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## THE DEMING APPLICATION PRIZE Q&A (2)



Shoichi SHIMIZU

Professor Emeritus Nagoya University

Vice Chairman of Deming Application Prize Subcommittee

**Q-10:** The second item in the Deming Prize checklist item is simply "Organization." Do you review a company's organization as part of the examination? Also, is it necessary to set up a special section to promote company-wide quality control? (See Fig. 1.)

**A-10:** The definition of "company-wide quality control" written in "The Deming Prize Guide" was revised in 1993. One might say that the term carries the meaning of "total quality management" (TQM) that many firms have recently adopted, rather than merely company-wide quality control (CWQC) or total quality control (TQC). Essentially, CWQC should be performed by all members in all sections of corporate organization. But in reality, it is often introduced because a company has not been able to perform effectively QC activity under the present organization. This necessitates the establishment of a TQC promotion department or similar. After companies pass the Deming Prize examination, few of them abolished their TQC promotion department. And in almost all cases the TQC activities of the companies became slow-down afterwards. Companies having passed the exam must want to raise their status even more, rather than resting on their laurels. If their TQC activities have reached the stage where they can promote TQC more than ever if dissolving their TQC promotion department, the companies may abolish the department.

A few corporations promote TQC activities by TQC promotion committee instead of a TQC promotion department. In such cases, it may become necessary to set up a reliable secretariat.

Also, many enterprises change their organizational structure in the process of TQC promotion. For instance,

there are cases in which, quality assurance department or a section for investigating status of customer satisfaction has been added. Check point (1) in the 2nd item is concerned to whether or not the organizational structure is suitable for conducting effectively CWQC and the extent to which employees are participating in the activity. When a proper organization is set up, each of the departments that constitute it naturally must be charged with responsibilities and authority. (2) is to see if these responsibilities and authorities are explicitly codified.

When an enterprise has a branched type of corporate organization, cooperation and communication in a system of so-called vertical direction-order-report are usually well functioned. But walls between departments are apt to take form horizontally. In these cases, liaison meetings are often conducted to maintain contact among departments. (3) is to see the extent to which departmental liaison is effected including cases that do not depend on such meetings.

Sometimes a project team is organized to resolve a specific problem, but it does not always follow that it functions well. (4) investigates such a situation. In promoting TQC, or in management extending to other fields, the efforts of staff members are extremely important. (5) is to assess their activities.

Systematic and organizational activities often fall short of satisfactory so long as they remain solely within the enterprise. It is essential that the company requests cooperation of its affiliates as a united group. Virtually no firm is self-sufficient, rather it works together with affiliated subcontractors, agencies, and sales companies. So, when promoting TQC, the relationship



Items	Checking Points
1. Policies	<ol style="list-style-type: none"> <li>(1) Quality and quality control policies and their place in overall business management</li> <li>(2) Clarity of policies (targets and priority measures)</li> <li>(3) Methods and processes for establishing policies</li> <li>(4) Relationship of policies to long- and short- term plans</li> <li>(5) Communication (deployment) of policies, and grasp and management of achieving policies</li> <li>(6) Executives and managers leadership</li> </ol>
2. Organization	<ol style="list-style-type: none"> <li>(1) Appropriateness of the organizational structure for quality control and status of employee involvement</li> <li>(2) Clarity of authority and responsibility</li> <li>(3) Status of interdepartmental coordination</li> <li>(4) Status of committee and project team activities</li> <li>(5) Status of staff activities</li> <li>(6) Relationships with associated companies (group companies, vendors, contractors, sales companies, etc.)</li> </ol>
3. Information	<ol style="list-style-type: none"> <li>(1) Appropriateness of collecting and communicating external information</li> <li>(2) Appropriateness of collecting and communicating internal information</li> <li>(3) Status of applying statistical techniques to data analysis</li> <li>(4) Appropriateness of information retention</li> <li>(5) Status of utilizing information</li> <li>(6) Status of utilizing computers for data processing</li> </ol>
4. Standardization	<ol style="list-style-type: none"> <li>(1) Appropriateness of the system of standards</li> <li>(2) Procedures for establishing, revising and abolishing standards</li> <li>(3) Actual performance in establishing, revising and abolishing standards</li> <li>(4) Contents of standards</li> <li>(5) Status of utilizing and adhering to standards</li> <li>(6) Status of systematically developing, accumulating, handing down and utilizing technologies</li> </ol>
5. Human resources development and utilization	<ol style="list-style-type: none"> <li>(1) Education and training plans and their results</li> <li>(2) Status of quality consciousness, consciousness of managing jobs, and understanding of quality control</li> <li>(3) Status of supporting and motivating self-development and self-realization</li> <li>(4) Status of understanding and utilizing statistical concepts and methods</li> <li>(5) Status of QC circle development and improvement suggestions</li> <li>(6) Status of supporting the development of human resources in associated companies</li> </ol>

Items	Checking Points
6. Quality assurance activities	<ol style="list-style-type: none"> <li>(1) Status of managing the quality assurance system</li> <li>(2) Status of quality control diagnosis</li> <li>(3) Status of new product and technology development (including quality analysis, quality deployment and design review activities)</li> <li>(4) Status of process control</li> <li>(5) Status of process analysis and process improvement (including process capability studies)</li> <li>(6) Status of inspection, quality evaluation and quality audit instruments and vendors</li> <li>(7) Status of managing production equipment, measuring activities</li> <li>(8) Status of packaging, storage, transportation, sales and service activities</li> <li>(9) Grasping and responding to product usage, disposal, recovery and recycling</li> <li>(10) Status of quality assurance</li> <li>(11) Grasping of the status of customer satisfaction</li> <li>(12) Status of assuring reliability, safety, product liability and environmental protection</li> </ol>
7. Maintenance/control activities	<ol style="list-style-type: none"> <li>(1) Rotation of management (PDCA) cycle</li> <li>(2) Methods for determining control items and their levels</li> <li>(3) In-control situations (status of utilizing control charts and other tools)</li> <li>(4) Status of taking temporary and permanent measures</li> <li>(5) Status of operating management systems for cost, quantity, delivery, etc.</li> <li>(6) Relationship of quality assurance system to other operating management systems</li> </ol>
8. Improvement activities	<ol style="list-style-type: none"> <li>(1) Methods of selecting themes (important problems and priority issues)</li> <li>(2) Linkage of analytical methods and intrinsic technology</li> <li>(3) Status of utilizing statistical methods for analysis</li> <li>(4) Utilization of analysis results</li> <li>(5) Status of confirming improvement results and transferring them to maintenance/control activities</li> <li>(6) Contribution of QC circle activities</li> </ol>
9. Effects	<ol style="list-style-type: none"> <li>(1) Tangible effects (such as quality, delivery, cost, profit, safety and environment)</li> <li>(2) Intangible effects</li> <li>(3) Methods for measuring and grasping effects</li> <li>(4) Customer satisfaction and employee satisfaction</li> <li>(5) Influence on associated companies</li> <li>(6) Influence on local and international communities</li> </ol>
10. Future plans	<ol style="list-style-type: none"> <li>(1) Status of grasping current situations</li> <li>(2) Future plans for improving problems</li> <li>(3) Projection of changes in social environment and customer requirements and future plans based on these projected changes</li> <li>(4) Relationships among management philosophy, vision and long-term plans</li> <li>(5) Continuity of quality control activities</li> <li>(6) Concreteness of future plans</li> </ol>

Fig. 1 The Deming Application Prize Checklist

between the enterprise and its affiliates presents a very important issue. (6) is to see the status of this.

**Q-11:** Is “Information,” the third item in the checklist, limited to quality information?

**A-11:** We conduct our examination stressing information on quality. But as stated in “Organization,” recent quality control has markedly taken on the character of total quality management (TQM) with quality as the core. Thus, “Information” is not limited to information on quality in its narrow sense.

To supply products or services that fully satisfy customers demands and distinguished from those of competitors, it is essential to gather information on not merely overt customer demands but also their subconscious desire and to confirm if the products and services already provided. The speed with which this information is conveyed also constitutes a vital factor. (1) is to check these matters. (2) is to see if various data centering on quality are properly collected and transmitted inside the company.

Information often needs to be analyzed and used for greater effectiveness. Here, statistical methods are very useful. (3) is to check how these methods are applied. It becomes embarrassing if it takes too long to retrieve collected and stored data in times of need. (4) is to judge if information is stored for easy retrieval.

Even if plenty of information is gathered, it is a waste unless utilized. (5) is to check the status of data use. In our information age, how to use information equipment and technology presents a vital issue for gathering, conveying, processing, storage and utilization of various information. (6) is to evaluate the status of information management.

**Q-12:** The fourth item in checklist is “Standardization.” To what extent should we prepare documents such as standards and instructions?

**A-12:** When effecting quality control, standardization is indispensable. However, when the examination of Deming Application Prize is conducted, the importance is placed on whether the aspiring company is applying quality control methods that suit its purposes. Thus there is no need to draft unnecessary regulations and standards. In this context, we cannot immediately state the kind and amount of documentations that a company should prepare for the examination.

In promoting standardization, it is first of all important to study carefully the standards, then draft a system to accomplish them. Check point (1) relates to this.

When establishing or abolishing standards, the procedure(s) for standardization must be established and faithfully obeyed. For example, when an operation manual is revised, sometimes some standards related



to the manual must also be changed. Neglecting to do so can lead to irregularities such as, if an operation is conducted according to a certain norm, it will contradict other standards. (2) is to assess such situations.

The fact that many standards exist matters little. More important is that their contents must be clearly stated. It is essential to know the extent to which useful standards have been established, and whether they have been replaced with better ones, and that these which became obsolete were deleted. (3) is to determine this.

The business content of firms applying for the Deming Prize vary greatly. For this reason it usually is hard to judge if the technological standards indigenous to each company are superior or not. But it is fairly easy to check whether matters like expression of the standards are adequate. (4) is to judge if the contents and expressions in the standards are appropriate. (5) applies to the degree standards are utilized and observed.

Standards constitute a precious intellectual asset for a corporation. All departments have their own technologies, "Know-how" such as the administrative technology for management, and sales technology for the sales force. Whether or not the levels of these technologies are superior determines business results. (6) seeks to decide how well an enterprise has systematically developed, accumulated, and utilized various types of technologies. Standardization begets creativity.

**Q-13:** Formerly, the fifth checklist item was "Education and dissemination." It has been changed to "Human resources development and utilization." To what should we direct our attention here?

**A-13:** Because the word "education" is apt to give an impression of forcing the issue, "Enhancement of human faculty and its exhibition." But the expression could imply too great dependence on self-enlightenment. So we settled on "Human resources development and utilization".

To uplift the ability of personnel, planned education and training demands first priority. (1) assesses the degree to which education and training are being conducted. It made little sense, however, if the knowledge and skill gained through education and training are not applied and fail to produce beneficial results. As the fruit of education and training with respect to quality control, awareness of quality and management and their understanding of quality control are judged in

(2). Education and training cannot be effective if trainees merely engage in self-enlightenment. Self-realization means to display by oneself the acquired ability. (3) decides the extent to which support of self-realization has been made, and the degree to which trainee motivation to undertake self-enlightenment and self-realization has been accomplished.

"Status of understanding and utilizing statistical concepts and methods" in (4) signifies that these factors are indispensable in CWQC. This is not to say that all employees should apply high-degree methods. Rather they would do well to use methods that are useful at their jobsites and which conform to their grade and the content of their work. Even a simple method, if practicable, will suffice.

We have positioned the QC circle to effect not only improvement but also practical activities to uplift the faculties of front line workers and promote their application. Improvement suggestions benefit enterprises, but they can also be regarded as an expression of enhancement of ability and its display. (5) is to check these. Therefore, it is favorable that the more employees make the improvement suggestions and the total numbers increase. Moreover, it is very important to support for fostering human resources in all companies affiliated with the enterprise applying the Deming Prize examination. (6) focuses on this.

**Q-14:** In the explanation given in the definition of "company-wide quality control," maintenance and improvement are always used as a set, but in the checklist they are treated independently. Is there any reason for that?

**A-14:** In Japanese quality control, management is expected to have two aspects, maintenance and improvement. As they differ in their method of rotating the management cycle, however, it is better to regard them as independent items.

Maintenance, or maintenance management, seeks to maintain the status quo (the so-called, stable or control state) when the results currently realized are satisfactory. Thus we deem it appropriate to continue the present way of functioning.

Therefore, in the "Plan" stage, object and means are determined as a set. The object should be shown as the level of the control state concerning control item currently obtained. The means should be stipulated the method currently adopted. In the "Do" stage, the stipulated method must be executed faithfully. In the



“Check” stage, we collect data of control item during the implementation process at designated intervals, and judge if the control state is being maintained. If so, we view it as in a management condition which requires no special “Action.”

If found not in control state, we deem it abnormal, and pursue the cause to take “Action.” In this, if the condition is unfavorably abnormal, permanent counter-measures must be taken to prevent its recurrence. When it requires too much time to discover the source of trouble, or is impossible to do so, temporary measures must be taken to remove the unfavorable state in one way or another. These are called emergency measures.

Conversely, if the condition is unusually good, we can improve it so as to continue the condition. This improvement measure and the above-mentioned action to prevent the recurrence of abnormal causes are called permanent or fundamental measures. They should be applied in the next “Plan” stage. In this manner the management cycle is rotated, and control charts present a highly useful way to accomplish it.

(1) through (4) of item 7 of in the checklist assess whether “Maintenance management activities” have been applied well. Along with 6-(1) “Quality assurance system,” (5) seeks to find if operation of the management system to deal with cost, volume and delivery dates is effectively practiced. It may happen that these management systems contradict the quality assurance system if relation with the latter is not considered. (6) is to check how well they are interrelated.

**Q-15:** We hear there are two kinds of improvement measures: the problem solving type and the task fulfillment type. Is there any difference between them in rotating the management cycle?

**A-15:** To make it concise, concerning QC circle activities, idea has been submitted that improving a bad condition to a normal one should be called the problem solving type, while upgrading a normal condition to a superior one should be called the task fulfillment type, thus making a clear distinction between the two. Improvement is, in the first place, something undertaken when the present situation is unsatisfactory. Therefore, in the “Plan” stage, the goal to which is attained in future is set as the objective, while at the same time means (also called measures or countermeasures) to achieve the goal are devised. “The means” means to change at least part of the present methods of operations. In the “Do” stage, the means is tried. In the “Check”

stage, data concerning results of the trial are gathered to see if the goal has been attained. If the trial went well, it is repeated several times to confirm its effectiveness, and to standardize the means to be adopted for further activities. This is the stage of “Action.” When the goal has not been attained, other means should be drafted and tried, thus rotating management cycle. We hope this will clarify that the procedure as differing from the case of maintenance. This type of improvement has often referred to, as problem solving, but recently it is called the task fulfillment type. Problem solving now relates to removing irregularities. In maintenance management described in A-14 in this article, when an abnormal condition occurs, “recovery” involves finding its cause and getting rid of it so as to restore the situation to its original control state. This also has been regarded as problem solving. Improvement in QC circle activities has mainly been this type. According to the process called “QC story,” many activities have been conducted to discover irregularities (problematic points) as appearing in one’s own work place, to pursue the cause and thereby exposing the irregularities, and to eliminate or at least reduce them by enforcing countermeasures. Taking it a step further, apart from the elimination or reduction of irregularities, new activities develop based on a theme (task) deemed better than the current moderately satisfactory condition and to achieve it, which has prompted drawing a line between the two types. According to distinction, improvements effected by workers mostly have been of the task fulfillment variety.

In the 8th item of the checklist “Improvement activities,” the following points are reviewed:

- (1) How have important problems or issues been chosen with respect to improvement activities?
- (2) How has the relationship between cause and effect been analyzed? How is it united with the company’s own technology?
- (3) In analyzing the relationship, has a statistical method been used?
- (4) Have effective measures been drafted by utilizing the most of the analyzed results?
- (5) To what extent have improvement been effected and the standardization of effective measures been applied so as to shift improvement activities to maintenance (control)?
- (6) To what degree have QC circles contributed to improvement activities?

**Q-16:** The 10th item of the checklist is “Future plans.”



On what do you base this for examination purposes?

**A-16:** That is a very pointed question. Quality control can be more effective if the aspiring enterprise continues it even after passing the Deming Prize examination.

**Therefore, we urge the company to:**

- (1) How does the enterprise investigate the current status of the own quality control when undergoing the Deming Prize examination.
- (2) If any problems remain unsolved, and whether or not the firm has drafted future plans to solve them.
- (3) Whether or not the company has drafted future plans based on the forecast as derived from collecting and analyzing information on how social environment and customers demands will change in the future.
- (4) If the future plans concerning quality control are appropriate with respect to its management philosophy and vision or its long term management plan.
- (5) If it has clearly disclosed its intention to carry out quality management continuously.
- (6) The extent to which its future plans have jelled.  
We will check these factors will be reflected in

the item "Policy" and so on.

**Conclusion:**

So far, explanations have been given for each item of the checklist in addition to answers for the questions raised. It is sincerely hoped that, by reading this article, the number of enterprise that execute company-wide quality control and apply the Deming Prize examination will increase thus contributing to the development of quality control not only in Japan but throughout the world, and to the prosperity of industries and the happiness of mankind.

Also, the checklist for the corporate executives in the Deming Prize Guide has been revised. Seven check points have been introduced for each of the seven items in the form of questions. Please read it through together with this article. Lastly, this article was written by request of the Deming Application Prize sub-committee, but the contents herein have not be placed within the domain of the subcommittee. If there are any arbitrary decisions or wrong expressions caused by personal bias, the author will assume all responsibility. ★

## DEMING PRIZE WINNERS

(Name of Companies at the time of awarding.)

### DEMING PRIZE FOR INDIVIDUALS

1951 Motosaburo MASUYAMA	1963 Noboru YAMAGUCHI	1977 Osamu FURUKAWA*
1952 Tetsuichi ASAKA	1964 Sadakichi SHIMIZU*	1978 Yoji AKAO
Kaoru ISHIKAWA*	1965 Masumasa IMAIZUMI*	1979 Hajime MAKABE
Masao KOGURE	1966 Masashi ASAO	1980 Shoichiro TOYODA
Nasao GOTO	Kiyomi KADOKAWA*	1981 Hajime KARATSU
Hidehiko HIGASHI	Kazufumi SEKI*	1982 Hiroshi SHIOMI
Shin MIURA	Tadasu FUJITA	1983 Minory TOYODA*
Shigeru MIZUNO*	1967 Jiro KONDO	1984 Tatsuo IKEZAWA
Eizo WATANABE	1968 Shinobu TOSHIMA*	1985 Yoshinobu NAYATANI
1953 Toshio KITAGAWA*	1969 Tadakazu OKUNO	1986 Ryoichi KAWAI
1954 Eizaburo NISHIBORI*	1970 Tatsuo SUGIMOTO	1987 Ryuichi KOBAYASHI
1955 Shigeiti MORIGUTI	1971 Teiichi ANDO	1988 Ren-ichi TAKENAKA
1956 Yasushi ISHIDA*	Yoshio KONDO	1989 Hitoshi KUME
1957 Ziro YAMAUTI*	Shoichi SHIMIZU	1990 Shoichiro KOBAYASHI
1958 Takeshi KAYANO	1972 Kotaro ITOH*	1991 Kenji KUROGANE
1959-1960	1973 Koichi OHBA*	1992 Masao NEMOTO
Kenichi KOYANAGI*	1974 Koji KOBAYASHI	1993 Yasutoshi WASHIO
Genichi TAGUCHI	1975 Taro YAMAMOTO	1994 Takanori YONEYAMA
1961 Takeo KATOU*	Yoshitsugu OHMAE	1995 Ayatomo KANNO
1962 Ikuro KUSABA	1976 Katsuyoshi ISHIHARA*	(*Deceased)



## DEMING APPLICATION PRIZE

- 1951 Fuji Iron & Steel Co., Ltd.  
 Showa Denko K.K.  
 Tanabe Seiyaku Co., Ltd.  
 Yawata Iron & Steel Co., Ltd.
- 1952 Asahi Chemical Co., Ltd.  
 Furukawa Electric Co., Ltd.  
 Nippon Electric Co., Ltd.  
 Shionogi & Co., Ltd.  
 Takeda Chemical Industries, Ltd.  
 Toyo Spinning Co., Ltd.  
 Kyushu Cloth Industry Co., Ltd.
- 1953 Kawasaki Steel Corp.  
 Shin-etsu Chemical Industry Co., Ltd.  
 Sumitomo Metal Mining Co., Ltd.  
 Tokyo Shibaura Electric Co., Ltd.
- 1954 Nippon Soda Co., Ltd.  
 Toyo Bearing Manufacturing Co., Ltd.  
 Toyo Rayon Co., Ltd.
- 1955 Asahi Glass Co., Ltd.  
 Hitachi Ltd.  
 Honshu Paper Manufacturing Co., Ltd.
- 1956 Fuji Photo Film Co., Ltd.  
 Konishiroku Photo Industry Co., Ltd.  
 Mitsubishi Electric Corp.  
 Tohoku Industry, Co., Ltd.
- 1957 (None)
- 1958 Kanegafuchi Chemical Industry Co., Ltd.  
 Kureha Chemical Industry Co., Ltd.  
 Matsushita Electronics Corp.  
 Nippon Kokan K.K.  
 <S>Nakayo Communication Equipment Co., Ltd.
- 1959-1960  
 Asahi Special Galss Co., Ltd.  
 Kurake Spinning Co., Ltd.  
 Nissan Motor Co., Ltd.  
 <S>Towa Industry Co., Ltd.
- 1961 Nippondenso Co., Ltd.  
 Teijin Ltd.  
 <S>Nihon Radiator Co., Ltd.
- 1962 Sumitomo Electric Industries, Ltd.
- 1963 Nippon Kayaku Co., Ltd.
- 1964 Komatsu Manufacturing Co., Ltd.
- 1965 Toyota Motor Co., Ltd.
- 1966 Kanto Auto Works, Ltd.  
 <D>Matsushita Electric Industrial Co., Ltd.,  
 Electric Components Division
- 1967 Shinko Wire Co., Ltd.  
 <S>Kojima Press Industry Co., Ltd.
- 1968 Bridgestone Tire Co., Ltd.  
 Yanmer Diesel Engine Co., Ltd.  
 <S>Chugoku Kayaku Co., Ltd.
- 1969 <S>Shimpo Industry Co., Ltd.
- 1970 Toyota Auto Body Co., Ltd.
- 1971 Hino Motors, Ltd.
- 1972 Aisin Seiki Co., Ltd.  
 <S>Saitama Chuzo Kogoya K. K.
- 1973 <S>Sanwa Seiki Manufacturing, Co., Ltd.  
 <S>Saitama Kiki Manufacturing, Co., Ltd.
- 1974 <S>Horikiri Spring Manufacturing, Co., Ltd.
- 1975 Ricoh Co., Ltd.  
 <S>K. K. Takebe Tekkosho  
 <S>Tokai Chemical Industries, Ltd.  
 <S>Riken Forge Co., Ltd.
- 1976 Sankyo Seiki Manufacturing Co., Ltd.  
 Pentel Co., Ltd.  
 <S>Komatsu Zoki Ltd.  
 <D>Ishikawajima-Harima Heavy Industries Co.,  
 Ltd., Aero-Engine & Space Operations
- 1977 Aisin-Warner Ltd.
- 1978 Tokai Rika Co., Ltd.  
 <S>Chuetsu Metal Works Co., Ltd.
- 1979 Nippon Electric Kyusyu, Ltd.  
 Sekisui Chemical Co., Ltd.  
 Takenaka Komuten Co., Ltd.  
 Tohoku Ricoh Co., Ltd.  
 <S>Hamanakodensho Co., Ltd.
- 1980 Kayaba Industry Co., Ltd.  
 Komatsu Forklift Co., Ltd.  
 Fuji Xerox Co., Ltd.  
 The Takaoka Industrial Co., Ltd.  
 <S>Kyowa Industrial Co., Ltd.
- 1981 <S>Aiphone Co., Ltd.  
 <S>Kyosan Denki Co., Ltd.  
 <D>Tokyo Juki Industrial Co., Ltd., Industrial  
 Sewing Machine Division
- 1982 Kajima Corp.  
 Nippon Electric Yamagata Ltd.  
 Rhythm Watch Co., Ltd.  
 Yokogawa Hewlett-Packard  
 <S>Aisin Chemical Co., Ltd.  
 <S>Shiwa Industrial Co., Ltd.
- 1983 Shimizu Construction Ltd.  
 The Japan Steel Works, Ltd.  
 <S>Aisin Keikinzo Co., Ltd.
- 1984 Komatsu Zenoah Co.  
 The Kansai Electric Power Co., Inc.

- Yaskawa Electric Manufacturing Co., Ltd.  
 <S>Anjo Denki Co., Ltd.  
 <S>Hokuriku Kogyo Co., Ltd.
- 1985 Nippon Carbon Co., Ltd.  
 Nippon Zeon Co., Ltd.  
 Toyoda Gosei Co., Ltd.  
 Toyoda Machine Works, Ltd.  
 <S>Comany Inc.  
 <S>Hoyo Seiki Co., Ltd.  
 <S>Uchino Komuten Co., Ltd.  
 <D>Texas Instruments Japan Limited, Bipolar  
 Department
- 1986 Hazama-Gumi, Ltd.  
 Toyoda Automatic Loom Works, Ltd.  
 <S>Nitto Construction Co., Ltd.  
 <S>Sanyo Electric Works Ltd.
- 1978 Aichi Steel Works, Ltd.  
 Aisin Chemical Co., Ltd.  
 Daihen Corporation Co., Ltd.  
 NEC IC Microcomputer Systems, Ltd.
- 1988 Aisin Keikinzo, Co., Ltd.  
 Asmo Co., Ltd.  
 Fuji Tekko Co., Ltd.  
 <D>Joban Kosan Co., Ltd.,  
 Joban Hawaiian Center
- 1989 Aisin Sinwa Co., Ltd.  
 Itoki Kosakusyo Co., Ltd.  
 Maeda Corporation  
 NEC Tohoku, Ltd.  
 TOTO Ltd.  
 <O>Florida Power & Light Company  
 <S>Ahresty Corporation
- <S>Toyooki Kogyo Co., Ltd.
- 1990 Aisin Hoyo Co., Ltd.  
 Amada Wasino Co., Ltd.  
 NEC Shizuoka, Ltd.
- 1991 NEC Kansai Ltd.  
 Nachi-Fujikoshi Corp.  
 Hokushin Industries Inc.  
 <S>Sinei Industries Co., Ltd.  
 <S>Niigata Toppan Printing Co., Ltd.  
 <O>Philips Taiwan, Ltd.
- 1992 Aisan Industry Co., Ltd.  
 JATCO Corporation
- 1993 NTT Data Communications Systems Co.
- 1994 Maeda Seisakusho Co., Ltd.  
 <O>AT & T. Power Systems  
 <S>AW Industries Co., Ltd.  
 <S>NT Techno Corp.  
 <S>Kouritsu Sangyosha Ltd., Partnership  
 <S>Diamond Electric Mfg. Co., Ltd.
- 1995 Ishikawajima-Harima Heavy Industries Co.,  
 Ltd., Nuclear Power Division  
 Mtex Matsumura Corporation  
 Kikuchi Metal Stamping Co., Ltd.  
 Toyoseiki Co., Ltd.
- Before 1994;  
 Deming Application Prize  
 <D>Deming Application Prize for Divisions  
 <S>Deming Application Prize for Small Companies  
 <O>Deming Application Prize for Overseas  
 Companies

## QUALITY CONTROL AWARD FOR FACTORIES

- 1973 Mitsubishi Heavy Industries, Co., Ltd., Kobe  
 Shipyard
- 1975 Sekisui Chemical Co., Ltd., Tokyo Plant
- 1976 Kubota Iron & Machinery Works, Ltd., Engine  
 Tech-Research Department  
 Kubota Iron & Machinery Works, Ltd., Sakai  
 Works
- 1977 Japan Aircraft Manufacturing Co., Ltd., Atsugi  
 Works
- 1979 The Japan Steel Works, Ltd., Hiroshima Plant
- 1980 Kobayashi Kose Co., Ltd., Manufacturing Division
- 1981 Matsushita Electric Works, Ltd., Hikone Factory
- 1983 Fuji Electric Co., Ltd., Matsumoto Plant
- 1988 Santory Ltd., Musashino Brewery
- 1989 Kobe Steel, Ltd., Chofu-Kita Plant  
 Maeta Concrete Industry, Ltd., Honsha Plant
- 1990 Suntory Ltd., Yamanashi Winery
- 1992 Nissan Motor Company Ltd.,  
 Oppama Plant  
 Toppan Printing Company Ltd.,  
 Electronics Division, Kumamoto Plant
- 1995 Nissan Motor Co., Ltd., Murayama Plant



## JAPAN QUALITY MEDAL

The Japan Quality Medal has been created to commemorate the world first International Conference on Quality Control (ICQC) which was held in 1969 at Tokyo. Its purpose is to up-grade the level of Company-wide Quality Control (CWQC) of the Deming Application Prize recipients.

The application to this medal shall be accepted only when the applicant company was already awarded the Deming Application Prize (excluding the Deming Application Prize for Divisions) more than 5 years ago.

The examination is carried out on the implementation of CWQC subsequent to the winning of Deming Application Prize. The method of judging is same as for the Deming Application Prize.

When judging qualified, an applicant will receive a plaque with Japan Quality Medal from the Committee. The winners and their awarded years up to present are listed below.

(Name of Companies at the time of awarding.)

1970 Toyota Motor Co., Ltd.	1985 The Takaoka Industrial Co., Ltd.
1973 Nippon Electric Co., Ltd.	1990 Aisin Seiki Co., Ltd.
1975 Nippon Steel Corporation	1991 Aisin AW Co., Ltd.
1977 Aisin Seiki Co., Ltd.	1992 Aisin Chemical Co., Ltd.
1980 Toyota Auto Body Co., Ltd.	Takenaka Corporation
1981 Komatsu Ltd.	1994 Aisin Keikinzoku Co., Ltd.
1982 Aisin-Warner Ltd.	1995 Maeda Corporation



## INVITATION TO INTERNATIONAL CONFERENCE ON QUALITY 1996 YOKOHAMA

— Quality - Key for the 21st Century —

Date	Morning	Afternoon	Evening
Oct. 14 (Mon)	(Conference Registration)		Welcome Cocktail
Oct. 15 (Tue)	Opening Plenary Session		
Oct. 16 (Wed)	Technical Session		
Oct. 17 (Thr)	Technical Session	Closing Session	Farewell Dinner
Oct. 18 (Fri)	Technical Visit to Japanese Companies		

\* Post-conference industrial tour : Oct. 19 (Sat) - Oct. 25 (Fri)  
\* Family programmes : Oct. 15 (Tue) - Oct. 17 (Fri)

Conference FEE: ¥65,000/person  
(Application before Sep. 25)  
¥70,000/person  
(Application after Sep. 26)  
Farewell Banquet: ¥12,000/person

INQUIRE TO: ICQ '96-Yokohama Programme Committee  
Union of Japanese Scientists and Engineers (JUSE)  
5-10-11 Sendagaya, Shibuya-ku, Tokyo 151, Japan  
Phone:+81 3 5379-1227 Facsimile:+81 3 3225-1813  
E-Mail: HHF 03411 @ niftyserve. or. jp