

American Society for Quality Control

P.O. BOX 444, POINTE CLAIRE - DORVAL HOR 4P3

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MONTREAL SECTION

May 1987

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STEPPING UP TO QUALITY ASSURANCE

NOTICE OF MONTHLY MEETING

This month, we hold our last meeting of the season at the Dorval Airport HILTON HOTEL.

The guest speaker will be Dr Joan KAHN, who has published a number of papers on Quality in the medical field. Her book "Stepping up to Quality Assurance" is being published in May. It will also be available in French under the alias, "Le rayonnement de la qualité".

Quality assurance in the medical environment certainly offers an interesting challenge, and I am sure that you will come and listen to what they are and how the ROYAL VICTORIA HOSPITAL implemented its QA program.

DATE:

27 May 1987

TIME:

7:00 PM

PLACE:

HILTON HOTEL

Dorval International Airport

Montreal

DIRECTIONS: Access via Autoroutes 520, 20,

40 or 13. Just follow the signs for the airport and take the first exit right, just after the underpass.

Refreshments will be served.

PLEASE CALL AND CONFIRM BEFORE 21 MAY 1987.

CALL Ms GIBBS, at 340-3132. ALL welcome.

MEMBERSHIP

COMMITEE CHAIRMEN

George G Andrews Canadian Marconi Company Quality Assurance 2442 Trenton Town of Mount Royal, Que H3P 1Y9 (514) 341-7630 (4629)

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SECTION MANAGEMENT AWARD

Len Barth, Eng Quality Management Consulting 110 Grassmere Ave Pointe Claire, Que

MONTREAL SECTION

American Society for Quality Control

P.O. BOX 444, POINTE CLAIRE - DORVAL H9R 4P3

Call for Papers

A Saturday Forum on Quality and Reliability

Sponsors: ASQC (Montreal and Quebecoise Sections) and SRE

Place: Airport Hilton in Dorval

Time: Saturday 3 October 1987, 8:00 am to 4:00 pm

Theme: Competitiveness

Papers are invited on the subjects of Quality and Reliability.

The focus will be on:

- Management involvement,
- Computer systems (hardware, software and people),
- Quality and reliability costs,
- Systems and co-ordination of systems development,
- Technical methods, and
- Your latest idea

and how these they can help your company achieve a competitive position in the market place.

Summary deadline: 15 June 1987 Acceptance notification: 7 July 1987

Paper deadline: 22 August 1987

Specification: 8½" by 11", 1" margins, typed, single spaced and less than ten pages for the paper.

Please forward summary to:

M. Bolar SPAR Aerospace 21025 Trans-Canada Highway Ste. Anne-de-Bellevue, Québec H9X 3R2

Attend and make a friend.

Our client is known throughout the world as a leading marufacturer of high-quality transportation equipment. The Canadian plant is located in the Montreal area and employs close to 800 people. This position is a result of recent growth and internal promotion.

Quality Assurance Manager

Supported by a staff of 20, including 15 quality assurance inspectors, this individual is responsible for quality from the supplier to the customer. This person will apply modern technics of quality assurance management combined with a practical sense of what is needed in a large, highly productive plant. This person will also interact actively with other company plants throughout North-America.

We require a fluently bilingual graduate engineer with 4-5 years' experience in an assembly line environment who is a creative leader that can inspire and motivate people in a positive and productive manner.

To pursue this position, please forward your resume immediately indicating your salary requirements and referring to project Q11.



GRIFFITH WRAY & ASSOC.

MANAGEMENT CONSULTANTS

1411 Fort St., Suite 505, Montreal, Quebec H3H 2N6 10350 Yonge St., Suite 206, Richmond Hill, Ontario L4C 5K9 (514) 935-9810 (416) 737-1333

Salary, based on experience is \$39-45000 a year.

Contact Ms Barbara YULE at (514) 935-9810

QUALITY SAMPLES

■ The board of directors of the American Society for Quality Control is pleased to announce the appointment of Dr. Edward A. Buckley as the new executive director of ASQC effective April 15, 1987.

Dr. Buckley comes to ASQC from the executive staff of the American Institute of Certified Public Accountants, a 250,000 member professional society headquartered in New York. As vice president of member services at AICPA, he was responsible for relations with industry, practice management, meetings and exhibits, state societies relations, membership development and records, as well as all member benefit programs. In addition, he served in a coordinating role for all technical divisions and had overall responsibility for research and informational services operated from the largest accounting library in the world.

■ Dana Cound (GenCorp.) has recently announced that the interim board of directors of the American Quality Foundation has elected Josh Hammond, ASQC's director of development, to the interim board as president. Josh, who will continue his staff responsibilities to ASQC, is expected to help organize the Foundation, begin its fund raising activities, and recruit a chairperson for the permanent board.

Joining Josh on the interim board as treasurer is James Conley, a partner at Ernst & Whinney, a Big Eight accounting firm. John Condon, of Abbot Laboratories, was appointed the Foundation's secretary. Together with John Hansel, president, Systems Integration & Management and John Knappenberger, director of quality, TRW Inc., the interim board has begun its planning activities. It will deliver a full report to the ASQC board of directors in May.

LETTERS TO THE EDITOR:

o Send all your letters and articles to:

JP AMIEL, BOX 94
| c/o CANADIAN MARCONI COMPANY | 2442 Trenton Ave | MONTREAL H3P 1Y9 | 514-341-7630 Ex 4845

ATTENTION MUGGERS!

More information on ASQC services is available through ASQC International Headquarters or your local Section. Call 414-272-8575 and ask for a Membership Services Representative.

Please Fill-In, Tear Off, and Mail This Form to:

310 W. Wisconsin Avenue, ASQC Headquarters,

Milwaukee, Wisconsin 53203

New Member Name

please print

Address

State

Associate \$40 Member \$52

Membership Category select one

Division Membership select choice(s)

1 Administrative Applications \$4.50

2 Acrospace & Defense \$6.00

3 Automotive \$2.00

4 Chemical & Process Industries \$4.00

6 Textile & Needle Trades \$4.00 5 Electronics \$6.00

7 Food, Drug & Cosmetic \$5.00 Reliability \$8.00

Inspection \$3.00

10 Biomedical \$5.00

Energy \$3.00

Statistics \$3.50

13 Human Resources \$4.00

TOTAL DIVISION PAYMENT

FINAL TOTAL

Make check payable to ASQC or use credit card. Major Credit Card: Number:

Exp. Date:

New Member Signature (required)

Date

Sponsor Name (Mugger) please print

Member #

SECTION 0401

Date

from ASQC...

unprecedented move by the Membership Quality Control goes to new lengths Committee, a new membership drive The American Society for to recruit members. In a recent was enthusiastically launched:

THE MUG-A-MEMBER CAMPAIGN

ounce ceramic coffee who recruits a new mug in recognition member of ASQC lune 30, 1987 will receive a specially member before designed eleven Every current



offerings, and local Section courses, seminars and workshops.

CERTIFICATION

ASQC's program of formal certification is recognized as a mark of proficiency in the quality field. Over 19,000 quality professionals have achieved this mark and realized a professional advantage.

Technical Divisions' conferences and course ASCX 's professional development services: The Educational Training Institute,

> compelling reasons to join the world's leader in the advancement of Quality: Potential members are cautioned that ASQC is armed with a number of

of their efforts.



MESSAGE TO ALL MUGGERS (SPONSORS)...

ASX: was among the first to develop and promote quality standards, statistical process quality control, and quality control and include the bodies. Dealtry Progress, ASQC's internationally

INFORMATION

Mug-a-Member Campaign '87 American Society for Quality Control 310 W. Wisconsin Avenue Milwaukee, Wisconsin 53203 respected monthly magazine provides current analysis and useful information in the field of Quality.

PUBLICATIONS

(No customary application required.) and Enroll a New Member: To Receive Your Mug

1. Fill-out Membership Coupon on front of this panel.

credit card information from New Member as calculated on Membership Coupon. 2. Attach proper membership fee or

QUALITY PRESS is the authoritative one-stop place for all your quality information needs. Members can take advantage of discounts on the leading titles in quality-related public artisos. Other Member publications include 3 journals; Journal of Quality Technology (JQT), Technometrics.

ASQC, 310 W. Wisconsin Avenue, 3. Mail Coupon and Fee to:

Milwaukee, WI 53203.

PROFESSIONAL DEVELOPMENT

and the new innovative journal for upper management, The Quality Review.

Gain a competitive advantage through the variety of courses and programs offered by

ASQC mug(s) will be sent to you at the 4. Include your name and Member # conclusion of this offer, July 1, 1987, based on address information in your at bottom. Your specially designed Membership file. 5. There is no limit to the number of mugs you may receive. (Six makes a nice set.)

6. Double Bonus: The Mug-a-Member recruitment totals can be applied to the ASQC Personal Touch Program.

7. Get out there and start mugging!

Special Bonus for New Members!

500 Company, a Quality Manager or Professional, or a member of the Service Industry, ASQC; wants you to be informed.

Choose from national, regional and local conferences designed for your needs whether you are an executive of a Firitune

CONFERENCES

National Quality Forum (co-sponsored with Fortune Magazine)

SPECIAL PROJECTS

Gallup Surveys on Quality (sponsored

by ASQ

additional benefits prior to July 1, 1987. Enroll early! New Members will receive (when their membership year officially begins). Membership applications will be processed as soon as they arrive at ASQC Headquarters.

Be sure to include your name and member number in order to receive your mug.

National Quality Month by U.S.
 Presidential Proclamation
 NASA Excellence Award, administered by ASQX:

NEW MEMBER'S CORNER

We wish to welcome the following new members to the Montreal Section:

Raymond BARNES
Quality Technician
MICROELECTRONICS Ltd
Leslie, Scotland

Lau CHUN
Process Section Mgr
TEXAS INSTRUMENTS PTE Ltd
Singapore

Daniel J Mc GONIGAL Product Assurance Mgr DY-4 SYSTEMS Nepean, Ontario

Daniel RANDOLL QA Analyst ALLIED BENDIX AVELEX Montreal, Québec

Laurie A TOMITA Mgr QA & Ingred. Proc. AVON CANADA Inc Pointe Claire, Québec Wolfgang CASTA
Mgr QA & Trials
MIL DAVIE Inc
Cote St Luc, Québec

Paul E MARCEAU Mgr QA Audits BELL CANADA Longueuil, Québec

Juan Martel MORENO-MONTANO Specialist SPC CELANESE MEXICANA S A Mexico City, Mexico

Glenn SERNOSKI QC Manager LEAN FLOW METAL PRODUCTS Kitchener, Ontario

Dinh Toan VO Reliability Engineer CANADIAN MARCONI Co Montreal, Québec

We would also like to welcome our new sustaining member;

Uris WIDMER QC Director OERLIKON AEROSPACE Inc St Jean Richelieu, Québec

SOFTWARE QUALITY ASSURANCE

Last February 1987, Mr Edmund Ratneiya introduced us to the notions of Software Quality Assurance. This is basically the controls to be put in place to ensure that software will do what it is intended to do. In the context of Edmund's presentation, we discussed software as being the computer programs and their support documentation.

We were told how difficult it is to "control" software since, unlike hardware, there is no warning of potential failure and therefore only a a good prevention system can ensure the creation of the "proper" quality software. Edmund then presented some of the program plans and control forms that he has developed, based on a myriad of MIL specifications just released or about to be released on the subject.

Typically, a computerized banking system may consist of millions of lines of computer instructions, written by hundreds of people. Each one of those programmers worked on small segments of the the program. Experts say that they can never be sure whether all the segments will work in harmony, as an error as small as a misplaced semicolon in one program line, can cause a system to malfunction. If you have ever tried just to control the revision status of drawings or verify that everyone in your plant has the correct revision, you can appreciate the controls needed.

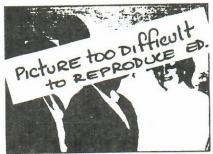
All in all it was an interesting introduction to a growing concern in industry, where programmed. automated machinery is becoming more and more important.

Thank-you to Edmund for coming in from Rockland, Ontario to make this presentation.

JP AMIEL

EXCELLENCE

Certification Programs



Members of our certification and recertification departments (clockwise, from bottom left): Mercedes McWilliams, Kevin Hood, Cindy Hagert, Stephanie Maas, and Sandra Shed.

Recognizing The Quality Professional

One of the major contributions ASQC has made to the quality profession is its professional certification programs. This contribution is of a dual nature. By prescribing a body of knowledge, proficiency in which serves as the standard of professionalism, ASQC promotes a high level of competence to the benefit of industry and, indeed, the world. On a more personal level for the individual who earns it, certification opens doors and brings the recognition of employers. It also acknowledges to one's professional colleagues that a coveted achievement has been earned.

To attain a certificate, individuals must meet education and experience requirements and pass a written examination. ASQC members and nonmembers alike may be certified in the following disciplines:

- · Certified Quality Engineer (CQE)
- Certified Reliability Engineer (CRE)
- · Certified Quality Technician (CQT)
- · Certified Mechanical Inspector (CMI)
- Quality Engineer-in-Training (QEIT)

Examinations are given twice a year for each certification discipline:

- CQE/QEIT—June and December
- CRE/CQT/CMI—April and October

The local ASQC Sections and affiliates provide proctors and sites for the examinations. All individuals are responsible for their own personal study and examination preparation. "Preparation" or "refresher" courses per se, with the express purpose of training candidates to answer the exam questions, are considered counterproductive, and so are not offered. A bibliography of suggested reference materials is provided by the certification department to help candidates in their

exam preparation.

Experience criteria form the other portion of the requirements for certification. Each discipline has its own criteria as to the number of years employed in the field, educational background, research activity, etc.

To apply for certification, call or write ASQC and ask the certification department for a program brochure for the certification

discipline that interests you.

The certification coordinators at ASQC headquarters, identified above, are responsible for carrying out the entire certification process and are in direct communication with the Society's certification volunteers and examinees. They can answer any questions concerning the certification program and assist examinees in rescheduling, changing exam sites, clearing holds, and other concerns.

Sandra Shed, the senior certification coordinator, manages the department's day-to-day operations. She can be reached at (414) 272-8575 ext. 230.

... And Retaining The Distinction

The value of professional certification erodes with each wave of technological change, unless that certification is periodically updated. The ability to adapt, to innovate, to meet the challenge of constant change on the state-of-the-art frontier is what defines the quality professional. ASQC makes sure its certification program is based on this reality.

Quality and Reliability Engineers who wish to retain their certified status must participate in the "Maintenance of Certification"

program every three years.

The primary purpose of this program is to motivate quality professionals to maintain the high level of proficiency in their disciplines demonstrated during their original certification. Applications for recertification are mailed automatically to candidates as their certifications near expiration, every three years.

There are two ways to be granted recertification: by accumulating Recertification Units (RUs) or by re-examination.

Candidates have a three-year period in which to meet the RU recertification requirements. RUs may be accumulated in a variety of ways: taking part in ASQC or other technical society-sponsored educational programs such as conferences, seminars, workshops, and courses; presenting or publishing technical papers; teaching quality-related

Ed Sullivan Leaves ASQC

Ed Sullivan, who turned Quality Progress into the premier publication for the quality profession and launched ASQC's successful Quality Press venture, is leaving ASQC after 7-1/2 years to start "another really big shooo" at Panel Publishers in New York. Ed came to ASQC in 1979 as news editor of Quality Progress and quickly transformed it into a "real showcase for the Society and the quality profession," Dana Cound noted at a recent ASQC all staff meeting. He added, "I will miss him personally and professionally."

While he made his mark on QP, Ed broke new ground for the Society with Quality Press. Starting from scratch with zero titles in 1985, this book publishing venture has skyrocketed. Fifteen titles have been issued this year alone, with nine more currently in production and scheduled for release by our fiscal year end. And ASQC's book sales for the first time have topped \$1 million in

sales under Ed's management.

Certification Rules Change

At its November meeting, the Certification Committee adopted two changes in recertification rules. One affects the Section Examining Committees (SECs); the other concerns individual recertification candidates.

The Certification Committee voted to stipulate that all documentation of the Section Examining Committees' activities produced in reviewing recertification applications must be retained for a period of three years after the end of each recertification cycle. This documentation includes copies of all recertification records not submitted to headquarters with the recertification applications. For example, SEC records pertaining to recertification applications due December 31, 1987 must be kept by the SEC through December 31, 1990. This change is effective July 1, 1987.

The second change concerns the Recertification Units (RUs) awarded to individuals who submit exam questions for any of the certification exams. Until now, recertification candidates earned 0.1 RU for each accepted question or case study. As of Jan. 1, 1987 recertification candidates who submit exam questions or case studies which are accepted by the appropriate exam subcommittee will receive 0.5 RU for each question, and up to 1.0 RU for each accepted problem or case study. This change applies to questions for any of the existing exams.

Under this system, John Doe is a Certified Reliability Engineer (CRE) whose recertification date is approaching. If he needs 3.5 RUs to complete his application, he can get them by submitting, for example, two approved questions each for the CMI, CQT, and CQE exams and one approved problem for the CRE exam. Under previous rules, he would have received 0.7 RU for the same number of questions.

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QUALITY SAMPLES

SATURDAY

MONTREAL FINAL EDITION

APRIL 18, 1987

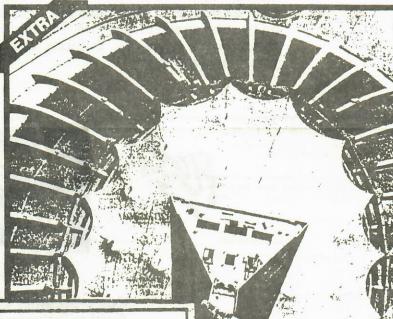
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ully landscaped

Vast trucking area
 Energy efficient Compare

Lessing 737 3344

Quality-control standards were cut in race to put a roof over the opener



OIB says 190-tonne canopy is safe

By WILLIAM MARSDEN and ROBERT WINTERS of The Gazette

As riggers and welders worked night and day during the past year to piece to-gether the steel body of the Olympic sta-dium's leaning tower, the Lavalin engi-neering company was lowering its quality-control standards for welding in an

effort to finish the job on time.
The 8,000-tonne, twin-hulled, steel tower - which the public will see for the first time in its completed form when the Expos play their season opener Monday bears the full weight of the 190-tonne retractable roof.

Olympic Installations Board (OIB) officials insist that welding standards were always adequate to ensure the safety of the

charge of the project, has refused to com-

But internal OIB documents show that: · Unqualified welders worked on the site for as long as two months without hav-ing passed Canadian Welding Bureau

Thousands of pages

 The welding subcontractor, MIL Montage Inc., worked on the tower for nine months without official accreditation from the Canadian Welding Bureau as is required by Quebec law and the National Building Code.

Les Laboratoires Ville-Marie, which

the OIB hired to check Lavalin's welding procedures, reported last fall that Socodec had reduced the criteria of acceptability for welds; the proportion of welds inspected; the number of areas in the tower struc-

Four pages on the Big O begin on B.

ture considered to be under stress; and the percentage of rejected welds that were

reinspected after repairs.

The consultants' reports were among thousands of pages of internal OIB docu-ments obtained by *The Gazette* under the Quebec access to information law.

In an Oct. 28 report, Ville Marie warned that, with the weakening of welding-in-spection standards, "it is obvious (the standards) specified in the tendering of the contract have not been respected

Socodec replied that the reductions would have no effect on the solidity of the

The Quebec Supply and Services department, which is responsible for the OIB. was never informed that unqualified welders were working on the tower, or that Lavalin had reduced quality-control standards, deputy-minister Jean-Marc Bard said in an interview.

Only accredited welders should be used, Bard said. If Supply and Services Minister Gilles Rocheleau had been informed, Bard said, he would have insisted that all standards be respected.

The documents obtained by The Gazette paint a picture of behind-the-scenes conflict as well as a variety of serious problems the OIB experienced in ad-ministering the contract to complete the

Olympic tower and roof.
One angry exchange of letters involves the problem of safety on the work site where, the OIB complained, objects kept

falling off the tower

The falling debris led to two shumowns at the site, and Lavalin complained to, a subcontractor at one point that safety problems could compromise the entire project.

During a baseball game last August, for example, a steel corner crashed to the ground next to the Expos bullpen.

Other falling objects included metal plates, an electric saw, plywood and wood-en planks. a light bulb, large magnets and thousands of glowing metal welding bits. The welding bits damaged the artificial turf and caused an \$891,000 fire that destroyed half the acrylic roof over the Olympic pool

It was "only by luck" someone wasn't killed, the OIB wrote Lavalin.

Serious design flaws

Throughout the project, Lavalin engineers had to tackle serious design flaws in the original plans by French architect Roger Taillibert.

They discovered there was no room for the retractable roof's winches and pulleys at the top of the tower where Taillibert's plans placed them. An entirely new sys-

tem had to be designed.

Another design flaw had to be corrected after engineers found that 14.7-tonne counterweights for the interior cable cars could have come crashing through the roof of the pool if installed according to the original plans.



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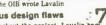
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Serious design flaws

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o Well they've done it. DOMETAL has won the XEROX Award of Excellence. This is quite an honor for them since this is the first time that a Canadian sheet metal part supplier wins it. They "..have shipped over 500,000 parts to Xerox without any discrepancies.." reads the plaque awarded by the Xerox Manager of Product Quality.

We congratulate DOMETAL and Gerry HEIMANN, their Quality Control Manager, for this achievement. The award was handed to DOMETAL by XEROX at a small ceremony in April.

Speaking of Gerry, he has recently resigned his post in the Section's Executive. It seems that this award was only the beginning of things, and he will now devote even more time at future expansion. Good luck Gerry in your endeavours.





Mug-a-Member Campaign '87 American Society for Quality Control 310 W. Wisconsin Avenue Milwaukee, Wisconsin 53203

More information on ASQC services is available through ASQC International Headquarters or your local Section. Call 414-272-8575 and ask for a Membership Services Representative.



MONTREAL SECTION
P.O. BOX 444, POINTE CLAIRE
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