary to produce a high quality wall panel.

See you next month when I will discuss Part 5 of the series: Estimating and Pricing Wall Panels! **SBC**

*Boyle is a wall panel business startup and process improvement consultant. He can be reached at 541/771-7075 or [jmb@jmb-panelman.com](mailto:jmb@jmb-panelman.com).*



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