



AAACE[®] International's Certified Forensic Claim Consultant[™] (CFFC[™]) Certification Study Guide

Edited by *James G. Zack, Jr., CFCC, FAACE, FRICS*

First Edition
2012

**Certified Forensic Claim Consultant (CFCC)
Certification Study Guide**
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By AACE International
1265 Suncrest Towne Centre Drive
Morgantown, WV 26505-1876
USA

Phone : +1.304.296.8444

Fax: +1.304.291.5728

Email : info@acei.org

Web : www.acei.org

ISBN: 978-1-885517-78-5

Charla Miller, Staff Director—Education and Administration
Marvin Gelhausen, Managing Editor
Noah Kinderknecht, Art Director
Cevin Thornbrugh, Graphic Designer

This guide is the culmination of a number of hours of discussion. The following people are recognized for the time they have given to this work or to the Certified Forensic Claims Consultant (CFCC) professional certification.

Charles Bolyard, CFCC PSP
Moustafa Abu Dief
John Livengood, CFCC PSP
Donald F. McDonald Jr., PE CCE PSP
Jeffrey Ottesen, PE CFCC PSP
Glen Palmer, CFCC PSP
Michael Pritchett, CCE CEP

Names of those who devoted substantial effort to the certification scheme follow:

Ozzie Belcher, CFCC	Ferdie Fournan
Patricia Galloway, PE CFCC	Gary Greenberg, PE
Kenji Hoshino, CFCC PSP	Sid Hymes, CFCC
Rob McCullough, PE CCE CFCC	David Norfleet, CCC CFCC
Steve Revay, CCC CFCC	Tom Wilson, CFCC PSP
James G. Zack, Jr., CFCC	

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Clive D. Francis, CCC	Dr. Sean T. Regan, CCE CEP
John (Jeffrey) Hannon, CEP	Rohit Singh
Dr. Makarand Hastak, CCE	James G. Zack, Jr., CFCC

The assistance of the AACE Headquarters (HQ) staff members is also greatly appreciated:

Dennis G. Stork, Executive Director
Marvin Gelhausen, Managing Editor
Noah Kinderknecht, Art Director
Cevin Thornbrugh, Graphic Artist
Charla Miller, Staff Director-Education and Administration
Penny Whoolery, Manager, Certification

Introduction to the CFCC Certification Study Guide

Unlike other certifications offered by AACE, the Certified Forensic Claims Consultant (CFCC) certification is intended to assist competent, experienced claims professionals in maintaining their eligibility as testifying experts or in establishing themselves as potential testifying experts in the field of claims analysis and matters of litigation arising from disputes occurring in the construction industry. As a result, this **CFCC Certification Study Guide** does not attempt to cover the field of “construction litigation” nor does it offer sample examination questions. Individuals applying to take this certification examination must have substantially more experience and demonstrated competency specific to claims and dispute resolution than those taking basic competency exams. Thus, this study guide will simply advise candidates for the CFCC certification of the nature of the CFCC certification examination – that is, what a candidate can expect to see when taking the examination. It should be noted that trying to substitute classroom knowledge and book learning for the necessary extensive practical experience is a recipe for failure when sitting for this certification examination.

Purpose of CFCC Certification

In litigation of construction contract disputes it is difficult to qualify as an expert. This professional certification is common law based and not intended for individuals from civil law nations unless they have been trained in common law principals. In common law jurisdictions, an individual designated as an expert must prove to the trier of fact, each and every time they are proffered as an expert, that they have the requisite education and experience to testify as an expert. This is true generally because experts are allowed to testify to “opinions” (not just facts) based upon their analysis of facts and circumstances concerning the subject in which they have demonstrated their expertise to the satisfaction of the trier of fact. As such, just because an individual has been accepted as an expert in two or three previous cases in arbitration or litigation, there is no assurance that they will be accepted in another case or, in some circumstances, the scope of their testimony may be limited by the trier of fact.

However, the biggest challenge for an individual who has not testified previously is to convince legal counsel to retain them for the very first time. Attorneys representing clients in arbitration or litigation tend to be quite conservative in choosing experts. Attorneys tend to select known experts, people who have testified numerous times. Quite often, attorneys do not consider individuals with no, or limited, testifying experience simply because these individuals are unknown quantities.

The conundrum of “You cannot get a job without experience, but you cannot get experience without a job” holds true for individuals attempting to get their first assignment as an expert. This is what gave rise to AACE’s CFCC certification. The purpose of the CFCC certification is to demonstrate to legal counsel that those individuals holding this certification have the educational background, demonstrated competency, experience and professional certifications to qualify as a testifying expert. Once over this hurdle, the individual must still

demonstrate to legal counsel, and ultimately the trier of fact, that their education, training and experience is directly relevant to the particular case in question.

CFCC Certification Requirements

Individuals holding the CFCC certification represent themselves as an expert in one or more aspects of cost engineering, project controls and project or program management. As such, the requirements to sit for this certification examination are considerably more stringent than other professional certifications which certify competency, not expertise. The minimum requirements are those set forth below –

- **Education:** A four (4) year college/university degree from an accredited institution of higher learning in engineering, building construction technology, business, economics, construction management, architecture, building sciences, computer science, mathematics or a related field.
- **Experience:** A minimum of eight (8) years of verifiable experience in the construction claims arena. Project assignments will not suffice for this experience requirement. The applicant's experience on jobsites must have been centered on the drafting and submittal of change orders, time extensions and claims. Additionally, the applicant must be able to demonstrate that they have actively and consistently participated in the entire range of dispute resolution activities from claims preparation and submittal through resolution in mediation or litigation. The experience cited must deal directly with the prosecution, defense and resolution of claims and disputes.
- **Post Education Professional Certifications:** All candidates must have at least one of the following professional certifications –
 - Certified Cost Consultant/Certified Cost Engineer™ (CCC/CCE™)
 - Planning and Scheduling Professional™ (PSP™)
 - Certified Construction Manager (CCM)
 - Certified Professional Constructor (CPC)
 - Professional Engineer (PE)
 - Registered Architect (RA)
 - Chartered Quantity Surveyor (CQS)

If an individual does not have one of these certifications, they may substitute an additional eight years of claims analysis experience in lieu of professional certification.

- **References:** All candidates must submit four (4) letters of recommendation from industry professionals (external or in-house legal counsel or attorneys and/or clients, past or present) who can attest to the candidate's claims related experience along with the application.

- **Written Report or Professional Paper:** All candidates must submit one of the following: (a) an expert report prepared by them and submitted to and accepted by an adjudicator as evidence in a matter of litigation; (b) a formal claim submittal prepared by them; or (c) a claims related professional/technical paper concerning an issue in which they have personal experience and that has been published or accepted for publication by a professional journal. The report or paper submitted must have been prepared by the candidate no more than 24 months before applying to sit for the certification exam and must be submitted electronically along with the application.¹
- **AACE Cannon of Ethics and ASFE's Recommended Practices for Design Professionals Engaged as Experts in the Resolution of Construction Industry Disputes:** All candidates for the CFCC certification must review, accept and agree to abide by both AACE's *Cannon of Ethics* and the ASFE's *Recommended Practices for Design Professionals Engaged as Experts in the Resolution of Construction Industry Disputes*. (This latter set of recommended practices is included as a provision of the certification examination application because AACE International endorsed these recommended practices on July 9, 1988.)

CFCC Certification Examination Structure

The CFCC certification examination is a rigorous seven-hour written examination conducted in a controlled environment by AACE proctors who adhere to AACE's procedures for administering and proctoring professional certification examinations. Successfully completing all elements of the CFCC certification examination is required for the candidate to achieve the certification. Not all candidates accepted to sit for the CFCC certification examination will pass the examination.

The CFCC certification exam consists of four (4) parts. Each part is an open book exam as testifying experts are almost always allowed to look things up to refresh their memories and make certain that their answers are accurate when involved in a case. Therefore, candidates are allowed to bring whatever reference books, articles, etc. they want into the exam room.

The first two parts of the certification exam are multiple choice questions. It should be noted that all questions included in the CFCC certification exam are based on common law principles but questions related directly to specific state or national laws have been removed from the examination. Candidates from civil law nations should access and review construction claims books and manuals from common law countries – primarily Australia, Canada, the United Kingdom and the United States.

¹ If the candidate is relying upon a claims submittal or an expert report authored by the candidate related to an active or ongoing litigation, the candidate is allowed to redact names and other related information so as not to violate any confidentiality restrictions related to the case.

The first two sessions include 75 multiple choice questions each. Candidates will have 105 minutes in each session to answer these questions. The breakdown of the multiple choice questions is approximately the following:

Questions related to –

- Legal knowledge, dispute resolution and rules of evidence = 35% of the questions
- Cost damages, estimating and loss of productivity = 20% of the questions
- Planning, scheduling and delay analysis = 15% of the questions
- Project management and documentation = 15% of the questions
- Ethics and professional practice = 15% of the questions

The objective of the first two parts of the certification exam is to test the candidate's broad knowledge of all aspects of claims and disputes, including the candidate's knowledge of the legal system and their knowledge of the professional practices and ethical issues involved with becoming a testifying expert.

In the second two sessions, also 105 minutes each, the candidate will be provided with four (4) complex essay questions in each session. The candidate must completely answer two (2) of the four (4) questions in each session. As in the first two sessions, candidates are allowed to use the reference material they brought along. Additionally, candidates are encouraged to provide and use their own laptop computer during the essay portions of the certification exam. AACE will provide each candidate with a USB flash drive for submitting their essay responses. Candidates are cautioned to not copy or input onto their computer hard drive or any non-AACE external storage device any examination materials, questions, answers or any of the information entered onto the USB device provided by AACE.

Multiple Choice Portions of CFCC Certification Examination

The questions included in the first two parts of this certification exam cover the topics set forth in summary fashion below. This information is intended to give candidates for the CFCC certification exam an idea of the broad scope of knowledge tested in the first two parts of the exam.

- Legal knowledge, dispute resolution and evidentiary rules: Questions related to the following topics will likely be encountered on the certification exam.
 - Impact of force majeure clauses
 - Causes of project acceleration and deceleration
 - Determination of dispute resolution methods
 - Differences in arbitration between arbitral bodies

- Issues involving the law of the contract and impact on the claim process
 - Rules and practices governing legal privilege
 - Deposition process and procedures
 - Reservation of rights issues
 - Custodian of records related issues
 - Admissibility of web related research used in expert reports
 - Legal impact of contractual Delay Clauses
 - Enforceability of exculpatory clauses
 - No damages for delay clauses – reliability, enforceability and exceptions
 - Purpose of the Changes Clause
 - Risk allocation of typical Differing Site Condition Clauses
 - Differences between directed and constructive changes
 - Notice related issues
 - Entitlement related issues
 - Purpose of the Suspension of Work Clause
 - Types of Termination Clauses and issues related to each
 - Burden of proof
 - Issues related to consequential damages and recoverability of the same
 - Preservation of records in litigation
 - Spoliation of evidence issues and potential liability related thereto, and
 - Admissibility of e-mail and personal diaries
- Cost damages, estimating, direct and indirect costs, loss of productivity: Questions concerning the following topics will likely be encountered on the certification exam.
- Enforceability of liquidated damages clauses
 - Damages arising from owner caused delay
 - Acceptable approaches for adjusting contract value for added or deleted work
 - Calculation of cumulative impact costs
 - Calculation of direct and indirect costs
 - Calculation of and issues related to total cost and modified total cost methods
 - Methods and techniques for calculating loss of productivity costs
 - Methods to prove cumulative impact
 - Categorization of various field and home office costs
 - Justification of total cost calculations
 - Difference between delay and impact costs
 - Potential credits against contractor claim settlements
 - Definition of and issues related to economic waste

- Measured Mile technique and information needed to support it
 - Recovery of delay damages
 - Earned value techniques
 - Estimating techniques
 - Calculation of equipment costs
 - Time related versus non-time related costs
 - Discrete cost calculations
 - Entitlement to extended overhead costs
 - Methods and techniques for calculating extended home office overhead costs
 - Costs to be included or excluded from delay damage calculations
 - Calculation of acceleration costs
 - Calculation of disruption costs
 - Calculating “buy back” versus delay damages
- Planning, scheduling and delay analysis: Questions concerning the following topics will likely be encountered on the certification exam.
- Accepted schedule delay analysis techniques
 - Dates employed in forensic scheduling
 - Calculation of delay
 - Types of delay
 - Impact of scheduling specifications and delay clauses on delay related issues
 - Ownership of float issues
 - Definition and calculation of the critical path
 - Concurrent delay issues – impact, proof required and calculation
 - Prospective and retrospective delay analysis techniques
 - Techniques for verification of as-built schedules
 - Independent, serial and sequential delays – analysis and their impact
 - Parallel critical paths and their impact on delay analysis
 - Pacing delay issues
 - Use of bar charts in project management and litigation
 - Schedule delay analysis processes
 - As-Planned versus As-Built schedules and their use
 - Creation of Collapsed As-Built Schedules
 - Use of Impacted As-Planned Schedules
 - Contemporaneous Update methodology
 - Delay analysis when no Baseline Schedule was issued
 - Observational versus modeled forensic scheduling

- Reviewing and analyzing contemporaneous schedule updates
 - Near critical path issues
 - Delay analysis related to weather delays
 - Impact of compensable versus non-compensable delay
- Project management practices, requirements, techniques, and documentation: Questions concerning the following topics will likely be encountered on the certification exam.
- Bid Escrow process
 - Allocation of risk and purpose of risk sharing clauses
 - Intent of contractual notice provisions
 - Ability of owners to withhold payment
 - Types of contracts
 - Causes of change under typical contracts
 - Ambiguous specifications and how contracts deal with them
 - Use and impact of the Order of Precedence Clause
 - Impact of encounters with force majeure situations
 - Potential impact of issuing changes without schedule analysis
 - Establishment and use of project contingency
 - Advantages to sole sourcing subcontractors
 - Claims filing process
 - Management of change on projects
 - Justification for change orders
 - Productivity issues
 - Cost tracking and issues related thereto
 - Potential impact of refusing to issue time extensions when warranted
 - Mechanics lien issues
 - Project delivery methods
 - Contract document issues
 - Surety bond requirements and issues
 - Multiple prime contract issues and disputes
 - Roles of responsibilities of Project Representatives
 - Bidding mistakes and errors and their consequences
- Ethics and professional practice: Questions concerning the following topics will likely be encountered on the certification exam.
- Role of the expert in litigation
 - Distinction between an advocate and an independent expert

- Contingent fees for expert witness assignments
- Documents to be reviewed when preparing an expert report
- Testifying on a report prepared by a team
- Potential personal liability under False Claims statutes
- Preparation and presentation of expert reports
- Potential risk of failing to conform to ethical standards when acting as an expert
- Dealing with published opinions contrary to your own
- Reliance on information provided by others
- Necessity of performing adequate conflict checks when accepting an assignment
- Acceptance of compensation from more than one party for the same work
- Issues related to an expert's Curriculum Vitae
- Confidentiality agreements and potential continuing obligations
- Quantification of damages when acting as an expert
- Dealing with mistakes in expert reports
- What experts can and cannot testify to
- When an expert may be required to withdraw from a case
- Preservation of evidence used in tests and investigations
- Chain of custody issues
- Risk of testifying beyond the scope of one's experience as an expert
- Preserving privilege as an expert
- Understanding the rules of evidence as applied to expert testimony
- Rules regarding reliance upon assumptions when preparing an expert report
- Risk of always testifying for one side in all assignments
- Risks of relying upon unsubstantiated statement(s) from a client when preparing an expert report

Essay Portion of CFCC Certification Exam

During the second two (2) sessions candidates will be presented with four (4) complex claims situations in each session and required to answer two (2) questions in each session. The situations outlined in each essay question are similar to those a testifying expert is customarily involved with. The purpose of this portion of the certification exam is to explore the candidate's experience, knowledge, analytical and communication skills more thoroughly than can be achieved through the multiple choice questions. Each candidate is allowed to use their own reference material, as they were during the first two sessions. Further, each candidate is encouraged to supply and use their own laptop computer during these two essay sessions. AACE will provide each candidate with a flash drive on which to record their responses to the essay questions.

Unless the instructions direct otherwise, each essay response must be answered in narrative form, in full sentences (not notes or bullet points). Candidates should consider each essay response to be an initial draft report for the client or their legal counsel. Grammar, punctuation and spelling do count, just as they do in real life when presenting a report to an attorney or legal advisor. Candidates need to read the instructions carefully as some essay questions indicate that the candidate may be working for the owner, others for the contractor, and others as a neutral expert on behalf of the Court. Candidates will be graded primarily on the logic of the analysis presented on each essay, as well as the thoroughness of the content.

One approach to answering these essay questions is to follow the BIRAC method. That is, include the following in each essay –

- **Background:** What is the background or situation as the candidate understands it? This may also be the section where the candidate includes the assumptions they relied upon in preparing the remainder of the essay.
- **Issue:** What issue has been presented and is being analyzed?
- **Rule:** What is/are the general rule(s) to be followed, whether legal or practical issues?
- **Analysis:** The candidate's analysis of the issue, which should be based upon on the facts presented and the necessary assumptions made by the candidate.
- **Conclusion:** The candidate must reach and present a conclusion for each essay.

Essay question topics include the following:

- Situations with multiple prime contractors and site accessibility
- Potential conflict of interest situations
- Selection and use of a document management system
- Cumulative impact claim situations
- Comparative analysis of arbitration versus litigation for a complex claim
- Potential cardinal change situations
- Situations involving weather delays
- Potential termination for default situations
- Differing site condition situations
- Pursuing delay claims in the face of a No Damages for Delay Clause
- Analyzing schedule delay in situations where there are disputes over actual progress.

Recommended References and Resources

No recommended list of books or manuals is offered in this Certification Study Guide. By the time a claims analyst has reached the level of experience and competency required to sit for this certification examination, the individual should have already built their own library of references and resources and thus does not need a reference list. There are numerous books and course manuals on the market in common law countries concerning construction claims and dispute resolution. It is not possible to arrive at a consensus on a list of books that “should be reviewed” when preparing for this certification examination.

Glossary of Terms

Likewise, this Certification Study Guide contains no Glossary of Terms. As above, by the time an individual has gained the level of experience and competency required to take this examination, it is expected that the terms common to construction disputes are already well known to the individual.

Conclusion

This certification exam is lengthy and quite difficult. The CFCC Certification does not certify basic competency but, rather, actual expertise in the role of a testifying expert in a construction dispute going to arbitration or litigation. It requires significant in-depth experience in and knowledge of legal issues; damage calculation and analysis; scheduling and delay analysis; project management and documentation; and the professional practice and ethical considerations that testifying experts deal with on a daily basis.

Appendices

1. *AACE International Canons of Ethics*
2. *ASFE Recommended Practices for Design Professionals Engaged as Experts in the Resolution of Construction Industry Disputes*

Appendix 1

The AACE International Canons of Ethics (Effective from January 1, 2012)

- Introduction
- I. Relations with the Public
- II. Relations with Employers and Clients
- III. Relations with Other Professionals
- IV. Standards of Professional Performance

Introduction

The AACE member, to uphold and advance the honor and dignity of Cost Engineering and the Cost Management profession and in keeping with the high standards of ethical conduct will (1) be honest and impartial and will serve employer, clients, and the public with devotion; (2) strive to increase the competence and prestige of their profession; and (3) will apply knowledge and skill to advance human welfare.

I. Relations with the Public

- A. Members will hold paramount the safety, health, and welfare of the public, including that of future generations.
- B. Members will endeavor to extend public knowledge and appreciation of cost engineering and cost management and its achievements, and will oppose any untrue, unsupported, or exaggerated statements regarding cost engineering and cost management.
- C. Members will be dignified and modest, ever upholding the honor and dignity of their profession, and will refrain from self-laudatory advertising.
- D. Members will express an opinion on a cost engineering or cost management subject only when it is founded on adequate knowledge and honest conviction.
- E. On cost engineering or cost management matters, members will issue no statements, criticisms, or arguments that are inspired or paid for by an interested party or parties, unless they preface their comments by identifying themselves, by disclosing the identities of the party or parties on whose behalf they are speaking, and by revealing the existence of any pecuniary interest they may have in matters under discussion.
- F. Members will approve or seal only those documents, reviewed or prepared by them, which are determined to be safe for public health and welfare in conformity with accepted cost engineering, cost management and economic standards.

- G. Members whose judgment is overruled under circumstances where the safety, health, and welfare of the public are endangered shall inform their clients or employers of the possible consequences.
- H. Members will work through professional societies to encourage and support others who follow these concepts.
- I. Members will work only with those who follow these concepts.
- J. Members shall be objective and truthful in professional reports, statements, or testimony. They shall include all relevant and pertinent information in such reports, statements, and testimony.

II. Relations with Employers and Clients

- A. Members will act in all matters as a faithful agent or trustee for each employer or client.
- B. Members will act fairly and justly toward vendors and contractors and will not accept any commissions or allowances from vendors or contractors, directly or indirectly.
- C. Members will inform their employer or client of financial interest in any potential vendor or contractor, or in any invention, machine, or apparatus that is involved in a project or work for either employer or client. Members will not allow such interest to affect any decisions regarding cost engineering or cost management services that they may be called upon to perform.
- D. When, as a result of their studies, members believe a project(s) will not be successful, or if their cost engineering and cost management or economic judgment is overruled, they shall so advise their employer or client.
- E. Members will undertake only those cost engineering and cost management assignments for which they are qualified. Members will engage or advise their employers or clients to engage specialists whenever their employer's or client's interests are served best by such an arrangement. Members will cooperate fully with specialists so engaged.
- F. Members shall treat information coming to them in the course of their assignments as confidential and shall not use such information as a means of making personal profit if such action is adverse to the interests of their clients, their employers, or the public.
 - 1. Members will not disclose confidential information concerning the business affairs or technical processes of any present or former employer or client or bidder under evaluation, without consent, unless required by law.
 - 2. Members shall not reveal confidential information or finding of any commission or board of which they are members, unless required by law.
 - 3. Members shall not duplicate for others, without express permission of the client(s), designs, calculations, sketches, etc., supplied to them by clients.
 - 4. Members shall not use confidential information coming to them in the course of their assignments as a means of making personal profit if such action is adverse to the interests of their clients, employers, or the public.

- G. Members will not accept compensation—financial or otherwise—from more than one party for the same service, or for other services pertaining to the same work, without the consent of all interested parties.
- H. Employed members will engage in supplementary employment or consulting practice only with the consent of their employer.
- I. Members shall not use equipment, supplies, laboratory, or office facilities of their employers to carry on outside private practice without the consent of their employers.
- J. Members shall not solicit a contract from a governmental body on which a principal officer or employee of their organization serves as a member.
- K. he member shall act with fairness and justice to all parties when administering a construction (or other) contract.
- L. Before undertaking work for others in which the member may make improvements, plans, designs, inventions, or records that may justify copyrights or patents, the member shall enter into a positive agreement regarding the rights of respective parties.
- M. Members shall admit and accept their own errors when proven wrong and refrain from distorting or altering the facts to justify their decisions.
- N. Members shall not attempt to attract an employee from another employer by false or misleading representations.
- O. Members shall act in professional matters for each employer or client as faithful agents or trustees and shall avoid conflicts of interest.
 - 1. Members shall avoid all known or potential conflicts of interest with their employers or clients and shall promptly inform their employers or clients of any business association, interests, or circumstances that could influence their judgment or the quality of their services.
 - 2. Members shall not solicit or accept gratuities, directly or indirectly, from contractors, their agents, or other parties dealing with their clients or employers in connection with work for which they are responsible.

III. Relations with Other Professionals

- A. Members will take care that credit for cost engineering and cost management work is given to those to whom credit is properly due.
- B. Members will provide prospective employees with complete information on working conditions and their proposed status of employment. After employment begins, they will keep the employee informed of any changes in status and working conditions.
- C. Members will uphold the principle of appropriate and adequate compensation for those engaged in cost engineering and cost management work, including those in subordinate capacities.
- D. Members will endeavor to provide opportunity for the professional development and advancement of individuals in their employ or under their supervision.

- E. Members will not attempt to supplant other cost engineers or cost management professionals in a particular employment after becoming aware that definite steps have been taken toward the others' employment or after they have been employed.
- F. Members shall not maliciously or falsely, directly or indirectly, injure the professional reputation, prospects, practice, or employment of another, nor shall they indiscriminately criticize another's work. Proof that another cost professional has been unethical, illegal, or unfair in his/her practice shall be cause for advising the proper authority.
- G. Members will not compete unfairly with other cost professionals.
- H. Members will cooperate in advancing the cost engineering and cost management profession by interchanging information and experience with other cost professionals and students, by contributing to public communication media and to cost engineering, cost management and scientific societies and schools.
- I. Members will not request, propose, or accept professional commissions on a contingent basis under circumstances that compromise their professional judgments.
- J. Members will not falsify or permit misrepresentation of their own or their associates' academic or professional qualifications. They shall not misrepresent or exaggerate their degrees or responsibility in or for the subject matter of prior assignments. Brochures or other presentations incident to the solicitation of employment shall not misrepresent pertinent facts concerning employers, employees, associates, joint ventures, accomplishments, or membership in technical societies.
- K. Members will prepare articles for the lay or technical press that are only factual, dignified, and free from ostentatious or laudatory implications. Such articles shall not imply credit to the cost professionals for other than their direct participation in the work described unless credit is given to others for their share of the work.
- L. Members will not campaign, solicit support, or other wise coerce other cost professionals to support their candidacy or the candidacy of a colleague for elective office in a technical association.

IV. Standards of Professional Performance

- A. Members shall be dignified and modest in explaining their work and merit and will avoid any act tending to promote their own interests at the expense of the integrity, honor, and dignity of the profession.
- B. Members, when serving as expert witnesses, shall express a cost engineering and cost management opinion only when it is founded upon adequate knowledge of the facts, upon a background of technical competence, and upon honest conviction.
- C. Members shall continue their professional development throughout their careers and shall provide opportunities for the professional development of those cost professionals under their supervision.

1. Members should keep current in their specialty fields by engaging in professional practice, participating in continuing education courses, reading in the technical literature, and attending professional meetings and seminars.
2. Members should encourage their cost engineering and cost management employees to become certified at the earliest possible date.
3. Members should encourage their cost engineering and cost management employees to attend and present papers at professional and technical society meetings.
4. Members shall uphold the principle of mutually satisfying relationships between employers and employees with respect to terms of employment including professional grade descriptions, salary ranges, and fringe benefits.

Appendix 2

ASFE Recommended Practices for Design Professionals Engaged as Experts in the Resolution of Construction Industry Disputes

It is the obligation of an expert to perform in a professional manner and serve without bias. Toward these ends:

1. The expert should avoid conflicts of interest and the appearance of conflicts of interest.
2. The expert should undertake an engagement only when qualified to do so, and should rely upon other qualified parties for assistance in matters which are beyond the expert's area of expertise.
3. The expert should consider other practitioners' opinions relative to the principles associated with the matter at issue.
4. The expert should obtain available information relative to the events in question and in order to minimize reliance on assumptions, and should be prepared to explain any assumptions to the trier of fact.
5. The expert should evaluate reasonable explanations of causes and effects.
6. The expert should strive to assure the integrity of tests and investigations conducted as part of the expert's services.
7. The expert witness should testify about professional standards of care² only with knowledge of those standards which prevailed at the time in question, based upon reasonable inquiry.
8. The expert witness should use only those illustrative devices or presentations which simplify or clarify an issue.
9. The expert should maintain custody and control over whatever materials are instructed to the expert's care.

² "Standard of care" is commonly defined as that level of skill and competence ordinarily and contemporaneously demonstrated by professionals of the same discipline practicing in the same locale and faced with the same or similar facts and circumstances.

10. The expert should respect confidentiality about an assignment.
11. The expert should refuse or terminate involvement in an engagement when fee is used in an attempt to compromise the expert's judgment.
12. The expert should refuse or terminate involvement in an engagement when the expert is not permitted to perform the investigation which the expert believes is necessary to render an opinion with a reasonable degree of certainty.
13. The expert witness should strive to maintain a professional demeanor and be dispassionate at all times.