

PaperAge

A Quality Improvement Company with Wide Range Success in the Paper Industry

*By Jack O'Brien
Editor & Publisher*

QualPro, a quality improvement consulting and implementation firm based in Knoxville, Tn., was recognized for its wide range success in the paper industry during its 1992 Leadership Symposium in Atlanta, Ga., this past year.

At a two-day Symposium, representatives of Boise Cascade, Potlatch Corporation's Northwest Paper Division, and Kieffer Paper Mills, Inc. all credited QualPro's consultation and training seminars for increasing their sales and market share over the past year, something rare for paper companies to do. During the presentations, Boise Cascade representatives described how QualPro helped them overcome the legendary problem of attaining quality groundwood, saving \$1.5 million in the process; Potlatch representatives recounted how QualPro's Eight-Step Procedure helped them significantly reduce paper breaks associated with the flying splice procedure to the extent of \$105,000 per month; and Kieffer Paper Mills representatives revealed how QualPro's methods aided in establishing continuous improvement measures in both their recycled pulp and paper mill.

Over 300 people attended the 1992 Quality Leadership Symposium, with 16 companies presenting their success with QualPro's Eight-Step Procedure for Improving a Process®. In addition, a president and two CEO's discussed how QualPro's quality improvement implementation process improved their



(L-r) Richard Greer, Total Quality Mgr., Boise Cascade; Art Hammer, Vice President, QualPro; Stuart Martin, "B" Operator, Woodyard, Boise Cascade; Jim McKnight, Scaling & Utilization Manager, Boise Cascade

company's overall competitive position.

The company provides process improvement consulting, training, technical support, and implementation assistance for process improvement. Through these methods, QualPro is able to improve production and/or administrative processes that are truly important to customers and which will provide significant bottom-line results for the clients themselves.

Founded in 1982, QualPro has more than 10 years of experience working with

over 500 national and international organizations ranging in size from less than 10 to more than 5,000 employees.

QualPro's ability to help its customers achieve success has made it a world leader in the implementation of quality improvement programs and has solidified its reputation as the process improvement expert. In fact, QualPro is so confident about the success of its services that it recently announced a "money-back" guarantee that ensures that client bottom line improvements are

greater than fees paid to the company. According to QualPro's CEO, Dr. Charles Holland, "Our clients have been able to demonstrate measurable savings over the past decade that exceed costs by a multiple of their investment in hiring our firm. Offering 'The QualPro Guarantee' to our current and prospective clients is a logical way to

distinguish our company from the growing number of firms that have not been able to bring about meaningful process improvement." Following are three unique case histories.

Case History at Boise Cascade

Quality groundwood has historically been a higher priced wood, which affects overall procurement philosophy,

inventory management, and operations strategies. For this reason, Boise Cascade formed a "Groundwood Optimization Task Force" to optimize the entire groundwood systems process so that the company could improve overall quality, productivity, safety and cost.

By using QualPro's Eight-Step Procedure, the Task Force has been able

A Visit with QualPro's Dr. Holland

Dr. Charles "Chuck" Holland, President, QualPro originally worked for Dr. Deming. Dr. Holland had the honor of being called by Deming one of his "masters."

Dr. Holland attributes much of his success to the bottom line profits early in his QualPro approach. "There must be early up-front results in a successful quality approach," he told PaperAge.

With a sustained 27 percent growth over the five past years, QualPro has been ranked number 80 in INC. Magazine's 500 fastest growing companies.

Below, PaperAge interviews Dr. Holland to expose our readers to some really dramatic approaches to quality.

PaperAge: Please give me some background on QualPro and the people involved in the company.

Dr. Holland: QualPro was founded in 1982 and is now one of the oldest and most experienced quality improvement consulting firms in existence. Our services include quality and process improvement consulting, public and in-house training, customer and employee surveys, implementation assistance, and technical support, all provided by a staff of 25 full-time, experienced quality improvement consultants.

PaperAge: Would you outline your company's business philosophy?

Dr. Holland: Our mission is to help clients improve competitive position through quality improvement. QualPro's success can be directly attributed to our unique implementation strategy, called the QualPro Process®, which we developed based on a philosophy of continuous, long-term improvement and powerful, practical statistical techniques. Many of our competitors focus on just one aspect of improvement, but we focus on a total approach that blends customized implementation plans with a focus on quick results, measurable returns

on investment, and continuing success. We stress employee involvement through the productive use of teams and emphasize data-based decision making. We help our clients satisfy their customers by focusing on the improvement of processes as a way to improve the product and service characteristics that matter most to the customer.

PaperAge: Detail The QualPro Process and the Eight-Step Procedure.

Dr. Holland: The QualPro Process is a time-tested, logical, and structured flow of events that defines what each participating company must do to improve continuously. The QualPro Process includes four distinct phases of activity, each designed to carry the organization toward eventual self-sufficiency in its successful quality improvement effort. Fundamental to the QualPro Process is the realization that the company must institutionalize continuous improvement. To do this, the company must first improve key processes, then expand the effort to include all processes.

While the statistical techniques required to improve processes are not difficult to learn and apply, their combined use is a skill that improves with experience. The framework that guides the timely and successful use of these techniques is QualPro's Eight-Step Procedure for Improving a Process®. Used diligently and correctly, the Eight-Step Procedure has never failed to produce significant improvement.

PaperAge: What Is Process Improvement?

Dr. Holland: The true objective of process improvement is to improve those characteristics of a company's products and services that matter most to its customers. For example, assume that a customer's primary concern is the brightness of a purchased paper. That customer is not interested in how the paper is made bright.

He or she knows only that if the paper is not bright enough, they won't buy it. We help the paper manufacturer by statistically examining the processes by which the paper is made and by identifying and implementing improvements to that process which will make the paper consistently bright enough to meet every customer's requirements.

Good process improvement efforts focus on achieving specific, measurable improvements, often in as little as six months. If a company has tried another approach to quality improvement and has not been satisfied, or if they've invested in another quality improvement firm and it has not paid off, a switch to process improvement can help them recoup that investment. QualPro can help them implement a company-wide process improvement program or work with them on a single process improvement project, whichever they prefer.

PaperAge: Are you a global company?

Dr. Holland: We have worked with over 500 of the United States' leading companies, as well as companies in Canada, Australia, Europe, South America, the Caribbean, and the Pacific Rim.

PaperAge: How does QualPro differ from other quality improvement consulting and implementation firms?

Dr. Holland: We believe quality improvement should pay off from day one. We teach companies to improve core processes that will pay off in improved bottom-line performance, improved competitive position, and improved market share. If a quality improvement effort is not paying off financially and competitively, than that effort is not working. At QualPro, we teach companies to focus on measurable results and to truly learn how to improve processes so that they may eventually become self-sufficient in their quality improvement effort. We offer special

to:

- Find a different mix of quality wood that requires less physical sorting in the woodyard.
- Set the standard deviations of 59 quality measures (73 percent) which are lower than the 1991 averages.
- Increase production to 30 tons per day compared to 1991.

After the implementation of the Task Force recommendations, the average AB groundwood requirements are 677 cords per day or a reduction of 269 cords per day (28 percent) of premium wood. Based upon projected groundwood requirements in 1992, an estimated savings of 100,904 cords of groundwood quality wood should be

realized this year for a total savings of \$1,587,220, thus improving Boise Cascade's overall competitive position.

Case History at Potlatch

Potlatch's Cloquet Paper Mill, along with its sister mill in Brainer, Mn., undertook several projects that were designed to improve the reliability and functionality of several manufacturing processes. One of these projects at the Cloquet plant was to focus on increasing the performance of the flying Splice on the #13 Off-Machine Coater. (The Flying Splice is a mechanical process that occurs at line speed averaging 2,000 to 3,000 feet per minute, splicing two rolls of paper together, producing one continuous web.)

Using QualPro's Eight-Step Procedure and Design of Experiments, the Potlatch "paster team" was able to achieve:

- 99 percent + dependability of the process.
- 26.5 percent decrease in downtime caused by lost pasters.
- A flowchart of the process to aid in understanding job functions.
- A substantial decrease in broke losses due to poor profiles.
- Improved morale of those who worked on the #13 Off-Machine Coater.

As a result, the company has saved an average of \$105,000 per month and has reinforced its competitive position.

Case History at Kieffer Paper Mills

Kieffer Paper Mills, Inc. of Brownstown, In., used QualPro's Eight Step Procedure in the start-up of its new, state-of-the-art, recycled pulp mill and for improving the recycling process in its 87 year old paper mill.

Kieffer implemented QualPro's Eight-Step Procedure approximately one year before the start-up of its new recycled pulp mill which enabled it to realize an in-depth knowledge of its customer's key measures before any pulp was produced. SPC tools were established throughout the system to monitor process stability and provide the base of data necessary for process optimization. As a result, Kieffer entered the recycled pulp market last summer as a strong competitor with the ideal of continuous process improvement.

The dilemma that Kieffer's 87 year-old paper mill faced was the fact that its customers were dissatisfied with the quality of its premium grade white

training programs to lead and manage their company's self-sufficient quality improvement program with little or no outside assistance from QualPro.

Many of our competitors teach that quality improvement takes years. They focus on creating the culture for improvement by employee involvement, empowerment, benchmarking, improved communication, satisfying internal customers, and teamwork. They never get around to significantly improving core processes.

Our experience indicates that dramatic cultural improvements follow significant process improvements.

PaperAge: Tell us about the QualPro Guarantee.

Dr. Holland: We are so sure that we can help any company improve, that we'll guarantee our work. We know of no other quality improvement firm that makes this offer. The QualPro Guarantee states that if, upon completion of Phase II or Phase III of the QualPro Process, a contracted client company has not experienced a bottom-line impact greater than the fees paid to QualPro, we'll return the difference, up to the full fee amount. We also offer an alternative contingency agreement, which offers client companies the opportunity to compensate us for all quality improvement services through fees based on a mutually agreed-upon percentage of the gains achieved by the client as a result of its implementation of the QualPro Process.

PaperAge: Please list some of the companies in which you have successfully implemented your quality improvement program.

Dr. Holland: Potlatch Corporation; Alco Chemical, Inc.; Kieffer Paper Mills, Inc.; Allied-Signal, Inc.; Bowater (portions of); Anderson Memorial Hospital; Boise Cascade (portions of); Asten Press Fabrics, Inc.; Madison Paper Industries; Beaulieu of America, Inc.;

Charlotte Pipe and Foundry; GOBE Cardiovascular; Crompton & Knowles Corporation; DeRoyal Industries; Dresser Industries, Inc.; Du Pont (portions of); ECC International; Ellographics, Inc.; GTE; Harcros Pigments, Inc.; Hillshire Farm and Kahn's; LaRoche Industries, Inc.; Kohler Company; Korn Industries; Mayfair Mills, Inc.; Methodist Medical Center; Milliken & Company; Monsanto Chemical Company, (portions of); Southeastern Freight Lines; Southwestern Bell Telephone Company; Tietex Corporation; Unichem International, Inc.; Unocal Corporation; W.R. Grace & Company (portions of); Weaverr

PaperAge: Does the pulp and paper industry pose any unusual quality problems?

Dr. Holland: Every industry and every company is different, and so has its own unique quality improvement challenges. Within the paper industry, we've worked with all types of processes and machinery, with excellent results every time. But that's just the nature of process improvement. The tools we use will work in any industry, in any company, and for any process, whether manufacturing or service. Some of the specific successes that we've accomplished within the paper industry have been from projects in the following areas:

Bacteria Control, Billing, Blend Chests, Coater Scratches/Streaks, Coating, Dilutions, Core Length Variation, Crush Mark Elimination, Dirt Count, Environmental Control issues, Fiber, Loss, Flying Splices, Green Liquor, Groundwood Chip Quality, Kraft Paper, On-Time Deliveries, Order Entry, Paper, Brightness, Pulp Consistency, Paper Stiffness, Paperboard Warping, Roll Wrapping, Sheet Levelness, Sludge Press, Tape Breakage. ■

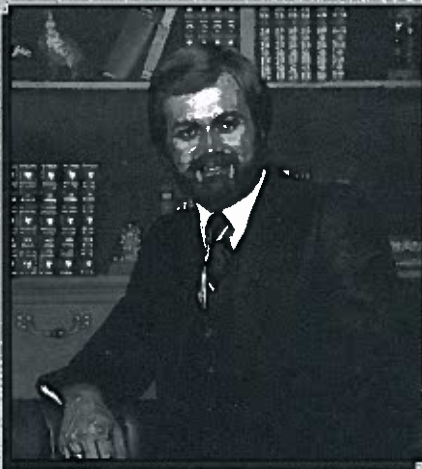


Russell Young (r), Woodyard "D" Operator in Boise Cascade Corporation's DeRidder, La., mill, discusses with Art Hammer, QualPro consultant, the company's recent success in its Groundwood Operations. Using QualPro's statistical process improvement methods, the groundwood quality improvement team optimized groundwood mixes to reduce the need for premium groundwood, saving the company more than \$1.5 million.

paper. In order to combat the problem, top management and union officials began working together to implement process improvement and true worker empowerment. Through QualPro's Eight-Step Procedure and Design of Experiments, Kieffer has achieved:

- An immediate improvement in product quality.
- A stabilized system that clarifies how to improve the recycled paper process so that the workers can continuously meet customer needs and expectations.
- A system that both upper management and union employees truly understand which establishes true worker empowerment within the company.
- Improved customer awareness and support of Kieffer's effort to improve the quality of its products.

As a result, Kieffer's competitive position within the pulp and paper industries has been improved. ■



Profile: Charles W. "Chuck" Holland

Chuck Holland is the founder, chairman, and chief executive officer of QualPro, a quality improvement consulting and implementation firm offering process improvement consulting training, technical support, and implementation assistance for process improvement. QualPro has provided services to more than 500 national and

international organizations ranging in size from less than 10 to more than 50,000 employees.

Chuck's expertise in quality improvement, gained through years of industry experience, academic training, and a close association with Dr. W. Edwards Deming, has made him a sought-after speaker, author, and consultant. His strength lies in communicating the power of statistical methods as quality and productivity improvement tools and in simplifying these methods to make them understandable and usable. Chuck has consulted with more than 100 companies and has personally instructed over 10,000 QualPro seminar participants in quality improvement techniques and the use of statistical methods. These participants include individuals from all backgrounds - engineering, manufacturing, production, administration, research, and marketing - and at all levels, from top executives to line workers.

Before founding QualPro in 1982, Chuck spent 18 years with the Nuclear Division of Union Carbide Corporation.

Beginning that career as a process control statistician, he progressed through the ranks to supervisor of statistical applications, statistical services department head, and ultimately to quality division manager.

Chuck has been innovative in the use of Plackett-Burman screening experiments and has extensive experience in experimental design for development and production operations, as well as statistical quality control computer systems. He has taught statistics and management science on both the graduate and undergraduate levels at the University of Tennessee. Working with community business groups, Chuck has made quality improvement instruction accessible and has complemented his community's economic development activities.

Chuck earned a B.S. in math from Lincoln Memorial University, an M.S. in statistics from Florida State University, and a Ph.D. in management science with a concentration in applied statistics from the University of Tennessee. ■