

'93 CONVENTION REPORT



Great Food, Good Fun

RCI'S EXECUTIVE OFFICERS 1993-1994

Joe F. Hale, FRCI, President
Sam W. Huff, RRC, First Vice-President
Arthur O. Sark, Second Vice-President
Christopher L. English, , RRC, Secretary
William Marcum, RRC, Treasurer
Richard M. Horowitz, AIA, RRC, FRCI
Immediate past president

Following are some of the highlights of this year's convention.

PRESIDENT'S BANQUET AND AWARDS

The President's Banquet was indeed a gala occasion, providing a wonderful setting to recognize accomplishment and acknowledge outstanding service.

NEW CERTIFIED ROOF CONSULTANTS

Gilbert Arnold
W. Nelson Hall
Jon Lindberg
William Marcum
Terrance Simmons
Buddy Sutton

Robert Boessen
Doyle Jones
Paul Lundquist
Dennis McNeil
Edward Stewart
Richard Wagner

Michael Clark
E. Frank Kelm
Edward Madden
John Serke
Gerald Sullivan
John Wooten

QUALITY ASSURANCE OBSERVERS

Robert Chandler
Wesley Iverson
Dale Maddox
Glenn Tokubo

Stephen Huffman
Douglas O'Brien
Howard Tegland
Brian Van Tiem

DOCUMENT COMPETITION AWARDS

	1st Place	2nd Place
Large Project	H.B. Fishman	NTH Associates
Small Project	Law Engineering	Chris English & Assoc.
Roof Survey	Austin Dillon Cook	Chris English & Assoc.

OUTSTANDING VOLUNTEER AWARDS

The following were honored for their notable service to the Institute.

Rick Cook	Dave Siple	Phil Dregger	John Willers
Chris English	Lyle Hogan	Joe Hale	Barry Krum
Cal Roche	Sam Huff		

FELLOWS OF THE INSTITUTE

In recognition of their outstanding service to the Institute over many years, Barry Krum and Robert Martin were named Fellows of the Institute.

Special posthumous tribute was paid to Herb Busching and Doug Senecal, both esteemed past members of RCI.

CHARTER MEMBERS WHO ARE STILL MEMBERS

Richard Canon
Frank Gorham
Ted McConnell
John Serke

William Correll
John Lance, Jr.
Bob Phillips, Jr.
Roger Staley

Allan Dresden
Robert Lyons
Arthur Sark

CONTEST WINNERS

1st Prize, \$1000
2nd Prize, \$500
3rd Prize, \$250

Tom Ewing
Dave Siple
Roger Galliher

SPONSORS / SUPPORTERS OF THE PRESIDENT'S BANQUET

SPONSORS

Architectural Roof Systems
Dow USA - Plastics Division
NRG Barriers
T. Clear Corporation
Topcoat

SUPPORTERS

Georgia-Pacific Corporation
Olympic Manufacturing Group
Owens Corning Fiberglas Corp.
U C Industries

The technical sessions presented at the Convention were both timely and informative. A synopsis of the seminars follows.

"A New Look at Life Cycle Costing"

Presented by **Edward Riley and Robert Nicoll**

In their presentation, **Edward Riley and Robert Nicoll** of JPS Elastomerics promoted the concept of returning to quality and value in a roofing system. Instead of getting trapped into the scenario of selecting a system solely on the basis of a low initial cost, roofing systems should be selected on the basis of long term life cycle costs. Two

methods are commonly used to produce a life cycle cost: the comprehensive method and the abbreviated method. The comprehensive method considers the following: first cost, warranty length/cost, maintenance cost, energy cost, depreciation, and net present value. The abbreviated method considers only installed first cost and energy cost.

"Single-Ply Seams: Understanding the Factors that Affect Performance"

Presented by **Dr. Walter Rossiter, Jr.**

Dr. Rossiter reviewed the history and progress of single-ply seam testing, focusing on EPDM seams. Early results



"WHY ARE THESE PEOPLE SMILING?"

CONVENTION SEMINARS

demonstrated that T-peel testing was the most discriminating test and is likely to be a failure mechanism in the field. Seams may experience peel influence from wrinkles introduced in the sheet during installation. The National Institute of Standards and Technology (NIST) has used peel tests and creep rupture tests to distinguish between good (long lasting) seams and poor seams. NIST has concluded that thicker adhesive improves performance, that heat reduces seam strength, and that taping may eliminate some occurrences of seam failure. In another experiment, Dr. Rossiter tried to show that cleaning of old, dirty EPDM could be accomplished with standard white gas and a lot of rubbing. It must look clean for a good seam to be made.

"Roof Considerations on High Temperature/High Humidity Buildings"

Presented by **T. W. Freeman, R.R.C.**

T. Freeman's session examined typical problems encountered in high temp/humidity construction, and then provided a step-by-step method to avoid those problems. Mr. Freeman detailed design considerations, explained the use of a worksheet used to determine the dewpoint location, and reviewed an actual case history of a roofing system that was used to solve a problem on a paper mill in Louisiana. He also provided some real world criteria for selecting the appropriate moisture resistant components needed for membrane, insulation, vapor retarder, and decking.

"Architectural Sheet Copper"

Presented by **David Hunt**

In the United States, 16-ounce and 20-ounce copper account for 98 percent of all sheet copper applications. Lead coated copper is still available and used in some applications. Lead coated copper is a material that is coated with a blend of 95 percent lead and 5 percent tin. It was noted that "oil-canning" should be expected

on all sheet metal roof assemblies, including copper. Part of Mr. Hunt's presentation covered the connecting of panels or sheets of copper. He showed diagrams that depicted each method and included standing seam, riveted, and soldered. Troubleshooting tips were provided and the audience was particularly interested in the soldered flat seam detail. Copper is known for its excellent weathering properties. Mr. Hunt noted that it does not appear at present that copper is affected by acid rain. Additional information about copper products can be obtained from SMACNA, the Copper Development Association, and Revere Copper Products.

"What Does a Specifier/Designer Need from the Consultant?"

Presented by **Barry Donaldson, A.I.A.**

Mr. Donaldson started with an overview of the types of buildings and historical architecture with which the specifier/designer must draw upon and deal with in today's industry. Mr. Donaldson said that roofing has evolved greatly over time from domes and very steep slopes to the modern day low slope roofing. He expects glass to carry even more importance in the future. Mr. Donaldson noted the general lack of knowledge regarding what a roof consultant brings to a project, especially since roof consultants come from a wide background of experience and education. Getting roof consultants involved early (during the creative process), having a consultant who speaks architectural language (understandable), and having a consultant embrace more materials such as glass and exterior insulation finish systems would be most helpful. The roof system was presented as not being in a vacuum but interactive with the building and design components.

"A Realistic Approach to Prescriptive Specifications"

Presented by **Richard Canon, P.E., R.R.C.**

Dick Canon provided a review of his company's technique for preparing a specification in his presentation. The key to producing a meaningful and understandable specification is to put a reference or glossary of terms at the beginning. This helps remove any uncertainty in the bidding process. Dick believes that a specification should provide the same data that a druggist provides when a prescription is filled: what to do, how to do it, when to do it, and how often. By using a strong prescriptive specification, it's possible for the roofing professional to minimize his exposure to lawsuits involving one of the most litigated components of the building.

"Fastening Examined as a Science"

Presented by **Lyle Hogan, P.E., R.R.C.**

Through a variety of well selected visual aids, Mr. Hogan presented a thorough examination of five facets of fastening: failure modes, pull testing, corrosion resistance, spacing calculations and selection based on deck types. Failure modes of back out, pull through, insulation punch through, shank breakage, and insulation consolidation were examined. Sample sheets for pull test calculations and fastener spacing calculations were provided. At the end of his presentation, Lyle gave a pop quiz to verify that his audience had gained something, and everyone passed!

"Liquid Membranes - Hot and Cold: Where, Why and How"

Presented by **Neil Thomas.**

Mr. Thomas presented an overview of liquid membranes, both hot and cold products, for a variety of waterproofing and roofing projects. He reviewed urethane coatings, elastomeric coatings, and hot applied asphalt coatings. Liquid coatings are primarily utilized in roofing applications over concrete substrates, typically in an IRMA or protected membrane system utiliz-

ing extruded polystyrene insulation. Composite decks such as lightweight concrete on metal deck and light weight fill installed over structural decks often pose problems for liquid coatings which are not recommended for use on these substrates. Critical analysis of the structural deck type and condition is absolutely necessary to determine the viability of a liquid coating solution. Mr. Thomas reviewed system applications and flashing conditions, outlining specific product applications and highlighting design pitfalls to avoid. Liquid membranes are increasing in use over concrete decks and provide the designer with another system alternative to conventional roofing products.

"Wind Designs that Work - or - Pass the Test!"

Presented by **James Sheahan, R.R.C.**

Mr. Sheahan provided a provocative look at wind effects in the real world versus performance in a test situation. A key lesson learned from Hurricane Andrew was that some mechanically attached single-ply roof systems failed below the windspeed that they were designed to withstand. Mr. Sheahan examined the various test methods currently used and concluded that there is a need for further research to arrive at appropriate test methods so that roof systems would not only pass the test but also survive the wind. He concluded with the sobering thought that under current conditions, the inventory of buildings susceptible to wind damage is growing.

"In Andrew's Way: Facts and Findings on Hurricane Andrew"

Presented by **RCI's Research Committee.**

A distinguished panel of experts presented their findings from their field research of Hurricane Andrew. The panelists were the following: Dr. Peter Sparks, Dr. Ajay Shanker, Dr. James McDonald, Professor Thomas Phalen,



Dick Canon describes a good specification

RCI'S NEW REGISTERED ROOF CONSULTANT PROGRAM

Mr. Dean Flesner, Professor Robert Crosland, and Mr. Herbert Saffir. Dr. Sparks set the scene for the hurricane and pointed out the inadequacies of the weather monitoring stations. Dr. Shanker showed a library of slides on actual damage to metal buildings, pre-cast concrete T's, shopping and strip malls, and residences. Of special note was the prevalence of poor quality work in residential construction. Dr. McDonald, Director of the Institute for Disaster Research at Texas Tech University, pointed out that 60,000 homes were damaged or destroyed. He also said that there was a strong need to change attitudes toward building safe affordable housing. Professor Phalen documented that major causes of flat

roofing failures were edge details and the use of edge metal of insufficient thickness. Dean Flesner of State Farm Insurance pointed out that his company alone sustained estimated losses of \$3.5 billion. Mr. Herb Saffir, a consulting engineer, said that the South Florida Building Code was one of the toughest in the country, but had a weakness in its provisions regulating timber construction.

Special thanks to Bill Rubel, RRC, David Roodvoets, David Hawn, RRC, Nelson Hall, RRC, and Peter D'Antonio for their contributions to the convention report.

RCI Members Register Their Approval

With little fanfare, RCI members voted at the annual membership meeting held March 31, 1993, that "all members recognized as RCI Certified Roof Consultants shall be henceforth recognized as RCI Registered Roof Consultants". Below are answers to some frequently asked questions about the new RRC program.

Q. Is anyone automatically eligible for RRC Status?

A. All those who obtained CRC status and are in good standing with RCI and all IRWC Certified Professional Roof Consultants in good standing are eligible. Registered Roof Consultant certificates have already been sent to eligible RCI members, whereas IRWC Certified Professional Roof Consultants need only complete an application.

Q. Is it easier to become registered than it was to become certified?

A. The requirements for registration remain as stringent as before. All applicants for registration must take

and pass the same comprehensive exam required in the past for certification, and all new RRCs must be approved by the Board of Directors, as were the CRCs.

Q. What is the main difference between the RRC and CRC classifications?

A. Besides the title itself, which connotes a different type of credential, the biggest difference between the new program and the old one is that the title of Registered Roof Consultant is now open to all those who are qualified, whether or not they are members of RCI. Previously, the CRC designation was available only to RCI members.

Q. What are the requirements for registration?

A. The new classification still requires the completion of a written application confirming work experience, continuing education, personal and professional ethics through work/character references, and a satisfactory score on a comprehensive eight-hour exam.

Q. What is the relationship between the RRC and Education programs?

A. Though the Education Program is neither a prerequisite nor does it automatically lead to registration, it can provide an effective pathway. Levels II and III (and upcoming Level IV) are excellent preparation for the RRC exam and also award CEUs which may be used toward the CEU requirement for registration. Both programs demonstrate RCI's commitment to continuing education and higher levels of competence in a demanding and ever-changing field.

Q. What role will the Consultants Credentials Committee have in this new program?

A. The Consultants Credentials Committee will retain its active involvement in the applicant screening and testing process.

Q. What is the purpose of this change?

A. This change will benefit consultants in several ways:

1. The term registered as opposed to certified will be more easily recognized and accepted by government boards accustomed to dealing with registered engineers and architects.

2. Because the RRC title is open to everyone - RCI members and non-members alike - registered consultants will soon gain more recognition and influence throughout the industry simply by virtue of their larger presence.

3. Increased visibility and a stronger voice in government will further enable RCI to accomplish its mission: to set standards for the practice of roof consulting.

Q. Does this have any effect on the Registered Roof Observer Program?

A. The Registered Roof Observer Program is a similar registration designed specifically for Q.A. observers.

That program is not changed in any way.

Q. What procedure should I follow to become a Registered Roof Consultant?

1. Call Headquarters for an application and information packet about the RRC program.

2. Review the application and accompanying RRC Study Guide to determine your readiness for the exam.

3. Complete the RRC application and send it to RCI Headquarters, along with a \$200 fee. Once your application has been approved by the Credentials Committee you may sign up for the exam when you feel ready to take it. Exams are offered every year at our National Convention and at other times and locations as determined by RCI.

4. To sign up for an exam, complete and send to RCI a "Request to Take the RRC Exam" form, which can be obtained from Headquarters. The deadline to submit this request form is generally about one month prior to the date of an exam.

5. After you pass both parts of the exam, your application will be placed before the RCI Board of Directors for final approval.

Q. What about those people who complete the Level II and/or Level III course with the expectation that they were to become RRCs?

A. All applicants must take the RRC exam. Those who complete the Level II or Level III courses offered by RCI prior to the September RRC exam are offered a one-time exemption from the normally required procedure: these individuals may sign up for the September exam without paying the \$200 fee or obtaining advanced approval of their RRC applications. After taking the exam, these applicants will then have up to 90 days to submit, at no additional cost, a completed RRC application for review by the Consultants



RCI'S Busy Exhibit Hall

IMPORTANT DATES

May 15, 1993: Deadline to submit RRC applications

August 15, 1993: Deadline to submit Exam Request for September exam

September 25, 1993: RRC Examination - Sites to be determined.

THE BEST SHOW IN TOWN



Ken Barber chats with Dave Siple and President Joe Hale

Attention Exhibitors!

Don't forget to sign up for next year's show in San Antonio, April 11 and 12. There's plenty of space, but booths are going fast.

Credentials Committee.

NOTE: Passing the exam satisfies only part of the requirement for registration; each RRC application must gain approval by the Credentials Committee before it can go to the Board of Directors for their final decision.

If you have any questions or concerns, please feel free to call Headquarters. We encourage your involvement in this important program.

The success of RCI's trade show speaks for itself, but exhibitors have a few things to say, too.

From the standpoint of sheer size, this year's trade show was RCI's most successful ever! A total of 84 booths was sold, a significant increase from 71 booths last year and 54 booths the year before. Over 200 attendees roamed the exhibit hall, exploring new products, poring over catalogs, and sharing bits of information.

However, size is not the most important factor to someone like Stan Choiniere of **Olympic Fasteners**, who has exhibited with RCI for five years and stresses the value of quality over quantity. "Other shows may be larger, but here the people who come to my booth are intelligent and informed. They ask the types of questions I like to hear from prospective customers."

John Hickman, President and CEO of **W. P. Hickman Company** agrees that attendees make a difference, but adds that the RCI exhibition serves yet another purpose as well. "This show gives us a chance to reach out to the people who use our products. We talk with consultants about the principles of good roof edge design. To us, this is very important."

From the standpoint of a sales representative who distributes nationwide, RCI's show is an easy way to connect

with established customers and also to meet new ones. Kenneth Barber, Architectural Representative for both **Karnak Corporation** and **NRG Barriers**, says that it's hard to make this many solid contacts in one year, let alone one day. He appreciates RCI's veteran members who come to his booth and especially looks forward to meeting newcomers.

In the end, most exhibitors agree, it's RCI's membership that really matters; they give our trade show its leading edge and make it so successful. For Dennis Knoll of **U-Flow** and Ken Wolford of **Siplast**, the bottom line is visibility to roof consultants—those who are specifiers. "Specifiers are the people we most want to talk to. They make the difference between a mediocre show and one that really produces results."

Like so many others who keep coming back to our convention, these exhibitors have found that the roof industry's "best kept secret" is finally getting out. People are discovering the benefits of RCI's trade show. Says John Hickman, "I had never heard of RCI until four years ago. I first came to this show in 1990, and have been exhibiting ever since. It's one of the best decisions our company has ever made."

Quality's better than quantity. And quantity's not bad either.

RCI SALUTES ITS 1993 EXHIBITORS

Sponsors of the Convention

ARCHITECTURAL ROOF SYSTEMS
DOW PLASTICS
NRG BARRIERS, INC.
TOPCOAT
T. CLEAR CORP.

Exhibiting Their Eighth Year

BONDCOTE ROOFING SYSTEMS
FIRESTONE BUILDING PRODUCTS
JPS ELASTOMERICS
NESTE-THERMO
SCHULLER - MANVILLE RFG. SYSTEMS DIVISION
SIPLAST, INC.
TROCAL ROOFING SYSTEMS
US INTEC

Exhibiting Their Sixth Year

BARRETT COMPANY
GAF BUILDING MATERIALS CORP.
GS ROOFING PRODUCTS CO., INC.
METAL-ERA INC.
NORTH AMERICAN ROOFING SYSTEMS
PITTSBURGH CORNING
RAWLPLUG COMPANY
SARNAFIL INC.

Exhibiting Their Fourth Year

COOLEY ROOFING SYSTEMS
DAVID WHITE, INC.
KOPPERS INDUSTRIES
MULE-HIDE PRODUCTS CO.
NRCA
NRG BARRIERS
SPI/PFCD DIVISION
U-FLOW ROOF DRAIN SYSTEMS
W.P. HICKMAN CO.

Exhibiting Their Second Year

ALLIED SIGNAL, INC.
AMERICAN BLDG. ROOFING & ARCHT. PROD.
CONTINENTAL ROOF SYSTEMS
GATE ROOFING MFG. INC.
GEORGIA-PACIFIC CORP.
GLOBE-VEDAG CORP.
GRUNDY INDUSTRIES
KARNAK CORP.
MERIK MARKETING INC.
NC FOAM INDUSTRIES
PIMA
POLYTHANE SYSTEMS/GE
SIBO, INC.
SOPREMA ROOFING & WATERPROOFING
T. CLEAR CORP.

Supporters of the Convention

U C INDUSTRIES
GEORGIA-PACIFIC CORP.
OLYMPIC MANUFACTURING GROUP, INC.
OWENS-CORNING FIBERGLAS

Exhibiting Their Seventh Year

CARLISLE SYNTEC SYSTEMS
DOW PLASTICS
ITW BUILDEX
SEAL-DRY
SEAMAN CORP.

Exhibiting Their Fifth Year

CARPENTER INSULATION & COATING
DURO-LAST INC.
ENVIROSPEC INC.
GENFLEX ROOFING SYSTEM
OLYMPIC MANUFACTURING GROUP, INC.
OWENS-CORNING FIBERGLAS
TAMKO ASPHALT PRODUCTS

Exhibiting Their Third Year

C I M INDUSTRIES
NATIONAL COATINGS CORP.
NORD BITUMI
RK HYDRO-VAC
TOPCOAT
UC INDUSTRIES

Welcoming First Year Exhibitors

ARCHITECTURAL ROOF SYSTEMS
ASHLAND CHEMICAL CORP.
ATAS ALUMINUM CORP.
BITEC, INC.
BUTLER ROOF SYSTEMS
E.S. PRODUCTS
FLO. RFG. S/M & A/C CONTR. ASSN.
GARLAND COMPANY
HAARTZ-MASON
HUMANE MANUFACTURING
IKO INDUSTRIES
INSTA-FOAM PRODUCTS INC.
MM SYSTEMS CORP.
ORLANDO C.S.I.
PARTEK INSULATIONS, INC.
PERFORMANCE ROOF SYSTEMS
PROSPEX RFG. PRODUCTS INC.
S.P.C., INC.
STEELOX SYSTEMS INC.
THALER RFG. SPECIALTIES PROD. INC.
UNITED SCANNING TECHNOLOGIES
ZURN INDUSTRIES, INC.



RCI Honors Its Charter Members



The Last Group to Recieve a CRC Title



Distinguished Research Committee



Bob Lyons Gets Special Treatment



Outstanding Volunteers



Barry Krum Receives his RCI Fellow Certificate