Joint Board-Council Committee on Environmental Improvement
August 9, 2014 – San Francisco, CA

UPCOMING MEETINGS

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Meeting Theme</th>
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<tbody>
<tr>
<td>03/21/15</td>
<td>Denver</td>
<td>Chemistry of Natural Resources</td>
</tr>
<tr>
<td>08/15/15</td>
<td>Boston</td>
<td>Innovation from Discovery to Application</td>
</tr>
<tr>
<td>03/12/16</td>
<td>San Diego</td>
<td>Computers in Chemistry</td>
</tr>
<tr>
<td>08/20/16</td>
<td>Philadelphia</td>
<td>Chemistry of the People, by the People and for the People</td>
</tr>
<tr>
<td>04/01/17</td>
<td>San Francisco</td>
<td>Advanced Materials, Technologies, Systems and Processes</td>
</tr>
<tr>
<td>08/19/17</td>
<td>Washington</td>
<td>Chemistry’s Impact on the Global Economy</td>
</tr>
<tr>
<td>03/17/18</td>
<td>New Orleans</td>
<td>Energy Solutions and the Environment</td>
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ATTENDANCE
Members, Associates, Consultants, and Liaisons – Laura Pence (Chair), Alan Elzmaner, Jurgen Exner, Barclay Satterfield, Jack Fowle, Chris Avery, Martin Mulvihill, Georjean Adams, Katie Hunt (CA Liaison), Martin Abraham, Carol Henry, Michael Gonzalez, Keith Peterman, Cathy Middlecamp, Robin Rogers, Susan Shih (SOCED Liaison), Ean Warren, Joseph Zoeller, Michael Matthews, Bassam Shakhashiri, Eileen Nottoli, George Cobb, Anthony “Tony” Noce, Bryan Balazs (ConC Liaison), Ray Garant (Staff Liaison)

ACS Staff – Lauren Posey (OPA), Jenny MacKellar (ACS GCI), Carl Maxwell (OPA)

Guests – David Sedlak (ACS Global Water Initiative), David Constable (ACS GCI), Glenn Ruskin (OPA), Anthony Pitagno (OPA)

APPROVAL OF THE MINUTES OF THE MARCH, 2014 MEETING

As our first order of business, Noce moved and the Committee voted by voice to approve the minutes from the March 15, 2014 meeting of the Committee in Dallas, Texas, as revised.

CHAIR’S REPORT

Congratulations to the two new ACS Fellows from our Committee: Georjean Adams and Laura McConnell.

Pence appointed Cathy Middlecamp as Program Chair, and the Committee voted by voice to certify this appointment.

Pence encouraged Committee members to consider attending "Forces Affecting the Future of the Chemistry Enterprise in San Francisco" (see pages 2.23-2.25 of the Agenda Book), a follow up to the presentation to the Committee by Neil Jespersen at our meeting in Dallas.

MEMBER INVOLVEMENT SUBCOMMITTEE

Member Involvement Subcommittee materials may be found behind tab 5 in the agenda materials. Cobb (subcommittee chair) provided a brief verbal report of the Subcommittee’s activities, and a written report is attached.


Motions

The Subcommittee on Member Involvement moved and the Committee voted by voice to **fund the Local Section Sustainability Activity Grant Proposal from the Lehigh Valley Local Section.**

**PROGRAMMING AND EDUCATION SUBCOMMITTEE**

Programming and Education Subcommittee materials may be found behind tab 6 in the agenda materials. Peterman (acting subcommittee chair) provided a verbal report, and a written report is attached.

Rogers provided a verbal report on the Fall 2014 San Francisco thematic programming and encouraged that CEI consider programming in conjunction with the theme at all ACS national meetings.

Motions

Elzerman moved and the Committee voted by acclamation to **offer its sincere gratitude for the contributions made by thematic program chair, Robin Rogers. As the leader of the Chemistry & Global Stewardship theme for the San Francisco meeting, Robin has assembled a vibrant lineup of speakers and events to carry the theme across the society.**

Peterman moved and the Committee voted by voice to **grant the Subcommittee authority to choose the 2015 awardees of the ACS CEI Award for Incorporation of Sustainability into Chemistry Education.**

Peterman moved and the Committee voted by voice to **add an offer of American Association of Chemistry Teachers membership to each ACS CEI Sustainability in Chemistry Education Award.**

**PUBLIC POLICY SUBCOMMITTEE**

Public Policy Subcommittee materials may be found behind tab 4 in the agenda materials. Adams (subcommittee chair) provided a verbal report, and a written report is attached.

Motions

Adams moved and the Committee voted by voice to **approve the proposed ACS Statement “Sustainability and the Chemical Enterprise” as revised.**

Adams moved and the Committee voted by voice to **approve the proposed ACS Statement “Scientific Integrity in Public Policy” as revised.**

Adams moved and the Committee voted by voice to **approve the proposed ACS Statement “Science and Technology in the Budget” as revised.**

Adams moved and the Committee voted by voice to **approve the proposed ACS Statement “The Science and Technology of Hydraulic Fracturing” as revised.**

Adams moved and the Committee voted by voice that **the Committee create a writing team to revise the Global Water Initiative into a proposed ACS Statement on water not later than October 1, 2014.**

Pence appointed Mulvihill as chair of the writing team.
OFFICE OF PUBLIC AFFAIRS (OPA) REPORT

Carl Maxwell provided a brief summary of sustainability and science policy issues and activities on behalf of OPA. Please see pages 3.1 to 3.10 of the agenda materials for more details.

GREEN CHEMISTRY INSTITUTE (GCI) REPORT

Jenny MacKeller and David Constable provided a report on the highlights of ACS Green Chemistry Institute® (ACS GCI) activities since their last report to CEI in March 2014. Please see pages 3.11 to 3.14 of the agenda materials for more details.

NEW BUSINESS

Shakhashiri moved (Elzerman seconded) that the Committee form a working group charged with bringing a draft of an ACS climate change mitigation leadership initiative and accompanying energy parity understandings to the full committee at its Spring 2015 meeting. Abraham moved (Avery seconded) and the Committee voted by voice that the motion be referred to the Member Involvement Subcommittee for discussion and study.

Elzerman moved and the Committee voted by acclamation to offer its sincere gratitude for the contributions made by retiring member Martin Abraham. In his more than a decade on the committee, Martin has been an able facilitator of CEI’s many accomplishments including the local section ChemLuminary award, the first CEI-sponsored thematic program, and the ACS sustainability web presence. Since ending his term as Chair, Martin has been a crucial contributor to two new inter-committee policy statements on energy and hydraulic fracturing.

Elzerman moved and the Committee voted by acclamation to offer its sincere gratitude for the contributions made by retiring member Ean Warren. In addition to serving as the Committee’s Webmaster and Program Chair, Ean’s brain child of an environmental film series at national meetings has provided visual presentations to members on topics ranging from trash to water to traversing the Arctic Circle.

Elzerman moved and the Committee voted by acclamation to offer its sincere gratitude for the contributions made by retiring member Georjean Adams. Having been a driving force for the creation of an ACS webpage on sustainability, Georjean went on to apply her energy and insight to leading the policy subcommittee through two very active years of public policy statement projects and development of hot topics policy programming.

Elzerman moved and the Committee voted by acclamation to offer its sincere gratitude for the contributions made by retiring member Rich Lomneth. Rich’s roles on the Committee have included contributing to policy statements, networking with program chairs of Divisions to facilitate co-sponsorship on environmental and sustainability programming, and leading the subcommittees on programming and activities and on policy.

ADJOURNMENT

This completes the Minutes of the Joint Board-Council Committee on Environmental Improvement for August 9, 2014 in San Francisco, CA.

Respectfully submitted,
Anthony (Tony) Noce
Secretary
Appendix 1—Member Involvement Subcommittee Notes (submitted by George Cobb, Chair)

Sustainability Minigrants

1. One applicant approved
2. Reports were presented
3. North Carolina on track
4. Ft Worth on track. Reports are in appendix. No communication from Idaho

Climate Science

1. We need to identify interested/capable members by:
   a. Maintain list of those inquiring
   b. Through YCC/Leadership
   c. Leadership Institute
   d. Presence at Regional Meetings
2. To make any reasonable headway much more manpower is needed.
3. We must engage other Committees to determine what areas of climate initiatives they are willing to spearhead. (ComSci: Matt F./George, SOCED: Andy J./Susan or Alan E.)
4. Other Societies may also be viable partners: Astronomical Soc: Science Coaches, possibly ID CEI types among Coaches
5. We will identify common issues/concepts by communications with:
   a. Climate Sci Grantees
   b. Other grantees/communities: Local Section Champions using YCC contacts
6. Communication to members is poor and needs much attention.
   a. CEI REALLY NEEDS help with this
   b. Possibly use existing model of joint CEI/SOCED sustainability in education with clear focus
   c. Web presence directly from CEI PAGE

Social Media

The question is “where will the resources come from to move this forward”. There are too few CEI members to actually do this. The possibility of having some of those identified as “champions” could be the “workforce” for this may be viable.

Other considerations must be addressed. For example, the Toolkit needs refinement and may face internal ACS resistance. Aspects that need to be improved are specified below. The Toolkit needs to include communications to bridge gap between toolkit and policy/behavior. These communications need to target those who are or would reasonable engage climate topics. The Toolkit needs a tiered level of detail for K-BS, or adult non-scientists. To begin this revision we would need input from several other ACS groups:

1. CCCE (Committee on Computers in Chemical Education) to find best practice current status. Education Tools developed by NSF for engaging college students. Dialogue began in San Francisco.
2. Com Sci
3. SOCED

Compiling local sections reports can be a start for understanding current status and assembling a core group of members who can serve as disseminators of information. Eileen will gather these and summarize.
YCC Communications interface will allow us access to a large communications platform for Climate Science now. This could possibly grow to policy in the future.

The question arose: Is this climate science initiative analogous to recycling, antismoking programs? Those programs accomplished change from grass roots.

It is possible that we should focus efforts toward tools that will engage kids or current policymakers.

**TAKE HOME:** Refinement (including mission statement), Define GOAL and Audience of Climate Initiative, ID Best practices for use, ID interested members, communicate to broader ACS members, continuous updated refinement.
Appendix 2—Programming and Education Subcommittee Notes (submitted by Keith Peterman, Acting Chair)

Two motions to the committee:

1. We move that the Programming and Education Subcommittee be granted authority to act on behalf of CEI in reviewing applications for the ACS-CEI Award for Incorporation of Sustainability into Chemistry Education. (for action)

2. We move that an AACT (American Association of Chemistry Teachers) membership be added to each ACS-CEI Award for Incorporation of Sustainability in Chemistry Education. In return AACT will agree to promote the award within its association. (for action)

Katie Hunt updated the subcommittee on the actions of the joint CEI-SOCED taskforce on Sustainability in Education. The task force is being refocused on its mission of developing CEI-SOCED approved materials to supplement the CPT guidelines, which have been amended to recommend inclusion of sustainability. She also discussed K-12 education (no longer on the task force agenda) and suggested that the subcommittee move to add AACT membership to the ACS-CEI Award for Incorporation of Sustainability in Chemistry Education in support of the new organization and to initiate a relationship around common interests.

Marty Mulvihill briefed the group on the status of the Hot Topics series and encouraged members of the committee to attend the Hot Topics event—“Communicating Risk - Safe or Toxic: How to interpret and share what we know about chemicals in consumer products.” Marty asked that the subcommittee make an appeal to the broader group to continue the series by asking a member to consider planning their own Hot Topic event in future national meetings.

The committee discussed the symposia that CEI will co-sponsor in Denver and Boston.

2. “Perspectives on Climate Change Literacy and Education, Local to International”, Greg Foy & Keith Peterman, invited and open submission papers, Denver National Meeting.
3. A Symposium to bring back past ACS-CEI Sustainability in Chemistry Education Award recipients, title to be decided, Cathy Middlecamp, Boston National Meeting.

Robin Rogers encouraged members of the committee to attend both the Plenary Session from 3-6 pm on Sunday and the Kavli Lecture from 4-6 pm on Monday at the Moscone Center.

Keith Peterman stated that the UN climate literacy project is gaining traction. Sixteen well qualified students applied for the anticipated 4 UN accreditation slots per week allotted to ACS for the UNFCCC COP 20 in Peru. These students represent colleges and universities in 8 different states. We expect an even larger number of applicants for the upcoming December 2015 COP 21 in Paris considering the pivotal nature of the conference.
COP 20 ACS Student Team  
Lima, Peru  
Week One: November 29-December 7, 2014  
Week Two: December 6 - 14, 2014

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<th>Week</th>
<th>Name</th>
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<th>State</th>
<th>Major/Minor</th>
<th>Year</th>
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<tr>
<td>1</td>
<td>Rachel Sobel (student mentor)</td>
<td>Hamilton College</td>
<td>NY</td>
<td>Biochem. &amp; Women’s Studies</td>
<td>Sr</td>
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<td>Catherine King</td>
<td>University of Alabama</td>
<td>AL</td>
<td>Chem &amp; Chem Eng.</td>
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<td>1</td>
<td>Barry Hartweg</td>
<td>Baylor University</td>
<td>TX</td>
<td>Chemistry/Env Studies</td>
<td>Sr</td>
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<tr>
<td>1</td>
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<td>Minot State</td>
<td>ND</td>
<td>Chem &amp; Math</td>
<td>Sr</td>
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<tr>
<td>2</td>
<td>Jessica McDonald</td>
<td>Duke University</td>
<td>NC</td>
<td>Env Management</td>
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<td>Nina Diklich</td>
<td>Aquinas College</td>
<td>MI</td>
<td>Chem/Bio &amp; Math</td>
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<td>2</td>
<td>Shelby Bariana</td>
<td>York College</td>
<td>PA</td>
<td>Forensic Chemistry</td>
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After lunch the Programming and Education subcommittee held a joint meeting with the Member Engagement Subcommittee to discuss increasing activities and technical sessions at regional meetings. There are 6-8 regional meetings per year and program organizers are always looking for ideas for events and symposia. Both subcommittees agreed that becoming involved in regional meetings is a good idea. We were undecided on how proceed. Each subcommittee will discuss mechanisms for regional meeting engagement prior to the Denver national meeting and will reconvene the discussion at that time.

The joint subcommittees deliberated over the earlier full committee discussion on water and the idea to create a water policy statement.
Appendix 3—Public Policy Subcommittee Notes (submitted by Georjean Adams, Chair)

1. Reviewed three refurbished policy statements
   a. Scientific Insight & Integrity - Carol Henry reviewed the changes which included changing the tone to be more positive and current re protection of proprietary and personal health data, and reformatted for clarity. Renamed Scientific Integrity. Motion supporting revision passed by CEI. ComSci comments to be incorporated and re-vote if necessary.
   b. Sustainability of the Chemical Enterprise - Barclay Satterfield reviewed changes to update and shorten the statement. CEI moved to recommend the revisions. Partners from CA and ComSci have some comments that will be incorporated by Barclay and Carl Maxwell. If significant changes, CEI will be resurveyed.
   c. Science and Technology in the Budget – Chris Avery reviewed the reformatting to general concepts from past agency specifics. Added note on support for public-private partnerships and other minor edits. CEI passed motion to recommend revision.

2. New Proposed Policies review
   a. Hydraulic Fracturing – Martin Abraham reviewed the new policy proposal which primarily supports R&D and appropriate response to findings. Subcommittee made minor edits. CEI moved to recommend the policy. CA comments may require revote.
   b. Global Water Initiative – Marty Mulvihill and David Sedlack reviewed a new statement that applied to both actions for the Society to take and for lobbying Congress. The subcommittee decided to have Marty and his writing team split out the traditional Hill policy recommendations for review by CEI by October 1 if possible for email vote by CEI. The larger ASC recommendations should be handled by the whole of CEI. L. Pence appointed Marty to lead a writing team to do this. Jurgen Exner also volunteered to help. Member Involvement subcommittee will look at ACS initiatives.

3. Next year's retiring statements, with formal teams to be set up in Denver
   a. Inherently Safer Technologies – Mike Gonzalez, check with Darlene Schuster
   b. Testing for Endocrine Disruption – Jack Fowle
   c. Energy Policy – Carol Henry
   d. Climate (2016) – check with John Jayne

4. Potential new policies including
   a. nano,
   b. chemical interaction with the biome,
   c. GMO
   d. “emerging technologies”
Appendix 4 – Joint Subcommittee (Member Involvement with Programming and Education) Notes (submitted by George Cobb and Jennifer MacKellar)

Regional meeting programming on regional climate affects

1. The framework of CEI contributing money and members for programming was outlined.
2. Partnering with ACS ENVR was described.
3. Commonly, funds would be for speaker travel or student registration.
4. Interdisciplinary sessions would be very good. (disease, agricultural practices/crops) Challenging, but potentially impactful.
5. Themes may already be defined for 2014. So may not be able to get that changed, but sessions could be embedded in almost any program.
6. Interested in helping
   a. Tony Noce
   b. Bassam Shakhashiri
   c. Jack Fowle
   d. George Cobb
   e. Susan Shih
   f. Jerry Bell

Attending: George Cobb (Chair), Joseph Zoeller, Michael Matthews, Jennifer MacKellar (ACS staff liaison), Eileen Nottoli, Alan Elzerman

Morning

Welcome and approval of minutes from Dallas and from Conference Call

- Dallas minutes approved on the June 26, 2014 conference call
- Status of action items from conference call minutes
  - Letters went to ChemLuminary applicants to encourage future applications
  - A member of the MI Subcomittee will be appointed as the main point of contact to mini-grant winners
- Alan Elzerman joins to learn more about the sub-committee (vice-chair)

Local Section Grant evaluation

- Motion to support Lehigh Valley Section with a $500 mini-grant to support the proposed activities for the Green Chemistry Fun Badge.
- Motion to approve by Joe, Seconded by Eileen, approved unanimously

Mini-Grant Updates

- Idaho Section Progress – It remains difficult to make contact with this local section.
- NC Section Report – This local section seems to be doing well base on the report.
- Fort Worth – This grant winner is doing well base on report included in the agenda book.

Climate Science Toolkit

- Feedback from grant winners indicated that the Climate Science Toolkit is a good resource but very high level. Grant winners indicated that graphics are not great (low resolution) but will need to remain the same because the website cannot support higher quality images that are larger. Will not be able to add teaching resources to the ACS website.
- NSF funded educational resources coming in the fall on climate change (Visualizing the Chemistry of Climate Change). Will be free to all and could be linked to from the Climate
Science Toolkit.

- What would/should be provided for toolkit and climate initiatives to succeed?
  - Grantees interested in sharing materials. Could develop examples of activities, demonstrations, lesson plans and post them so people could easily access and use them. This resource pool could be used by the Science Coach program.
  - **Action:** Eileen will work with the grantees to collect their reports. Identify best practices.
  - Should be a partnership with SOCED to develop teaching tools
  - Ray Garant joins to talk to the group about CEI-SOCED Education Working Group. Could this group help develop the teaching tools? Perhaps it should be a separate group between CEI, SOCED and ComSci focused on climate science issues. The group would need to have a very specific charge. There also need to be oversight to monitor progress either on the subcommittee or committee level.
  - **Action:** George is trying to build a collaboration with YCC to create a mechanism to share information around the climate science resources.

- There is a disconnect between the Climate Science Toolkit and what it is intended to be used for.
- What should the society be focusing on to actually make an impact on climate change? It’s important for kids to understand how they can make a change. Regional messages are important as well since the issues are different in different parts of the country.
- AACT or Education Division could post information of how to use climate science toolkit
- Changes need to the toolkit? Recommendations:
  - Toolkit needs a mission statement.
  - Need to identify interested members and best practices that fit the mission.
  - Develop resources around best practices that fit the mission.
  - Communications efforts of Climate experts to use the toolkit information to share information.
- **Examples:**
  - Portland – presenting a paper at the San Francisco National Meeting about how they used the Toolkit
  - Puerto Rico – developed materials using the Toolkit.

- What does MI see as scope of CEI and MI in Toolkit and broader climate initiatives?
  - Coordinate with other ACS units to identify interested members: ComSci, SOCED, LSAC and DAC
    - SOCED – Andy Jorgensen could be a good person to provide guidance.
    - ComSci – Matt Fisher and George could help here.
  - Is there a potential interface with YCC? George is engaging with them to see how we can partner to communicate to the broader ACS membership.
  - There needs to be an evergreening plan in place for the Toolkit. How will updates be requested and completed?

**Informal lunch discussion of scope of Climate Science**

**Afternoon**

Climate Science (Joint with Programming and Education)
• Support for Regional Meetings Programming: Technical sessions or activities detailing climate change issues for that specific region; Division Collaboration; Other Committee Collaboration; DAC IPG Application; Announce/Market at Leadership Institute.
  • Potential collaboration with ENVR. Other Divisions or Committees maybe interested in this as well.
  • If a Division proposes the idea, we can apply for a Divisional Innovation grant.
  • $2K would be good for each Regional meeting. Funds would be used to support speakers or supplies
  • Regional issues report from Laura? National Climate Assessment
  • Would need to suggest the symposium early and suggest speakers (maybe late for 2015 already?)
  • A CEI member could be an organizer
  • Bring people from other disciplines
  • Suggest they focus on mitigation
  • Could recommend mini-grant winners to organize symposium and use funds to support them. More awardees in a single region but could ask them to co-chair the session.
  • This initiative would start in the ENVR and make sure things are moving forward and then George from MI and Alan from education subcommittee
  • CEI members would collaborate within people within the regions to organize the session or identify the expertise.
  • Grantees and CEI members partnership would work best.
  • Would need more detail about how the funding would work. Could recommend this for future meetings – two year cycles?

• Broader and Concerted Efforts to facilitate information exchange at Regional or Local Section level about Climate Science and Toolkit: attempting to establish liaison/ambassador in each region/LS.

Water Initiatives (Joint with Programming and Education)
• How can we help Marty and David with their effort to develop a water policy?
• How can we define what is most relevant to ACS related to water?
• We should look at water and energy issues but the scope is too broad at this time – why would we get involved in this right now?
• Can we help the public understand major water issues? Quality is one issue, quantity is another.
• Can we revisit this in our subcommittees between now and the next meeting?