

ICQC '87 Tokyo Closed as a Great Success 423 Delegates Participated from 43 Overseas Countries 151 Papers Presented from 38 Countries

OPENING ADDRESS

I'm sure you are already aware that ICQC — Tokyo is the third conference of its nature. The first one was held in 1969, the second in 1978. That is to say, we have been holding this conference in every nine years. At the occasion of the first conference, we have had overseas participants numbering 178. And the second conference registered the participation of 254. And this time, we had participants of above 420. The present Japanese yen exchange rate is extremely unfavorable for all those overseas participants. We were therefore a little afraid and concerned that the number may decline compared with the previous conference record. But contrary to our expectation, we were able to welcome a great number of participants, which we are extremely happy with. I think this demonstrates the very fact that the importance of the quality control (QC) has been widely recognized in all corners of the world.

Japan is faced with the task of rectifying the trade imbalances. Thus we have to suppress the export and we have to stimulate the domestic demand. And presently, the Japanese government is making efforts to this end. And therefore, the structure of the Japanese industry is going through some changes. And for that purpose, there will be new industries being developed. And I think those newly established industries would have to introduce and promote QCs and we are presently engaged in researching what kind of measures we should establish to achieve that

goal. And I think in other countries, there are similar situations taking place, namely restructuring of some industries. And I think there will be new experiences to cope with such new, emerging industries in introducing of QCs.

And at the same time, the advancement of science and technology are remarkable in many parts of the world. The new products and new businesses are appearing. And all these new products and new businesses require even higher level of quality, thus enhancing and upgrading the roles to be played by the QC.

We have to cope with the changes of the society and the economic situations. Therefore, the QC researchers of many countries are upgrading the level of research and also they are experiencing many new aspects. And I think there will be papers which will brief us and familiarize us with the wisdom and their experiences. I hope this will be the place where we can exchange our experiences and deepen our knowledge, thus contributing to the further development of the QC on the global scale.

Now finally, to all those participants who are joining the conference, I should like to extend my sincere appreciation as well as my sincere welcome. To all those lecturers and all those participants and panelists who will join the discussion as

well as those who will announce their research papers, I should once again like to extend my sincere appreciation. Thank you very much.



Kohei Suzue
Chairman, Organizing Committee
ICQC '87 Tokyo

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KEYNOTE ADDRESS

“QUALITY FIRST — AGAIN AND EVER”

Shoichiro KOBAYASHI
Chairman, the Board of Directors,
The KANSAI ELECTRIC POWER CO., LTD.

Finds TQC Fascinating

In the past years we had an experience of launching the company-wide campaign for better customer services. This was to establish and develop the good customers relations, and this campaign was supported by the three principles: (1) abundant electricity supply at high quality and lower prices, (2) sincere customer services and (3) contribution to development and prosperity of local community. It seemed to me that those traditional management principles we followed might have something common with the user- or customer-oriented quality first idea as very often referred to in TQC. And I gathered that if I were to introduce TQC, this scientific management method built on the customer-oriented quality improvement idea on a company-wide basis, I might or might not innovate the business awareness of each employee and restructure the regional monopoly business practices which certainly tend to be self-complacent in many cases.

However, when it comes to the practical implementation of the customer-oriented quality first principle in our TQC activities, the management and the employees were still in a distress. This is because, as I mentioned already, we had not defined clearly what “the quality requirements” mean to the electric utility in practical terms, what “the quality control” is for us. And among others, we did not have a distinct basic idea or policy for our own quality control.

Employees were also very busy at heated debate on what should be the basic idea or policy for the quality control at Kansai Electric. Such discussions were repeated at many levels of the corporate organization and they centered upon the following two major points: First. How should we define the “customers”? Of course, some 10 million consumers who now use electricity in our service area are naturally our customers; and our traditional management principle of securing “abundant electricity supply at high quality and lower prices” can apply to each of these

present customers. However, some questioned if it was all right simply to take into consideration the customers presently receiving service from us. As electricity demand continues to grow, the electric utility will be required to add new power stations and other power supply facilities to pick up incremental demand. When it comes to new nuclear capacity addition, it will generally take ten years and more to complete the work. If we look at the capacity additions with a generation mix of hydro, fossil fuel, nuclear and other sources, we will have to plan in a much longer term perspective. Let me put it this way. At the time when we mapped out the plans for a power station or stations now under construction or when we are building new power stations or transmission lines, we were and are already involved in the job of creating the quality requirements of electricity service which future potential customers may request the electric utility to satisfy. In this context, we came to recognize that it should be important to consider future potential customers and their quality requirements.

QC in Electric Power Supply Industry

Another argument came out. Large and many power stations, transmission lines, substations and distribution lines are installed and make a huge power supply network in many local communities within and outside the Kansai Electric's service area. Therefore, these local communities and the population living there should also be included in our customers. Power stations are something like the production centers or factories of the manufacturing industries, and as a matter of fact our relations with a community or communities where the power generating facilities are located have been and are very close and good. Transmission lines, substations or distribution lines may or may not cause any inconvenience on the communities where part of these facilities run through. Therefore, we decided to include the local communities and the population living there as our customers,



because they are considered as neighbours to our own facilities.

As far as the quality requirements for these “community-related customers” are concerned, we selected safe operation and maintenance of related power supply facilities and balanced harmony of the facilities with the surrounding environment, as two major quality elements. This is because we can secure quality requirements for these customers by eliminating inconveniences they may possibly suffer from our own facilities.

Thus, we adopted a broader definition of our customers, covering not only the customers presently purchasing electricity from us but future potential customers and the population living in a community or communities where our own facilities are or are to be located. When we came to this broader definition, our early distress was wiped out and we could convince ourselves. And I understand that such a definition could come out for the very first time as a logical consequence of the commitment of an electric utility company to TQC.

Second point is related to the relative importance of the quality element. As I described so far, we could develop our own clear concept on the customers for whom we are required to provide the quality. A question here was whether we should place a top priority on the quality element among the four basic elements of quality, cost, delivery, and safety, simply for a reason of “quality first” ideology. Can we satisfy the customers by supplying electricity with little fluctuations in supply voltages and frequency and at an extremely low interruption probability? The answer is “No”. Customers’ need and expectation for lower electricity prices were by far larger than anticipated by us, and we should prevent any situation from developing that our own facilities could cause or be caused to give a feeling of uneasiness to the neighbouring population. We repeated discussions with our counsellors on these two points. Our final conclusion was that we should satisfy and achieve all the four elements of quality, cost, delivery and safety at one time and simultaneously. This conclusion, it seems to me, was a new concept which could come out of the TQC application to the electric utility industry.

User-Oriented Quality

After repeated discussion processes, we could finally arrive at our own basic quality control policy incorporating the user- or customer-oriented quality first principle or idea. Our policy is to maintain a long-term efforts to secure and achieve stable supply of quality electricity service at lower prices with due consideration to safety and balanced harmony of the power supply facilities with the environment, and to meet the customers’ needs or requirements in a positive and satisfactory manner. We also adopted a corporate motto “Kansai Electric — A Concern for Quality and Reliability”. We were then completely free from any distress, doubts or scepticism. We boldly headed for practical implementation of the company-wide quality improvement activities.

Electric utilities are the regulated public utility business operating on a regional monopoly basis and with less flexibility in marketing activity. Electricity prices are to be approved by the Government. However, the customer-oriented quality first principle can be applied to its full measure in the electric utilities. Customers can use electricity any time they want by simply turning on the switch, but they practically have no option to select the electric power company they like. In this regard, the electric utility should think much more of the customer-oriented quality first idea than the manufacturing and construction companies. I, the management and the employees could have a better understanding of this need during the course of discussing and mapping our own quality control policy. And as we deepened our understanding, we could gain more confidence in what we were doing.

I believe that many more corporations and industrial sectors will plan to introduce and implement TQC in future years. Each business firm, each industry has evidently its own way of thinking on TQC, but I understand that the processes of our discussions which I have just described could be of any good guide to such a business firm and such an industry.



ICQC '87 Tokyo

INTERNATIONAL “MANAGING

Presided by

Over fifty questions were advanced from the floor, and twenty-one were discussed at Dr. Juran's discretion. Introduced here are questions asked by the Chairman Dr. Juran himself, and the panelists' replies.

Dr. Juran: Now I pose the first question to the panel and I will ask them sequentially, and they will respond to it. And this is a question of terminology. Question is as follows: In your company, what is meant by the term, “company-wide quality management”, or “total quality control”? May I start with Mr. Hudiburg, please.

Mr. Hudiburg: Well, at Florida Power & Light, the term “company-wide quality control” would imply a strong commitment to the customer, an identification of the customers' needs and wants and a systematic approach within the company to satisfy those same wants and needs. We use four different programs, primarily, I've already mentioned by name. The first one is the one I'm sure is quite familiar to an audience as sophisticated as this one: quality teams. We have 1,400 teams at the Florida Power & Light Company and our workforce is 14,000 employees. It is a voluntary program, but as you can tell from those numbers, it is very popular within the employee workforce.

The second aspect of it is the term “policy deployment”, again a term I think many people in the audience will recognize. In identifying the major needs of the customers and looking at where we are falling short, what some other major areas for improvement are; management identifies a few very high priority breakthrough areas, and, working both down and up, develop programs to make a major improvements in these significant areas. To maintain and systematize the gains that we make in each of the two earlier areas I mentioned, we employ a term we call “quality and daily work” in which we standardize, set up control programs to maintain those gains.

And the final part of our overall program, one that I didn't mention in my earlier talks, is a “vendor quality program.” Like most organizations, well over 50% of everything we get comes from some other vendor. And if we are going to do the job that we absolutely insist on within our own company to meet the needs of our customers, we are going to have to expect as high quality from our vendors as we do from our own company. That, then, I think, describes, Dr. Juran, the overall program at Florida Power & Light Company.

Mr. Ohnishi: We are calling “TQC” with our own words which is called “Refresh Zeon.” “Zeon” is the name of our company. So we call the TQC activities, “Refresh Zeon.”

Now let me explain concretely what we are doing in the spiritual terms. We are making it sure that everybody understands what it means “quality first.” And we try to gain the vitality to challenge against the difficult situations. Now, in concrete implementation level, we try to stabilize the operation and increase the productivity or develop a new product. We call all these elements as “upgrading the management efficiency.” So on both the concrete, material and spiritual sides, we call it “quality management — complete implementation of the quality management.” And this we understand to be the TQC. That is our understanding as we deploy the campaign. Thank you.



Mr. Sauer: In our company, we try to avoid the word “total quality control.” We would like to go on making it understood that we want to have the total quality or the total quality assurance. And total quality assurance in efficiency. Efficiency of every operation of our company, not only products and not only total quality for the needs and the satisfactions of the customers. Also, total quality of work for our employees, plus suppliers or dealers on efficiency and the participation of every body, which means a “full participation in creativeness and the results.”

Mr. Kuilman: I think that in Holland the word “control” is very different from the English expression. “Control” means “inspection,” and this is what we would like to get rid of. So we can't use the expression “total quality control.” So, we use “company-wide quality improvement.” And I'm afraid that you will hear a lot of repetitive words from behind this table, because we all mean the same by that. We, at least, in our company, mean that we want to have top-quality products, systems and services, and we want to have that quality confirmed by our customers in the market place. This is what we want.

PANEL DISCUSSION FOR QUALITY”

Dr. J. M. Juran

Dr. Juran: What do you consider to be the personal roles to be played by the chief executive, in order to lead the company into this what you call “total quality—” you don’t use the word “control,” but it is the total management of a company relative to quality, the personal roles, the specific deeds to be done by the chief executives?

Mr. Kuilman: I would think that unless your top man is not committed to quality, you’d better go to his office and try to convince him that it is of the greatest importance for his



company. If you fail to do so, make some promises to him that you can offer him some profit out of quality. And if you still fail to do so, I think you’d better seek another company or secular top manager. The top man must be really involved. If that is not the case, you and your company are both in trouble. And you must seek to find a solution yourself.

I think, furthermore, that man must create conditions in the company, so that we can realize the objectives of CWQI. And he must of course recognize achievements, and he must renew the approach of quality every other day.

He must have a strategic vision on quality, and he must invest in his company the idea that “quality comes first.” And that you will hear very often from this side of the table, but those people who have practical experiences in life know that the reality is very often very different. So, you must try to convince your top manager that he has to stick to his guns, and if he says “quality first,” it’s not only done by professors, but is done by practical chief executive officers. And that is of the great importance.

Dr. Sauer: Well, I think that if you stay to that what I said before, “that total quality assurance is a part of the culture of the company,” it has to be the part of culture of the chief executive. He has to give an example first. He has to give the messages from up to down, for updating the results of the specialists, of special task-force working on the quality cir-



cles, and show everybody that this is not only another system of capitalism to exploit the labor, and it’s also a way to make life in the companies as employers more human.

And last but not least, to build out of this slogan: “quality assurance” an ideology, a religion, may get a part of your daily normal human life.

Mr. Ohnishi: I think I am more or less in a similar point of view as has already been mentioned by other gentlemen. If we are to deploy TQC efficiently, firstly the leadership, initiatives and enthusiasm must come forth from the president or the top management. If the top management delegates this role to somebody else, nothing will take place, I believe. That is the situation I feel in regard to my own company.

So I think the leadership and enthusiasm and initiatives must come from the president. This is the most important role that the top management should play. Then how can we exhibit, how can we show the enthusiasm? I did some studying of TQC before introducing. And I was very much at a loss as to what presidents should do. My first idea was that the president should attend all the meetings, and that is how I began.

My activity, attending all the meetings related to TQC. It took five years before we could receive a Demming Prize application, and I had four professors giving us recommendations and advice, and there were about three hundred of meeting in which those professors and teachers have given us guidance. Within four years, seventy percent of the meetings I had attended.

I attended meetings three times a month. And I studied myself, and I tried to engage myself in the deployment of the TQC together with all the workers, and I think that was a very positive thing that I’ve done. I’m evaluating myself.

The second point is that since there are many employees, it is very difficult to talk with all the individual employees. So, maybe for instance, education of the middle management was very important. And at the same time, the all the divisions had to have champion leaders. And a “champion leader” — I don’t know whether it is a very good ter-

minology or not — but we tried to deploy the TQC centering around such champion figures.

Mr. Hudiburg: The CEO of an organization, I think needs to make the intellectual and every investment up front to
(Continued on Page 8)

ICQC '87 Tokyo

Photo Reports



Pre-Conference Seminar on 'TQC in Japan'



Panel Discussion



Technical Session



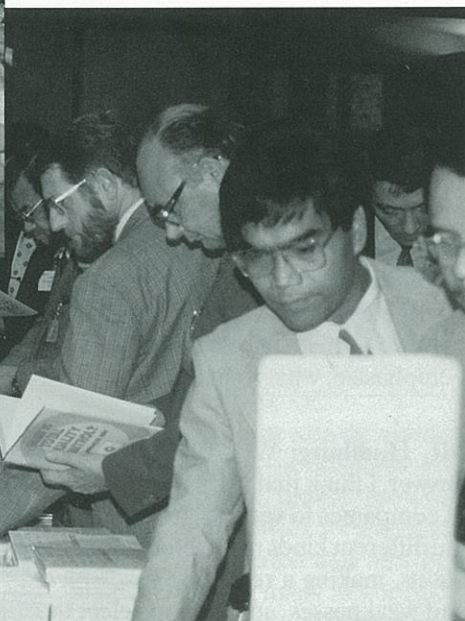
Poster Session

ICQC '87 Tokyo

Photo Reports



'Welcome Cocktail' Party



at the Lobby



'Kagami-wari' (Barrelhead breaking ceremony) at Farewell Dinner



Farewell Dinner

(Continued from Page 5)

understand just what he means by "quality," and what he expects to implement within the organization, and have a very clear idea of how he is going to go about it. Then, it's necessary to lead the organization, to be seen as being willing to spend the effort, put in the time that he expects from anyone else in the organization. I'll tell a little anecdote. One time at a conference similar to this, I made a distinction between the qualities that I thought the CEO needed to have, if it was gonna be a first-rate company, and those that I thought were clear signals that nothing very positive was gonna happen. At the end of the conference, I had eight people come up and ask me if they could go to work for us. Obviously they had seen something in their own organization they didn't like.

Dr. Juran: But the question I will raise with the panel is as follows: Let me preface this. We have many people in the room who come from companies that are in the early stages of trying to accomplish the kinds of results that you have accomplished in your companies. So they are starting, or not gone very far, on the road you have traveled for some years. From your experience to date, what would be your suggestion to companies who are in these early stages of going into getting the kinds of results that you've gotten. The sequence of steps to take, what to emphasize, what to avoid.

Mr. Hudiburg: Well, that's rather bills on my earlier answer. I think that it is necessary for the top management of companies to spend a great deal of time and investigate the different kinds of problems, looking at its own organizations, making a real good assessment of their strengths and weaknesses, and then to select that program that appear to most closely meet the needs of just what it is to be done and his views and how far he wants to go. You can begin in a division, you can begin with teams, you can go at it, top to bottom and an entire approach from the first day. But you need to think through very carefully before you even start just what it is you what to do and how committed you're gonna be to it.

Mr. Ohnishi: I should consider the goal of introduction of the TQC would be very important. And I think this has to be made known to everyone in the company. The goal has to be clarified and to be understood by all the members. In order to implement the goal, the TQC is the method most effective in attaining the goals. And you have to convince that it is necessary to introduce the TQC in order to attain the goals. So therefore, the top management must persuade by setting the goal and persuading everyone that the TQC activity is necessary. And the top management must obtain the consensus. And I think maybe this would be the best advice. It is a difficult process. But then I expected maybe 30—40% consensus who will move towards that direction, the remaining 30% will naturally follow the leadership of the first 30%. So concretely speaking, maybe first of all, the members of the board, directors and the middle manage-

ment, all the management have to attend the quality control seminars, symposium and must, first of all, study and acquire all the methods related. I think it would be the necessary basis. Therefore we must have a concerted, coordinated effort prevailing in all, including all the members of the companies.

Dr. Sauer: I would say that it is supposed that the top management knows exactly what advances with the total quality assurance. And everyone who forms the top management is convinced about it and motivated to realize this, and motivated and convinced that it's a need for a company. If this really happens, then the top management has to sell as soon as possible, as fast as possible these ideas and motivations from top to the bottom. And really convince every part of the company of the need and positive impact for a company. And specially has to avoid the opposition of the labor unions against the idea. The labor unions, if they are against it, you will have serious problems in your companies. Because that will split the motivation between the workers and the employers. And if this is all done, I will immediately, in a very large form, introduce the quality circles, as the best human way to convince people to demonstrate and see the results of the company policy.

Mr. Kuilman: I would start, as I said before, with the top executives. I would sit around the table with my top management and try to convince them that quality is important. Then I would select a group of about thirty top managers and I would send them to Japan. And we've done that. And had very good results. We forced them through a hard labor by putting the results on paper every evening. And we expected them to report straight to the board of management when they came back. As a matter of fact, on the day they came back, the whole board was present, and I had two speakers, and I had to give advice to the board of management, which I did. As a matter of fact, that was the start of the whole CWQI program. So I think that is a practical advice. Then of course, I would establish a structure and I would start the program.

What I would try to emphasize in a whole campaign is I would make a leading element in a whole campaign; customer satisfaction. And education and training is very important. And another element is the management of appraisal. So in the appraisal of the performance of your managers, I would make a place for quality. Not so easy, but I would do that. What to avoid? I would avoid impatience for quick results. All managers, certainly top managers, always want to see quick results. With quality, you have to be a little bit more patient. So don't stop if the result is not giving in another day.

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