MESSAGE FROM THE CHAIR
Gary E. Beebe

Election Results:
I want to congratulate the newly elected officials of our organization. They all will be serving from July, 1997 through June, 2000. Our Councilor is George Rangos (Cerdic). Board members elected were John Copp (Dow Chemical), Bob Charvat, (Charvat & Associates), Bill Jarret (Kerr-McGee Chemical) and Dennis Meade (Phoenix Color). TPC members elected were Sandra Davis (Millennium), Selby Brannon (Plasticolors), Dave Johnson (Perro), and Earl Sexton (Crane Plastics). Dave Johnson is in good company, all the others were re-elected. I’m sure Dave will join with this group and become just as active in the committee work as all the rest of the Board and TPC members. To the rest of our membership, please let us know how the organization is supporting your needs and consider running for Board or TPC next year. We will be looking for candidates for our January Board Meeting, so let one of us know of your interest.

Survey Results:
This year as part of the election ballot I included a short survey form. About 40% of the ballots also returned a completed survey. The survey basically asked what we were doing well, how we could improve and information about RETECs and ANTECs. The following is a summary of what our membership commented on:

What they liked:
An overwhelming positive response was for RETECs. Everything from program content, networking capability, technical exchange and venues were mentioned. CAD RETEC has become the place to go for the coloring of plastics over the last 4-5 years.

Improvement Areas:
Three main areas were discussed.
1. The newsletter - most comments discussed the problems we had in 1995-1996 but noticed an improvement in 1997. Sharon Ehr has done a great job of getting the newsletter back to a high quality issue. We’re sure you will continue to be pleased in the future.

2. Education - we received a lot of comments that we are not doing enough in education. CAD has been active in supporting Terra Community College, to an amount of over $20,000/year. We may not be publicizing this enough. Also the survey might be suggesting we widen our help not only at the college level but also to the membership level.

3. Public interest and membership - about a third of the respondents felt we were not putting enough effort into this area.

Continued on page 2
Future Technical Topics:
These were topics that were suggested and will be
given to our Site and Theme Committees.
- Pigment Effects in Plastics
- Color Concentrates
- Coloring TPE's
- Color Durability
- Color Processing - Problems & Solutions
- Laser Marking
- Thermochromatic Colors/Granites
- Pigment Dispersion
- Color Difference Round Table
- Colorants
- Pigments and Polyolefins

Suggested RETEC Sites -
These will be forwarded to Site and Theme Committee:
Richmond, VA, Boston, Columbus, OH, "A Western location," Northeast, Chicago, Indianapolis, Albany, Charlotte, Milwaukee.

Additional items we will investigate:
1. Minutes of CAD Board Meetings publicized for
division members - we will investigate either including
them in the newsletter or a summary in the newsletter.
2. Trade Journal write-up of CAD - will discuss with
public interest to see how this could be done.
3. Color Certification Program - will discuss at a
future board meeting to see interest level. There
presently is an SPE Certification Program available
for plastics.
4. CAD paper preprints - the question was how
 could the person obtain preprints if they didn’t
attend a RETEC. SPE-International maintains a limited
number of preprints and they are available for sale.

I believe we learned quite a bit from this survey by
taking a pulse of our membership. I hope you, our
fellow member, will continue to let us know what
you need. Don’t wait for a survey, talk to one of us.
You never know your idea could be the start of
another great CAD concept.

End

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Color & Appearance Advisory Committee Minutes

Members attending: Brian West, Chair, Gary Beebe, Sharon Ehr & Johnny Suthers.
The intention is for this group to act as a "sounding board" for color measurement & color technology.

1. Reviewed updated Collaborative Testing Services (CTS) data. Reviewed (CTS) Test 409 sphere 10° D65
on absolute L* a* b*. The multi-variant analysis of
270 lab showed the T method to be an excellent
tool for capability assessment. Extreme outlying
points are excluded from the results but the set was
not re-analyzed.

Chuck Leete (CTS) reported that CTS is dropping
Hunter Lab. Only 18 labs subscribed to the program
with the VSI members making up the majority. The
Advisory Committee regrets this has occurred but under-
stands the commercial reasons for CTS’s decision.

2. Plastics Sample Status Update:
a) Munsell - Plastic Chips in multiple polymers have
been evaluated. The chip size is now 2" x 3" (was
2-1/4" x 5-1/2"). PP or Acrylic is acceptable to the
committee but Munsell needs to improve their
molding abilities to ensure consistent plaques.
Other plaque sources should be looked into. Proto
Joe Prototype Molding, Terra Tech, Chroma
Corporation to be approached as alternates. It was
noted that loading (opacity) was too low in the
Munsell plaques and that we must watch out for
marring of the plaques during handling. An SPI 1
surface is recommended with the resulting gloss to
be determined not specified.
b) Plaque Tolerances - Color delta tolerances for
screening plaques discussed:
CURRENTLY:

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CTS Paint Stds. .10 .10 .10

The committee recommends that the plastic be held
to .10 delta also.

3. Automotive Industry Developments
a) Car Company Specific Reporting CQ-I dropped
by Ford and all sub-analysis projects have been
dropped with CTS.
b) Fixed price Subcontracting of Color for Interior
handicapping Ford’s Color Guide and Chrysler’s
program taking color one step removed from
Detroit.

Trial set for the January Meeting. Check out alterna-
tive molding sources.

Fax membership to Chuck on Web page. Further
education topics: Does your sample fit the port?

Brian West
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<tr>
<th>Time</th>
<th>Event</th>
<th>Sponsor/Presenter</th>
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<tr>
<td>Tuesday</td>
<td>Breakfast Sponsored by Clariant</td>
<td>Roope Stanziloca, Industrial Color Technology</td>
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<td>7:00 a.m.</td>
<td>Breakfast Sponsored by Clariant</td>
<td>Roope Stanziloca, Industrial Color Technology</td>
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<td>8:00 a.m.</td>
<td>Scott Heitzman &amp; John Sheets, Sun Chemical Corporation, PIGMENTS</td>
<td>Understanding Test Variation - A Plastics Case Study</td>
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<td>Great Lakes Chemical Corporation, Pigment and Light Stabilizer</td>
<td>Interactions in Polyolefins.</td>
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<td>8:30 a.m.</td>
<td>Robert Lee &amp; Robert Gray, Great Lakes Chemical Corporation, Pigment</td>
<td>Light Stabilizer Interactions in Polyolefins.</td>
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<td>and Light Stabilizer Interactions in Polyolefins.</td>
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<td>9:00 a.m.</td>
<td>Rick Johnston, M. A. Hanna, Color Fundamentals: The Basis for Automated Production</td>
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<td>9:30 a.m.</td>
<td>Break Sponsored By: Penn Research</td>
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<td>10:00 a.m.</td>
<td>Instrumental Breakout Tutorials (3 Groups: X's, Y's, Z's)</td>
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<td>11:30 a.m.</td>
<td>Lunch - Awards Ceremony</td>
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<td>Wednesday</td>
<td>Joe Cameron, General Electric</td>
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<td>7:00 a.m.</td>
<td>Breakfast - Sponsored by Tioxide</td>
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<td>8:00 a.m.</td>
<td>Lynn Bente &amp; Doug W. Koerner, Keystone Aniline Corporation</td>
<td>The Mass Coloration of Non-Migratory Transparent Colorants</td>
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<td>8:30 a.m.</td>
<td>Rodney Williams, Eastman Chemical Company, Nine Leadership Issues for Success</td>
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<td>9:30 a.m.</td>
<td>Break: Sponsored by Radiant Color</td>
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<tr>
<td>10:00 a.m.</td>
<td>Instrumental Breakout Tutorials (3 Groups: X's, Y's, Z's)</td>
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<td>11:30 a.m.</td>
<td>Lunch - Goddard Space Center Speaking on the Mars Landing</td>
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<td>12:00 a.m.</td>
<td>Lunch - Awards Ceremony</td>
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<tr>
<td>1:00 p.m.</td>
<td>Michael Yu &amp; Scott Brewer, Cabot Corporation, Designing the Ideal Carbon Black for Fine-Denier Fiber Usage</td>
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<td>1:30 p.m.</td>
<td>A Knevelkamp, H. Buskies-Keup, G. E. Hahn &amp; W. Schafer, Th. Goldsmitid Chemical, High New Dispersing Waxes for Polyolefin Color Concentrates</td>
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<td>2:00 p.m.</td>
<td>Chun Lee &amp; Ramesh Shroff, Millenium Petrochemical, Effect of Elongational (Extensional) Viscosity on the TiO2 Dispersion of Highly Loaded (50-70%) White Concentrates</td>
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<td>2:30 p.m.</td>
<td>Break - Sponsored by: Bayer</td>
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<td>3:00 p.m.</td>
<td>Peter Solera, Michael Nirsberger and Noe Castillo, Ciba Additives, Measuring Stabilizers in Pigmented Plastics with Near-Infrared Spectroscopy.</td>
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Welcome, now that we are working out some of the kinks in getting the newsletter out, I would like to thank all of you for your patience and understanding. It was my hope to bring the best newsletter possible to our readers. I made the improvements with the help of others and I would like to thank those people for the assistance they have given me. Bob Trinklein from Teknor Color and Doug Horsey from Ciba Additives. Bob has been a great help in authoring a column about the pigments we use everyday. Bob has been a great behind the scenes man and has given me many good suggestions and ideas. Doug is no longer on the CAD board but has been very responsive each time I have asked for help and continues to give his support.

I will continue to improve this newsletter and make it more meaningful as time goes on. I welcome suggestions from you at any time at my office phone: 815-759-2130, Fax 815-385-1518 or via e-mail at: specadnews@aol.com

From the survey we found that our membership would like to explore the possibility of creating a trade journal. We are exploring this concept to incorporate parts of it in this format.

Past issues of the newsletter will be made available on the internet address. Bill Dawes and Joe Cameron have spent significant time in making that a successful venture.

I would also like to extend a sincere thank you to all of our sponsors for their assistance in making the RETEC activities more enjoyable for everyone. Camden Yards Reception Sponsored by: BASF, Dayglo Color Corp., Engelhard/Mearl, Millennium Inorganic Chemicals and Sun Chemical. Baseball Tickets were purchased by: EM Industries.

We have two breakfast sponsors again this year; Tuesday Breakfast sponsored by: Clariant and Wednesday Breakfast sponsored by: Tioxide. Our coffee breaks were sponsored by: Pen Research, Ciba Additives, Radiant Color & Bayer. Please take time to thank these company representatives when you see them.

I apologize for any inconvenience the delay in receiving your RETEC brochures caused. The mailing was supposed to go out in early July and was held up at the post office for over two weeks due to a technicality regarding the ISCC non-profit status. We finally ended up sending out the brochures via first class an I understand that many people were still getting theirs as late as early September.

On a final note, Our summer meeting was held at Eastman Chemical in Kingsport TN. Johnny Suthers and the Eastman crowd were gracious hosts. The site was great. We will create one additional issue of the newsletter in 1997 and in 1998 will create a quarterly publication. Deadline for the next issue is: October 30, 1997.

Sharon Ehr, Editor

CAD WEBSITE

Visit the new CAD website at: http://specad.org/
Newsletters - Excerpts from printed version
Meeting Info- ANTEC & RETEC conferences past & future

SPE WEB ADDRESS

Visit the new SPE website at: http://www.4spe.org
Riding on the Wavelength of Color

September 27-29, 1998

1998 ANTEC CALL FOR PAPERS

Co-sponsored by:
The SPE Color & Appearance Division
and the SPE Firelands Section
At Marriott Society Center, Cleveland, Ohio

We need your title and one hundred word abstract by December 1, 1997

Please contact one of these gentlemen:

Selby Brannon
Plasticolors Inc.
2600 Michigan Ave.
Ashtabula Off 44044
440-997-5137
440-992-3613fax

Dave Johnson
Ferro Corp. Color Div.
4150 E. 58th Street
Cleveland Off 44105
800-423-3776 x 7334
216-641-1701 fax

Jeff Davis
Exxon Chemical
26777 Central Park Blvd.
Southfield, MI 48706
810-350-6546
810-350-0990fax
600 Montgomery Street
San Francisco, California 94111
Tel: (415) 421-8207
Fax: (415) 387-5403

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Ashkabula, Ohio 44004
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FAX 216-992-3613

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Cleveland, OH 44101 • (216) 541-8580 • FAX: (216) 641-8831

BASF Corporation
1255 Broad St.
Clifton, NJ 07015
(201) 365-3499
Tech Service: (518) 472-8381

KRONOS
Titanium Dioxide Pigments
Rutile and Anatase Grades
KRONOS, Inc.
3000 N. Sam Houston Pkwy. East
Houston, TX 77032
1-800-866-5600

BASF
Coatings & Colorants
News From The Detroit Color Council

Approximately 200 attendees visited the Dearborn Inn June 10, 1997 for a DCC symposium on color measurement for automotive applications. This was the 19th in a series of annual panel conferences on automotive color issues. Five speakers made brief remarks and then answered questions in a panel format. Six exhibitors demonstrated the latest in color measurement equipment and software.

Bill Longley, recently retired from Ford Motor, will be a guest speaker November 19. Subject title is "Automotive Color Reflections, a critical review of auto company processes and supplier coloring practices". Longley, now a consultant, details implications of an industry driven by cost reduction. For reservations call Boehle Chemicals, 313-255-2210

The DCC continued support for color technology education at Eastern Michigan University. Students are people in industry from sales, planning, laboratory, production and design. A new format for 1998 classes will be announced in the next newsletter issue.

AWARDS

The awards committee consists of Joe Cameron, Terry Golding, Jack Gormley, Philip Niedenzu, Johnny Suthers and Sharon Ehr. Duties of the members include a commitment to attend ANTEC and RETEC to view and rate all papers. This provides a sound basis for the Best Paper Award.

Fellow of the Society and Honored Service Member progress since the August Meeting. Nomination letters have been sent to SPE headquarters. This year's nominee for Fellow of the Society is Bob Charvat. He along with his sponsors Tom Haney and Frank Pasano will put together the nomination, which will then be reviewed for a Divisional Critique. Our nomination for this year's Honored Service Member is Frank Pasano. His sponsors, Bruce Mulholland and John Copp will put together all forms and a list of Frank's accomplishments. Terry Golding will do the divisional critique.

The following awards will be presented at the 1997 RETEC Awards Luncheon. Members completing their terms:
Chairman CAD: George Rangos
Chair-Elect CAD: Gary Beebe
Treasurer CAD: Terry Golding
Secretary CAD: Aram Terzian
Chairman TPC: Austin Reid
Secretary/
Chair-elect TPC: Bruce Mulholland
TPC: Selby Brannon, Sandy Davis and Brian Teunis
BOD: Bob Charvat, Dennis Meade, Bill Jarrett and Erwin Ratajczak
Councillor: John Copp
Honored Service Member: John Copp
Outstanding Achievement: Sharon Ehr
Best Paper Award 1996 RETEC: Dwight Holtzen - DuPont
Best Paper Award 1997 ANTEC: Bruce Mulholland - Hoechst Celanese

Respectfully Submitted:
Terry Golding

MEMBERSHIP COMMITTEE REPORT

Our paid membership as of March 31, 1997 is 1,677 members. We have added 164 new members, or 9.8%. Eleven other divisions had higher growth than CAD. Eight other divisions had equal or less growth than CAD. It is still my recommendation that we consider an annual conference in the Western United States to promote and recognize the significant growth in this part of the country.

Walter L. Martin
The Technical Program Committee met for its summer meeting in Tuesday, August 12. We were the welcome guests of Eastman Chemical Company. Discussion was held regarding the upcoming RETEC. The theme “Color Quantification: Adding Value with Instruments” will be a joint effort between ISPE CAD and Inter-Society Color Council. This conference will be held at the Marriott Inner Harbor Hotel with the overflow hotel being the Sheraton Inner Harbor.

We should be sure to thank our sponsors for the social event at Camden Yards. Reception sponsors are: BASF, Dayglow Color Corp., Engelhard/Mearl, Millennium Inorganic Chemicals and Sun Chemical. 300 Baseball tickets were purchased by EM Industries. Coffee breaks are also sponsored by: Pen Research, Ciba Additives, Radiant Color and Bayer. Brian West reports that he has 33 tabletop displays ready to be set up at the conference. Chuck Leete has organized the instrument manufacturers and sample manufacturers for the materials which will be used in the round robin measurements.

Finally the RETEC brochure was delayed for over two weeks by the Post Office. The brochures had to be taken back and sent first class which caused an additional delay of three days.

1998 ANTEC, Atlanta GA
Bob Trinklein, Teknor Color will be the chairman for this conference. Phil Niedenzu from DuPont has agreed to assist Bob. Bob and Phil are currently soliciting papers for this event. The have three to date and need approximately 10 more.

1998 Annual Conference, Cleveland
Selby Brannon will chair this event with the assistance of Jeff Davis and Dave Johnson. The venue will be the Marriott Center in Cleveland. The dates are Sept. 27-29, 1998. The theme for this conference is “Riding on the Wavelength of Color” and is a joint effort with the Firelands Section. Sunday 9/27 has a wine and cheese reception planned for the Rock & Roll Hall of Fame. Final plans are underway. Monday & Tuesday will be broken into four categories planned with keynote speakers for each group. Plans are
- A. Color / Colorants;
- B. Molding and Appearance;
- C. Tolerancing and Approval;
- D. Color Marketing

Three hundred of five hundred available rooms are being held at the Hotel. There are 10 hospitality suites plus 2 Governor’s suites. More telephones are needed near the meeting room. Space is available for only 20 table tops which brought some discussion from the TPC as to how this can be increased effectively. Jeff Davis and Barry deSatnick agreed to review.

1999 ANTEC, New York NY
Aram Terzian agreed to be the Chair for this conference. Bob Trinklein has agreed to assist.

1999 Annual Conference, Nashville, TN
Austin Reid and Brian West will co-chair this conference to be held at the Renaissance Hotel in Nashville with meetings in the Nashville Convention Center. The two facilities are physically connected. Housing and meeting facilities were arranged by Conferon Meeting Planners in an effort to evaluate their effectiveness in meeting planning for future conferences. The dates are September 27-29, 1999 and the theme will be “Color Matching and Production Control” which an education and training workshop.

2000 ANTEC, Orlando FL
Earl Sexton & Phil Niedenzu
May 2000 theme to be determined.

Sharon Ehr Chair with Sandra Davis & Johnny Suthers.
Dates September 2000
Theme TBD.

2001 ANTEC, Dallas TX
Austin Reid Chairman Dates: May 2001 Theme TBD.
2001 Annual Conference, Marco Island FL.
Gary Beebe Chair

2002 Annual Conference
Location, Dates & Theme TBD
Anniversary of SPE CAD

Old Business:
Joe Cameron is working with AT&T for the European video conference (tentatively April 1999)

New Business:
Discussion of joint Annual Conference with European SPE Section: Theme for consideration is “The Best Of Color & Appearance Division”. Considering working with the Benelux Belgium Section for a 1-1/2 day meeting in April 1999. Brian West is working on arrangements. He will have more details in Winter 1998 TPC meeting.

Site and Theme committee will be meeting for planning discussions. It was recommended the guide lines be established for minimum requirements for site Hotel. Conference area, table top area, hotel room and suite availability. Bruce Mulholland will announce the meeting date and time. Several sites and themes were suggested based upon survey results.

Submitted by: Johnny Suthers
Minutes from August 12, 1997
Meeting called to order by Board Chairman Gary Beebe.

Secretary’s Report, Aram Terzian
Minutes from Spring 1997 meeting during Toronto ANTEC were accepted as provided.

Treasurer’s Report, Terry Golding
RETEC check in the amount of $50,725.07 has been received. The largest single expense for 1996 fiscal year was for the Newsletter. The Treasurer’s report shows a current balance of $128,479.38; however, $20,000 to Terra Tech and $7,500 to RIT were actually disbursed after the end of the fiscal year. Actual current balance is therefore approximately $95,000. The only change in the budget proposal from ANTEC is a change to the totals to correct this ending balance.

A “cash flow” discussion ensued vis-a-vis the “late” disbursement mentioned above. Suggestion made by Gail Bristol to amend the 1997 budget to reflect the $27,500 disbursed from 1997 funds to cover 1996 donations. John Copp made a motion to show this as a variance Seconded by Bill Jarrett. Voted on by the Board and passed. The Treasurer’s report was accepted with this amendment. The financial review committee was composed of Sharon Ehr, John Copp and Joe Cameron.

Reflections from SPE National Meeting
For BOD Chairs - Gary Beebe

Training
SPE National has begun providing training for BOD chairs, including providing funds of up to $300 to defray travel expenses. Approximately 12 - 14 folks from SPE National attended the latest session to talk about the various aspects of SPE business. A three ring binder containing extensive information regarding the SPE was provided to persons attending this meeting. Gail Bristol will provide copies of this document to all persons currently in the succession of chairs in BOD.

Journals
SPE currently has four journals. International does all the work on this and defrays the cost through paid editions. They would like for us to provide previous RETEC & ANTEC papers as well as original papers from our membership to publish a CAD journal. Barry deSatnick will follow up on this with Jack Contessa. Barry will provide a report back to the board at the Winter meeting with a proposal if the journal “makes sense” on investigation.

SPE Web Site
The CAD site is now linked to the SPE home page and vice versa. SPE has said that they would be willing to take this in-house and provide service for a small fee. Deb Daily at SPE is the contact. Further discussion was tabled until Joe Cameron’s report later in the meeting.

Name Change
The title “RETEC” is being dropped as of 1998. Going forward, these meetings should be called “conferences”. National has taken the position that the growth and scope of RETEC meetings has led to their becoming much more than just “regional” in nature. As such, the title is no longer appropriate.

Election Results - Earl Sexton
Even though the fax number provided in voting materials was erroneous, we still received “pretty good” responses from this source. Voting response overall was not strong (only 150 ballots of 1600 returned). Election results are on front page in Chairman’s corner.

Councillor’s Report - John Copp
John reported that the attendance in Toronto was 3,600.

Operating Rules - John Copp, Bruce Mulholland
The operating rules were scanned and extensively edited to reflect changes resulting from the deletion of the position of TPC Chair-Elect from succession. Copies of the edited version were provided on disc to the BOD Chairman, Secretary & Treasurer. The Secretary will provide paper copies to TPC/BOD. Bob Trinklein, Austin Reid and Aram Terzian will determine if any additional updates/edits are required. Austin will collate these, implement them and provide updated copies. An additional edit was made to change the term of Treasurer (from ANTEC to ANTEC to Summer Meeting to Summer Meeting). A copy of the Rules will also be sent to the new BOD/TPC members.

Technical Program Committee - Bruce Mulholland
TPC meeting minutes.

Membership - No report
Public Interest - No report.

Newsletter - Sharon Ehr
The second was mailed last Friday, August 8, 1997. The third issue will be mailed 9/97. Will ship four newsletters in 1997.

Articles: We need additional advanced technical material for the Newsletter. Current contributing editors Bob Trinklein & Doug Horsey are providing articles; Bill Longley and Brian West have agreed to provide articles as well. John Copp will continue to provide “Cad People” articles. Gary Beebe reinforced the fact that a newsletter is only as good as the effort each and every member of the BOD/TPC put into it. He exhorted everyone to do his or her part for the newsletter.
CAD BOD Minutes (continued from page 9)

Terry Golding pointed out that the information placed on the web site becomes “instantly available” and that the newsletter is ready electronically before it is printed. Discussion was tabled until later in the meeting. Board minutes were in the previous issue of the newsletter. Gary suggested that the minutes from today’s meeting be included in the RETEC Issue. Minutes are also being placed on the website.

CAD Web Site - Joe Cameron

The committee working on this includes Sharon Ehr, Brian West, Jack Gormley, Sandra Davis, Brian Teunis and Joe Cameron. New items on the site include a “What’s New?” page, a page of links (ASK, The Coloring Pages, SPE, PMAD, The Plastics Network, etc.), and an application form for the RETEC. The application can be printed in black & white and mailed or faxed in. Gary Beebe has been receiving some of these. Finally, phone numbers of hotels local to the RETEC site and program for the meeting have also been added to the site.

The committee is looking at a change in ISP from Bishop to Homecomm. This would allow folks to send an e-mail to the web page that is then forwarded to work or home addresses as desired. A security upgrade to SSL is also available for $50/month. Password protected sectors can also be installed (for example: the Newsletter).

Joe Cameron then made a motion to put the newsletter in a secure sector and then “open” it after the newsletter is mailed. Austin Reid seconded the motion. Discussion began, including the relative benefits to CAD members of the newsletter - since it is a benefit to members, what issues arise if it is put on the page and general access is allowed?

Based upon the discussion, the motion was amended to keep the current issue password protected with passwords available to all CAD members and provide general access to previous issues (up to one in arrears). This was seconded, voted on and passed. The committee will work out details of implementation.

The committee also desires additional input regarding web page input. Bob Trinklein mentioned that he had received inquiries from both Malaysia and the Philippines as a result of the web page. Finally, Jack Gormley mentioned that NPC uses public/protected sectors, with “high content” in the protected sectors, as a pull for new members.

Awards Committee - Terry Golding
See page 7.

Colorant Advisory Committee - Brian West
See page 2

Education Committee - Bob Charvat.
Gary Beebe presented this report in Bob’s absence. The Unemployed people has received two requests from unemployed persons and one job description.

Need to keep the clearinghouse note in prominent communications. The two-year commitment to RIT will be completed soon. Aim of the work is to better resolve differences between instrumental and human eye color interpretation. Further involvement to be determined after their upcoming presentation in Cleveland at the 1998 Annual Conference.

Terra Tech - Much publicity as a result of CAD contribution. Terra will take $15,000 in school funds plus $20,000 from CAD to purchase a computer controlled injection molding machine. A “Coloring of Plastics” showcase was held at Terra. Rick Matthew of Americast was the plenary speaker. Laboratory tours and other activities were provided. A representative of one company stated that he was looking for “fifteen graduates” for new opportunities. The Terra Tech/CAD Advisory Committee will meet at Terra later in the Fall.

Coloring of plastics book is falling behind schedule. Authors are still needed for a number of chapters. Meeting attendees were requested to help Bob in identifying potential authors.

Other interactions: The possibility of offering “Coloring of Plastics” courses and Lorraine Community College is being explored. Another possibility is with the Community College of Erie PA; the Cleveland Section of SPE and the CAD Education Committee are beginning to look into this. Talks are also underway with the University of Akron. The University of Lowell also expressed an interest in bringing the “Coloring of Plastics” into their polymer science curriculum.

Work on identifying an opportunity in the Atlanta area has been on hold. Keith Lenardo, our guest from Hucotech, volunteered to look into this situation for us. A “local champion” is believed to be a prerequisite to success for CAD/academia interaction.

Terra students will serve as ushers at the Baltimore RETEC. Number of students has not yet been determined. Bob Charvat has requested $2,000 in travel funds to support the students; motion to do so was made by Dennis Meade, seconded by Joe Cameron, voted on and passed.

Survey Results - See Chairman’s Report, page 1.

Old Business:

Headhunters at Conferences-Barry deSatnick and John Wood will be providing a policy draft soon. It is up to the RETEC chair or their designate to handle this issue until a formal policy is adopted.

Rango’s letter to GE regarding holding of company meetings concurrently with RETEC has had no response. In Baltimore however, GE will have a presence but will not hold meeting concurrently with the technical sessions.

Submitted by: Austin Reid
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PART 3- Hindered Amine Light Stabilizers
by Doug Horsey

Let's see, in Part 1 we learned that there are lots of additives designed to do lots of different things in polymers. In Part 2 we learned that sunlight (i.e., UV light) can be bad for plastics and that we can use something called UV absorbers to screen out the harmful radiation, kinda like a sunscreen.

In this edition I'll discuss a different type of "Light Stabilizer" called a hindered amine light stabilizer (HALS or HAS). HALS work by a completely different mechanism than the UV absorbers (UVA).

UV light (and heat and shear) all have a detrimental effect on polymers because they cause chemical bonds to break. A chemical bond is formed when two atoms share a pair of electrons. When you put enough energy into the polymer, the bond breaks and you have unpaired electrons (i.e., free electrons, or free radicals). Molecules don't like having these free radicals so they run around and abstract loose hydrogen atoms from another molecule, or split off fragments, or couple with other free radicals until they once again have paired electrons. This process results in a change in the polymer structure-a loss of physical properties and color formation (see this stuff is related to CAD). The process also generates more free radicals which run around causing more havoc in the polymer.

HALS to the rescue! HALS have a chemical structure that make them very efficient at scavenging these free radicals. HALS do not propagate this chain reaction, they regenerate their active form in the process, they do not form color bodies, and they do not require high concentrations to be effective in thin articles like UVA do. HALS are very effective light stabilizers and antioxidants. As you can imagine, these molecules also can protect some polymers against thermally initiated free radical processes.

HALS are often the only light stabilizer required. In other polymers, HALS are typically used in combination with a UVA to obtain the optimum performance. Specific HALS selection must be made based on polymer compatibility, volatility, interactions with other additives, etc...

Other additives are also effective at interrupting these free radical processes, for instance during extrusion - but that's a topic for the next edition.

Next: Additives Corner, Part 4 - Melt Processing Stabilizers

In a past CAD newsletter a Technical Tip discussed use of a metamerism index and a reader offered further clarifying comments. This issue is now restated.

Most software for color formulating includes a "metamerism index" to evaluate the relative metamerism, which would result from a match, made with a certain pigment blend. The CIE has never defined an index for the common industrial occurrence of a near-match (commercial) in a primary source, say daylight. The CIE did not define and index for an exact match in one illuminant and a second index for observer metamerism.

Most software is based on computing color differences between non-spectral matches. Such computations have been shown to have less correlation to visual experience than for computations of spectrally similar objects. It's best, then, to take the index of a grain of salt. If two formulations, for example, compute an index of metamerism of 0.5 and 2.1 for D6500 and a second source, the 0.5 match is very likely to be the best metamerically. But its two suggested formulations compute to 0.5 and 0.7, don't feel so sure that the 0.5 match will be visually better.
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Gary Beebe, Sandra Davis and Johnny Suthers
Venue: Marriott Inner Harbor, Baltimore, MD
Theme: “Color Quantification:
Adding Value with Instruments”
Joint RETEC with ISCC. ISCC meetings 9/14-15.
Major instrument suppliers will conduct breakout tutorials during RETEC.

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Bob Trinklein
Venue: Atlanta, GA
Theme: “Back to Basics”

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September 21 - 23, 1998
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Venue: Marriott Center, Cleveland, OH
Theme: “Riding on the Wavelength of Color”
RETExC joint with Firelands Section. Dave Johnson of Ferro key contact.

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Venue: New York, NY

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Venue: Nashville, TN (Oryland Complex suggested)
Theme: Color Matching and Production Control (suggested)

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May, 2000
Sharon Ehr, Chairman
Venue: Washington DC Area

2001 ANTEC
May, 2001
Austin Reed, Chairman
Venue: Dallas, TX

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September, 2001
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