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Customer Visit

Mr. William E. Garrison, Vice-President of Engineering and Governmental Affairs of Multimedia Broadcasting Company, accepted an invitation from the Product Investigators to attend their Quality Circle Management Presentation.

Mr. Garrison is well known and highly respected by the broadcast industry. He has served the broadcast business for 44 years, and during this period has witnessed many changes in the industry. He still plays a very important role in the Multimedia Broadcasting Company's final approval on the type and brand of broadcast equipment that the company purchases for their four AM stations, four FM stations, and five TV stations.

Mr. Garrison's reaction of the Quality Circle Management Presentation was one of surprise. Mr. Garrison stated that the amount of data that was presented, the manner in which it was presented, and the solution which they attained made this presentation one of the most professional presentations he had attended in quite a long time. He was also impressed with the fact that the people who researched the data were the same ones who presented it.

Mr. Garrison then agreed to meet with more of our Quality Circle members, "Built with Pride" Team Members, and then all of Harris Broadcast employees to discuss what the customer is looking for today and in the future. He cited expamples of past field problems on Harris and non—Harris equipment. Most of these problems could and should have been prevented. It is the sharing of such experiences which open the communication gap between the producer and the customer.

Quality Circle members have become increasingly aware that the customer is the most important part of every business, for without customers, no business has any reason to exist. We realize that our customers make our jobs possible for only one reason—because we supply quality products and services that they need at a fair price.

Mr. Garrison's comments were highly informative and his presence was very much appreciated by everyone.

Mangement Presentations

During the months of September, October, and November there were seven (7) management presentations given. The following is a brief summary of the projects and the solutions.

D-100, Fabrication Support—Project: Training-PDP/11-RSX11M Computer

The Circle felt that they were not utilizing the Dec Computer to do what it was purchased to do. Do to a layoff in the department the only person who had been sent to school to understand what the computer could do was now gone. A person who could be taught how to manage the system and be responsible for its activities was the answer. But this time let's be smarter, a second person should also be trained. They also felt that a course in Pascal Language would be very valuable so that further savings could be realized by combining some programs to save large amounts of time that is now being spent doing repetitive type work. A cost avoidance of \$6625 a year can be realized. An expenditure of \$4100 is required.

Management agreed on both accounts and dates are presently set-up for training.

D-140, Fabricators-Machine Shop—Project: Eliminate Duplicate and Obsolete Raw Material The circle saw two problems which they felt could use corrective action. First: Duplicate Materials. There are two alloys of aluminum bar stock in our system, T-4 and T-6. T-4 has been in the system for a number of years. T-6 was introduced because of its strength and ability to be welded, and is required in building antennas. Solution, obsolete T-4 and replace it with T—6 across the board.

Second: Obsolete Raw Material. Over the years we have ordered material for special application and obsoleted others while still carrying an inventory of the material. This material is costing us money in inventory and taking up valuable room as we need more room for our new materials. Solution, gather up the obsolete material and remove it from our inventory and sell it. The two projects will save us \$20,669.

Mangement agreed and the project is now complete.

D-150, Charimen of the Boards-Project: Department Environment Control

The circle identified a problem with the environment in which they produce printed circuit boards. They did a temperature and humidity study for 45 days and presented charts and graphs of the variations they encountered. They presented what the vendor recommends for trouble free process. They also could see improvements in production by improving the work flow of the entire department. A complete redesign of the department was presented by phases and the cost of the phases is \$76,000, as well as productivity savings of over \$10,000.

Management agreed that the improvements were needed but due to the large expenses requested that they study all aspects and report back in February 1986.

D-220, Studioettes—Project: Maintain Floor Copy of Operation Procedure Sheets (OP's)

The circle saw a need for keeping their O.P.'s in their department. The present system was explained. Every order for a product requires a set of O.P.'s to be pulled from the master file and a copy ran and sent to the assembly line. It makes no difference whether the order is for a quantity of 1, or a quantity of 100.

The proposed system: To keep a copy of all the O.P.'s in the department. Methods to send a copy of the revision sheet to the department. Department supervision to insure that the O.P.'s and the revision sheet are the same revision level. Methods is to be called by the supervisor if any discrepencies are found, to insure the correct O.P.'s are present before the product can be ran. This project will save many hours of the Methods time as well as many pieces of paper. The labor cost avoidance is \$259 and material savings of \$230 for a total of \$489 per year. Time and material savings will increase as JIT becomes a bigger part of our scheduling plans.

Management agreed and the proposed system is operating well.

D-310, Product Investigators—Project: OP Sheet Storage and Control

The Circle took on a large projet and did a great job of researching all aspects to come up with a solution. The department was running out of room, 74 file drawers of O.P.'s and growing daily as the system kept changing and adding products. However this was just part of the problem. Methods had to maintain a copy of the text on the Lanier Word Processor as well as the 74 file drawers of text and sketches it takes to make an O.P. The present method required to create an O.P.: handwritten text and handdrawn sketches for pilot production; handwritten text entered on word processor, printed and returned to Method Tech., sketches re-drawn on printed O.P.'s and filed in one of the file cabinets.

A new system was needed that could do the text as well as do all the sketches. The proper system was found after a lot of research which could do both, as well as maintain a library of sketches. This system could also be attached to a printer so that running copies on a copy machine could also be eliminated as well as produce a better product to their customers' the manufacturing assembly departments. A yearly savings of \$24,575 can be expected, however a cost of \$26,446 for the system is required.

Management agreed and the system is being purchased.

D-360, Gophers—Project: Router, Lugs and Lugger Problems

The Circle had examples of router problems and explained the need for all work orders to be

accompanied with routers. They had done research for 6 weeks and during that period of time 15% of their work orders did not have routers with them. They further explained that routers are needed for time reporting, proper scheduling and product costing. They also had examples of problems with the actual time and the standard time on the routers.

The Circle also uncovered a serious problem with our T & B Luggers Model #WT145A. The T & B Lugger Model #WT145C which looks identical does not crimp red turbo wire satisfactorily. This could be a serious field reliability problem. Solution was to gather all Model #WT145A and mark the head of the luggers red to indicate that it is to be used on red turbo wire and notify all employees of the reason why, so that we may avoid costly quality problems.

It was also the suggestion of the Circle for Engineering to look at a new style of lugs and lugger as well as a replacement for the red turbo wire.

Management agreed and requested that Engineering give the Circle the feedback. They also requested the Gophers give a follow-up presentation on the router problem in February to monitor the improvement.

D-410, Maintenance Pro Shop—Project: Furniture Storage, Parking Lot Improvement and Lawn Drain Problems

The Circle worked on three different projects at the same time. Furniture Storage: Our office furniture was stored in fifteen different locations and no one knew what exactly was in each location. Thus a lot of lost time looking for certain types of furniture and these areas were unsecured. Working together with Program Management an area was secured in Building #10 where all of the furniture is now stored for easy locating.

Parking lot improvements: The lots for buildings 1 & 10 need patching and resealing. An outside contractor submitted a bid of \$25,000 to do the work. The circle investigated what it would take to do the job in materials and labor. They also discovered that a mix of sand and sealer will reduce the slickness of the surface. The result of their investigation will save the division \$12,500 and extend the life of the lots an additional four years.

Lawn Drain Problems: The area between 30th street and building #1 parking lot is full of water everytime it rains. This is commonly known at Lake Harris. The Circle surveyed the land to find out what the true problem was. The survey showed that the lawn drains were too high and that the erosion of the ground around the drains were caused by possible leaks in the drain system. This erosion caused this area to be cut by hand due to the large holes and constant filling with dirt and rock which did not last more than a few months. A contractor was called and submitted a bid to add an additional drain and repair the leaks in the present drain system. The total cost avoidance of these projects is \$13,158.

Management agreed that all three projects were worthwhile and should be completed as soon as possible. First, furniture storage is complete; Second, patching to be complete this fall and sealing the lots in spring of 1986; Third, the contract has been signed for the repair of drains and additional drain installed.

"Leadership is a Positive Attitude"

An article in the October, 1985 Quality Circle Digest defined leadership as the process of helping others to do worthwhile things they want to do. The article also stated there are four qualities evident in all successful leaders: $\frac{1}{2}$

- 1. Sets a positive example as a person.
- 2. Takes a dynamic approach to activities with enthusiasm.
- 3. Brings out the best in others and can get them to work together for the realization of commmon goals.
- 4. Has a strong positive outlook and gets this same positive reaction from others.

The above definition and qualities of leadership is also the basis for the participatione management philosophy of Quality Circles. Being a strong leader is not limited to only those persons in management positions. We can all show leadership, and participating in Quality Circles is just one way.

Also, showing enthusiasm and having a positive outlook is every bit as important in obtaining positive results as the technical skills we use in our jobs. The leadership we apply to performing our jobs is very important to the success of the company.

Jim Morton

Facilitator Notes

By Jim Morton



Eight Supervisors and Managers completed the 20 hour Quality Circle Leader Training course on November 1. They were Jim Brown, Paul Buckman, Harry Cline, Kim Hermann, Don Hert, Jack Schooler, Lee Smith, and Bob Strode.



Service Parts Quality Circle started training on November 6 and completed training on December 11. Members are Jim Brown (leader), Richard Kunz, Oscar Fuller, Mary Kaye Kovachevich, Pat Rumsey, and Rick Tinklenberg.



The first circles in Engineering, Customer Service, and Finance have been started! The Mechanical Drafting Quality Circle started training on November 8 and completed training on December 9. Members are Don Hert (leader), John Bibby, Sam Crouch, Wayne Fessler, Virgil Krull, Chris Renard, Gene Semon, Judy St. Clair, Jim Toedte, and Larry Wiseman.



The Printed Circuit Board Assembly Quality Circle started their Circle activities on November 19 after completion of their training. Members are Jim Winking (leader), Rhonda Riggs, Joyce Saunders and Fumiko Stuckey. In their training session were new members of other Circles who joined after the Circle was started. They are Dan Dunn (Facilities), Ralph Jones, Steve Blentlinger, Ron Clampitt, Richard Farr and Jack Leaver (Fabrication).

Larry Mack, Kim Stevens, and Shorty Williams are new members of the Quality Circle Steering Committee for a term of one year. Please give your suggestions for Quality Circles to them. Jerry Long and Sharon Myers recently completed their year, and I would like to thank them for their comments and suggestions given to the Steering committee. I am also pleased to announce that funding has been authorized to set-up a Quality Circle room in building 10. We will use the office previously used by Gene Jaeger, and it should be ready for use by February.