

GLOBAL ENVIRONMENTAL PROBLEMS AND CORPORATE ETHICS

from "Total Quality Control", Vol. 42, No. 3, March 1991, JUSE, pp 75~79

Jiro KONDO, President
Science Council of Japan



Conservation of resources and energy

During the 1970s Japan underwent two oil shocks, and since then the nation's industrial circles have made efforts to reduce energy consumption as much as possible.

In a country lacking in natural resources, they have also endeavored to make effective use of materials and reduce waste to the minimum. These activities must be continued in the future, too. As an aid to these endeavors it is necessary to recycle resources and use thermal energy to the fullest, and this includes the cogeneration system.

In short, the amount remaining after deducting output from input should be reduced to the minimum, otherwise it may become industrial waste or harmful waste heat. Minimizing the difference means increased efficiency and reduced waste. And in many cases it can lead to greater corporate profits.

In 1978 Japan's automotive industry was enjoined to comply with a far more stringent restriction on exhaust gases than any other nation. The result of this restriction was lauded as a great achievement in an environmental report prepared by OECD (Organization of Economic Cooperation and Development). It is said that small two-cycle passenger cars made in former East Germany, called the Traband, discharge a hundred times the exhaust fumes of Japanese passenger cars. As far as fuel efficiency is concerned, Japanese cars average 16.0 kilometers per liter, while American cars get only 11.6. Forms of economical efficiency such as this have gone far to boost the export of Japanese automobiles.

Planning of new products

Henceforth it is required that, when new products are planned, environmental assessment should be accomplished in terms of materials and production, renewal and discharge, and recycling throughout their lifetime. It has been reported that vinyl, a product of high polymer chemistry and widely used for packaging and other purposes, has a bad influence on environment, for instance, because it resists deterioration and therefore remains so long; and in fact vinyl is sometimes even found in the digestive tract of whales. In light of this it has been urged that plastics which can be reduced by microorganisms be developed, and as of 1991 progress in accomplishing this has marked a certain degree of success.

Development of CFC (chloro-fluoro-carbon) alternatives is also under way, and it is expected that new materials will be introduced according to their required uses, for example, for cleansing or causing catalysis to freeze. Alternatives to CFC have yet to be discovered, however.

Research in the technology of absorbing carbon dioxide at its origin and converting it into substances that can be recycled, including methanol, is now being actively conducted by electric power companies. Two methods have been proposed. One involves utilizing the photosynthesis function of

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plants, the other is a chemical process in which hydrogen is added through a catalyst.

In addition studies focusing on processes are being carried out, taking into full consideration the needs of our planet, the goal being a revision of processing manufactured goods to methods consuming less energy.

The Research Institute of Innovative Technology for the Earth (RITE), established in July 1990, plans to subsidize research by inviting ideas for research publicly from around the world early in 1991.

Corporate cooperation for global environmental technology

Japanese firms are deeply interested in quality control. And their quality control activities should be applied as well to conservation of our world environment. In other words, executives responsible for QC, QC technology departments, and QC Circles should incorporate into their activities the conservation of energy and resources, countermeasures against the discharge of CFC and carbon dioxide, and so forth. It has already been found that the electric power, gas and electronics industries have been making progress toward such goals. ★

SUMMARIES OF REPORTS

Presented at Consumers Conference 1990

Osaka Meeting* on Nov. 1 at Chuo Denki Club

from "Total Quality Control", Vol.42, No.1, January 1991, JUSE, pp.60-62
reported by Ms. Kazuko KOMEMUSHI

Presentation 1:

MASTERING MULTI-FUNCTIONAL PRODUCTS

Kansai Chapter
National Association of Consumer
Life Consultants

This research attempted to clarify problematic points relating to multi-functional products by asking women in their twenties or older about five such products selected from among home appliances.

VTRs, refrigerators, electric ovens, electric rice cookers, and telephone sets were the appliances most often used, in the order cited, and it was found that in the majority of cases conventional functions were utilized while new functions rarely saw use. Each appliance was used most often among women in their twenties, being used less and as the age advanced, this owing to complications in handling.

The research asked manufacturers to make their products easier to handle, provide them with printed instructions richer in content yet simpler to read and understand, and develop lower-priced products giving consideration to safety and environmental problems.

Presentation 2:

HOW IS OUR DRINKING WATER NOW?

Ibaraki City Consumers Association

With environmental destruction and overall pollution steadily worsening, the research conducted strove to examine changes and trends in civil consciousness as regards the safety and taste of drinking water through the comparison of its results with those obtained by a similar survey carried out in 1987.

By classifying water according to source, the research investigated ways and means to make drinking water tasteful, the condition surrounding the use of water purifiers, civil awareness concerning the effects that cancer-causing substances and synthetic detergents can have on the water we drink. Currently more and more soap is being used, and many individuals are anxious as regards pollution as caused by agricultural chemicals.

Presentation 3:

SURVEY ON OUR RELATIONSHIP WITH THE AUTOMOTIVE SOCIETY

Osaka Housewives Union

It is said that the second traffic war is now in progress as the number of fatalities from traffic mishaps dramatically increases. Whatever, if the incidents of illegal parking were decreased, civic environment would improve, with traffic congestion eased and the frequency of motor vehicle accidents reduced.

The survey extended to families owning cars in the City of Osaka and classified them according to age bracket and sex. The results showed that more than eighty percent of the polled men and woman in their thirties parked their car in the street whenever going somewhere. This stemmed mainly from lack of proper parking space, and the research requested that more parking space be made available, strict control should be exacted regarding bicycles be set aside.

Presentation 4:

BRAND ORIENTATION IN THE SELECTION OF FOOD PRODUCTS

Laboratory of Consumer Life
Studies,

Mukogawa Women's College

Brand-oriented consumer purchasing has spread into many areas of the retail market, and in recent years even to foodstuffs that sustain the life and health of human beings. The survey investigated students and housewives to learn how they demonstrate brand-orientation when selecting foodstuffs as a means to make the information gained useful toward the improvement of consumer life.

Among the individuals polled, 20.2 percent generally stick to brands, while 57.2 percent do not. In terms of conditions for buying food products as gifts, more persons become brand-oriented, and this tendency manifests itself more clearly among housewives than students.

**Presentation 5:
SURVEY ON GARBAGE REDUCTION AND RECYCLING**

Kawachinagano Consumers
Association

In the City of Kawachinagano, where currently garbage is being disposed of to the limit of the city's facilities, a survey was conducted to find solutions to the problem of reducing the amount of garbage by whatever means possible, recycling collected garbage, and in general learning what to do about the situation.

Approximately 84.4 percent of the persons surveyed thought to reduce the volume of raw garbage by pressing or swishing out its water content. Cooperative attitudes were made evident by the fact that they use recycled paper and retrieve milk packages. Something like half of the individuals polled give no thought to garbage when shopping, but, as the age bracket advances, they more and more consider the problem of garbage, in particular the reuse of vinyl bags and trays.

**Presentation 6:
SURVEY ON COLLECTING MILK PACKAGES**

Kansai Division
Consumer Life Consultants Society

Various recycling campaigns are being carried out with the aim of minimizing the use of limited resources, and a movement for collecting milk packages is spreading as part of the campaign. In this context a survey was conducted focusing on the actual status of collecting and recycling, consumer consciousness there of, and the future outlook.

Investigation covered households in Osaka where packaged milk was purchased. Among the individuals polled, 91.7 percent knew that milk packages could be recycled, but only 17.8 percent of them were found to actually forward the

packages to anyone collecting them for recycling purposes. Differences in percentages appeared depending on urban district, and the variations largely depended on the availability of collectors. The results of research request that convenient places and means for collection be established.

**Presentation 7:
SURVEY ON AWARENESS RE PLASTIC PACKAGING OF FOODSTUFFS**

Technical Committee on Commodities,
Northern Osaka Livelihood
Cooperative Association

The problem of garbage disposal has intensified in direct proportion to the increasing enrichment of human life. In particular the amount of plastic materials used for packaging food products poses a very serious problem since they resist decomposition.

In light of this a survey was conducted to determine the awareness of housewives concerning plastics packaging of food products as well as how much plastic packaged food they actually buy during any given week.

In general, the women polled felt that there was too much packaging and they could not easily see the content for all the plastic. However, 8.6 percent of them regarded the plastic as good since it conveniently prevented the content from being broken or mashed out of shape. Housewives throwing away one to five empty plastic packages per day represented the greatest number, accounting for 76.6 percent of the total; and more than half of them felt that the number was too many. Of those surveyed, 77.9 percent expressed an interest in environmental pollution; they asked that packaging materials which could easily decompose without discharging harmful gas be developed and come into general use.

**Presentation 8:
THINKING ABOUT HOUSING FOR THE AGED IN AN AGING SOCIETY**

Prattlers' Village,
Society of Thinking About Life and Welfare

A survey was conducted in the City of Kashiwada with respect to housing for the aged, one of many problems arising in connection with social welfare activities, by dividing civic areas into three according to their attributes.

Among individuals surveyed, 63 percent owned a detached or single-family house. A total of 46.7 percent thought that they would like to live with their children, while 41.9 percent responded that they would not like such an arrangement. Welfare service were known to them but few actually used them. Based on this, it becomes clear that they should be provided with information expressed in terms easy to understand.

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POLICY MANAGEMENT OF AMADA WASHINO COMPANY

from "Total Quality Control", Vol. 42, No. 4, April 1991, JUSE, pp. 75~79

Tai MICHIURA
Managing Director
Amada Washino Company, Limited

The Progress of Policy Management

1. In June 1986 Amada Washino introduced policy management with TQC. Certain individuals claim that it is impossible to introduce policy management at a time when TQC is not fully understood. By contrast, I was of the opinion that TQC could be learned through the initiation of policy management.

First of all we formulated policy management rules, and types of policy management and devices for their implementation were established. Based on a trial and error method, while referring to cases of other firms, factors consisting mainly of management items and goal values were instituted so that corporate policies could permeate right down to the jobsite.

Corporate policies were drafted every six months (at present annually), and it was resolved that hearings on annual policies (announcement of plans), monthly reports as regards policy management be made individually by heads of divisions, and the president's semiannual diagnosis of policy management be carried out.

2. After policy management had been conducted for one year, the following problematic points surfaced:

- (a) Policies lacked continuity since there two no long-term management plan. Moreover it was difficult to draft policies with respect to what to do for the current term, bearing in mind future requirements over a period of several years.
- (b) Policies were completed semiannually, yet there was no continuity since it remained unknown how questions left unresolved would be reflected in policies formulated for the succeeding term.

As a means to find solutions, who measures were taken:

- (a) In 1987 a long-term management plan was formulated, and
- (b) Problems left unresolved were incorporated into policies for the next term by preparing a chart to cope with policy management questions.

3. Two years later found policies more fully developed, but

two new questions had presented themselves:

- (a) There was no clearcut relationship between functions of departments and policy management or day-to-day management, and items of management were roughly determined in policy control.
- (b) There were no concrete measures which could be taken when goals were left unattained.

As for the first question, management was improved so as to determine whether departments had fulfilled their respective roles, while functional development of departmental business was pursued and the roles of various departments were clarified.

Since it was assumed that goals were not attained because department heads were not fully oriented to the same direction, the method of determining policy was changed to one in which, instead of being referred to the board of directors, they were submitted for group discussion while still in draft form, then decided not by majority vote but with periodic revisions made following exhaustive debate until all the directors were persuaded.

4. The problem still left unsolved after three years was that countermeasures were delayed because activities to improve unattained items as regards policy goals were often concentrated at the end of each half-year term.

From fiscal 1989 on, therefore, monthly meetings for reporting on policy management were convened for leaders holding the position of section chief or higher, and during these get-togethers department heads reported to top management, which included senior managing directors and higher.

The objective of these meetings was to appraise members of various departments of the performance level, either good or bad, of other departments. As a result, measures leading to achieving unattained goals were introduced the following month, and differences in levels of policy management among departments were reduced as a by-product, making activities aimed at overall improvement more effective.

5. Countermeasures taken with respect to problems left unresolved included:

- (a) Clarifying matters and the time when measures should be taken by determining in advance, according to points of management, what should be done when goals are not attained.
- (b) Clarifying relationships between improvement activities and policy management, and promoting improvement so that goals set by policy can be attained.

Starting with our next term we should like to deal with this more thoroughly.

Formulation of Policies

1. Procedures for drafting annual policies

- (a) Every January long-term management plans are reexamined, directors are reoriented to one and the same direction through group discussions, and managerial indexes are reconsidered if necessary.
- (b) In February year-end reflections on annual policies are prepared in writing, a review is made of current term activities, and questions left unresolved are identified by looking at the actual results from April of the preceding year to January of the current year plus the projected results for February and March.
- (c) During the preceding two steps, the planning department prepares a draft of policies for the following term and submits it at a meeting of directors. Policies are determined based on discussions at the meeting.
- (d) Policies tentatively adopted are referred to group discussions by directors, and proposed annual policies are finalized after all in attendance have been persuaded, from where they are submitted to the president for final approval.

2. Content of annual policies

Our long-term management plan lists twenty-five items covering major strategy, and seventeen items relating to business administration and goal values including proceeds of sales, recurring profit, amounts of sales per capital, the rate of break-even point, etc. Based on our management plan, annual policies consist of four-item priority policies concerning quality, the amount of production, costs, employee training, administrative items, goal values and priority measures.

Points Characterizing Amada Washino Policy Management

1. Setting challenging goal values

TQC is designed to improve corporate structure, and its backbone is policy management. In TQC emphasis is placed on making improvements to as to attain goals, by setting challenging goals, and by creating new methods of performance

that are not merely a rehash of what has already been done.

2. Adjustment with an annual profit plan

An annual profit plan is set forth based on written policies, and as far as management cycles are concerned only policy control needs to be resolved. It is often said that policy likely as not will end up stripped of its effectiveness or pigeonholed, but I can safely state that neither happens at our company. At Amada Washino policy management and profit plans are adjusted together in such a way that profit goals are attained if policy management goes well. PDCA is revolved monthly in our policy management, but with profit plans we do not go farther than advising general managers of our monthly results.

3. Company-wide development with management items and goals as major factors

Corporate (the president's) policies and departmental policies are adjusted through a matrix which has as its principal factors items of management and goal values. This method works admirably in that goals are simplified: Each departmental goal merely needs to be attained to determine whether policies have been carried out right down to the jobsite and to attain the goals of the entire organization.

Conversely, a goal is established for a section of the department as, for instance, "Attain a hundred million yen worth of sales of a new product." It is questionable whether a department not directly concerned with sales can in fact conduct activities that will lead to attaining such a goal.

At Amada Washino we consider it inevitable at our current stage of TQC that profit plans and policy management be united. In the future we would like to resolve this matter by jointly applying the subdivisions of management items and goal values.

4. Powerful follow-up evaluation

Earlier I mentioned that monthly meetings for reporting to top management had been convened since the start of fiscal 1989. Judging from personal experience, these gatherings have been highly effective in that (a) ways to make departments excellent have been developed horizontally and (b) activities for achieving what heretofore has not been accomplished are introduced and implemented.

Evaluation is necessary if levels of productivity and profit are to be raised. Great emphasis is placed on evaluation, including that made by senior managing directors or persons in higher positions at conferences where reports are made, self-evaluation at the time of preparing written semiannual reflections, and assessments by the heads of various departments and their sections.

The most important points in making policy management successful are to develop corporate policies right down to the actual jobsite, and to thoroughly understand levels of function by carefully following up whatever is decided. ★

JUSE EDUCATION & TRAINING COURSES 1991

QUALITY CONTROL <QC>

- QC Top Management Course (5 days)
Karuizawa: July (2), Sep. (3)
- QC Executive Course (5 days)
Hakone: Apr. (1), May (1), June (1), Oct. (1), Nov. (1), Mar. (1)
- QC Introductory Course for Executive & Management (3 days)
Osaka: Apr. (1), Feb. (1)
Tokyo: Nov. (1), Dec. (1)
- QC Middle Management Course (12 days)
Tokyo: Apr.-July (2), Aug.-Nov. (1), Dec.-Mar. (2)
Osaka: Apr.-July (1), Aug.-Nov. (2), Dec.-Mar. (1)
Nagoya: Apr.-July (1)
- QC Basic Course (30 days)
Tokyo: Apr.-Sep. (2), Oct.-Mar. (2)
Osaka: Apr.-Sep. (1), Oct.-Mar (2)
- QC Introductory Course (8 days)
Tokyo: Apr. (1), Jun (1), Oct. (1), Dec. (1)
Osaka: Apr. (1), Jun (1), Oct. (1)
- QC Course for Sales Department (13 days)
Tokyo: Apr.-Oct. (1)
- QC Course for Purchasing Department (16 days)
Tokyo: Sep.-Jan. (1)
- QC Introductory Course for Purchasing Department (4 days)
Tokyo: Oct.-Nov. (1)
- QC Introductory Course for Sales Department (4 days)
Tokyo: Sep.-Oct. (1), Nov. (1), Jan. (1)
Osaka: July (1), Sep. (1), Feb. (1)
- TQC Instructor Course (6 days)
Tokyo: Apr.-May (1), July-Aug. (1), Sep-Oct. (1)
Jan.-Feb. (1)
- TQC Introductory Course for Service Industries (6 days)
Tokyo: Oct.-Nov. (1)
- QC Course for GMP (Pharmaceutical) (5 days)
Tokyo: Apr. (1) (Introductory), May (1) (Advanced)
- Introductory Course for Seven Management Tools for QC (3 days)
Osaka: Apr. (1), May (1), June (1), July (1), Oct. (1), Nov. (1)
Jan. (1),
Tokyo: Apr. (1), May (1), June (1), July (1), Sep. (1), Dec. (1)
Jan. (1), Feb. (1)
Nagoya: July (1), Sep. (1)
- QC Basic Course for Foreman (6 days)
Tokyo: Apr. (1), May (1), June (1), July (1), Sep. (1), Nov. (1)
Dec. (1), Jan. (1), Mar. (1)
Osaka: Apr. (1), Aug. (1), Nov. (1), Feb. (1)
Nagoya: June (1), Sep. (1)
Fukuoka: June (1)
- QC Basic Course for Group Leaders (4 days)
Tokyo: Apr. (1), May (1), June (1), Aug. (1), Oct. (1), Jan. (1)
Mar. (1)
Osaka: June (1), Jan. (1)
Fukuoka: Aug. (1)
Nagoya: Sep. (1)
- QC Circle Top Management Course (2 days)
Nagoya: July (1)
Osaka: Sep. (1)
Tokyo: June (1)
- QC Circle Instructor Course (6 days)
Tokyo: Apr. (1), May (1), June (1), July (1), Sep. (1), Oct. (1)
Nov. (1), Feb. (1), Mar. (1)
Osaka: Apr. (1), June (1), Sep. (1), Jan. (1)
Nagoya: May (1), Sep. (1), Jan. (1)
Sapporo: Sep. (1)
Fukuoka: Oct. (1)

QC Circle Leader Course (3 days)

- Osaka: Apr. (1), May (1), June (1) July (1), Sep. (1), Oct. (1),
Dec. (1), Feb. (1), Mar. (1)
Tokyo: Apr. (3), May (2), June (3), July (2), Aug. (1), Sep. (2),
Oct. (3), Nov. (2), Dec. (2), Jan. (1), Feb. (2), Mar. (2)
Nagoya: May (1), Aug. (1), Nov. (1), Feb. (1)
Sendai: Apr. (1)
Sapporo: Oct. (1)
Kokura: Oct. (1)
Fukuoka: July (1)
Okinawa: Jan. (1)
- QC Circle Course for Clerical Work (6 days)
Tokyo: Apr-May (1), Sep.-Oct. (1)
Osaka: June-July (1)
Nagoya: June-July (1)

RELIABILITY <RE>

- RE Management Course (4 days)
Tokyo: Apr. (1), Sep. (1), Nov. (1)
- RE Course (15 days)
Tokyo: May-July (1), Oct. -Dec. (1)
- RE Basic Course (4 days)
Tokyo: Apr. (1), May (1), July (1), Aug (1), Sep. (1), Nov. (1),
Dec. (1), Jan. (1)
- RE Course on FMEA-FTA
Tokyo: Apr. (2), May (2), Sep. (1), Oct. (1), Dec. (1), Feb. (2),
Mar. (1)
Osaka: July (2), Oct. (1), Jan. (1)
Hiroshima: Dec. (1)
- RE Course on Design Review (2 or 3 days)
Tokyo: Apr. (1), May (1), Aug. (1), Sep. (1), Oct. (1), Jan. (1),
Feb. (1), Mar. (1)
Osaka: June (1), July (1), Nov. (1)
Hiroshima: Sep. (1)
- RE Course on Test (3 days)
Tokyo: June (1), Sep. (1), Jan. (1)
- RE Six Day Course (6 days)
Osaka: Aug.-Sep. (1), Nov.-Dec. (1)
- RE Course on Failure Analysis (3 days)
Tokyo: Apr. (1), Oct. (1), Jan. (1)
- RE Course on Checklists (3 days)
Tokyo: Apr. (1), July (1)
Osaka: Feb. (1)

DESIGN OF EXPERIMENT <DE>

- DE Tokyo Course (30 days)
Tokyo: Oct.-Mar. (1)
- DE Osaka Course (20 days)
Osaka: May-Aug. (1)
- DE Introductory Course (8days)
Tokyo: Apr.-May (1), June-July (1), Aug.-Sep. (1),
Nov.-Dec. (1), Jan.-Feb. (1)
Osaka: Sep.-Oct. (1), Jan.-Feb. (1)

MULTIVARIATE ANALYSIS <MA>

- MA Seminar (7 days)
Osaka: Nov.-Dec. (1)
- MA Basic Course (4 days)
Tokyo: July (2), Mar. (1)
- MA Advanced Course (4 days)
Tokyo: Aug. (1)

(NOTE) The number with parenthesis represent the number of classes to be held)

OPERATIONS RESEARCH <OR>

Corporate Strategy, Managers Course
Tokyo: Mar. (1), June (1),
Corporate Strategy, Executive Course
Tokyo: Mar. (1), Nov. (1),
OR Introductory Course
Tokyo: Apr. (1), Oct. (1)

INDUSTRIAL ENGINEERING <IE>

IE Basic Course
Tokyo: June-Sep. (1),
IE Basic Course for Foreman
Tokyo: Aug.-Sep. (1), Feb.-Mar. (1),
Osaka: July-Aug. (1),

MARKETING RESEARCH <MR>

MR Seminar
Tokyo: Sep.-Dec. (1),

SENSORY INSPECTION <SI>

Sensory Inspection Seminar
Tokyo: Jan.-Mar. (1),

SOFTWARE PRODUCTION CONTROL <SPC>

Software Production Control Seminar
Tokyo: June-July (1), Sep.-Oct. (1),
Jan.-Feb. (1),
Software Production Control Seminar for Manager
Tokyo: Apr.-May (1), Oct.-Nov. (1),
New Finite Element Method Introductory Seminar (NFEM)
Tokyo: Sep. (1),

PRODUCT LIABILITY <PLP>

PL Prevention Introductory Course
Tokyo: May (1), Oct. (1)

OTHER MANAGEMENT TECHNIQUES

Statistical Application Seminar for Clinical Test (CT)
Tokyo: Sep.-Oct. (1),
Finite Element Method Seminar for Fluid Mechanics (FEM)
Tokyo: Apr. (1),
Cost Reduction Seminar (CD)
Tokyo: June-July (1), Feb.-Mar. (1),
VE Basic Course for Foreman (FVE)
Tokyo: May (1), Oct. (1)
Osaka: Nov. (1),

1991 Annual Conferences & Symposia

May 29 to 31 Quality Control Spring Conference in Fukui
(for Managers and Staff)
June 13 to 15 The 21st Symposium on Reliability and Maintainability in Tokyo
June 27, 28 The 2nd Symposium on Ergonomics in Tokyo
September 4, 6 The 21st Sensory Inspection Symposium in Tokyo
September 12, 13 The 11th Quality Control Symposium of Software Production in Tokyo
October 24, 25 Symposium on Computational Mathematics in Tokyo

JSQC Celebrate The 20 Years Anniversary on May 25 1991

To celebrate the 20 years anniversary of the establishment, Japanese Society for Quality Control (JSQC) is preparing to hold Asia Quality Control Symposium on May 24 and 25, 1991 at JUSE Tokyo. The Symposium will be to organize with the 5th Sino-Korea Joint QC Symposium which takes place in Korea and Taiwan annually by turn in cooperation with KSQC and CSQC so far. For the details, please contact to Japanese Society for Quality Control, c/o JUSE, Head Office, Tokyo.

October 29, 30 The 7th Quality Control Conference for Service Industry in Tokyo
November 1 The 32nd Consumer Quality Control Conferences in Tokyo and Osaka
November 5 The 21st All Japan QC Circle Convention in Tokyo
November 5, 6 The 15th Symposium on Multivariate Analysis in Tokyo
November 6 to 8 The 30th Foreman Quality Control Conference in Tokyo
November 11 The 29th Top Management Quality Control Conference in Tokyo
November 12 to 15 The 41st Manager & Staff Quality Control Conference in Tokyo

1991 Study Missions to Overseas and QC Circle Cruise Seminar

- April 6 to 20 The 3rd Software Production Quality Control Study Team (3SPCT) visiting U.S.A, U.K and Germany
- June 9 to 22 The 21st Quality Control Study Team (21QCT) visiting Germany, Hungary, Czechoslovakia & Others
- July 9 to 22 The 29th QC Circle Cruising Seminar (29QČS) visiting Hong Kong and Taiwan
- September 14 to 28 The 23rd QC Circle Study Team (23FQCT) visiting Yugoslavia, Bulgaria, Hungary, Czechoslovakia & U.K.
- September 25 to October 8 The 30th QC Circle Cruising Seminar (30QCS) visiting Hong Kong and Taiwan
- October 25 to November 2 The 10th QC Circle Team for South Asia (SEAQCT) visiting Indonesia, Singapore and Thailand

1990 QC CIRCLE ACTIVITIES IN JAPAN

— January through December —



Kaoru Ishikawa Award Established

In honor of the late Kaoru Ishikawa, Professor Emeritus of Tokyo University, who made great achievements in the realm of total quality control in Japan, in particular

introducing and fostering QC Circles activities, the Kaoru Ishikawa Award for QC Circles was established. The first award ceremony took place in Matsuyama City on December 6, at the 2,590th QC Circle Convention, and Mrs. Ishikawa attended as guest of honor.

ICQCC '90 Tokyo Held

The International QC Circle Convention took place October 24 through 26 in Tokyo. Following the 1978, 1981 and 1985 conventions, the 1990 gathering marked the fourth in the series to be staged in Japan. All of 810 delegates from 25 nations attended, 509 of whom were from abroad. A lecture by special guest Dr. J. M. Juran, titled "Worker Participation Development in the US," was impressed on their mind.

Number of Registered QC Circles Grows

During 1990 all of 21,077 QC Circles registered with QC Circle Headquarters, the combined number of their members totaling 142,604 persons. This brings the grand total of registered QC Circles to 321,317, the aggregate of their members amounting to a whopping 2,505,144. The number of QC Circle registrants for 1990 ran three percent higher than those recorded for the preceding calendar year.

QC Circle Conventions Booming

During calendar 1990 all of 183 QC Circle conventions (presentation meetings by QC Circles) took place throughout Japan. A total of 142,408 delegates participated, and 3,941 reports of problem solving were presented. Frequency of the conventions held is once every two days. As of the end of December 1990, an aggregate of 2,598 such meetings have convened since 1962. On November 5 the All Japan QC Circle Convention took place at Hibiya Public Hall in Tokyo; 2,276

persons took part, and eighteen presentations selected from nine regional chapters were made.

Big Turnout for QC Circle Training Courses

Shown below are the numbers of participants in various QC Circle training courses for calendar 1990, plus the numbers who have taken part since the courses were first introduced.

QC Course	Days	1990	Since	Total
QC Basic for Foreman	6	1,904	1967	33,470
QCC For Facilitators	6	1,912	1972	21,116
QCC For Top Management	2	158	1973	2,627
QC Basic for Group Leaders	4	911	1974	7,804
QCC For Circle Leaders	3	4,533	1977	38,234
QCC Course for Clerical Work	6	420	1979	6,819
QC Circle Orientation	1	2,581	1980	33,205
QCC For Promoters	2	304	1984	1,041
QCC Leader Course for Service Industry	3	263	1990	263
(QCC: QC Circle)				

QC Circle Cruise Seminars Logged Great Success

Two floating QC Circle seminars were held last year. The 27th left Japan during July, and the 28th during October, and their participants numbered 492 and 498, respectively. The cruise itinerary called for stops at Hong Kong and Taipei, with an exchange meeting at the latter. Each cruise lasted fourteen days, and the satisfaction expressed by all who took part can only be regarded as a highly positive indication of their success.

QC Circle Team Goes Abroad

The 22nd QC Circle Team, comprising twenty members, flew to North America on March 17. During their two week visit they called at six companies in the United States and Mexico, and took part in two QC Circle exchange meetings with great success.