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FINAL REPORT

UNIDO Contract : 95/111/VK.
Project No. US/RAS/95/045

Awareness Building Seminars/Workshops and Company Diagnosis on the Implementation of Standardization and Total Quality Management in ASEAN countries

May, 1997
Japanese Standards Association

Contents

1. Background Information

United Nations Industrial Development Organization (UNIDO) informed Japanese Standards Association (JSA) by its facsimile transmission No.676 dated 22 May, 1995 that UNIDO selected JSA as "the subcontractor" for the execution of services for the UNIDO Project No.US/RAS/95/045 (UNIDO Contract No.95/111/VK) at total all-inclusive cost US DLRS Two Hundred Thirteen Thousand (US$213,000) payable in that currency.

2. Objective of the project

The project is aimed at sharing the experience of Japan in the area of standardization and total quality management, with relevant governmental institutions and private industry in the ASEAN countries. A particularly important element of the project activities will be diagnostic work at the enterprise level in regard to the implementation of standards and total quality management in the ASEAN region. Through the project, it is expected that TQM at the company level in the ASEAN countries will be promoted, and eventually that promotion will bring further development in standardization and quality control in all ASEAN countries.

3. Subcontractor's duties

The services required for JSA (subcontractor) consist of the following five duties:

(1) to organize a forum on Total Quality Management in Tokyo, Japan.

(2) to conduct a diagnostic survey on implementation of Standardization TQM at the company level in Thailand and Malaysia.

(3) to organize a top management seminar on the significance of TQM for improving company competitiveness.

(4) to organize a middle management seminar on the importance of promoting TQM where the evaluation of the survey will be presented and discussed.

(5) to develop a volume of training material related to the project.

4. Activities and achievements

4.1 Tokyo Forum

The UNIDO Tokyo Forum on implementation and promotion of TQM was held from 25 to 27 May, 1995 at Tokyo International Center (TIC), Japan International

Cooperation Agency (JICA).

Participants in the forum included 12 representatives from 6 ASEAN countries (Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand), 1 representative from UNIDO Headquarters and 6 Japanese representatives including MITI officials.

The participants exchanged views on implementation and promotion of TQM in a company. (The agenda of the forum is shown in Appendix 1)

Through the Forum, ASEAN representatives came to understand the importance of enhancing quality consciousness of everyone in a company, from top management to shop-floor level workers in introducing TQM successfully and also they could obtained some ideas of the methods for the enhancement.

Please refer to the progress report I submitted to UNIDO on September 25, 1995 for further details.

4.2 Company Diagnosis

The company diagnoses on the implementation levels of TQM were carried out in selected companies in two ASEAN countries, namely, Thailand and Malaysia, to identify the problems at the company level and the countermeasures for future improvements. The results of the diagnoses were reflected to top and middle management at seminars held in Thailand in order to enhance the effectiveness of the programs.

In Thailand, two Japanese experts surveyed 5 companies from 9 to 20 October, 1995, and three Japanese experts surveyed 6 companies from 30 October to 11 November, 1995 in Malaysia. local experts in each country participated in the surveys.

The items checked in the surveys are as follows:

1. Chief Executive Officer (CEO)
2. Manager
3. Employees
4. Management by Policy
5. Standardization
6. Daily management
7. QC circle
8. Problem solving
9. Statistical methods
10. Safety control
11. Process controls
12. Facilities management
13. Measurement control
14. Inspection

From the result of the surveys, it was found that the roles and the

responsibilities of the top management and the middle management in promotion of TQM are not well identified, and this problem is the main obstacle to TQM promotion in the companies. (Appendix 2 and 3 shows the details of the problems and the countermeasures identified by the Japanese experts in each countries.)

Please refer to the progress report II submitted to UNIDO on March 6, 1996 for the details of the company diagnoses implemented in Thailand and Malaysia,

4.3 Seminars in Thailand

The seminars on TQM for the top and middle managers were held from January 11-15, 1996 for three days in Thailand in cooperation with Thai Industrial Standards Institute (TISI) and Thai-Japan Technological Promotion Association (TPA). They were successfully completed.

Because the seminars were organized based on the findings of the diagnostic surveys, real problems and countermeasures for solution at the company level were the main issues presented to the participants. (The programs of the seminars are shown in Appendix 4.)

The outlines of the seminars are shown below:

1) Date and duration of the seminar

The Top Management seminar was held on January 11 - 12, 1996, and the Middle Management seminar on January 15, 1996.

2) Venue

The Siam City Hotel, Add. 477 Si Ayuthaya Rd. BANGKOK, THAILAND

3) Themes

Seminar for top management

Theme : Quality improvement and the Role of Top Management

Seminar for middle management

Theme : TQM for Middle Management

4) Issues

Top Management seminar

a. The correct understanding of TQM
b. Roles and responsibilities of top management in promoting TQM
c. The relation between ISO9000s and TQM
d. A better understanding for advancing from ISO 9000s to TQM

Middle Management seminar

a. Understanding the importance of quality
b. Understanding the results of TQM
c. Organizing company structure for successfully introducing TQM
d. Methods for promoting TQM to achieve maximum results

5) Number of the participants

Nearly 70 middle managers mainly from local private companies participated in the Middle Management seminars, and more than 40 top managers from local companies participated in the Top Management seminar, which exceeded our expectations.

6) Guests from ASEAN countries

Two guests from each ASEAN country and one representative from each diagnosed company in Thailand and Malaysia were invited.

Through the seminars, the top and the middle managers could obtained valuable information for promoting TQM at the company level and the information, we think, was very useful for them to give shape to their ideas for promoting TQM in their own companies.

Please refer to the progress report Ⅲ submitted to UNIDO on April, 1996 for the details,

4.4 Training material

4.4.1 Training material production

Accurately grasping the current state of TQM implementation in companies in ASEAN countries was an important element of this project for a successfully completing our goal.

For that purpose, not only excellent experts in TQM, but also appropriate teaching materials which allowed us to carry out an effective survey were needed.

A special committee was accordingly set up for company diagnoses, composed of 15 experts in TQM including Mr. Akira Harada, Advisor to Oken Co., LTD., as chair person.

This committee held frequent discussions to select experts in relevant areas who were suitable for the company diagnoses and to develop teaching materials which could be used for the survey.

These discussions resulted in five experts being selected. Check Sheets as teaching materials for the survey were drawn up, as stated in Progress Report Ⅱ.

These teaching materials were developed by aiming at the effective execution of survey on the level of TQM implementation in companies in ASEAN countries.

The Check Sheets were drawn up in such a way that they defined the level of TQM implementation of companies for each of 14 weighed areas and issues which had become hindrances to promoting TQM.

As the report by the five experts shows, the survey results based on the Check Sheets proved to be very useful in drawing up concrete and detailed improvement activities that are appropriate for each company.

We hope the Check Sheets will be largely utilized when the state of TQM implementation or instructing TQM-related matters in a company is further surveyed.

5. Remarks

At the UNIDO Tokyo Forum held in May 1995, the fact that there is a great expectation for improving product quality by TQM, particularly at the SME level in ASEAN countries, was recognized through questions and answers and the sharing of opinions between delegates from government-related organizations involved in promoting quality control and standardization in each ASEAN country and experts in the field of quality control.

For introducing and implementing TQM in company, it is important for the top managers to define an activity policy which suits the color of their company and then for all employees to carry out detailed activities led by the top managers.

For successful execution it is thus very important that top and middle managers who take the most active part in introducing and implementing TQM correctly understand TQM and to have clear ideas concerning the activities.

In the seminar held in January 1996, methods to advance TQM adapted to the current state of companies, especially SMEs, in ASEAN countries were presented to the participants, who were mainly top and middle managers of companies in ASEAN countries. The presentations took into account the results from the survey on the state of TQM implementation in local companies in Thailand and Malaysia.

This seminar, different from the previous ones which aimed at an understanding of basic concepts of TQM activities, clearly addressed the common latent issues in introducing and implementing TQM in companies in ASEAN countries, and concrete methods to further the activities related to these issues were presented.

Participants appeared to have learned through the seminar, not theoretical, but more realistic and practical methodology for advancing TQM activities in their companies.

Furthermore, the Check Sheets used in the survey can be largely utilized for accurately grasping the state of TQM implementation, the first step needed to carry out the activities in each country.

Local experts accompanied Japanese experts as assistants in the survey conducted at companies in Thailand and Malaysia.

The knowledge, know-how and experience the local experts acquired through this survey will be a good guide to conducting their own surveys and instruction concerning TQM at their local companies in the future.

We believe these company diagnoses were quite useful in the sense that they fostered local experts as well.

In the midst of great expectations in ASEAN countries for improving product quality by TQM at the SME level, there will be greater hopes in the future for carrying out such activities in order to effectively support the introduction and implementation of TQM in the SMEs.

Appendix 1

UNIDO TOKYO FORUM, 1995

(Agenda)

DATE : 25th-27th, May, 1995

PLACE : Seminar Room No. 15 (4F), Tokyo International Center (TIC), Japan International Cooperation Agency (JICA)

THURSDAY, 25TH MAY, 1995

OPENING ADDRESS (10:00~10:10)

- Masami TANAKA, Mr.
  Director General of Standards Dept., AIST, MITI
- Anthony Bromley, Mr.
  Chief, New Technologies Promotion, UNIDO

PRESENTATION

10:10-11:40 • What is the key for the success of TQM
by Tony SUGIMOTO, Mr.
Daiwa Seiko, Inc.

11:40-13:10 Lunch : at the dining hall(1F Tokyo International Center, JICA)

13:10-14:40 • Case Study I : TQM activity in a joint venture company in Indonesia
by Masato SUUCHI, Mr.
President
Komatsu Information
Providing Ltd.

From the view point of TQM consultant for a Thailand company
by Eisuke SHIMADA, Mr.
Executive Vice President
Komatsu Career Creation Ltd.

THURSDAY, 25TH MAY, 1995 (continued)

14:40-14:55 Coffee/Tea Break

14:55-16:25 • Case Study II: Implementation and Promotion of TQM for the successful Expansion of Air Cond. Production Base in Malaysia (By Air Conditioner Division in Malaysia)
by Kenichiro IMASU, Mr.
Engineering Department
Air-Conditioner Division
Matsushita Electric Industrial Co., Ltd.

WELCOME DINNER

18:30-20:30 At Keio Plaza hotel (South Blg. 2F)

FRIDAY, 26TH MAY,1995

13:30-16:30 • Technical Visit : Nissan Motor Co., Ltd.
Purpose of visit : Observation of Quality Control Activities in a company (including exchanging opinions with managers responsible for implementation and Promotion of TQM)

SATURDAY, 27TH MAY,1995

COUNTRY REPORT PRESENTATION

09:00-11:00 • Presentation by the representative from each of the ASEAN countries, and Discussion based on the report.

【Theme of presentation】 : Present problems in promotion of education and training on quality management

【Time allocation】 : About Ten minutes for the presentation of the respective countries.

Appendix 2

The problem and the countermeasure for further improvement (Thailand)

by Mr. Masaru Sekiguchi
Mr. Masao Nagao

1. The situation on the implementation of quality management

1.1 Areas considered very good

(1) Top managements were seen to be seriously contemplating the introduction of TQM and measuring the improvement in the performance of their own companies.

(2) All companies have an extremely high standard in certain skills, and they supply the market with products manufactured to a particular standardized level.

(3) All have programs for acquiring ISO9000 certification for which they are striving to achieve.

(4) In all companies, small group activities of various kinds (QC circles, improvement proposals, 5S etc.) are in operation with top management actively involved.

1.2 Main problems needing to be solved for further improvements

(1) Top managers do not yet fully understand the substances of TQM.

(2) Middle managers do not correctly understand their roles. They seem to be carrying out work while not entirely understanding the responsibility of supervisors with respect to quality control.

(3) With the exception of one company, QC process charts are non-existent. Even at this company, however, the QC process charts are not fully utilized.

(4) There are many problems with the calibration of measuring instruments and maintenance supervision.

(5) Quality control with the participation of all employees has not yet been achieved.

2. Problems and countermeasures

2.1 Senior management

On May 23 of this year (1995), a TQM seminar was held by Dr. Noriaki Kano in Thailand. This seminar targeted CEOs of Thai companies. Of the five companies we visited for the diagnostic surveys, only two CEOs participated although we really wanted the CEOs of all five to hear what Dr. Kano had to say.

As Dr. Kaoru Ishikawa said, quality control begins and ends with education. It is essential to repeatedly train all company employees to truly appreciate TQM and to effectively make improvements in the firm.

From the very beginning, it is essential that executives and managers in particular receive sufficient education. Even in Japan, this point is routinely emphasized.

TQM will not permeate throughout the company unless senior managers maintain enthusiasm for its introduction and execution, take the lead with other executives and managers and receive repeatedly training, and assume the position of leading other executives and managers.

If Thailand is not to be left behind other ASEAN countries, it is essential that top managers, especially the CEOs, take the lead by undergoing TQM training, order that an organization to promote TQM within the company be formed, and ensure that managers and supervisors below the levels of senior management receive QC education.

In this assessment, there was not a single company where senior management had taken the lead and correctly understood the "policy management" which needs to be implemented. This is a major issue for the future.

2.2 Middle management

It is hoped that middle managers, correctly understanding their own responsibilities and carrying out their work tasks, with their ability to control departments, will carry out the important work of linking superiors with staff members and other departments when they execute policy management. Even in Japan, quality control education of middle managers is regarded as especially important. Only when all middle managers correctly understand quality control the senior management's policy management will permeate throughout the company, activating and improving conditions within the company.

The success of TQM is closely linked to the treatment of the middle managers

in charge of promoting TQM. Those in charge of bringing about TQM must receive direct instructions from senior management and must always be in a position to routinely offer accurate information about the goings on both the within and without the company directly to senior management.

2.3 Preparation of QC process charts, and the relation between ISO9000 and TQM

It is not necessary to consider ISO9000 and TQM as entirely separate items. It is safe to say that in the course of preparing to obtain ISO9000 certification, half the process of establishing TQM will be completed. At the five companies which were assessed, plans exist for the acquisition of ISO9001 or ISO9002 certification. It therefore, is believed that there are no problems at all in this area.

The first step in preparing for acquiring ISO9000 certification is to draw up QC process charts. QC process charts show important product quality items in each process, and in addition, clearly show without omissions the input and output of materials and information. Furthermore, they are an important means which enable one to understand the overall flow and sequencing of the production process at a glance. Once these charts are prepared, an important part of the product quality plan required by ISO9000 will have been completed. The preparation and application of QC process charts will come to occupy an important position in company strategy.

2.4 Management of measuring instruments

There are many problems concerning the management of measuring instruments.

(1) There were several companies which completely lacked the ability to calibrate measuring instruments. Measuring instruments used as standards within the company, were non-existent with reliance placed totally on outside agents. This in itself is not a problem, The problem is that despite a lack of sufficient calibration service support from outside the company, no alternative policies were being considered.

(2) There were cases where the measuring instruments were routinely used uncalibrated in production and inspection processes.

(3) There were cases where instruments set aside as standards for calibrating purposes within the company were being used to conduct measurements in daily operations.

(4) There were some companies where record keeping of instrument calibration within the company was identified as inadequate or non-existent.

Measuring instruments are a means of providing data to evaluate product

quality. If the measurements are inaccurate, the data is unreliable, making correct product quality evaluation an impossibility.

Consequently, quality control based on this data as well as statistical analyses will lose all meaning. In the future, with the introduction of TQM, and the entry into the world market, it will be essential to conduct reliable measurements in order to raise the reputation of goods "Made in Thailand" enabling consumers worldwide to have confidence in and desire Thai products. Ensuring traceability and the calibration of measuring instruments is not something that can be achieved in one day. A planned approach is necessary. It is essential to decide on a policy as quickly as possible, but to carry out the operation reliably.

2.5 Product quality control with participation by everyone

If it is only one department or only one levels that practices TQM enthusiastically, TQM will can not succeed. The idea that TQM just means implementing QC circle activities is mistaken. As a part of TQM, implementing QC circle activities is certainly very important, but TQM will not succeed through this alone. It is necessary for all employees to study TQM and to be able to carry out daily business management and improvements, starting with senior management, and executives, managers, supervisors and operators at all levels. This holds true for sales, research and development, projects, design, manufacturing, inspection, production management, production technology, storage, transport, after-sale services, as well as general affairs, personnel, accounting, purchasing, information processing, and all other departments within the company. In subcontracted business as well, it is vital to ensure that all subcontractors understand and cooperate with TQM.

Subordinates proceed by taking in all their superiors' ideas and then making decisions. If one's superiors are unenthusiastic about TQM, or if their behavior shows a lack of understanding, then TQM will fail. When the employees in all strata and departments within the company come together and all members become involved in the implementation of TQM, then a real PDCA cycle will begin. Once such a situation has been created, the company can be said to have reached a condition under which the significant advantages of TQM can be realized.

Appendix 3

The problem and the countermeasure for further improvement (Malaysia)

by Mr. Mitsuharu Shimada
Mr. Ryukichi Okuma
Mr. Eizo Asaka

1. The situation on the implementation of quality control in Malaysia

In Malaysia, the difference between local enterprises which are linked to a foreign company (not necessarily Japanese), through capital investment or technical assistance for example, and enterprises which are not so linked is great, especially in terms of quality control.

Linked companies receive direct as well as indirect guidance from its parent company concerning administration or factory operation, and consequently, both standardisation and quality control function well in its everyday affairs. Additionally, these companies are also capable of self-improvement as a result of audits conducted by the parent company.

Non-linked companies, however, receive negligible outside stimulus from outside, and as long as it supplies its buyers with products as specified (where QCD is concerned), the company survives without much trouble. In such companies a single rule pervades the whole production process: all products are inspected to maintain a constant supply of quality products. Although there are differences depending on the size of the company, measures for quality control have to be constantly reviewed and improved.

2. Problems and measures

2.1 Measures and policies for improving quality control

The CEO of the company must clearly address the problems concerning QC, as problems of his own, searching for a series of measures and policies to deal with the problems. Often, however, he is merely satisfied with solving the problem at the factory level, and never bothers himself to systematically analyse the reason and cause of the problems. Depending on the situation, his leadership in such areas as reorganising the company structure or reviewing the work procedure will be indispensable. Once decided, the measures and policies must be fully made known to all employees and means for them to be understood and utilised in everyday practice at every level of company operation must be sought.

2.2 Promotion of standardisation

There have been many cases in which the management tends to lay total responsibility for actual production work to the factory without really grasping what the actual conditions on the production floor, and employees often do his allocated work as he thinks fit depending only on his own experience and intuition. Harmonising work procedures would be a first step toward QC, and for that purpose, the management should begin standardising the easier work and then gradually move on to a higher level. At this point it is crucial to thoroughly research and investigate the situation before starting, aiming not only at rearrangement of the format, but also at standardisation which could be truly useful.

2.3 TQM with full participation

No matter how far production technology advances, the production process will still require manual labour, and no satisfying results will be forthcoming unless each employee realises the significance and responsibility of his work. It is, therefore, necessary, to educate employees in these matters to acquaint each at every level with an appropriate TQM.

Among the diagnosed companies, some had obtained ISO 9002 certification and seemingly had documents in place. They had, however, taken no actions for improving their situation. In such companies, more work needs to be done in TQM with full participation of all employees, and both the CEO and the manager need to understand the significance of QCC, establish ways to implement QCC and raise the awareness for improvements by full participation.

2.4 Application of statistical management methods

Statistical management methods are the basic approach for quality control and useful for understanding the concept of QC: these methods should be studied on TQM introduction and then applied in everyday practice. They contain both easy and more difficult aspects and, being very effective, should be introduced.

2.5 Safety management

We can not help but admit that the safety awareness is generally low in Malaysia. Providing a safe working environment is one of the obligations of the manager and the administration. Presently managers are too lax concerning the small number of accidents in the past and neglect precautions for stemming further accidents. The more advanced the industry gets, the more danger exists. Instruction on safety must be carried out constantly. With a safe working environment, the employees' morale and quality awareness will rise leading to company-wide improvements.

2.6 Management of facility and measuring equipment

Proper maintenance of facilities and measuring equipment in busy production processing not only improves the working ratio, but also contributes to stabilisation of quality improvement. Present management structure must be reviewed in order to avoid unexpected breakdowns. The present situation of maintenance and management as well as calibration for measuring equipment, an important tool to measure the quality of products, must be reviewed so that proper action for improvement can be implemented.

CHECK SHEETS FOR COMPANY DIAGNOSIS

TQM IMPLEMENTATION LEVEL OF A COMPANY

UNIDO Project : US/RAS/95/045

Compiled by
the Japanese Standards Association
(JSA)

Printed in Japan.

Introduction

As markets become more open internationally, companies need to improve the quality of their products more than ever before.

Total Quality Management (TQM) is recognized as one of the measures most effective for improving quality. TQM has been widely implemented, in Japanese companies making a reality the economic and effective production system in which competitive and highly reliable products are produced a reality. As a result, the high quality of Japanese products is highly praised in the international market.

In order to implement TQM effectively, a company must first identify the problems which are obstacles to promoting TQM and to then take proper actions for improvement based on the identified problems.

These materials have been prepared as a check sheet useful for identifying the problems and helpful for giving shape to an action plan for improvement.

The check sheet is composed of 14 main items relevant to applying TQM. Each of the main item has 5 sub-check items which are divided into 5 levels. Level 1 is the lowest and level 5 is the highest. Each sub-check item has 5 check points to be diagnosed from various points of view of quality control to identify what kind of problems a company has and in which level a company is located. There are a total of 350 check points available.

The result of the diagnosis can be evaluated numerically for each check point, and the total of all figures are summed up after completion of diagnosis to judge the level of the company.

We recommend that the diagnosis is executed item by item according to the check sheet through interview with person(s) in charge in an on-site factory survey. All 350 check points are not necessarily required for diagnosing a company, because diagnosticians will be able to indirectly evaluate even non-diagnosed items and check points using the data and information collected from diagnosed items and check points.

Improvement activities based on the result of the diagnosis will contribute to further improvement of TQM implementation at a company.

It is hoped that the check sheet will be fully utilized and eventually the quality of products of the companies in the developing countries will be improved to be competitive even in the international market.

This check sheet is based on ideas presented in " TQM Promotion Guidebook " written by Dr. Hitoshi KUME, Professor, the University of Tokyo, and published by the Japanese Standards Association. It is recommended that the check sheet be used with this book.

Contents

1. *Chief Executive Officer (CEO)*

Level 1. Accurate understanding of the current state of affairs of the company

1) Please show us a corporate organization chart.
2) Please show us corporate regulations on job assignments.
3) Please show us corporate job description of the responsibility and authority of each job level.
4) Are in-house information routes clearly documented?
5) What are the major issues that management has to address today? Who is responsible for dealing with these issues?
   Are job assignments and job descriptions in agreement? Does the CEO have a good understanding of quality issues?

Level 2. Management policy on customers and quality: response to needs and claims

1) Are notices circulated/posted or events held to make employees more quality conscious?
2) Does management policy include items related to customers and quality?
3) Do you have any procedures for deciding management policy? Is policy decided based on a consensus of the board of directors?
4) Are surveys conducted on customers' needs for products or services?
5) Do you have procedures for handling important claims concerning products or services? Is there a section assigned to be responsible for the collection, communication, and handling of those claims?

1. Chief Executive Officer (CEO)

Level 3. Clarification of quality policy: implementation of quality improvement activities

1) Do you have any long-term policy on quality? Is the CEO's quality policy announced annually? Is it circulated to all employees?
2) Does the annual budget include expenses for quality-control-related education and training? How much is expended per employee?
3) Do you have any group for promoting standardization and/or quality control activities?
4) What sort of claims from customers have been filed thus far? What effects have your quality improvement and cost-reduction activities had? Please show us the trends in claim data for the past three years.
5) Does the CEO encourage suggestion systems, QC circle activities, safety-related and/or other activities?

Level 4. Systematic and organizational implementation of quality control

1) Do you have a quality manual (similar to Quality manual in ISO9000)? Is it used properly?
2) Is evaluation of effective functioning of the quality system properly carried out and reflected in the quality policy?
3) Have quality control actvities been conducted in sales, administration, after-sales services, and development sections?
4) Is QC training planned for each level of employee and conducted accordingly?
5) Does the CEO attend every QC circle meeting? What has attendance been over the past three years?

1. *Chief Executive Officer (CEO)*

Level 5. Effective implementation of PDCA (Plan, Do, Check, Action) cycle in management

1) Has CEO-led diagnosis on quality control been conducted internally?
2) Does the company have any long-term employee education and training programs?
   Do you train and educate department and section leaders in particular with respect to quality control?
3) Do you have any long-term policy on education and training for employees of subcontractors or subsidiaries?
4) Do you conduct joint research and development regarding new products/techniques with universities, research institutes, or major users?
5) What is your future management vision for survival in today's highly competitive worldwide market? On which do you place more emphasis, product quality, product type, manufacturing methods, control methods, facilities, human resources, capital, information, new technology or product development ?

2. *Managers*

Level 1. Managers' understanding of their role and duties (department and section leaders)

1) Are managers highly conscious of their job responsibilities?
2) Is each job assignment clear?
3) Is the scope of duties clear?
4) Do managers properly comprehend instructions given to them by their superiors, and do they transmit them properly to his subordinates?
5) Do you properly supervise your subordinates?

Level 2. Giving clear instructions to subordinates and understanding the status quo

1) Are there clear methods for giving instructions or orders?
2) Are reports made in writing? Are formats specified?
3) Is communication with the required sections been done in writing?
4) Do you consult with subordinates and make use of those consultations?
5) Has proper judgement been made of the current situation?

Level 3. Analysis of deficiencies and proper instructions

1) Are reporting, communications, and consulting well-timed and appropriate?
2) Have proper checks been performed during analysis?
3) How do you collect deficiency-related information?
4) Have appropriate measures been taken?
5) Do your subordinates have sufficient ability to achieve the targets specified? Have manager given clear instructions?

2. *Managers*

Level 4. Complete transfer of departmental policy: improvement of teamwork in the working environment

1) Has the policy been made totally clear to all employees?
2) Has the policy been explained in an easy-to-understand manner?
3) Have thorough checks and actions been performed during achievement of objectives?
4) Has a suggestion system been promoted properly? What have the results been?
5) Have QC circle activities (small group activities) been followed up properly? What have the results been?

Level 5. Training of subordinates: provision of a good working environment

1) Have training programs been drawn up properly and implemented satisfactorily?
2) Has there been proper reporting, communication, and consulting to supervisors?
3) Do you work to motivate?
4) Has the PDCA cycle for improvement activities been carried out thoroughly?
5) Has improvement been evaluated numerically?

3. *Employees (Questions put to managers)*

Level 1. Working attitude

1) Do some employees fail to come to work without an excuse? If they do, what is the rate to absenteeism?
2) What is the distribution of length of service among employees? Please provide functional histograms showing maximum, minimum, and averages for all employees by gender and job function.
3) Have any motivation improvement activities been carried out?
4) What are you doing to improve the ratio of late arrivals/early departures?
5) What are you doing to improve employees' working attitude (morale)?

Level 2. Comprehension of standards and observance of rules

1) Are employees fully duty-conscious?
2) Are standardized procedures fully understood?
3) To what degree are rules observed?
4) Are employees fully motivated to observe standards?
5) Do they handle their jobs earnestly and positively?

Level 3. Improvement of technical and skill levels

1) Have self-development activities been carried out properly?
2) Are employees well-motivated to improve their jobs?
3) Are they enthusiastic about improving their individual skills?
4) Do they exchange techniques and skills with coworkers and those in other working groups and sections?
5) To what degree do they participate in technical competitions?

3. *Employees (Questions put to managers)*

Level 4. QC Circle and improvement activities

1) Degree of participation as members. Have many and/or what percent of workers participate as members of the QC circle?
2) Please give some examples of QC Circle activities?
3) Is there a system for making suggestions on improvement (number/employee) ?
4) Are there any suggestion systems (Award) is place?
5) Please tell us the number of QC Circles and how long they have been active?

Level 5. Willingness to improve quality

1) Please tell us the number and content of job improvement suggestions made by employees over the past three years.
2) Please tell us about any measures taken to promote suggestion systems.
3) Please report on the number of suggestions actually implemented over the past three years.
4) What is the company' s stance toward improving the technical training of employees (e.g. subsidies, raises, promotion)?
5) Please provide some good examples of quality improvements made over the past three years.

4. *Management by Policy*

Level 1. Basic concepts of management, management policy, and mid/long-term plans

1) Do you have a formal management concept (or a company motto)?
2) Has the management policy been clarified enough to be understood by all employees and by managers in particular?
3) Have mid/long-term plans been clarified enough to be understood by all employees and by managers in particular?
4) Have annual plans been clarified enough to be understood by all employees and by managers in particular?
5) Have any management strategies been established and documented? To what degree have they been disseminated to employees?

Level 2. Thoroughness of annual departmental policy

1) Is annual policy clear and well-defined? Has it been announced to all employees?
2) Has the annual policy been fully deployed? How do you confirm that it has?
3) What do you do to implement the annual policy?
4) How do you implement the policy and evaluate the extent of implementation?
5) Is there a complete follow-up on the policy? How do you evaluate the results?

Level 3. Clarification of the policy development system

1) How is the promotion system structured?
2) Please tell us what specific means you use to deploy company policy?
3) How has the policy been implemented by each section?
4) Please tell us how you deploy (translate and disseminate) the policy among all levels of the company hierarchy?
5) How is coordination of company policy, department policy and action plans at the section level attained?

Level 4. Coordination among departmental policies: development of human resources

1) Are departmental policies well coordinated with company policy?
2) How do you follow-up pending subjects which have not been executed in departmental policies?
3) Has there been good coordination with other departments in deploying company policy?
4) What sort of information routes do you use to coordinate with other sections/departments?
5) How do you assess and use the effects of employee training?

Level 5. Implementation of the PDCA (plan, do, check, and action) cycles in the company

1) Is there system for fully understanding the state of improvement within the company?
2) How many times a year does the CEO conduct a diagnosis?
3) Have remedial actions been properly taken based on the diagnosis? How do you confirm the effectiveness of the actions?
4) Please show us some examples of positive effects stemming from these actions.
5) How do you systematically work to continue to improve quality?

5. *Standardization*

Level 1. Recognition of standardization activities

1) Are work instructions given to workers?
2) Is guidance for handling jobs given?
3) Are there operational standards?
4) How is motivation for higher quality consciousness enhanced?
5) Is actual work checked and confirmed?

Level 2. Work standards

1) Do you have any procedures used in the preparation of work standards?
2) How do you maintain, revise, and make periodical reviews of work standards? How long is the maintenance interval?
3) How do you understand if work standards are actually being used and used properly?
4) Has sufficient training been conducted with employees on the use of these standards?
5) Have the revision of these standards properly recorded?

Level 3. Hierarchy of standards

1) Is the structure of standards hierarchical? Please show us the relevant table(s) for the standards system?
2) Have the criteria for the standards been properly drawn up? Do you have procedures for the preparation and control of standards?
3) What are the different types of standards and how many have been implemented?
4) Are the standards sufficiently made use of? How do you check this?
5) Do you keep accurate records of the revisions of standards?

5. *Standardization*

Level 4. Corporate organization for promoting standardization

1) Do you have any organization to promote standardization?
2) Do you have an annual plans for establishing and/or revising standards?
3) Has implementation of those plans been managed properly?
4) Do you have any education and training programs for familiarizing employees with standardization?
5) Do you have any system for auditing the implementation and review of these standards?

Level 5. Job improvement through standardization activities

1) Have abnormalities been properly defined?
2) Do you have any standards for handling abnormalities?
3) Can related evaluations and responses be made quickly and accurately?
4) Have the standards been properly reviewed and resultant revisions made?
5) Have the results of improvement activities been recorded properly?

6. *Daily management*

Level 1. Responsibility for routine control

1) Are job instructions clear enough for the persons in charge to understand?
2) Are routine job checks properly conducted?
3) Is there a clear scope of job responsibility?
4) How is the job performance of each worker controlled?
5) How is the responsibility for quality specified? Please show us examples, if any.

Level 2. Observance of standards by managers

1) Are the job responsibilities of managers properly specified?
2) How do you maintain work records?
3) Are supervisory personnel specified?
4) Who is responsible for job execution and results? In what ways are they responsible?
5) How is responsibility for quality specified? Do you keep any records?

Level 3. Clarification of items to be controlled: prevention of recurring abnormalities

1) Have control items for each manager been properly documented?
2) Are there clear control criteria for routine work?
3) Do you have any system for reporting abnormalities? Please show us some examples?
4) Do you have any standards for taking corrective and preventive action for abnormalities? How do you use them?
5) Do you have any system for dealing with abnormalities? Please indicate some examples.

6. *Daily management*

Level 4. Visual control of major items and control of resultant revisions

1) Are major control items clearly stipulated?
2) Do you have any control criteria for major items?
3) Are actual results recorded in a timely manner?
4) Do you conduct visual control using graphs or other aids? If so, how?
5) How have controls of resultant revision been carried out? Please show us same records.

Level 5. Delegation of authority and self-control systems in workplace groups

1) Is the delegation of authority well defined?
2) To what level have workplace groups (QC, TQM, IE or others) been organized?
3) Do workplace groups have any self-control systems in place?
4) Do you have clear standards for dealing with abnormalities in production or other processes?
5) Do you have any route for reporting abnormalities and related standards?

7. QC circle

Level 1. Purpose and significance of QC Circle activities

1) Do employees possess sufficient knowledge about QC Circles?
2) To what degree is the significance of the QC Circle understood?
3) Has an environment conducive for conducting QC Circle activities been established?
4) Have work places been well motivated to introduce QC Circles in their activities?
5) To what degree have improvement activities been conducted by all participants?

Level 2. Implementation of QC Circle activities

1) To what degree have QC Circle activities been understood by the participants themselves?
2) To what degree do QC Circle activities extend?
3) Is participation in the QC Circles voluntary or compulsory?
4) Has middle management provided sufficient support for these activities?
5) How do you evaluate the results of QC Circle activities?

Level 3. Structure for promoting QC Circle activities

1) Has the promotion structure been established as part of the management organization?
2) Is there a specified person in charge of QC Circle promotion?
3) Is there a sufficient back-up system established in the work place?
4) Number of cases where problems were resolved (ex: number of problems /month/circle)
5) Is the participation rate: 1) less than 50%, 2) 50-60%, 3) 60-70%, 4) 70-85%, 5) more than 85%?

7. QC circle

Level 4. Enhancing QC Circle activities

1) Is QC Circle training been conducted as scheduled?
2) Have QC Circle meetings been held regularly?
3) Do you have a QC Circle leader-rotation system?
4) Has each participant' s role been defined properly?
5) How many times year are in-house QC Circle meetings held? How many presentations are made per meeting?

Level 5. QC Circle activities as a component of TQM

1) Is the significance of QC Circle activity as a part of TQM properly understood?
2) Are there continued QC Circle activities?
3) Please give some examples of marked success of the QC activities (number of cases/month/company)?
4) How effective have QC Circles been (participation ratio, frequency of meetings, the number of presentations, the number awards granted, and the number of continuing activities)?
5) Do QC Circles hold gathering with QC Circles from other companies to exchange information?

8. *Problem solving*

Level 1. Information on abnormalities and responsibility for quality assurance

1) Have abnormalities been detected and relevant reporting routes established?
2) Are abnormalities handled properly? How many are reported annually?
3) Is there a system in place for conducting on-the-spot investigations on the defective articles for detecting the cause of the defect?
4) Is information on abnormalities properly communicated to relevant sections?
5) Is there a system for specifying responsibility for quality assurance at each process?

Level 2. Procedure for dealing with abnormalities

1) Do you have any manuals on troubleshooting?
2) Has any investigation been made on the causes of abnormalities?
3) Do you even take remedial measures based on experience and intuition?
4) Are all relevant causes eliminated?
5) Have proper countermeasures been taken?

Level 3. Scientific problem solving

1) Are problems identified using the actual article?
2) Is the 5W1H method used to check the causes?
3) Are mean values and dispersion data collected?
4) Are QC-based investigation made using data and experiments?
5) Have countermeasures been reviewed, resultant effects confirmed, and preventive actions adequately taken?

8. *Problem solving*

Level 4. Countermeasures for preventing recurrence of error

1) Do you have any manuals on preventing of errors from recurring?
2) Have you prepared any countermeasures for preventing the causes of errors from recurring?
3) Have countermeasures been taken for removing the possibility of similar problems arising in other processes?
4) Have improvement records been maintained properly?
5) How are abnormalities classified in terms of importance and reported? Who is responsible for this reporting?

Level 5. Preventive measures

1) Are causes of abnormalities fully analysed technically or administratively?
2) Have sufficient preventive measures been taken?
3) Are these measures reflected in similar processes or products?
4) Do you take preventive measures based on an internal quality audit?
5) Does top management periodically review the quality system and take preventative measures accordingly?

9. *Statistical methods*

Level 1. Understanding the situation with data

1) Is data on quality characteristics available?
2) Is data on process conditions available?
3) Is there sufficient outside education and training on statistical methods?
4) Is sufficient in-house education and training on statistical methods provided?
5) Do managers always check and confirm relevant data?

Level 2. Understanding variety

1) Do you have any standards for collecting data?
2) Is data dealt with (analyzed, etc.) quickly and appropriately?
3) Are the mean values and dispersions (range, standard deviation, etc.) expressed properly?
4) Is data used to analyze causes of problems?
5) In what formats are data recorded?

Level 3. Seven basic tools for Quality Control

1) Are the 7 tools for Quality Control used in QC education and training?
2) What are the 7 QC tools? What tools are you using besides them?
3) Are data characteristics properly understood?
4) Is the data stratified effectively?
5) Are the results from analysis used sufficiently?

9. Statistical methods

Level 4. Concept of dispersion

1) Do you prepare histograms or control charts for each process?
2) Do you prepare histograms or control diagrams for each product?
3) Do you prepare long-term (or monthly) control charts or histograms?
4) What standard do you use for sampling data?
5) Do you keep data records and have clear standards for data?

Level 5. Utilization of statistical methods

1) How do you utilize statistical methods as required (design of experiments, reliability methods, factorial analysis, analysis of variance, regression analysis, significance tests, quality control chart, cumulative techniques, statistical sampling)?
2) Please show us some suitable examples of application of these methods.
3) Do you have any examples of applying them in process control?
4) Do you have any examples of applying them to controling the defect rate?
5) Do you have any examples of applying standards in dealing with abnormalities?

10. Safety Control

Level 1. Designation of hazardous spots and evacuation areas

1) Are emergency exits, evacuation routes and areas properly designated?
2) Are hazards clearly marked?
3) How often do labor accidents occur?
4) Do you maintain records of labor accidents?
5) Who is responsible for keeping these records?

Level 2. Protective clothes and tools, safety devices for machinery and equipment

1) Has the location and use of protective clothes tools been clearly pointed out?
2) To what degree are these tools used? Please indicate this in figures.
3) Do you have devices to protect against dangerous situations? For what processes and equipment?
4) Are employees sufficiently aware of safety issues?
5) Please show us some concrete measures that have been taken.

Level 3. Safety education and training, safety patrols, and safety rules

1) Do you conduct education and training on safety issues and carry out safety patrols?
2) Have you established safety rules? Please show us the related documents.
3) Are meetings held to search for measures to prevent recurrence? How do you implement these measures?
4) Do you have standards for judging and handling abnormalities?
5) Are machine operations and inspection procedures documented?

Level 4. Training for predicting danger, and safety check rules

1) How do you conduct training to raise employees awareness of dangerous situations? How often do you conducted this training?
2) Do you have rules for verifying safety when installing new facilities or when modifing and replacing existing facilities? Are these rules observed?
3) Do you have safety meetings and rules for meetings? How often do you hold these meetings?
4) Do you have standards for the control and maintaince of facilities?
5) Do you maintain adequate safety standards? Is sufficient training provided (and records kept)?

10. Safety Control

Level 5. Safety-control systems and periodic safety inspections

1) Please show us any documents related to safety control systems.
2) Has responsibility and authority for accident prevention been clearly assigned?
3) Are yearly safety targets established and managed?
4) How well have you achieved your safety targets? Please show us actual figures.
5) How well have you conducted accident prevention activities?

11. Process controls

Level 1. Dependence on workers' technical abilities

1) In what way is training to improve skills conducted?
2) Are workers' skills checked regularly?
3) Is work checked regularly?
4) Are checks on results of operations conducted?
5) Who is responsible for work quality? How is this responsibility played out?

Level 2. Quality assurance using standard operation procedures (SOP) and inspections

1) Do you have SOPs?
2) Are inspection criteria and methods clear?
3) Are SOPs documented?
4) To what degree have SOPs been provided in the workplace?
5) Do you maintain records of the revision history?

Level 3. QC process flow charts, skill training, study of process capability

1) Do you have QC process flow charts?
2) To what degree are these charts provided in the workplace?
3) Are QC process flow charts coordinated with related standards?
4) Is sufficient training provided to new employees?
5) Have you ever studied the performance of the process capability? Please show us these figures, if any.

11. Process controls

Level 4. Periodic quality check by supervisors and quality assurance system

1) Do supervisors conduct quality checks and are there clear standards for these checks?
2) Have you established an education and training system, including OJT, for quality assurance?
3) Have you established procedures for handling deficiencies, abnormalities, and claims/complaints?
4) Do you have rules for controlling data on defects? Is this data made sufficient use of?
5) Do you maintain adequate records on corrective actions? Please show us, if so.

Level 5. Initial control system and prevention of non-conforming products

1) Do you have an initiative production control system?
2) Is preventive action for non-conforming products taken?
3) Are fool-proof measures taken?
4) Is there a self Quality assurance system in the process?
5) Are there standards for taking corrective and preventive action to eliminate the causes of non-conformities?

12. Facilities management

Level 1. Cleaning of machinery and handling breakdowns

1) Do you have procedures for inspecting machines before operations?
2) What is your inspection procedure?
3) Do you keep inspection records?
4) Are the procedures for operating machines clear?
5) Have clear procedures for dealing with breakdowns been indicated?

Level 2. Rules for routine inspections and maintenance

1) Do you have routine inspection standards for machines and equipment?
2) Do you have standards for controlling and maintaining facilities?
3) Are inspection records approved by the supervisor in charge?
4) Are there clear standards for judging abnormalities?
5) Are there clear procedures for the disposition of abnormalities?

Level 3. Routine inspections and systematic maintenance

1) Are routine inspection standards satisfactorily observed?
2) Is cleaning and care sufficiently carried out?
3) Do you have any preventive systematic maintenance structure?
4) Do you keep maintenance records of machinery and equipment?
5) Do you have a system for patrol checks?

12. Facilities management

Level 4. Preventive maintenance system

1) Have principle facilities been clarified?
2) Have you established an adequate system for controlling spare parts?
3) Are operational situations assessed regularly?
4) Do you regularly analyze statistical failure data?
5) Do you regularly conduct FMEA (Failure Mode Effects and Criticality Analysis) of facilities?

Level 5. Maintenance checks when equipment is introduced and systems for monitoring operation and maintenance status

1) Do you have any standards for controlling the introduction of equipment? Please show us, if so.
2) Do you keep any assessment records? Please show us.
3) Do you have any standards for monitoring operation and maintenance status? Please show us, if any.
4) Do you conduct unscheduled preventive maintenance? Please show us some examples.
5) Have operation results been properly used? Please show us some examples.

13. Measurement control

Level 1. Registration of measuring equipment and precision-control

1) Is appropriate measuring equipment used?
2) Do you have a registration system for this equipment?
3) Are standards for using measuring equipment clear?
4) Have proper precision controls been implemented? Please describe the current situation.
5) Is there a system in place for controlling the storage of measuring equipment?

Level 2. Standards for controlling measuring equipment, and education and training concerning the use thereof

1) Are the standards for controlling measuring equipment clear?
2) Do you keep records on how these standards are used?
3) Is responsibility and authority of the measurement control section?
4) Are the standards for controlling changes in the specifications of measuring equipment observed?
5) How has measurement-tools-related training been conducted? Please show us any records.

13. Measurement control

Level 3. Traceability and measurement equipment control system

1) Have essential measurement equipment been specified and registered properly?
2) Are the precision calibration procedures clear and are the closely observed?
3) Are the terms of validity clear, easy to understand and maintained in such a way that they remain clean?
4) Do you have any records on traceability and calibration?
5) Is a measurement equipment register maintained properly?

Level 4. Companywide measurement control

1) Have measurement controls been provided throughout the company?
2) Has the company helped affiliated factories conduct measurement controls?
3) Is precision control followed in actual measurement?
4) Has measurement-related education and training been provided to employees? Is feedback used in measurement control?
5) Do you have any standards for measurement-related troubleshooting? Please show us, if so.

13. Measurement control

Level 5. Self development of new measurement techniques and devices

1) Are measurement methods adequately reviewed?
2) Have you ever reformulated insufficient measurement methods? Please show us, if so.
3) Have you ever improved measurement skills, tools, and the like?
4) Have you ever developed new measurement tools and methods on your own?
5) Have you ever taken steps to improve product quality by improving or developing new measurement methods, measuring equipment and the like? Please show us some examples, if so.

14. Inspection

Level 1. Inspection and inspection records

1) Are specifications for tests and inspections kept in good order?
2) Do the necessary inspection standards exist and are they sufficient?
3) Are inspection items clear?
4) Are inspection methods documented?
5) How long do you keep inspection records? Please show us some records.

Level 2. Enforcement of test and inspection standards

1) Is work conducted based on test/inspection standards?
2) Do you have a system to check test/inspection work?
3) How do you conduct test/inspection-related education and training?
4) What sort of deficiencies occur most frequently?
5) Do you analyze and use the deficiency data found at the final inspections?

14. Inspection

Level 3. Observance and records of test/inspection standards

1) Are standards for establishing test/inspection standards clear? Please show us some examples.
2) Are there clear test/inspection standards for each product type? Please show us some examples.
3) Are there clear inspection records for each process which are kept chronologically? Please show us some examples.
4) Do you have any records on handling of deficiencies? Please show us examples.
5) Have you maintained these records properly?

Level 4. Inspection methods for new and modified products

1) Do you have standards for visually inspecting new and modified products?
2) Do you have any rules for controlling boundary samples?
3) Have you conducted skill training on sensory tests?
4) Do you have a system for conducting customer-oriented tests/inspections?
5) Is the system for handling deficiencies clear?

Level 5. Feedback of unfavorable market information and resultant modification of inspection methods

1) Have procedures for collecting and handling market information been properly documented?
2) Does feedback of failure analysis extend to the design/manufacturing stages?
3) Has a claim-handling structure been set up properly?
4) Have you used feedback of market information to improve inspection methods?
5) Has a format been specified for the feedback of recorded information?

References

1. "*TQM Promotion Guidebook*" Japanese Standards Association (1996), Hitoshi KUME
2. "*TQM glossary*" edited by Shin MIURA, Noriaki KANO, Yoshikazu TSUDA and Yasuo OUHASHI, Japanese Standards Association (1985) (in Japanese)
3. "*International Standards on Quality Assurance, 2nd ed.*" edited by Compilation Committee, Dr. Hitoshi KUME, Chairman (1994) (in Japanese)

Appendix 4

Seminar on

Q-9559
QUALITY PROMOTION
PROJECT

TQM for the Middle Management

Sponsored by
United Nations Industrial Development Organization (UNIDO)
and Ministry of International Trade and Industry (MITI), Japan
Hosted by
Thai Industrial Standards Institute (TISI) and
Technological Promotion Association (Thai-Japan)
organized by
Japanese Standards Association (JSA)

11th-12th, January 1996
at the Siam City Hotel

Introduction

As markets become more open internationally it is imperative to continue to produce competitive and high-quality products to secure market share both within and outside the country.

As far as Japanese companies are concerned, TQM has been implemented largely to maintain the economic and effective production of competitive and highly reliable products; consequently, the high quality of Japanese products are highly praised in the international markets.

Correctly understanding and introducting TQM allows a company to rapidly improve product quality, brings about facilitation of trade, and in turn, leads to further development of the company.

In this seminar some concrete ways of introducting and promoting TQM which taking into account the current situations of companies in Thailand and other ASEAN counties, are introduced through description of studies on similar cases in Japan.

Seminar Objectives

A middle manager is in extremely important position in a sense that he is the one involved in the nitty-gritty of administration and the one who, directly instructing his staff, furthers production. He plays a major role as the driving force in introducing and promoting TQM, and it is no exaggeration to say that successful implementation depends on his active participation. Intended for middle managers of companies and governmental agencies in Thailand and other ASEAN countries, this seminar covers the following themes;

1. Understanding the importance of quality
2. Understanding the results of TQM
3. Organizations of the company structure for the successful introduction of TQM
4. Ways to promote TQM to acieve the maximum result

Lecturer Profile of UNIDO seminar

1. **Mr. Shinya TSUTSUMI**
   Former Matsushita TQM Consultant

Mr. Shinya TSUTSUMI joined Matsushita Electric Industrial Co.,Ltd. in 1957 and worked as a QC specialist since 1961 until 1994. During which days, He obtained guidance directly from Dr. Ishikawa and other professors at JUSE. Mr. Tsutsumi edited and published a total of 51 QC/QM internal textbooks for the Matsushita Group, 32 in Japanese, 10 in English and 9 in Spanish. Since 1981, he has been a frequent traveller, travelling widely around the world to promote QC/QCC activities in overseas factories of the Matsushita Group, and also to help government organizations in various countries including NPC in Malaysia, NPC in Indonesia, and PDC in the Philippines. He was the Director of the Japanese Society for Quality Control.

2. **Mr. Masaru SEKIGUCHI**
   TQM consultant

Mr. Masaru SEKIGUCHI joined the Furukawa Electric Co., Ltd., and was responsible for research and development, production technology and promotion of quality control until his retirement in 1988. During his tenure, he contributed to company-wide standardization, to dissemination fo TQM and to quality improvement not only in his own but in related companies as well. He also played and central role in the company's quality control education.

Currently engaged in technical cooperation in the fields of standardization and quality management for ASEAN countries, he has conducted field research and given many lectures and provided instruction on TQM in these fields both within and outside Japan. As a consultant, he also participates in factory diagnosis and other activities in the ASEAN-JAPAN TQM project for promotion of TQM in ASEAN countries.

3. **Mr. Masao NAGAO**
TQM consultant

Mr. Masao NAGAO worked in R&D, production-start-up and quality assurance with high-tech assembly products in the field of rocket motors at Asahi Chemical Industries Co.,Ltd. (1966-1984), and oil exploration equipment at Schlumberger K.K. (1984-1993).

Presently engaged on TQM consultant work and as a provisional assessor in ISO 9000 certification, he has been participated in much training and consultations related to Quality Control and the ISO 9000 series quality systems both within and outside Japan. He currently also participates in factory diagnosis and other activities in the ASEAN-JAPAN TQM project for promotion of TQM in ASEAN countries.

Seminar Outline

Thursday, 11th January 1996

08.30 am. - 09.30 am.
Registration
Opening address

09.30 am. - 09.45 am.
Welcome Speech by Miss.Kanya SINSAKUL
Secretary General TISI

09.45 am. - 09.55 am.
Address by Mr.Anthony BROMLEY
Chief, New Technologies Promotion UNIDO
Keynote address

09.55 am. - 10.05 am.
Address by Mr.Koji TANABE
Director for International
Standardization Affairs, AIST, MITI

10.05 am. - 10.30 am. *Coffee/Tea break*

10.30 am. - 12.00 am.
Prosperity through Steady Implementation of TQM
by Mr. Shinya TSUTSUMI
Former Matsushita TQM Consultant

12.00 am. - 01.30 pm. *Luncheon*

01.30 pm. - 03.00 pm.
TQM promotion Experienced in
The Siam Cement Group
by Mr. Prasit TANSUVAN
Manager, Corporate Total Quality Promotion
Center, Siam Cement Public Company Limited.

03.00 pm. - 03.30 pm. *Coffee/Tea break*

03.30 pm. - 05.00 pm.
TQM promotion in the Tostem Thai Co.,Ltd.
by Mr. Masaaki HIROWATARI
Vice President
Tostem Thai Co.,Ltd.

[Presentation in Japanese with consecutive interpretation into English]

Friday, 12th January 1996

09.00 am. - 09.30 am.
UNIDO Presentation by UNIDO Speaker

09.30 am. - 10.00 am. *Coffee/Tea break*

10.00 am. - 12.00 am.
TQM and Responsibilities of Middle Managers
Middle managers roles reguired for
promoting TQM
by Mr. Masaru SEKIGUCHI
TQM Consultant

12.00 am. - 01.30 pm. *Luncheon*

01.30 pm. - 03.30 pm.
Continuous Efforts for Quality through TQM
and ISO 9000s :
Factory Diagnosis in ASEAN Countries,
and TQM Case Studies in Japan
by Mr. Masao NAGAO
TQM Consultant

03.30 pm. - 04.00 pm. *Coffee/Tea break*

04.00 pm. - 04.30 pm.
Question & Answer Session

04.30 pm. - 04.45 pm.
Closing Ceremony
- Address by Miss. Kanya SINSAKUL
  Secretary General TISI
- Closing Address
  by Mr.Gen-ichi FUKUHARA
  Director General JSA

[This Seminar will be presented in English, and each presentation will be summaried in Thai by an interpreter]

Reservation

1. Technological Promotion Association (Thai-Japan) : Call for Ms.Nongyow, Ms.Napa Tel. 2580320 (6 line Automatic) , 2599160 (10 line Automatic) ext. 1341, 1340 Fax. 2586440, 2599116 (Mon. - Fri.)

2. Payment made payable to the "Technological Promotion Association (Thai-Japan)"

Please Registration me for the following Program :

Training fee	**Baht**	**2,056.07**
Vat 7%	**Baht**	**143.93**
Net Payment	**Baht**	**2,200.00**

Seminar on

Q-9548
QUALITY PROMOTION PROJECT

Quality Improvement and Role of the Top and Senior Management

15th, January 1996
at the Siam City Hotel

Sponsored by
United Nations Industrial Development Organization (UNIDO) and
Ministry of International Trade and Industry (MITI), Japan

Hosted by
Thai Industrial Standards Institute (TISI) and
Technological Promotion Association (Thai-Japan)

Organized by
Japanese Standards Association (JSA)

Introduction

As markets become more open internationally it is imperative to continue to produce competitive and high-quality products to secure market share both within and outside the country.

As far as Japanese companies are concerned, TQM has been implemented largely to maintain the economic and effective production of competitive and highly reliable products; consequently, the high quality of Japanese products are highly praised in the international markets.

Correctly understanding and introducting TQM allows a company to rapidly improve product quality, brings about facilitation of trade, and in turn, leads to further development of the company.

In this seminar some concrete ways of introducting and promoting TQM which taking into account the current situations of companies in Thailand and other ASEAN counties, are introduced through description of studies on similar cases in Japan.

Seminar Objectives

To successfully introduce TQM, it is essential for top and senior level managers to correctly understand its significance and to believe in its success, as well as to play the lead role in promoting the formation of a company structure conclusive to TQM. Intended for top and senior level managers of companies and governmental agencies in Thailand and other ASEAN countries, this seminar covers the following themes;

1. Correct Understanding of TQM
2. Roles and importance of top and senior level managers in promoting TQM
3. The relation between ISO 9000s and TQM
4. A better understanding of advancement from ISO 9000s to TQM

Lecturer

1. **Mr. Kaoru SHIMOYAMADA**
   Executive Senior Adviser
   Komatsu Career Creation Ltd.

Mr.Kaoru SHIMOYMADA joined Komatsu Ltd. in 1958. Since then, he has been engaged mainly in work related to TQM (Total Quality Management) and is in charge of company-wide implementation, application and promotion of TQM. His focus is quality assurance and policy management.

He has conducted lectures, education and field instruction in many countries and organizations. In Thailand, especially he conducts education, training and instruction on policy management once a month at the Siam Cement Public.

2. **Mr. Masahiko OYAIZU**
General Manager
Quality Assurance Department
Nippon Zeon Co., Ltd.

Mr. Masahiko OYAIZU joined Nippon Zeon Co., Ltd. in 1961, and since has been involved in the introduction and promotion of TQC within the company. His work greatly contributed to his companys receiving the Deming Prize in 1985. Since his appointment as TQC Promotion Manager in 1985, and vice-plant manager of Takaoka plant in 1992, he has taken the central role in promoting quality assurance based on the ISO 9000 series, and TQC promotion within his company. He is also actively engaged in ISO 9000 certification as an assessor for companies.

Seminar Outline

Monday, 15th January 1996

- Opening address

09.00 am. - 09.10 am.

- Welcome Speech by Miss Kanya SINSAKUL
  Secretary General
  TISI

09.10 am. - 09.20 am.

- Address by Mr.Anthony BROMLEY
  Chief, New Technologies Promotion
  UNIDO

09.20 am. - 09.30 am.

- Address by Mr.Masami TANAKA
  Director General of Standards Department
  AIST, MITI

09.30 am. - 09.40 am.

- Address by Mr. Sontaya KUNPLOME
  Deputy Minister of Industry Thailand

09.40 am. - 10.00 am.

- Coffee/Tea Break

10.00 am. - 11.30 am.

- Role of the Top Management for TQM Promotion
  by Mr. Kaoru SHIMOYAMADA
  Excutive Senior Adviser
  Komatsu Career-Creating Ltd.

11.30 am. - 01.00 pm.

- TQM and ISO 9000
  by Mr. Masahiko OYAIZU
  General Manager, Quality Assurana Dept.
  Nippon Zeon Co., Ltd.

01.00 pm. - 02.00 pm.

- Luncheon

[This seminar will be presented in Japanese with consecutive interpretation into English]

Special lecturer

02.00 pm. - 03.00 pm.

- Roles & Policy of TISI in Quality Improvement in Thailand
  by TISI

Reservation

1. Technological Promotion Association (Thai-Japan) : Call for Ms.Nongyow, Ms.Napa Tel. 2580320 (6 line Automatic), 2599160 (10 line Automatic) ext. 1341, 1340 Fax. 2586440, 2599116 (Mon. - Fri.)
2. Payment made payable to the "Technological Promotion Association (Thai-Japan)"

Please Registration me for the following Program :

Training fee	**Baht**	**1,401.87**
Vat 7%	**Baht**	**98.13**
Net Payment	**Baht**	**1,500.00**

Q-9559

Application Form

TQM for the Middle Management

Company.....

Address.....

Telephone..... ext..... Fax.....

Kind of Business.....

1. Mr./Mrs./Ms. : ..... Position : .....
2. Mr./Mrs./Ms. : ..... Position : .....
3. Mr./Mrs./Ms. : ..... Position : .....

Name Reserver .....

(Mr./Mrs./Ms.....)

Attn : Ms.Nongyow / Ms.Napa

Q-9548

Application Form

Quality Improvement and Role of the Top and Senior Management

Company.....

Address.....

Telephone..... ext..... Fax.....

Kind of Business.....

1. Mr./Mrs./Ms. : ..... Position : .....
2. Mr./Mrs./Ms. : ..... Position : .....
3. Mr./Mrs./Ms. : ..... Position : .....

Name Reserver .....

(Mr./Mrs./Ms.....)

Attn : Ms.Nongyow / Ms.Napa