

CENTER FOR CHEMICAL PROCESS SAFETY **MEMBER MANUAL**

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SECTION 1 Introduction and Welcome to CCPS

Welcome to the Center for Chemical Process Safety (CCPS) an American Institute of Chemical Engineers (AIChE) technology community! You have joined CCPS because you respect our work, because you wish to contribute to the process safety of the industry, and because you want to learn. CCPS has developed and established procedures and policies over the last 20+ years, to help preserve this experience for our members. Some of these procedures have been incorporated into by-laws and procedures, while others were captured in memos and e-mails. The purpose of this handbook is to reference all of these policies and procedures in one document so that our members can have easy access. We hope you find it helpful in getting the most out of your CCPS experience.

1.1 About CCPS

CCPS is a not-for-profit, corporate membership organization within AIChE that identifies and addresses process safety needs within the chemical, pharmaceutical, and petroleum industries. CCPS brings together manufacturers, consultants, insurers, academia, and government agencies to lead the way in improving industrial process safety.

CCPS member companies, working in project subcommittees, define and develop useful, time-tested guidelines that have practical application within industry. The project topics run the gamut of areas important to manufacturers and range from human factor issues to qualitative and quantitative risk analysis to security vulnerability to inherently safer design. With over 100 publications to date, CCPS has an established reputation for supplying timely technical process safety information and remains at the forefront of issues relevant to industry.

1.2 CCPS Mission

- **ADVANCING** state-of-the-art process safety technology and management practices
- **SERVING** as a premier resource for information on process safety
- **FOSTERING** undergraduate and career-long process safety education
- **PROMOTING** broad awareness of process safety
- **PROMOTING** process safety as a key industry value

1.3 History of CCPS

Twenty-three years ago, on December 3, 1984, water contamination of a tank of methyl isocyanate in Bhopal, India initiated a series of events that led to a catastrophic toxic release, killing more than 3,000 residents and injuring over 100,000.

Immediately after, leaders from the chemical industry asked AIChE to lead a collaborative effort to eliminate catastrophic process incidents by advancing state of the art technology and management practices, serving as the premier resource for information on process safety, supporting process safety in engineering, and promoting process safety as a key industry value. And so began the industry response to the tragic event.

On March 25, 1985, AIChE formed the Center for Chemical Process Safety with nineteen charter member companies. CCPS quickly set out to publish its first process safety guideline book, *Guidelines for Hazard Evaluation Procedures*, and by 1990, more than a dozen guideline books had been published, along with CCPS' call to action publication, [*A Challenge to Commitment*](#). In these initial publications, CCPS first codified the critical elements of process safety and provided key tools to continually improve process safety programs. Focused workshops and international conferences provided opportunities for communal learning and discussions regarding process safety and for the exploration of new ideas and important developments relevant to the chemical industry.

Now into the next century, CCPS continues to address the most important process safety needs and encourage an overall culture of process safety. Well over 100 members now participate in CCPS, including most of the world's leading chemical, petroleum, pharmaceutical and related manufacturing companies. CCPS' extensive body of work marks the progress made in these areas and it continues to expand a catalog of over 100 books and products, build on a legacy of successful international conferences, cultivate the Safety in Chemical Engineering Education (SACHE) university curriculum program, and seek new and advanced ways of developing and delivering better process safety information, expertise and experiences.

1.4 Benefits of Membership

- Members participate in the development of guidelines that apply to all areas of process safety. Project participants share their experience and expertise, learn from each other, and contribute to the overall safety of the industry.
- Members may attend "Technical Steering Committee" meetings (usually four per year), featuring workshops, special invited speakers, and updates on projects.
- Members receive free copies of new CCPS books and discounts on all other CCPS publications. Members also receive discounts on Process Safety courses based on CCPS materials.
- Members receive free access to the CCPS Internet Community containing reference documents, project information, meeting minutes and more.
- Member company employees receive discounted registration to CCPS conferences.
- Members build effective networks of colleagues in other companies who can help each other solve problems.
- Members meet and often work on CCPS projects with CCPS Staff Consultants, each of whom has their own experiences and professional expertise to contribute.

SECTION 2 Dues

2.1 Determination of dues

CCPS uses standardized scales based on annual sales to ensure fairness in setting dues. There are six applicable scales depending on the type of member organizations and a separate dues program for Emeritus Members.

At the discretion of the CCPS Director, discounts may be given at initiation of membership, or in other special situations. All discounts are tied to a specific schedule which brings the dues back to scale.

2.2 Dues Categories

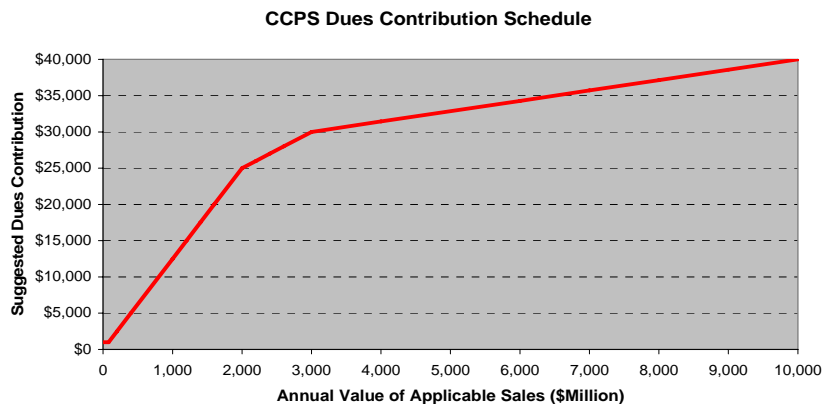
i. Chemical and petroleum producers

Figure 1 shows the standard dues versus “applicable sales”. Applicable sales include non-retail sales of chemical and petroleum products only. The following types of sales are excluded when determining dues:

- Services, such as automobile repair performed at retail gas stations
- Products whose entire production chain has no process safety relevance, for example potash that is mined and crushed before sale, but not exposed to any chemical treatment
- Consulting or service in fields other than process safety (e.g. engineering design/construction services). Companies that provide process safety consulting services may be subject to additional dues according to the “Service Provider” category below.

As of April 2003, CCPS caps annual dues at \$35,000, and will revisit the cap periodically. Supplemental dues required of producers that also provide process safety services are added to the cap.

Figure 1



Dues Curve Formula:

- Up to \$2B in revenue: Dues increase at rate of \$12.5K per \$1B in revenue
- \$2B to \$3B revenue: Dues increase at rate of \$5K per \$1B in revenue
- \$3B to \$10B revenue: Dues increase at rate of \$1.43K per \$1B in revenue

Note: In the case of joint ventures, the formula above applies with percentages based on the structure of the venture as described in **Section vi**.

ii. Pharmaceutical and biotech companies

Pharmaceutical and biotech companies pay dues of \$500 per \$1 Billion of sales, with a minimum of \$1,000. As of April 2003, CCPS caps annual dues at \$35,000.

iii. Other manufacturers

When it is possible to extract an equivalent “applicable sales” figure for a company outside the chemical, petroleum, and pharmaceutical industries, Figure 1 is used. Otherwise, dues are determined at the discretion of the CCPS Director.

iv. Service-providers

Dues for service providers are at a “Fixed-Scale” rate (\$7,500 as of April 2003, but subject to review every year). Service providers that are also manufacturers are subject to additional dues based on the manufacturing scale. The only discount available to service providers is the pro-ration of first year dues for memberships beginning after April 1.

v. Governmental and non-governmental organizations and other organizations that do not actively practice process safety in operations or professional services

Governmental and non-governmental organizations are considered “Associate Members” according to the by-laws of CCPS. Associate Members may pay any level of dues they choose, starting with a minimum of \$2,500, with benefits determined according to the level of dues paid. Associate Members may not vote or participate in an unlimited basis on projects unless their dues is at the Fixed-Scale rate (currently \$7,500) or higher.

vi. Joint Ventures

The membership in CCPS of joint ventures that are more than 50% owned by a CCPS member are included in the membership of the

primary owner. The JV does not have voting rights or representation in the technical steering committee or advisory board, but may participate in projects at the nomination of the primary owner's Technical Steering Committee Representative. If the JV wishes to have its own membership, it will pay dues according to paragraph i – iii as appropriate.

“Egalitarian” joint ventures, i.e. two party ventures where each party owns 50%, or three party ventures where two parties each own 33.3% or greater, are considered separate from the parent companies, and therefore their participation in CCPS is not covered by the parent companies' membership.

To determine the dues for the joint venture, the dues are first calculated according to paragraphs i-iii depending on the type of business of the joint venture, neglecting any caps on dues. Furthermore, for sales above \$10 Billion, the dues basis is increased by \$1,000 per \$10 Billion of sales of the joint venture. Then, the joint venture's dues are discounted according to the membership status of the parent companies according to the table below.

Parent 1	Parent 2	Parent 3	% of standard dues
Member 50%	Non-Member 50%	N/A	50%
Member 50%	Member 50%	N/A	33.3%
Member 50%	Government 50%	N/A	50%
Non-Member 50%	Government 50%	N/A	100%
Member <50%	Government ≥50%	N/A	100%
Member <50%	Non-Member ≥50%	N/A	100%
Member 33.3%	Member 33.3%	Member 33.3%	25%
Member ≥33.3%	Member ≥33.3%	Government ≤33.3%	33.3%
Member ≥33.3%	Non-Member ≥33.3%	Government ≤33.3%	50%

vii. Emeritus members

Dues for qualifying, elected Emeritus members are, at the choice of the member, either:

- \$500 for the first year and \$50/yr for subsequent years (for AIChE members)
- \$700 for the first year and \$70/yr for subsequent years (for non-AIChE members)
- An estate pledge equivalent to or greater than the above

2.3 Invoicing and payment schedules

CCPS will issue invoices to new members at any time during the year that the member joins. New member invoices are payable net 30 days, unless specified otherwise in the membership agreement.

CCPS will issue annual renewal invoices during the first two weeks of October. The due date of the invoice is set as the following January 31. CCPS will credit any payments received before January 1, to the invoiced year of membership.

2.4 Dues of members that provide services to CCPS and other special cases

In general, CCPS prefers that dues payments are treated separately from monies owed to the member from CCPS. However, if a member's dues payment is seriously in arrears, CCPS, at its discretion, will either deduct the dues from invoices for services submitted by the member, or withhold payment on the invoice until the dues have been received.

SECTION 3 Membership

3.1 Initiation of membership

Any eligible company or emeritus applicant may become a member upon payment of the first year's dues.

3.2 Renewing Membership

3.2. a. Automatic renewals

Unless otherwise specified in a membership agreement, CCPS membership renews automatically each year. Companies that wish to terminate their membership for a calendar year are asked to notify CCPS in writing no later than September 30, of the prior year. Failure to notify CCPS of withdrawal before the date of the winter Technical Steering Committee meeting obligates the terminating member to prorated dues from January 1, to the date of notification. Proration is based on the standard dues scales, not accounting for any introductory or other discounts that may be in effect at the time.

3.2. b. Dues adjustments

CCPS will review chemical / petroleum sales information published in Chemical and Engineering News, annual financial reports, and other sources, and based on this review may contact members in the summer months to discuss potential dues adjustments for the following year.

3.3 Termination of Membership

3.3. a. Termination for Non-payment

CCPS may terminate the membership of any member that has not paid its dues by the first day of the Global Congress on Process Safety, or April 30, of the year, whichever comes first, unless otherwise specified in a formal membership agreement. In the event of such termination, employees of terminated members who obtained a CCPS member discount in making an advance registration for attending the Global Congress on Process Safety will be liable upon registration to reimburse the member discount received.

CCPS secure website access, CCPS book purchase discounts, distribution of free books, and other benefits will be terminated if dues has not been received by May 1, of the year, unless a different due date is specified in the membership agreement.

As a practical matter, CCPS will generally waive termination of some or all membership benefits if the reasons for delay in payment are communicated and the member is making reasonable efforts to resolve these reasons.

3.3. b. Termination for Cause

The CCPS By-laws specify: "AIChE has the sole right and discretion to reject a particular sponsor applicant or to terminate the membership of any sponsor if AIChE believes that such sponsor or potential sponsor has misused AIChE copyright or intellectual property or has violated anti-trust."

3.4 Matters of Conduct

It is recognized that members participate in CCPS to benefit their companies, as well as to benefit the industry, and society as a whole. While participating in CCPS activities, members are asked to place the interests of CCPS, the industry, and society as a whole above their own personal interests.

The CCPS Bylaws (Appendix A) spell out matters of conduct that may lead to dismissal of a member from CCPS. If the member in general follows the appropriate conduct, but one of the member's employees is in violation, the CCPS Director may bar that specific employee from participating in CCPS activities.

SECTION 4 Governing Structure

4.1 Technical Steering Committee

The Technical Steering Committee (TSC) is the main organizational unit of CCPS. Each member may appoint one TSC representative. The TSC representative attends TSC meetings, casts the company's project ballot vote, represents their company's input to the operation of CCPS, and votes in other matters that require democratic resolution. The TSC representative also has the responsibility to nominate representatives from his/her company to project subcommittees, to approve company employees' access to the CCPS web community, and to distribute communications from CCPS to appropriate persons in the organization. If a separate financial contact has not been designated, the TSC member also receives the annual dues invoice and is responsible for ensuring that it is paid in a timely manner.

In special cases, members may request to the CCPS Director for two employees to share TSC representative duties. While this exception may be granted, CCPS discourages this practice, as it can lead to confusion, particularly on voting matters.

4.2 Advisory Board

The Advisory Board consists of executive level employees of CCPS manufacturing or government members, plus the CCPS Director and the Executive Director of AIChE. Advisory Board members are typically Vice Presidents of Manufacturing, Operations, Engineering, Technology, or EHS or the equivalent. Advisory Board members are nominated by the member and appointed by the CCPS Director. Because not every member wishes to have an Advisory Board representative, and due to frequent job change at the executive level, there are usually openings on the Advisory Board.

The Advisory Board meets face to face once per year, and may participate in small group teleconferences or e-mail exchanges through the year. The Advisory Board may also take on special projects of its own.

The Advisory Board sets the strategic focus of CCPS, beginning the project planning cycle. The Board then closes the project cycle by endorsing or making strategic adjustments to the slate of projects selected by the Technical Steering Committee.

4.3 Managing Board

The Managing Board includes members of the Executive Committee and the Board of Directors of AIChE, as well as the CCPS Director. This committee is chaired by the Executive Director of AIChE and oversees CCPS' fiscal and management operations.

4.4 Project Planning Committee

The project planning committee is tasked to stay current with the process safety needs of industry, the needs and ideas of CCPS member companies and other customers of CCPS, and the strategic direction set by the Advisory Board. Based on these factors, each year the Project Planning Committee proposes a slate of 8 – 15 potential projects for the

annual ballot. In general, a member of the Project Planning Committee will “champion” each project proposal, but occasionally other TSC members may serve as “champion.”

4.5 CCPS Chapters and Affiliates

Part of CCPS’ global expansion is the creation of “affiliate members” and regional CCPS Chapters. Policies for chapters are developed as necessary.

SECTION 5 Projects

5.1 Project Subcommittees

For each approved project, subcommittees are appointed from the ranks of member companies. The CCPS office issues a call for subcommittee volunteers, upon receipt of which employees of CCPS member companies may be nominated, or nominate themselves to participate on the subcommittee. Appointment to the subcommittee by the CCPS Director is governed by the following guidelines:

- Because subcommittee participation requires travel and time, and because members do represent their companies, the CCPS office will request approval of any self-nominee from the member's Technical Steering Committee representative. CCPS recognizes that the nominee's chain-of-command may require approval from other management levels within the member's company, but trusts that the nominee will obtain the necessary approval.
- To allow broad company participation, generally only one representative per Member Company may participate on a given subcommittee. This may be waived when the two representatives bring valuable and differing perspectives not already represented on the subcommittee. Three representatives per company may be allowed, but only if the situation arises because one or two of the representatives changed employers in the middle of the project.
- The CCPS staff person coordinating the project and the CCPS Director may agree to close a project to further participation if the subcommittee has grown too large. Also, subcommittees will generally be closed after the first draft of the product has been received.
- If a company ends its CCPS membership, or if a subcommittee member ceases working for a member company in the middle of a project, CCPS may grant permission to the subcommittee member to continue participation if they are playing a vital role on the subcommittee, such as chairman or key technical contributor.
- To make room on a subcommittee for additional participation, and to provide the appropriate recognition to participants, the CCPS staff person coordinating the project and the CCPS Director may elect to end the participation of a subcommittee member if they fail to participate.
- Subcommittee make-up regarding expertise level and type of company represented is covered by Section 7 of the bylaws

5.2 Area of Interest Committees

From time to time, committees may be formed based on a significant common interest for purposes of discussing a topic or issue and planning future project activity. These committees may be formed by request of a group of TSC representatives, usually by vote at a TSC meeting, or by request of the CCPS Director.

5.3 Project Voting

The annual project ballot is distributed to the member's TSC representative (and Advisory Board representative if one exists) approximately six weeks before the voting

date. Each member will be asked to vote for some number of projects that it would like to support, ranking their order of preference.

While it is anticipated that each vote will tend to be for projects of most interest to the member, CCPS asks each member to also consider the overall strategic needs of industry in their voting deliberations, as well as whether the project is “significant, unique, well-defined, feasible, timely, and valuable.”

The number of votes that each member may cast is determined by the chair of the project planning committee, the project planning committee’s staff consultant, and the CCPS director based on the number of proposals and the anticipated capacity that CCPS will have to start new projects. In recent years, the number of votes that may be cast have ranged from 3 to 6.

Each company’s vote is weighted by the preference rank as well as by the company’s annual dues.

Organizational voting

From time to time, it is necessary to hold votes within the Technical Steering Committee and Advisory Board meetings on matters of procedure, policy, or program. In such cases, one vote is counted per member and eligible associate member. As specified in the by-laws, Emeritus Members do not vote.

5.4 Standard Projects

These projects are open to all members of CCPS and are included in membership. The company Technical Steering Committee representative has the responsibility to nominate representatives from his/her company to the various project subcommittees. Active projects may be viewed on the CCPS web site at: <http://www.aiche.org/CCPS/ActiveProjects/index.aspx>

5.5 Special Projects

In addition to CCPS’ standard projects, CCPS offers a selection of “special” projects that companies may participate in for a supplemental annual fee. Please see Appendix C for a list of the supplemental project opportunities. A list of these “special” projects may be viewed on the CCPS web site at <http://www.aiche.org/CCPS/ActiveProjects/index.aspx>

SECTION 6 Participation in Projects

6.1 Subcommittee Formation and Composition

CCPS will issue at least one call for volunteers for each new project. All employees of member companies are eligible to participate in CCPS projects, subject to the following guidelines:

- Subcommittee membership is divided into expert and non-expert categories. Non-experts are welcome and encouraged to participate, but by by-laws may not make up more than 50% of the subcommittee.
- By by-laws, the expert contingent on the subcommittee roster may contain no more than 25% consultants/contractors. When the number of consulting volunteers for a project is more than 25%, the company participating in the largest number of existing projects is asked to withdraw their nominee.
- By by-laws, associate members paying the minimum dues necessary for project participation may make up no more than 25% of the subcommittee, and no more than one representative per associate member may participate
- There is no hard and fast limitation on the upper and lower bounds on subcommittee size. However in cases where subcommittees have reached an unwieldy size, subcommittees may be divided into a core team and a support team

6.2 Subcommittee Management

The CCPS Director will assign a staff member to manage and facilitate the activities of each subcommittee. Usually this will be a staff consultant, but permanent staff members may serve this function as well.

The staff member will be responsible for the logistics and schedule of the subcommittee, for validation that project milestones have been met satisfactorily, for conflict resolution, and for ensuring that discussions that occur in the course of subcommittee meetings are focused on the agenda and otherwise meet anti-trust guidelines. In addition, the staff member should ensure that minority and dissenting opinions within the subcommittee are voiced, heard and understood, and responded to.

6.3. Subcommittee Leadership

A chairman will be selected to lead each subcommittee by the CCPS Director, with input from the staff. This may be done before the project is initiated, or within the first several meetings. A vice chairman or co-chairman may be named if advantageous to the project. The chairman guides the creation of subcommittee project strategy and scope, and keeps the subcommittee focused on that scope. The chairman sets agendas for each project meeting, and chairs each meeting. By agreement of chairman and staff, certain duties of one may be taken on by the other.

6.4 Subcommittee Participation

Subcommittee members are first and foremost responsible to participate. It is understood that most subcommittee members will miss some meetings, but non-availability should be communicated in advance to the staff. In the event a subcommittee member cannot

make a meeting, they should make a reasonable attempt to provide any relevant input to that meeting to the staff, chair, and fellow committee members in advance of the meeting. A subcommittee member may be removed from a subcommittee for lack of participation

6.5 Rules of Conduct for Meetings

CCPS does not generally use a formal structure like Roberts Rules of Order for meetings. However, all subcommittee members are asked to exhibit good general meeting conduct such as staying on agenda, giving each attendee the opportunity to voice opinions, listening respectfully, and abiding by consensus positions after the meeting. In addition, subcommittee members must follow anti-trust guidelines and the by-laws of CCPS. A subcommittee member may be removed from a subcommittee for actions that may be interpreted as anti-competitive.

6.6 Peer Review

Subcommittees should make an effort to solicit peer reviewers with sufficient knowledge to perform a meaningful review of the work. Peer reviewers need not be associated with CCPS member companies. The subcommittee chairman and staff consultant should make a reasonable effort to notify peer reviewers of the disposition of their comments and if appropriate to discuss alternative ways of resolving the comments. Peer reviewers who provide substantive input will be acknowledged in the front matter of the book.

6.7 Free Books

Each member of the subcommittee, the contracting team, and the staff consultant will receive a complimentary copy of the completed books. By custom, many subcommittees will hold a ceremony wherein each subcommittee member signs each other's copy of the book. CCPS may provide a complimentary copy of the book to a peer reviewer who goes well above and beyond the normal duties of peer review, such as providing text for a missing section of the book. In other cases, peer reviewers are free to retain the peer review copy of the book as thanks for their input.

SECTION 7 Contracting Procedures

7.1 Restrictions related to consultants in contracting process

Consulting/contracting members of CCPS may not develop RFPs, review proposals, or participate in selection of project contractors. As a practical matter, CCPS requires that all consulting/contracting company volunteers resign from a subcommittee at the time the request for proposal development begins. Once a contract is awarded, employees of consulting/contracting members other than the one selected may rejoin the subcommittee.

7.2 Requests for Proposal

Each CCPS project for which a contractor will be hired will issue a request for proposal describing the work to be done and general contracting terms that CCPS requires. The subcommittee will work with the staff consultant and the CCPS office to identify appropriate recipients for the request for proposal. Potential contractors are permitted to notify the subcommittee or the CCPS staff of their interest in receiving a request for proposal. CCPS may at its discretion decline to offer a request for proposal to a particular contractor if a conflict of interest situation would be created.

7.3 Proposals

Proposals will be evaluated on the criteria deemed most important to the subcommittee and CCPS. The evaluation process will generally occur several weeks after the due date for proposals. If a proposal is received after the due date but before the evaluation process is started, CCPS may still consider the proposal, but may penalize it in the evaluation if insufficient time is available to develop a full appreciation for the proposer's qualification.

7.4 Contracting

CCPS uses a standard contract that has been developed to match the types of projects typically conducted. This contract has been used for many years with only minor modifications. Therefore, CCPS will generally not use a contractor's standard contract.

CCPS will only make payments based on satisfactory completion of the project milestones set forth in the contract. At least 20% of the project cost will be held back for delivery of the final product ready for print.

7.5 Work done by staff consultants

From time to time, CCPS will assign project work to staff consultants. In such cases, work is considered staff work, and competitive bidding is not required.

SECTION 8 Meetings

8.1 Overview and the meeting cycle

CCPS has several different meetings throughout the year. The meeting cycle is as follows:

January TSC Web Conference—This first meeting of the year is a good way for new members to get acquainted with CCPS and for existing members to begin to prepare their CCPS activities for the coming year.

Spring Brainstorming Session—This session/reception is usually held onsite on the afternoon of the Global Congress closing session. The attendees break out into groups and brainstorm on pre-defined topics about project ideas for the following year.

April TSC Face-to-Face Meeting—The TSC meets each spring usually the day after the Global Congress concludes. A main task for members at this meeting is to discuss project ideas with peers for the coming year and begin to develop formal project proposals.

Summer Project Planning Committee Meeting—This meeting occurs in early summer. At this time the Project Planning Committee compiles all feedback from the Spring Brainstorming Session and the April TSC Meeting and prepares the formal project proposals that the TSC will vote in on the coming fall. It is at this meeting that the project proposal “champions” who take ownership of the proposals are made official.

June TSC Web Conference—This web conference is to follow up on action items outlined at the April TSC meeting and to provide project updates and featured speakers on areas of interest. Note: This is the last meeting before the project voting ballots go out in August.

November TSC Face-to-Face Meeting—This is the last TSC meeting of the year and is usually a two day event. While the project voting begins in August of the year, the November TSC Meeting gives the project proposal champions a final chance to discuss their proposals and answer any questions the TSC may have. At the end of this meeting, the TSC representatives submit their completed ballots. Note that in many cases and depending on attendance, the voting results can be released informally on the second day of this meeting.

8.2 Technical Steering Committee Meetings (TSC)

The TSC is the main working unit of CCPS, voting on projects and guiding the overall technical direction of CCPS. The TSC meetings are some of the most important events CCPS holds so attendance is highly encouraged.

8.2. a. Format of TSC Meetings

CCPS holds both TSC web conferences and face-to-face TSC meetings. While the items on the agendas change, the overall format of the program is fairly stable. Recurring items of the TSC meetings include:

- Business and Operating Updates
- New Member Welcome and introductions
- Upcoming meetings and events
- Project Updates

- Roundtable Reports
- Featured presentations from specials speakers.
- Breakout workshops

Note that featured speaker and workshop topics are usually suggested directly by the TSC.

There is also a lunch at each of the face-to-face meetings and CCPS generally asks for a donation to cover the costs. The food and beverage form along with the meeting agenda and past TSC meeting minutes can be found on the CCPS member only website at <http://www.aiche.org/CCPS/Conferences/TechSteering.aspx>. You must be logged in as a CCPS member company to see this secure page. Please email ccps@aiiche.org to retrieve you log in information.

8.2. b. TSC Meeting Minutes

While CCPS usually publishes TSC meeting minutes and workshop notes on the CCPS member only website, members can always opt to have comments omitted from the minutes. This is particularly important during the Roundtable Reports where members share experiences.

8.3 Project Meetings

CCPS does not generally use a formal structure like Roberts Rules of Order for meetings. However, the project subcommittee members are asked to exhibit good general meeting conduct such as staying on agenda, giving each attendee the opportunity to voice opinions, listening respectfully, and abiding by consensus positions after the meeting. In addition, TSC members must follow anti-trust guidelines and the by-laws of CCPS. For more detailed information about CCPS meetings, please see Section 6 of this document.

SECTION 9 Conferences and the Global Congress

CCPS' main event each year is the Global Congress on Process Safety that is run in the spring in conjunction with AIChE's Spring Meeting. CCPS partners with the AIChE Loss Prevention Symposium and the Process Plant Safety Symposium to run a multi-track, three day event that provides the latest in process safety technology, trends, and developments.

Each year, CCPS and the Global Congress issue a Call for Papers. This process runs from the spring of each year to around the end of September. If you would like get a copy of the current Call, please email ccps@aiiche.org. Also, throughout the year, be sure to check the website at <http://www.aiiche.org/Conferences/SpringMeeting/index.aspx> for updates and conference details.

CCPS has recently started holding regional meetings, including workshops in Mumbai, India and Qingdao, China in 2006 and 2007, and the CCPS 2008 Latin America Conference in Buenos Aires Argentina. When a regular schedule for these events is established, more detail will be provided in this manual.

SECTION 10 International Activities and Projects

In 2007, CCPS solidified operations abroad, establishing a CCPS China Section for training and workshops and laying the groundwork for an Indian office. CCPS also began working in Latin America, holding the 1st CCPS Latin American Process Safety Conference & Expo in May 2008, and securing alliances with organizations in the region. In 2009, CCPS will hold the 2nd Latin American Conference in Sao Paulo, Brazil. CCPS is also expanding its staff abroad, hiring an Asia-Pacific Manager to manage activities in India and the surrounding area.

To ensure optimal strategic cooperation, CCPS founded an “Affiliate” program for organizations abroad to partner with CCPS on programs and activities. For more information about CCPS’ international activities, please contact Scott Berger at 212-591-7237.

SECTION 11 CCPS Web Tools

11.1 Website

While CCPS maintains a strong public website with resources and documents on process safety, CCPS is pleased to offer its members a secure website at www.ccpsonline.org. As a CCPS member, your company has an ID and password that should have been given to your company's Technical Steering Committee representative upon joining. (Note: If you need this information resent, please email ccps@aiche.org.)

To log in to the secure member site, go to www.ccpsonline.org and enter your ID and password.

- 1.) Technical Steering Committee Meetings—this item is found under the top drop down menu under “Conferences & Events.” On this page, you will find agendas and details for upcoming TSC meetings as well as past meeting minutes and workshop notes. There is also a member contact list for your colleagues on the TSC, a downloadable copy of this document, and the dues policy.
- 2.) Projects—CCPS maintains project subcommittee meeting minutes and working document for all its active projects. Members can follow the progress of each project getting up to date information on upcoming meetings, areas needing feedback, and the anticipated release date of the book. Members can also contact the project staff consultant to volunteer for a project. These descriptions and documents for each project are found under the top drop down menu, “Active Projects” under “Current Projects.”
- 3.) CCPS Knowledge Base—This area is a work in progress and is located under “Resources, Careers, & Links” in the top navigation. The Knowledge Base is an online area where CCPS resources are organized by topic offering various levels of detail depending on user access. The Knowledge Base is part of an active project and content is continuously being added. When you're logged in as a CCPS member, you will have access to documents that are not on the public site.
- 4.) Master contact list—CCPS maintains a list containing contact information for all CCPS member company TSC representatives on a SharePoint site. TSC representatives are given instructions as to how to access the site and a temporary password which should be changed the first time they access the site. This site also contains the membership and contact information for all those participating on the various CCPS projects. See Section 11.2 for more information.
- 5.) Forum and wiki—CCPS is expanding its Web tools capabilities. A Wiki glossary site is available at: <http://ccps2.pbwiki.com/>. See Section 11.3 for more information. Other web capabilities are being investigated.

11.2 SharePoint

SharePoint is an online tool that CCPS uses in its project work. Each project can have its own SharePoint site which behaves like an FTP site but with more features and abilities. When you join a project, the project staff consultant will enter your name in the system for that project's SharePoint site. You will get an email with a web address and your login information. When you access this address, you will be able to log in using your assigned SharePoint information from the automated email and can then view and edit

the uploaded project documents on the SharePoint point. This tool makes participation in projects convenient and allows members to contribute when they have time available.

11.3 Wiki

CCPS Wiki is an online definition archive of process safety words and phrases from CCPS books/publications. Definitions are listed in alphabetical order. Source (originating publication) of each definition is given with notation if multiple definitions exist for a particular/word or phrase. The main goal of the CCPS wiki is to prevent the proliferation of multiple definitions of CCPS words and phrases.

The CCPS Wiki is located at <http://ccps2.pbwiki.com> . CCPS Wiki, like other “wikis”, is community editable. If you would like to contribute to the CCPS Wiki project, send an email to ccps@aiche.org for an access code.

SECTION 12 Contact CCPS

12.1 CCPS Staff



Scott Berger joined CCPS in 2001 after 5 years at Owens Corning, where he held a range of Environment, Health, and Safety (EHS) assignments including Director of EHS Strategic Management. Scott also worked for 18 years at Rohm and Haas Company in R&D, engineering, and EHS. Scott received his BS and MS from the Massachusetts Institute of Technology.

CCPS Director

Scott is responsible for all operations and activities of CCPS including member recruitment and strategic planning. Scott also participates on the Advisory Board, the Managing Board, the Project Planning Committee and chairs the Technical Steering Committee.

Scott Berger

Ph: (212) 591-7237

Email: scotb@aiiche.org



Roxy Schneider, Project Engineer, joined CCPS in 2008 assuming technical and operational responsibilities for CCPS, the Design Institute for Physical Properties (DIPPR), and the Design Institute for Emergency Relief Systems (DIERS). Roxy holds a BS in Chemical Engineering from Princeton University.

Roxy Schneider

Ph: (212) 591-7319

Email: roxys@aiiche.org

Photo coming soon.

Michelle Middleton came to CCPS in 2007 in the role of Sponsor Relations. Michelle has responsibility for all administrative operations within CCPS.

Michelle Middleton

Ph: (212) 591-7699

Email: michm@aiiche.org



Shami Nayak returned to CCPS in 2006 supporting the CCPS Mumbai, India office. Shami graduated from the University of Bombay and received a post-graduate degree in business management from St. Xavier College.

Email: ccps@aiche.org

12.2 CCPS Staff Consultants

The CCPS staff consultants manage the various CCPS projects. As a member, you can contact them directly to discuss or join a project.



Dave Belonger joined CCPS in 1996 as the staff consultant for PERD. He has over 32 years experience in the chemical industry with over 25 years in manufacturing including eight years as a plant manager and two years as Corporate Safety Director. He has developed or participated in the development of Corporate Crisis Management plans, including table-top exercises, training and drills. Dave has conducted Security Vulnerability Analysis and developed Facility Security Plans to meet the Coast Guard MTSA requirements.

Dave's projects include:

- Managing the CCPS Process Equipment Reliability Database (PERD)
- Development of CCPS's Security Vulnerability Analysis (SVA) methodology
- Process Equipment Reliability Database Project
- Defense Advanced Research Projects Agency (DARPA) – Pentagon Shield Program

Dave Belonger

Ph: (609) 654-4914

Email: dbelonger@verison.net



Robert Coulter joined CCPS in 2006 as a staff consultant and the CCPS webmaster. He has over 20 years engineering and EHS experience with several companies. This includes eight years with Reichhold. His major experience areas are process safety management (PSM) and chemical accident prevention with recent experience in online publishing. He is a chemical engineering graduate of Auburn University and is a registered professional engineer in Tennessee.

Robert's projects include:

- Online Content Subcommittee (formerly Web Community Project)
- CCPS Wiki
- CCPS Website Editor (Webmaster).

Robert Coulter

Ph: (423) 364-2292

Email: robert@rbcoulter.com



John A. Davenport retired in 1998 as Assistant Vice President and Director-Research at HSB Industrial Risk Insurers after 35 years of service. He joined CCPS in early 1999. John graduated from Virginia Polytechnic Institute with a BS in chemical engineering.

John's projects include:

- Guidelines for Evaluating the Characteristics of Vapor Cloud Explosions, Flash Fires, and BLEVEs, 2nd Edition
- Guidelines for Pressure Relief and Effluent Handling, 2nd edition

John Davenport

Ph: (804) 843-2448

Email: john.davenport@worldnet.att.net



Walt Frank retired from ABS Consulting in 2007 and formed Frank Risk Solutions, Inc. His prior experience included 24 years with DuPont. He graduated from Rose-Hulman Institute of Technology and is a registered professional engineer in Delaware. Walt focuses on explosion hazards evaluation and control, process safety management system design and evaluation, and safety culture enhancement.

Walt's projects include:

- Guidelines for Risk Tolerance Criteria (author)
- Process Safety Culture, enhanced edition

Walt Frank

Ph: (302) 521-7588

Email: wlf@FrankRisk.com



Dennis Hendershot retired in 2005 as Senior Hazard Analysis Fellow at Rohm and Haas Company after 35 years of service. Dennis has dedicated most of his career to process safety and risk management, and is one of the world's foremost champions of inherently safer design. Dennis has a BS in chemical engineering from Lehigh University and an MBA from the University of Pennsylvania.

Dennis' projects include:

- Process Safety Messages for Manufacturing Personnel (Process Safety Beacon)
- Guidelines for Risk Tolerance Criteria
- Dose-response relationships/Probits (Collaborative project with AIHA)

Dennis Hendershot

Ph: (215) 704-1563

Email: d.c.hendershot@worldnet.att.net



Greg Keepports joined CCPS in early 2008 after retiring from Rohm and Haas Company. He has over 38 years experience in the chemical industry. Greg worked in process engineering design and research and as Global Technical Manager for the Agricultural Chemicals business. He was the worldwide Director of Risk Management Services (process safety) since 1992, and worked extensively with CCPS as chair of the Planning Subcommittee and member of Technical Steering Committee. Greg also serves as chair of the Reactives Management Roundtable. Greg earned BS and MS degrees in chemical engineering from Penn State and University of Pennsylvania, respectively; he also completed the Wharton Business Management program at Penn.

Greg's projects include:

- Staff Consultant for Conduct of Operations
- Review SVA methodologies to certify CCPS criteria are met
- Process Equipment Reliability Database Project

Greg Keeports

Ph: (856) 461-4599

Email: gregkeep@comcast.net



Brian Kelly joined CCPS in 2005 as a staff consultant after 34 years of service with Imperial Oil and Syncrude Canada Ltd. Brian received his BSc and MSc degrees in chemical engineering from the University of Ottawa (Canada). Brian has special expertise in Process Safety Management audits in oil, gas and chemical sectors, Process safety training programs, and investigation of significant process incidents

Brian's projects include:

- Tools to Enhance Hazard Identification

He is also active on the CCPS Boot Camp project.

Brian Kelly

Ph: (403) 375-0709

Email: kellybd@telus.net



Joe Louvar retired from BASF and has a PhD from Wayne State, where he teaches safety and risk analysis as a part-time visiting professor. Joe is the CCPS Staff Consultant for the Safety and Chemical Engineering Education Committee (SACHE). SACHE produces educational materials for university professors to help them add an element of safety to their courses. SACHE also conducts annual safety workshops for professors, and helps students earn safety certificates.

Joseph Louvar

Ph: (313) 577-9358

Email: josephlouvar@yahoo.com



Jack McCavit retired from Celanese Chemical Company after 35 years with experience in operations management and practical application of process safety management systems. Jack served as the BP Baker Panel's technical project manager. He graduated from Texas Tech University with a BS in chemical engineering.

Jack's projects include:

- Cross-referencing of international standards

Jack McCavit

Ph: (806) 665-6948

Email: jlmconsulting@sbcglobal.net



John Murphy retired from the U.S. Chemical Safety and Hazard Investigation Board where he served as lead investigator. John also retired from Dow Chemical Company where he was a leader in process safety. He has a BS in Chemical Engineering from Tufts University and an MBA from Central Michigan University. John has special expertise in incident investigation and root cause analysis, reactive chemicals management, and process safety management.

John's projects include:

- Independent Protection Layers
- Web Community
- Boot Camp Training Program

John Murphy

Ph: (941) 624-0171

Email: hamjfm@embarqmail.com

Photo coming soon.

Robert W. Ormsby joined CCPS as a staff consultant in 2003 after 27 years of service with Air Products and Chemicals, Inc. Bob has a BS in chemical engineering from Penn State University and an MS from Lehigh University.

Bob's projects include:

- GL for Auditing Process Safety Management Systems, 2nd Edition
- Process Safety Boot Camp

Bob Ormsby

Ph: (813) 684-5362

Email: rormsby@tampabay.rr.com



Bob G. Perry retired as Managing Director of AIChE in 1997. Previously, Bob had a 37-year career with Union Carbide, retiring in 1993 as Vice President of Manufacturing and Engineering. Bob is a BS chemical engineering graduate of the University of Texas, and was named a Distinguished Graduate of the College of Engineering in 1996. His expertise is in executive level management systems and project coordination.

Bob's projects include:

- GL for Acquisitions Evaluation and Post-Merger Integration
- Executive Process Safety Seminars

Bob Perry

Ph: (203) 438-1308

Email: bobgperry@comcast.net



Adrian L. Sepeda joined CCPS in 2002 as a staff consultant after 33 years of service with Occidental Chemical Corp. Adrian holds a BS in mechanical engineering. His expertise areas are risk management systems, PSM training, and incident investigations. Adrian manages the PSID for CCPS.

Adrian's projects include:

- Process Safety Incident Database (PSID) manager
- Research Project: Likelihood of Ignition of Flammables
- Update "Guidelines for Evaluating Process and Plant Buildings for External Explosions and Fires, 2nd edition".
- CCPS Project Process project

He is also active on the Web Tools and the CCPS Boot Camp projects.

Adrian Sepeda

Ph: (972) 335-9252

Email: adrian_1@swbell.net



Daniel E. Sliva joined CCPS after he retired from GE. Dan received his BS and PhD in chemical engineering from Rensselaer Polytechnic Institute and an MS in chemical engineering from the University of Rochester.

Dan's projects include:

- Guidelines for Engineering Design for Bioprocess Safety
- Guidelines for Measuring Process Safety Progress

Dan Sliva

Ph: (518) 399-0693

Email: sliva@capital.net

12.3 The CCPS Member Network

One of the most important values CCPS offer members is its extensive member network. As members, you have access to colleagues and experts across industry. CCPS members often work together to help each other solve problems.

You can access the CCPS member directory online by going to the CCPS web site, <http://www.aiche.org/ccps/>, choosing "Conferences & Events" and then selecting "Technical Steering Committee Meetings" from the top drop down menu. In addition, you can always email a CCPS staffer and they will put you in touch with the appropriate person or resource.

SECTION 13 CCPS Members

CCPS membership is comprised of companies from a wide variety of business sectors and interest areas, large and small, national, international, and multinational. For the most up to date list of CCPS members visit our Web site at <http://www.aiche.org/ccps> . Choose the “About CCPS” tab and then select “Members” from the drop down list.

For contact information for all of the CCPS Technical Steering Team members and the membership of all active CCPS projects, visit the SharePoint site at http://aicheprojects.sharepointsite.net/ccps_contacts/Shared%20Documents/Forms/AllItems.aspx