IN-PLANT WTCA QC CERTIFICATION FAQ

Listed below are Frequently Asked Questions (FAQs)
about the **In-Plant WTCA QC Program** and **In-Plant WTCA QC** certification.

1. What is In-Plant WTCA QC?

In-Plant WTCA QC is a program that helps Truss Manufacturers monitor the quality of trusses they manufacture. This in-plant program consists of two main parts: 1) inspections procedures and 2) software for storing the results to see trends over time.

Inspections
There are five different inspections:

a) **Preliminary Truss Inspection:** Verifies that the lumber and truss dimensions correspond to the design.

b) **Plate Placement Method:** Verifies that the plate is placed within a certain placement tolerance specific for each joint.

c) **Tooth Count Method:** Verifies that the number of teeth required to be in members is actually present. Checks that are similar to the Plate Placement Method are made on plate embedment, member-to-member gaps and lumber defects.

d) **Lumber Inspection:** The quality of lumber (including dimensions, moisture content and defects) is documented when each shipment arrives at the plant.

e) **Truss Dimensions:** Available such that truss plants could track additional truss dimensions not outlined in ANSI/TPI 1-2002.

Software
The data from the completed inspections is entered into the **In-Plant WTCA QC** software, which is basically a database program created using Microsoft Access™. Storage of the data allows users to see their performance over time in graphs, and to find out more detailed information on performance by crew, truss type, etc.

2. Why was In-Plant WTCA QC developed?

WTCA developed this program at the request of its members, who wanted a way to monitor the quality of their manufacturing process. **In-Plant WTCA QC** allows users to create detailed charts and reports, so they can get a clear sense for what is happening with their quality. WTCA members also had concerns that the inspection procedures being used by inspection agencies were not always consistent. Thus, WTCA created this program to be very objective, with little room for variation between inspectors.

3. What is the intent of the In-Plant WTCA QC program?

The intent of the program is to provide an objective, quantifiable method of assessing a Truss Manufacturer's conformance to the TPI 1 Quality Standard. This standard is what the ANSI consensus process created and was approved as the quality requirements for all truss manufacturers in this country. In addition, the ANSI/TPI 1 standard is referenced by the International Building Code (IBC) and the International Residential Code (IRC). WTCA's role in this is to provide a method to accurately assess conformance to the ANSI/TPI 1 Quality Standard. WTCA used the quality records gathered over time to create a database of informa-

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tion that was used to modify the TPI 1 Quality Standard such that the consensus process would take into account, as well as possible, inside manufacturing realities.

4. What does "Certification" mean?

"Certification" in **In-Plant WTCA QC** simply means WTCA confirms that the Truss Manufacturer understands and is using the software and inspection procedures correctly. Certification also indicates that the manufacturer is attaining a minimum level of quality. WTCA would like to be clear that certification in **In-Plant WTCA QC** has nothing to do with quality certifications that are done by third-party inspection agencies. WTCA is not a third-party inspection agency.

5. What are the benefits of being certified?

There are both long- and short-term benefits to being certified in **In-Plant WTCA QC**, which fall into several categories:

MONETARY: It is common for companies using **In-Plant WTCA QC** to experience cost savings due to reduced repairs and call-backs. Scott Ward of Southern Components in Shreveport, LA, reported that when comparing the first four months of one year without the **In-Plant WTCA QC** program to the first four months of the next year using the program, they experienced a cost savings in this area of 65-75 percent.

MARKETING: Through the use of marketing materials made available by WTCA, as well as news releases, etc., Truss Manufacturers can advertise their commitment to quality in their market. Certified companies are also listed in *Structural Building Components Magazine*.

REDUCED LIABILITY EXPOSURE: As stated by Kent Pagel, WTCA's legal counsel, **In-Plant WTCA QC** can go a long way in reducing Truss Manufacturers' exposure to liability. WTCA is already aware of several examples where Truss Manufacturers were found not liable with the help of data they had recorded using the program.

EMPLOYEE TRAINING: In-Plant WTCA QC allows manufacturers to train their employees on what "quality" really means. By using the program, QC inspectors learn in detail the quality requirements and then are able to train folks on the table, which is a very effective way to reduce errors and increase quality.

IMPROVED MORALE AMONG EMPLOYEES: This benefit is one that WTCA was not expecting when the program was created; yet it makes great sense. When employees know clearly what is expected of them, they take more pride in their work.

PREPARATION OF FUTURE WTCA PROGRAMS: As our industry evolves technically and we begin to fully use our technological capabilities, manufacturing products with consistent quality will be mandatory. Without this technology, development will be constrained, as engineers will always have to take the conservative approach to design and manufacturer because they have to design to the lowest quality denominator.

EXPECTATION OF QUALITY REQUIREMENTS OF CUSTOMERS: The home building industry is moving toward ISO 9000 quality standards. Part of compliance with ISO 9000 is to have suppliers that make products to a given quality standard. **In-Plant WTCA QC** provides the quality foundation to meet the demands of our customers well into the future.

INDUSTRY PERCEPTION: WTCA has worked diligently to change some sections of the IBC that put restrictions and requirements on trusses that it does not put on other similar components. Why is this? A WTCA staff member asked one of the ICC committee members this question, and was told, "Listen, I've been working in construction for 25 years, and I know that if there's a problem, it's going to be with the trusses." Whether this perception is right or wrong, the fact remains that there are those who believe that trusses are not a quality component. It will be increasingly important in the future that we watch over our own quality, so that others do not do it for us, as in the example above. **In-Plant WTCA QC** is one excellent way to do this.

6. What are the requirements of and steps to becoming certified and maintaining certification?

1. Be a member of WTCA.
2. Purchase **In-Plant WTCA QC.**
3. Use the program for two months. This includes doing inspections at the frequency recommended, and entering the data from those inspections into the software.
4. Have a WTCA staff member visit your plant for the Certification Training. This includes training your person-

nel in the inspection procedures and software usage.

5. Sign and return the Certification Agreement to WTCA.
6. After the training, perform inspections at the required frequency and enter the data into the **In-Plant WTCA QC** software equivalent to one month's worth of data.
7. Send the data file to WTCA for review. We will review your data and provide insight as to how your company can improve in order to meet certification requirements. When data complies, WTCA can then certify your company.
8. Set up a third-party inspection agency to come in quarterly to perform reviews. Note, this agency must be certified to do inspections using **In-Plant WTCA QC**.

Note: The final step in certification is when you decide you are certified. It is very important that companies be sure they can maintain the requirements of certification before completing their certification process. WTCA recommends when being up for certification, that the company continues doing inspections at the required frequency for at LEAST one month before completing the certification process.

It is not necessary that the steps to certification be done in the order outlined, although this order is recommended. It is possible for the certification inspection to be combined with a training session of plant personnel on its use first, and compilation of the one month of data to follow.

After successful certification in the program, you will then be eligible to use the logo for custom truss ink stamps and promotional brochures. These materials remain the permanent property of WTCA, and are licensed to the Truss Manufacturer for their use as long as they remain certified in good standing.

7. What happens if a certified company does not maintain all requirements after certification?

Companies, that after certification, cannot maintain the requirements listed in the manual will be placed on probation and/or decertified. This is why WTCA recommends that companies be very comfortable doing the program at the required inspection frequency for at least one month before completing their certification, and preferably during the busiest part of the year.

8. How long does it take to become certified?

The time to complete the certification process is up to the individual company, and WTCA has no maximum time requirement. The minimum possible time would be two months. Most companies take longer. It all depends upon how quickly the company embraces the **In-Plant WTCA QC** procedures, how much time is invested in the program, and how much the program is supported by upper management. In WTCA's experience, those companies who commit to using **In-Plant WTCA QC** and invest the time can become certified in less than six months.

9. What are the costs?

For information regarding software, certification training or ongoing costs, please contact WTCA. Once the software is purchased, all upgrades will be available at a minimal charge.

10. Who in our plant should do the inspections?

Anyone within the plant can do inspections. It is not necessary that the individual(s) have experience in the manufacturing procedure itself. Someone who has never before seen a truss can be trained within one day to understand all inspection procedures.

WTCA does recommend, however, that care be taken in selecting the individual(s). While inspection procedures are not highly technical, they do require the ability to do simple math, read design drawings and required teeth reports, and take measurements.

Further, WTCA recommends that the individual(s) doing inspections not be directly supervised by production. This creates a conflict of interest, and WTCA has seen cases of the success of the program being limited due to this factor. WTCA recommends that the inspector(s) be supervised directly by management, engineering, etc.

Do not limit the number of inspectors trained to only one. While certification belongs to a location, it is really the individuals trained who carry the knowledge of the program.

An excellent choice for an inspector is one who has been injured on the job. QC inspection may allow an early return to work due to its being a low-impact job, yet one that has great value to the company and allows the employee to stay involved with day-to-day company activities until he/she can perform their job again.

11. What about data entry?

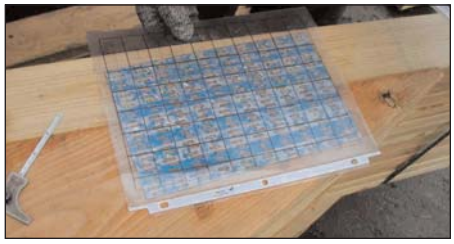
WTCA strongly recommend that Truss Manufacturers have someone on their administrative staff enter the data into the computer using the **In-Plant WTCA QC** software from the inspection forms, and not the inspector, especially if the inspector is not well versed in the Windows™ operating system and Microsoft applications. One reason is time saved entering data, the second is that this creates a double-check, increasing accuracy. WTCA again recommends that at least two people become familiar with using the software. The companion Pocket PC version of the **In-Plant WTCA QC** program will significantly reduce the amount of data entry.

12. Are all Five Inspections required for Certification?

Trusses are designed either to the Plate Placement Method (PPM) or the Tooth Count Method (TCM) of inspection. The design criterion affects the allowable tolerances in the inspection. The Preliminary Check Inspection is required to scan the overall quality of the truss. Truss Dimensions Inspection and Lumber Inspection are not required for certification in **In-Plant WTCA QC**. Truss Dimensions Inspection was created such that truss plants could track additional dimensions not outlined in Chapter 3 of ANSI/TPI 1-2002. Regarding Lumber Inspections, it is an obvious point that the quality of trusses being manufactured in a plant is only as good as the raw materials that go into them. The Lumber Inspection is a very effective way to monitor the quality of the incoming lumber, and observe any changes in quality over time.

13. What standard of quality does the In-Plant WTCA QC Program follow?

In-Plant WTCA QC is based on ANSI/TPI 1-2002, *National Design Standard for Metal Plate Connected Wood Truss Construction.* This is the wood truss industry's current standard. If a company has trusses that pass inspection, then the areas inspected are also in alignment with this standard.



In-Plant WTCA QC Certified Truss Manufacturers are Dedicated to Building Quality.

In-Plant WTCA QC is a powerful truss manufacturing inspection procedure. Becoming a certified user of **In-Plant WTCA QC** means that the manufacturer has made a commitment to excellence and can consistently produce quality-built trusses. This manufacturer has devoted considerable resources in implementation and now has the information to ensure its product meets current industry standards.

The end result is a commitment to manufacturing quality trusses and increasing the quality of the finished structure.

WTCA™ IN-PLANT QC

QUALITY

SPEAKS FOR ITSELF...

If you have any questions that were not addressed above, please let us know.

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