

OPERATIONS MANUAL

AMERICAN CHEMICAL SOCIETY JOINT BOARD/COUNCIL COMMITTEE ON CHEMICAL SAFETY

The Committee on Chemical Safety has as its primary responsibility the encouragement of safe practices in chemical activities. The committee serves as a resource to the chemical professional in providing advice and counsel on the handling of chemicals, and seeks to ensure safe facilities, designs, and operations by calling attention to potential hazards and stimulating education in safe chemical practices. In addition, the committee provides advice to other American Chemical Society units on matters related to chemical safety and health.

Web site: <http://membership.acs.org/C/CCS/>

April 2012

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Message from the Chair

**AMERICAN CHEMICAL SOCIETY
COMMITTEE ON CHEMICAL SAFETY
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Dear CCS Member:

Welcome to the ACS Joint Board-Council Committee on Chemical Safety (CCS). The committee's mission is to encourage the use of safe practices in chemical activities. The committee's primary responsibility is to serve as a resource for the society, its governance bodies, and its members. The committee provides guidance in the development of safe practices on the handling of chemicals through publications, educational activities, and the development of policy recommendations. Your contributions to the American Chemical Society (ACS) membership and to the committee are essential, and your time and commitment are very much appreciated.

The committee's activities include responding to questions regarding chemical safety from society members, developing educational materials, providing guidance to the general public through local ACS sections, and working with other ACS and professional groups to obtain and disseminate chemical safety information. CCS is supported in its efforts by an ACS staff liaison.

As an aid to CCS members and others interested in CCS operations, a task force of CCS members and the ACS staff liaison have assembled the original operations manual in 2008. In 2012 this CCS Operations Manual was revised and updated. .

This operations manual contains the most current CCS strategic plan, a brief history of the committee and how it fits within the ACS structure and its strategic plan, and details of its subcommittees and special task forces, and their missions and functions. It contains a section on member roles and responsibilities and other useful information, including the most complete directory of ACS staff and offices available, and a glossary of ACS commonly used abbreviations and acronyms.

Please feel free to contact me or our staff liaison, Marta Gmurczyk, if you have any questions, comments or suggestions.

Robert H. Hill, Jr.
Chair, Committee on Chemical Safety
August 2012

Committee on Chemical Safety (CCS)

Vision

The committee encourages consideration of safety in all aspects of the chemical enterprise.

Mission

The committee has as its primary responsibility the encouragement of safe practices in chemical activities. The committee serves as a resource to the chemical professional in providing advice and counsel on the handling of chemicals, and seeks to ensure safe facilities, designs, and operations by calling attention to potential hazards and stimulating education in safe chemical practices. The committee also provides advice to other American Chemical Society (ACS) units on matters related to chemical safety and health.

Activities and Time Commitments

CCS, through its subcommittees and task forces, reviews chemical safety issues as identified by members of the committees, other members of the society, and the general public. Primary activities have included online and hard-copy publication of safety information, development of policy statements for review and implementation by the ACS Board of Directors, providing advice and assistance to other ACS committees, presentation and sponsorship of professional symposia, and development of educational materials related to chemical safety.

The committee meets in conjunction with the ACS National Meetings; subcommittee meetings are held prior to the meeting of the entire committee. In addition to attendance at committee meetings, CCS members may be asked to review, comment, or act on specific materials or information brought to the committee's attention throughout the year. Additional time may be required to complete projects undertaken by subcommittees.

CCS Membership Structure

CCS has four categories of affiliation, consisting of members, associate members, consultants, and liaisons. All are encouraged to provide input and comment on any aspect of the committee's activities. The following is a brief description of each category of affiliation.

Members

Members are formally appointed by the ACS president and Board chair on the advice of the ACS Committee on Committees. Input regarding membership may be provided by the ACS staff liaison, CCS chair, and the CCS liaison to the Committee on Committees. There is a numeric limit of 12 full members for the committee. Members are the only individuals affiliated with the committee who are entitled to a vote on formal motions. Members are expected to attend formal meetings of the committee and actively contribute to the activities of a subcommittee. The term of service is 3 years and a committee member shall be permitted only three consecutive 3-year terms on a given Joint Board/Council Committee.

Associate Members

Associate members are appointed in the same manner as members, but do not have voting privileges. Full members are frequently selected from among those serving as associate members. Associate members typically engage in all of the committee's discussions. There is no formal limit on service time for associate members, although most terms for associates average 2 to 3 years. The Committee on Committees often recommends associates for other assignments if they have not moved up to being a

member after 3 years.

Consultants

Consultants are appointed by the committee chair with the approval of the Committee on Committees. Consultants are appointed on an annual basis and generally for no more than a total of 5 years without justification; they are normally selected to fill a particular need based upon their professional expertise. There is no official limit on their time of service. They may be appointed primarily for a specific project because of unique skills or to represent fields that are normally underrepresented on the committee. Consultants normally serve on a subcommittee and engage in committee discussions, though they cannot vote on formal motions.

Liaisons

Liaisons are individuals affiliated with another organization within or outside the ACS structure. They are appointed by the committee chair with the concurrence of the group they are representing. Liaisons typically report on the activities of their organization and report on CCS activities to those organizations. Liaisons serve in the same manner as members, associates, and consultants, in that they are free to join a subcommittee and participate fully in activities of the committee. There is no service time limit on liaisons as long as they are able to handle their reporting and communication responsibilities by maintaining membership or affiliation with the liaison organization. Additional information about liaison responsibilities is provided on pp 11–12. CCS maintains liaison with the following organizations:

- ACS Committee on Committees (ConC)
- ACS Committee on Community Activities (CCA)
- ACS Committee on Chemists with Disabilities (CWD)
- ACS Committee on Local Section Activities (LSAC)
- ACS Women Chemists Committee (WCC)
- ACS Division of Chemical Health and Safety (CHAS)
- Institute of Hazardous Materials Managers (IHMM)
- Occupational Safety and Health Administration (OSHA) Process Safety Alliance
- U.S. Environmental Protection Agency (EPA) School Chemical Cleanout Campaign
- American Industrial Hygiene Association (AIHA)

CCS Activities and Publications

Available at www.acs.org/safety

- Creating Safety Cultures in Academic Institutions: Report of the Safety Culture Task Force of the ACS Committee on Chemical Safety
- Safety in the Academic Laboratory – Eye Protection Video
- Safety in the Elementary Science Classroom
- Student Laboratory Code of Conduct for Secondary Science
- Chemical Laboratory Information Profiles (CLIPs)
- ACS Policy Statement regarding improvement of EPA regulations
- Reducing Risks to Students and Educators from Hazardous Chemicals in a Secondary School Chemical Inventory, June 25, 2008
- Security Vulnerability Checklist for Academic and Small Chemical Laboratory Facilities, December 11, 2007
- U.S. Department of Homeland Security Chemical Facility Antiterrorism Standards comments, May 7, 2007.

- New EPA Laboratory Hazardous Waste Rule Comments, August 9, 2006
- *Safety in Academic Chemistry Laboratories*, Volume 1, Student Edition, College (7th Edition)
- *Safety in Academic Chemistry Laboratories*, Volume 2, Faculty/Administrator Edition (7th Edition)
- *Safety in Academic Chemistry Laboratories*, Spanish translation version, June 22, 2006.
- Safety for Introductory Chemistry Students, 2010.
- Secondary Science Program Student Laboratory Code of Conduct, May 3, 2006. Available online at Managing Mercury Spills, September 7, 2005.

- *Chemical & Engineering News (C&E)* Lab Photo comment, June 15, 2005.

- Nanotechnology Safety Resources, March 27, 2005

- Comments on Scope of new Resource Conservation and Recovery Act Laboratory Rule, November 2004.

- Safety for Introductory Chemistry Students brochure, March 18, 2004. Available online at

- Distillation Safety, September 29, 2003. Available online at
- Reproductive Hazards information, September 29, 2003. Available online at

History of CCS

Created in 1963, the first CCS meeting was held at the 145th ACS National Meeting, Americana Hotel, New York, NY. The following is an excerpt of the minutes prepared by Secretary Arthur H. Christian:

The committee met in open session from 2 to 4:30 p.m. on Monday, September 9, 1963, with six of its members present. A total of 23 visitors signed the register. Chairman H. K. Livingston opened the meeting by reviewing the recommendations of the ad hoc committee for establishment of this committee, the programs of the committee, and progress to date. Chairman Livingston emphasized the committee's interest in determining members' views and suggestions for society activities in the areas of chemical safety and accident prevention. As one way of achieving this goal, he noted that liaison had been established with several of the ACS Council standing committees. Thereafter, discussion centered on the agenda topics which were published in *C&EN*, August 5, 1963, p 144. The agenda items were as follows:

- How to make chemists and chemical engineers safety-conscious
- Relationship of laboratory designs, facilities, etc., in various settings
 1. Educational laboratories
 2. Federal government laboratories
 3. Chemical industry
 4. Nonchemical industry
 5. Home chemical activities
- Need for local programs
- Policing public representations of safety
- Other business

CCS Structure: Subcommittees and Working Groups

The committee structure consists of three standing subcommittees. The committee sets policies for all programs and services initiated by the subcommittees. Where appropriate, the committee recommends policies to the ACS Board of Directors and the Council. The committee oversees the Safety Culture Task Force (SCTF), and the CCS Laboratory Chemical and Waste Management Task Force (LCWMTF) (formerly known as the Task Force on Laboratory Environment, Health & Safety). SCTF was formed in 2011 and identifies ways to strengthen safety culture in academic institutions. LCWMTF works primarily on laboratory waste management issues. It was formed in 1981 and is the longest continually serving ad hoc organization within ACS.

Subcommittee on Partnerships

The Subcommittee on Partnerships helps fulfill the committee's mission with respect to providing advice to other ACS units on chemical safety matters – this subcommittee actively seeks collaborative projects with other ACS committees and divisions.

The subcommittee looks at existing and potential liaisons with other organizations within and outside ACS. Examples include the OSHA Reactive Chemical Hazards Alliance, the OSHA Process Safety Alliance, and the U.S. Chemical Safety and Hazard Investigation Safety Board. The subcommittee also considers how to expand the use of CCS information beyond the traditional limit of society membership.

Subcommittee on Resources

The Subcommittee on Resources helps fulfill the committee mission with respect to serving as a resource to the chemical professional for handling chemicals, safe facilities, designs, and operations.

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The subcommittee works primarily on larger, more long-ranging publications, and educational projects. Examples include *Safety in Academic Chemistry Laboratories*, eighth edition, and a PowerPoint presentation on the topic of eye protection.

Subcommittee on Safe Practices

The Subcommittee on Safe Practices helps fulfill the committee mission with respect to the encouragement of safe practices in chemical activities.

The subcommittee works primarily on short, timely projects, and the development of policy statements for review by CCS and the ACS Board of Directors. Examples include the development of a list of chemical reagents, which should not be used in secondary schools, and a checklist for security analysis for small chemical businesses and laboratories.

Safety Culture Task Force

In 2011 the Subcommittee on Partnerships recognized the need for assistance for the academic community due to a number of high profile laboratory incidents in academic laboratories. This subcommittee formed the Safety Culture Task Force (SCTF) and invited partners from other ACS organizations. The purpose of the SCTF was to develop guidance, suggestions, and recommendations that might assist colleagues working in academia in strengthening their safety cultures. Specifically, the SCTF's goals were to identify the best elements and best practices of a good safety culture; identify academic institutions that are currently using these best practices, or "bright spots;" identify specific recommendations that could be used by universities and colleges to strengthen their safety culture; and identify tools and resources that would be beneficial to these efforts.

SCTF has members from CCS, Committee on Professional Training (CPT), Society Committee for Education (SOCED), Younger Chemists Committee (YCC), and the Division of Chemical Safety and Health (CHAS). The task force met initially in Philadelphia in June 2011 and developed a general outline for a report that identified elements of strong safety cultures. Over the next few months the members of the task force drafted and refined a document that was released in draft form at the 2012 ACS National Meeting in San Diego as the CCS report – "Creating Safety Cultures in Academic Institutions". The final report was published in July 2012. The task force continues to develop tools that might be useful to colleagues in academia for developing strong safety cultures.

Laboratory Chemical and Waste Management Task Force

In 2008, the Task Force on Laboratory Environment, Health & Safety was renamed the Laboratory Chemical and Waste Management Task Force. The task force supports the ACS Joint Board/Council Committee on Chemical Safety in the advancement of safety, health, and environmental stewardship in chemical laboratories. A primary focus of the task force since its inception in 1981 has been laboratory waste management and associated regulations.

Objectives

- Influence legislation and regulation
- Prepare ACS policy statements on pertinent safety issues for review and approval by the ACS

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Board of Directors.

- Monitor federal and state lawmaking and rulemaking
- Help legislative representatives and regulators understand laboratories' concerns during the legislative and regulatory process.
- Establish and maintain contact with legislative representatives, regulators, and trade groups to promote ideas for wise legislation and regulation.
- Inform laboratory professionals to help them understand and comply with environment, health, and safety regulations.
- Inform ACS members about pending federal and state lawmaking and rulemaking through written articles, Internet postings, and presentations.
- Write, or encourage regulators to write, tailored guidance documents to assist laboratory professionals in their understanding of and compliance with environment, health, and safety regulations.
- Develop and present seminars, training sessions, or posters at relevant national meetings
- Inspire good laboratory environment, health, and safety management practices
- Monitor laboratory practices with an eye to new activities that promote safety and environmental stewardship.
- Disseminate information about such practices to the laboratory community via publications, symposia, and the Internet.

History of the Task Force

This special working group was formed to assist the society in establishing policies related to chemical health and safety and environmental protection. The task force was created in 1981 as the ACS Task Force on the Resource Conservation and Recovery Act, a brainchild of the then-head of the ACS Office of Government and Regulatory Affairs, Katherine Ream. With the promulgation of hazardous waste regulations, the original objectives of the task force were to inform regulators and legislators of the special problems faced by academic and industrial laboratories in complying with hazardous waste regulations, to assist ACS in developing policies on hazardous waste and other environmental problems, and to educate the ACS community on laboratory waste issues.

Stanley Pine was the initial chair of the task force. The task force's focus during his tenure was primarily publications and technical symposia designed to benefit ACS members, particularly in the area of laboratory waste minimization. The most important publication on this subject, *Less is Better*, was prepared during this time period. Some of the other early activities of the task force included advising EPA and congressional staff on the unique regulatory compliance problems faced by laboratories. Laboratory waste management symposia sponsored by the task force were held at ACS national meetings in 1983, 1985, and 1987.

In 1987, Russell Phifer was appointed chair of the task force. During his tenure, the task force's focus on laboratory waste continued, and the group was renamed the Task Force on Laboratory Waste Management also known as LabWam. Efforts continued to inform ACS members, federal regulators, and legislators about the problems of laboratory waste generators. Task force efforts included the development of proposed legislation, as well as several meetings with U.S. Senate and House of Representatives staff. In June 1993, the task force presented an ACS satellite videoconference on laboratory waste management to 56 locations throughout the United States.

In 1994, the task force published a 200-page manual, titled *Laboratory Waste Management: A Guidebook*, to assist laboratory employees with managing chemical waste. In 1994, Peter Reinhardt was appointed chair of the task force, resulting in a new focus on academic laboratory issues. During his

tenure, the task force revised several existing publications and developed new publications including a manual, titled *Laboratory Spills*. Chairman Reinhardt initiated working relationships with other academic and industry groups interested in regulatory change. In 1998, the task force had the opportunity to review a draft copy of the EPA publication, titled *Environmental Compliance Guide for Small Laboratories*.

Under the guidance of Chair Erik Talley, the Task Force completed work on a substantial revision to *Laboratory Waste Management: A Guidebook*, in 2010-2011. Publication by ACS Books is anticipated in 2012.

As the oldest continually serving ad hoc working group within ACS, the task force has been responsible for establishing ACS policies and commenting on proposed regulations and legislation throughout its history. Currently chaired by Robin Izzo, the group is now named the Laboratory Chemical and Waste Management Task Force to better reflect the focus of the group. The continued existence of the group is a tribute to the many members who have contributed during the past 32 years.¹

CCS Member Roles and Responsibilities

CCS Members

- Attend CCS meetings to represent the interests of the ACS membership
- Serve on subcommittees, such as working groups and task forces, as assigned by the committee chair
- Respond in a timely manner to requests by committee officers and ACS staff and meet established deadlines
- Participate in communications forums, such as conference calls and e-mail discussions, to enable the completion of committee business between national meetings
- Advise committee chair and staff of opportunities and challenges
- Promote and encourage participation in CCS programs at ACS national and regional meetings
- Encourage local sections and individuals to participate in CCS programs through communication with local section officers

Note: While only full members of the committee are eligible to vote on motions, associate members, consultants, and liaisons are encouraged to fully participate in all other committee activities.

CCS Chair

- Provide vision and guidance to CCS
- Chair CCS governance meetings at ACS national meetings and coordinate the work of the Executive Committee
- Conduct meetings in a businesslike manner, follow a printed agenda, and ensure that areas of concern are discussed and that the views of all committee members are heard
- Appoint committee members to appropriate governance roles (leadership, committee, and liaison assignments)
- Serve as the official representative of the committee to the ACS Council, ACS Board of Directors, and other ACS governance
- Communicate with staff and committee members on a regular basis regarding progress of programs

¹ Robert Alaimo, *Journal of Chemical Health and Safety*, 2003, 10(4), 50.

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- Initiate discussions on various aspects of CCS programs and activities with committee members, staff, ACS governance, members-at-large, and the public
- Seek opinions of committee members in areas of growth and concern
- Interpret and carry out all rules and bylaws with the assistance of the ACS staff liaison
- Assume responsibility and accountability for committee strategic planning
- Steward strategic planning initiatives
- Be an ex officio member of all standing subcommittees, such as working groups and task forces
- Steward action items generated by the subcommittees
- Convene special meetings, as needed, to conduct committee business between ACS national meetings
- Monitor budget issues, as appropriate

Chairs of Subcommittees and Working Groups

- Serve as a member of the CCS Executive Committee
- Provide vision and guidance to subcommittees and working groups
- Chair subcommittee and working group meetings at ACS national meetings
- Coordinate volunteer efforts of the subcommittee and working group members to ensure timely completion of all action items, setting deadlines when necessary
- Seek opinions of subcommittee members in areas of new services
- Meet various deadlines as set forth by the committee chair and staff, including the following:
 - Submit agendas for national meeting agenda books by the requested due date
 - Ensure that all meeting minutes have been completed and approved by their respective subcommittee and working group no later than 4 weeks after each national meeting
- Provide a periodic reports to the committee chair on the activities of the subcommittee – these reports may be provided in monthly reports.
- Review, along with the subcommittee, all programs and activities for relevance, retain and improve those that add value, and discontinue obsolete or less useful programs

Recording Secretary

The recording secretary is responsible for capturing the business conducted during an assigned meeting. The following is a template of procedures to be maintained:

- Generate a list of action items with the headers: “Action to Be Taken”, “Person(s) Responsible”, and “Date Due”
- Record any motions of the group, those adopted, and those “lost” or defeated
- Record the name of the maker of the motion
- Record the result of all votes—passed or failed. (The number of votes is recorded only on each side when there is a ballot or a counted vote.)
- Summarize the actions of the group during the meeting
- Submit minutes to the committee, subcommittee, or working group no later than 4 weeks after the end of the meeting
- Follow the format presented by the committee. (The committee chair or ACS staff liaison can provide examples or templates of acceptable meeting minutes.)
- Sign the minutes and record the date of approval. (For electronic minutes, the closing lines are “Respectfully submitted” and your name.)

The first paragraph of the minutes should list the kind of meeting, the name of the organization, the date and place of the meeting, the presence of officers and a quorum (in a committee or small group, a quorum

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is a majority of the members), the time the meeting was called to order, and whether the minutes of the previous meeting were approved or corrected. The body should include reports given, the name of the reporter and any related action taken, all main motions, all points of order or appeal, important announcements, such as the topic of the program and the name of the speaker. The final paragraph should record the adjournment and time of adjournment.

According to the handbook on the conduct of meetings, *Robert's Rules of Order*, adoption of and corrections to the minutes must receive a two-thirds vote.

Note: It is not necessary to record discussion or personal opinion, the name of the person seconding a motion, any motion that is withdrawn, or entire reports (these should be attached to the original).

CCS Liaisons to Other Governance Bodies

Responsibilities of CCS liaisons to other ACS bodies include the following:

- Attend the executive and open-session meetings of the group assigned to take notes on actions related to CCS interests. Attendance at these meetings should not significantly impact the participation of the liaison in CCS-sponsored meetings and activities.
- Serve as a conduit for information exchange, resulting in both groups operating more efficiently and effectively.
- Submit a written report of fewer than 1,000 words (approximately 2 pages) no later than 4 weeks after the meeting, summarizing activities and actions of interest to CCS. (Examples of the report format are available from the committee chair or ACS staff liaison.) Liaisons may provide updates of these reports at the CCS full committee meetings held on Monday mornings of each ACS National meeting.
- Present oral reports during CCS meetings. Content of oral reports should be limited to items of immediate interest to the business of CCS. Routine or unrelated matters should be relayed through the liaison's written report.
- CCS liaisons are not authorized to commit resources of the CCS committee without prior consultation with the committee chair and the ACS staff liaison.

Liaisons to CCS from Other Governance Bodies

Where appropriate, the committee will accept liaisons from other ACS bodies, such as committees or divisions. Liaisons from other governance bodies are requested to do the following:

- Respond to e-mail inquiries regarding attendance at CCS meetings, activities, and events
- Submit a written report of fewer than 1,000 words (approximately 2 pages) no later than 4 weeks after the meeting, summarizing activities and actions of interest to CCS. (Examples of the report format are available from the committee chair or ACS staff liaison.)
- Present oral reports during CCS meetings. Content of oral reports should be limited to items of immediate interest to the business of CCS. Routine or unrelated matters should be relayed through the liaison's written report.

Travel Reimbursement Policy

ACS reimburses non-Councilor committee members, associates and consultants for reasonable, ordinary and necessary transportation, lodging and meal expenses incurred by attending the CCS meeting **up to \$527.50 per meeting**. Those who qualify for the reimbursement must complete and submit an ACS travel expense voucher within three weeks of the meeting. Contact the Staff Liaison for additional details on this program.

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On occasion, committee members may be asked by the committee chair to attend special meetings, such as strategic planning. CCS may cover travel expenses and meals related to these special meetings. To qualify for reimbursement, travel arrangements must be arranged through the ACS Travel Office with authorization by the ACS staff liaison in compliance with current ACS travel restrictions and policies. Qualifying expenses will be outlined by staff prior to the meeting, and all reimbursement forms with accompanying receipts must be received by the ACS staff liaison no later than 10 days after the meeting concludes.

CCS Web Site

For more information on CCS, please visit the committee Web site at http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_TRANSITIONMAIN&node_id=2228&use_sec=false&sec_url_var=region1&_uuid=a2c8ba11-ab0f-4022-b19d-7fb0cbd153b1

Webmaster

A Webmaster serves CCS. Content is delivered to the Webmaster through electronic file transfer and e-mail. The Web site is updated and redesigned periodically; design and content are usually evaluated annually.

The CCS Webmaster maintains the committee's Web site, working with other groups within ACS, as appropriate, to ensure that correct and current information is available on the Web site.

CCS Strategic Plan

Vision Statement

CCS envisions universal awareness of the importance of chemical safety in all aspects of the chemical enterprise. The committee is made up of a talented, diverse, and experienced team of scientists devoted to acquiring and disseminating the most current knowledge on the safe handling, use, storage, and disposal of chemicals. CCS takes a leading role in chemical safety education, presenting timely information through the development of peer-reviewed publications and policy statements.

The committee strives to meet or exceed the needs of its constituents within the ACS community, as well as members of the public located nationally and internationally. The committee encourages safe and stimulating work environment in classrooms, laboratories, and chemical production facilities to ensure that they may be protected from chemical hazards through safety education, the use of safe practices, and the availability of advanced, current safety information. CCS is a willing partner with other organizations that share similar goals in promoting chemical safety.

Strategic Themes and Initiatives

CCS strives to meet its goals through its publications, partnerships with other safety-oriented organizations, and the development of guidelines and policies associated with safe chemical practices. CCS is aligned with the "ACS Strategic Plan: 2012 and Beyond". The complete Plan is available on-line at <http://strategy.acs.org/>.

ACS has established the following Core Values in its Strategic Plan:

Passion for chemistry in the broadest sense

Research

Education

Innovation

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Solutions

Focus on members

Service to members

Volunteer contributions

Professionalism

Integrity and transparency

High standards

Diversity and inclusion

Diverse community of highly-skilled chemistry professionals

Advancement of chemistry as a global multidisciplinary science

American Chemical Society (ACS)

ACS Staff Support for CCS

CCS works closely with several departments within ACS. These departments include the Office of Legislative and Government Affairs (OLGA) and the Education Division. In addition, CCS collaborates with the Division on Chemical Health and Safety, the Division of Chemical Education, the Committee on Professional Training, and the Committee on Environmental Improvement. Support may be provided by these and other groups on specific initiatives of the committee. Additional support may come from ACS staff working in various offices and departments within the society.

The ACS staff liaison to CCS is Marta Gmurczyk.

The roles of the ACS staff liaison are as follows:

- Coordinate committee activities with other groups within ACS
- Work with the committee chair on budget issues
- Serve as a focal point for communication
- Receive and disseminate requests for information from ACS members and the general public
- Maintain records of the committee
- Assemble and distribute agendas and minutes to committee members
- Represent the committee at other meetings, as applicable

ACS Structure

ACS is a self-governed individual membership organization consisting of more than 164,000 members at all degree levels and in all fields of chemistry and related scientific disciplines. The organization provides a broad range of opportunities for peer interaction and career development, regardless of professional or scientific interests.

The ACS mission: Encourage in the broadest and most liberal manner the advancement of the chemical enterprise and its practitioners. The ACS vision: Improving people's lives through the transforming power of chemistry. ACS is divided geographically into 189 local sections and members of the society are automatically assigned to the local section closest to their mailing address of record. ACS local sections enable society members to interact with chemists in their community, participate in professional

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development programs, and promote the public understanding of chemistry. Members may belong to one local section only.

ACS is divided into 33 technical programming units known as divisions. Divisions of ACS provide services and programming for each of the 33 disciplines of chemistry, such as organic chemistry, inorganic chemistry, and chemical technicians. Members may belong to as many divisions as they choose.

The society is governed through a series of committees that are overseen by the ACS Board of Directors and the ACS Council.

The ACS Council is composed of elected representatives from each of the 189 local sections and 33 technical divisions. The council includes the president, president-elect, all past presidents, the executive director, and the secretary of ACS. The president of the society presides over the council.

The ACS Board of Directors is composed of the president, the president-elect, the immediate past president, six district directors (elected from geographic regions), and six directors-at-large. The ACS Board of Directors is the legal representative of the society, and, as such, administers all property, funds, and affairs of the society. The ACS Board of Directors is presided by the chair of the board who is elected internally on an annual basis.

ACS Committees

ACS committees can be classified into one of four basic categories: Society, Council, Board, and Joint Board/Council.

Society Committees

The two society committees are Budget and Finance and Education. Members of these committees are appointed by the president and the chair of the board. Society committees are specified in the ACS Constitution. Society committees report to both the ACS Council and the ACS Board of Directors. The chair of each society committee must be a voting councilor, and the body of the committee must be composed of at least two-thirds voting councilors.

Committees of Council

Committees of Council report to the ACS Council. They can be subdivided into three main classifications: Elected, Standing, and Other.

Elected: Members of the Elected Committees of Council must be elected by the ACS Council body, and must be voting councilors.

- Committee on Committees (ConC)
- Council Policy Committee (CPC)
- Nominations and Elections (N&E)

Standing: Members of the Standing Committees of Council must be voting councilors.

- Constitution and Bylaws (C&B)
- Committee on Divisional Activities (DAC)
- Committee on Economic and Professional Activities (CEPA)
- Committee on Local Section Activities (LSAC)
- Meetings and Expositions (M&E)
- Committee on Membership Affairs (MAC)

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Other: Other Committees of Council can have any composition as specified by the ACS Council at the time of their charters.

- Admissions
- Analytical Reagents
- Ethics
- Nomenclature, Terminology, and Symbols
- Project Summer Educational Experience for the Economically Disadvantaged (SEED)
- Committee on Technician Affairs (CTA)

Joint Board/Council Committees

Note: CCS was created in 1963 as a Joint Board/Council Standing Committee. Joint Board/Council Committees report to the ACS Board of Directors and the ACS Council. These committees can have any composition as specified in their charters.

- Chemical Abstracts Service (CAS)
- Committee on Chemical Safety (CCS)
- Committee on Chemistry and Public Affairs (CCPA)
- Committee on Community Activities (CCA)
- Chemists with Disabilities (CWD)
- Committee on Environmental Improvement (CEI)
- Committee on International Activities (IAC)
- Committee on Minority Affairs (CMA)
- Committee on Patents and Related Matters (CPRM)
- Committee on Professional Training (CPT)
- Publications
- Committee on Public Relations and Communications (CPRC)
- Committee on Science (ComSci)
- Women Chemists Committee (WCC)
- Younger Chemists Committee (YCC)

Board Committees

Board Committees report to the ACS Board of Directors. These committees can have any composition as specified in their charters.

- Audits
- Budget and Finance (B&F)
- Corporation Associates
- Executive Compensation
- Grants and Awards (G&A)
- Pensions and Investments
- Planning
- Professional and Member Relations (P&MR)
- Public Affairs and Public Policy (PA&PP)

ACS Office and Staff Directory

Executive Director and CEO

Tel: (202) 872-6310

E-mails: executivedirector@acs.org; prfinfo@acs.org

Madeleine Jacobs—Executive Director and CEO

Marleen G. Weidner—Special Assistant to the Executive Director

W. Christopher Hollinsed—Director, Research Grants

Secretary and General Counsel

Tel: (202) 872-4461

E-mail: secretary@acs.org

Web site: www.acs.org/governance

Flint Lewis—Secretary and General Counsel

Yvonne Curry—Assistant Secretary, Governance

David Smorodin—Assistant General Counsel

Frank E. Walworth—Assistant to the Secretary and ACS President

Reference for the following:

- ACS logo
- ACS governance
- Constitution and bylaws, incorporation
- Governance calendar of events
- Legal
- Contact with ACS Board chair, president, president-elect, and immediate past president

Office of Strategic Planning and Evaluation

Tel: (202) 872-6261

E-mail: strategicplan@acs.org

Web sites: www.acs.org/strategicplan; www.acs.org/governance

Robert Rich—Assistant Secretary, Strategic Planning

Reference for the following:

- ACS strategic plan
- Board Committee on Planning
- Board-level strategic initiatives:
 - Global scientific challenges
 - Governance review
- CPC Long-range Planning Subcommittee

Office of Public Affairs

Tel: (202) 872-4475

E-mails: govtrelations@acs.org; science_congress@acs.org; LAN@acs.org

Web site: www.acs.org/policy

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Glenn Ruskin—Director
Jane Shure—Director, Communications
Ray Garant—Assistant Director, Public Policy
Caroline Trupp Gil—Assistant Director, Advocacy

Reference for the following:

- Advocacy planning and direction
- Annual report
- Internal and external communications
- Patent policy
- Policy development and coordination
- Scientific publishing policy

Office of the Treasurer, Finance, and Administration

Tel: (202) 452–2114

Web site: www.acs.org/governance

Brian A. Bernstein—Treasurer and Director
Ross M. Wilson, III—Assistant Treasurer, Investments
Kathleen J. Cullins—Controller

Reference for the following:

- Banking
- Cash management
- External financing
- Foreign exchange management
- Fundraising
- Internal operations
- Investor relations
- Risk management

Office of Society Services

Tel: (202) 872–4600

Fax: (202) 872–6067

Joanna Brosnan - Director

Reference for the following:

- ACS Investment Pool
- ACS Matching Gift Fund Program
- Comprehensive Business Insurance Policy
- Office of Administrative and Customer Services

The Office of Administrative and Customer Services includes the Information Resources Center and Building and Administrative Services.

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Human Resources

Tel: (202) 452-2114

Web site: www.acs.org/governance

E-mail: employment@acs.org

Pamela J. Ayre-Director

Scott Oliphant-Assistant Director, Employee Services

John G. Doran-Assistant Director, ACS Benefits

Division of Membership and Scientific Advancement

Contact: Member Services

Tel: (800) 333-9511

E-mail: service@acs.org

Denise Creech-Director, Division of Membership and Scientific Advancement

P. Robert Peoples-ACS Green Chemistry Institute

Bradley D. Miller-International Activities

Alan L. Hutchins-Marketing and Operations

Marketing:

Willie L. Benjamin-Assistant Director, Meetings and Expositions

Tel: (202) 872-7885

E-mail: w_benjamin@acs.org

Reference for the following:

- Committee on Meetings and Expositions; general oversight of national and regional meetings

Member Research and Technology:

- DAC Meetings Subcommittee
- Division allocation distribution
- M&E Technical Programming Subcommittee
- Pacifichem
- Program Planning and Coordination Conference (P2C2)
- Programming content advice for national meetings
- Thematic programming for 2008 national meetings
- Other: databases and technology applications

Member Services:

John C. Katz-Member Communities

- Local section and community activities
- Industry Member and Awards Programs
- Programs supported by the ACS Office of Community Activities (OCA) are designed to assist volunteers in becoming more involved in their local section, division, and community by providing reliable resources that can be easily used for promoting the contributions of chemistry. Participation in community activities provides opportunities for ACS members to increase media and public awareness of the importance of chemistry in our daily lives. For advice on these or other community activity programs available through ACS, contact OCA at oca@acs.org.

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Technical Divisions:

- ACS and division policies and procedures
- Committee on Divisional Activities
- Cosponsorships—general information
- DAC Web site
- Division officer and leader conferences
- Division Web and e-mail needs
- External conferences:
 - American Association for Cancer Research (AACR)
 - Organic Microelectronics
- Innovative grants, division annual reports and statistics
- Multidisciplinary Program Planning Group
- Publicity and marketing of ACS and division events

Professional Advancement:

Martha K. Lester—Awards

- Career management and development
- Continuing education/perspectives
- Diversity

Education Division

Tel: (202) 872-4562

Mary Kirchhoff—Director, Education

Kevin McCue—Special Assistant

Jodi L. Wesemann—Assistant Director, Higher education

Cecilia C. Hernandez—Assistant Director, Endowed programs

Cathy A. Nelson—Assistant Director and Secretary of ACS Committee on Professional Training (CPT)

Terri Taylor – Assistant Direct, K-12 Science

Publications Division

Tel: (202) 872-4614

Brian D. Crawford—President

Rudy M. Baum—Editor-in-Chief, *C&EN*

Maureen Rouhi—Deputy Editor-in-Chief, *C&EN*

Susan King—Senior Vice President, Journals Publishing Group

John P. Ochs—Vice President, Strategic Planning and Analysis

William J. Cook—Vice President, Finance

Eric S. Slater—Manager, Copyright and Permissions

Chemical Abstracts Service

Columbus, OH

Tel: (614) 447-3600

Robert J. Massie—President

Matthew J. Toussant—Vice President, Editorial Operations

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Peter E. Roche–Vice President, Finance
Brian C. Bergner–Vice President, Information Technology
Chris M. McCue–Vice President, Marketing
Michael W. Dennis–Vice President, Planning and Development
Craig W. Stephens–Vice President, Sales

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Glossary of ACS Abbreviations and Acronyms

ACS-General

AACR	American Association for Cancer Research	IHMM	Institute of Hazardous Materials Managers
ACS	American Chemical Society	LabWam	Laboratory Waste Management
ATE	Advanced Technological Education (A program of the National Science Foundation)	NCW	National Chemistry Week
C3S	College Chemistry Consultants Services	NSF	National Science Foundation
CAS	Chemical Abstracts Service	OCA	Office of Community Activities
CCED	Chemists Celebrate Earth Day	OSHA	Occupational Safety and Health Administration
<i>C&EN</i>	<i>Chemical & Engineering News</i>	PRF	Petroleum Research Fund
CITL	Chemists in the Library	P2C2	Program Planning and Coordination Conference
EPA	Environmental Protection Agency	SEED	Project Summer Educational Experience for the Economically Disadvantaged
GCI	Green Chemistry Institute	TAGs	Technician Affiliate Groups
ICHC	International Chemistry Celebrations	2YC3	Two-year College Chemistry Conferences

ACS-Committees

B&F	Budget and Finance		and Communications
CA	Corporation Associates	CPRM	Committee on Patents and Related Matters
CAS	Chemical Abstracts Service	CPT	Committee on Professional Training
C&B	Constitution and Bylaws	CTA	Committee on Technician Affairs
CCA	Committee on Community Activities	CWD	Chemists with Disabilities
CCPA	Committee on Chemistry and Public Affairs	DAC	Committee on Divisional Activities
CCPR	Council Committee on Public Relations	G&A	Grants and Awards
CCS	Committee on Chemical Safety	IAC	Committee on International Activities
CEI	Committee on Environmental Improvement	LSAC	Committee on Local Section Activities
CEPA	Committee on Economic and Professional Activities	M&E	Meetings and Expositions
CHAS	Chemical Health and Safety	MAC	Committee on Membership Affairs
CMA	Committee on Minority Affairs	N&E	Nominations and Elections
ComSci	Committee on Science	P&MR	Professional and Member Relations
ConC	Committee on Committees	PA&PP	Public Affairs and Public Policy
CPC	Council Policy Committee	PA&PR	Public Affairs and Public Relations
CPRC	Committee on Public Relations	SOCED	Society Committee on Education
		WCC	Women Chemists Committee
		YCC	Younger Chemists Committee

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ACS–Divisions

AGFD	Agricultural and Food Chemistry	FUEL	Fuel Chemistry
AGRO	Agrochemicals	GEOC	Geochemistry
ANYL	Analytical Chemistry	HIST	History of Chemistry
BIOT	Biochemical Technology	I&EC	Industrial and Engineering Chemistry
BIOL	Biological Chemistry	INOR	Inorganic Chemistry
BMGT	Business Development and Management	MEDI	Medicinal Chemistry
CARB	Carbohydrate Chemistry	NUCL	Nuclear Chemistry and Technology
CELL	Cellulose and Renewable Materials	ORGN	Organic Chemistry
CHED	Chemical Education	PETR	Petroleum Chemistry
CHAL	Chemistry and the Law	PHYS	Physical Chemistry
CHAS	Chemical Health and Safety	POLY	Polymer Chemistry
CINF	Chemical Information	PMSE	Polymeric Materials: Science and Engineering
COLL	Colloid and Surface Chemistry	PROF	Professional Relations
COMP	Computers in Chemistry	RUBB	Rubber
ENVR	Environmental Chemistry	SCHB	Small Chemical Businesses
FLUO	Fluorine Chemistry	TECH	Chemical Technicians
		TOXI	Chemical Toxicology

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Table I: List of CCS Chairpersons from 1963 to Present

Years	Chairpersons	Years	Chairpersons
1963–66	H. K. Livingston	1990–92	W. Carl Gottschall
1967–70	Mark M. Chamberlain	1993–94	Robert J. Alaimo
1971–72	Ernest Becker	1995–97	W. H. (Jack) Breazeale
1973–77	Howard Fawcett	1998–2000	Henry C. (Hank) Ramsey
1978–79	Phillip S. Landis	2001	Diane Schmidt
1980–82	George J. O'Neill	2002–04	Ken Fivizzani
1983–85	G. Warren Smith	2005–07	Al Hazari
1986–89	Stanley H. Pine	2008	Russell Phifer
		2009-2011	Laurence Doemeny
		2012 -	Robert Hill

Reference

Alaimo, Robert. *Journal of Chemical Health and Safety*. 2003, 10(4), 50.