



AMERICAN ACADEMY *of* ACTUARIES

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Council on Professionalism

PEER REVIEW

Concepts on Improving  
Professionalism

Discussion Paper

*Prepared by*

Committee on Professional Responsibility

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# PREFACE

This discussion paper was developed by the Committee on Professional Responsibility of the American Academy of Actuaries for discretionary use by actuaries who are interested in developing or enhancing a system of peer review in their professional practice. This paper was not promulgated by the Actuarial Standards Board or any other authoritative body, and is not binding upon any actuary. No affirmative obligation to conduct peer review is intended to be imposed on any actuary, nor should such an obligation be inferred from this paper.

Actuaries who participate in voluntary peer review

will wish to be mindful of Precept 10 of the Code of Professional Conduct, Duty of Confidentiality. Any Academy member who participates in peer review must satisfy the requirements of Precept 10, as well as the rest of the Code, when doing so. To the extent any conflict exists or could be implied between the suggestions in this paper and the requirements of the Code of Professional Conduct, the Code should prevail.

Members are encouraged to share their comments on this paper with the Committee on Professional Responsibility to facilitate improvement of any future releases on peer review.



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*The Committee on Professional Responsibility presents these ideas with the expectation that they will be both useful and thought provoking. The potential benefits of effective peer review are properly weighed against the potential difficulties in implementing these programs in some organizations. While the Academy is not yet ready to pursue the establishment of its own program nor in a position to mandate peer review among its membership, the committee believes that expanded utilization of the principles and concepts discussed in this paper will benefit the profession through the encouragement and achievement of generally higher levels of quality and professionalism.*

AD HOC SUBCOMMITTEE ON PEER REVIEW  
OF THE  
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# BACKGROUND

The actuarial profession is achieving increasing visibility. The debate on health care reform, recent problems in the life insurance industry, and catastrophic losses in the property/casualty industry have focused more attention on actuaries and the work that they do. We are faced with a rapidly changing economic environment and increasing regulatory complexities. One response by our profession to ensure that our publics are receiving high-quality professional services from our members has been the promulgation of actuarial standards of practice. Peer review is seen as another possible method to enhance our professionalism.

The Committee on Professional Responsibility was asked by the Council on Professionalism to develop recommendations on implementing an Academy-sponsored peer-review program. The committee had several discussions on the subject of peer review. While there is general agreement on the potential benefits of peer review, the committee also uncovered many formidable obstacles that may inhibit the implementation of an Academy-sponsored program.

The committee provided a brief discussion outline to the council with the recommendation that if an Academy-sponsored program were to be pursued, a separate task force should be appointed to further explore its feasibility (i.e., how would the identified obstacles be overcome?). The council decided it was premature to initiate an Academy-sponsored program. Accordingly, no formal program is being implemented or proposed at this time. No peer review requirement nor any standard of practice relating to peer review is either implied or contemplated.

Even though a formal Academy-sponsored peer-review program is not being pursued, the council believes that dissemination of useful ideas might still be worthwhile. Accordingly, the council asked the committee to expand its discussion outline into a more in-depth paper on the concepts, merits, and possible workings of peer review as they might be applied within various actuarial practices.

This piece, therefore, is intended to be broadly shared among the Academy membership. In preparing this discussion paper, the committee recognized that there is a wide range of experience within the Academy membership relating to peer-review concepts and practices. A survey taken by the Committee on Professional Responsibility revealed that 60 percent of the larger consulting firms, and 30 percent of the larger insurance companies, already have some form of formal peer-review procedures in their companies. Some of the logistical problems of peer review are inversely proportional to company size; therefore, it is likely that corresponding percentages for smaller firms are even lower.

Nonetheless, the committee hopes that actuaries working for firms of all types and sizes can benefit by reading and considering the concepts and suggestions included in this paper. This paper is not advocating any mandatory practices. By sharing the thoughts of several experienced actuaries, the committee encourages the reader to consider pursuing the topic of peer review within his or her company. The real issue is, "What changes might we make in work procedures that would help to ensure that the users of our work products are receiving actuarial services of the highest quality we can deliver?"

# WHAT IS PEER REVIEW?

In its most general sense, peer review is simply checking — e.g., a second opinion given by someone qualified to do so. A more formal definition may be as follows: Peer review is an evaluation of a professional work project (or part of a project) performed by a second, qualified professional either during the project or after its completion. Such evaluation may include the planning, procedures, implementation, interim results, final work product, and/or documentation of the project.

Peer review in the context of a formal procedure within a professional organization can take on several forms. Different people and organizations have different perspectives as to what peer review is and how it should be done. Certainly one would expect that peer review in the context of a self-employed consulting actuary will have a different meaning than peer review in the context of the actuarial department of a major insurance company. This, and later sections, attempt to reflect a wide range of possible techniques used to achieve the basic objectives of peer review.

Addressed below are four types (or views) of peer review. These are not intended to be mutually exclusive, nor are they all-encompassing. Nevertheless, this discussion gives some principles regarding peer review that will help the reader define peer review in the context of his or her own professional practice.

## Pre-Release Project Review

As its name implies, a pre-release project review amounts to a checking of a work product before the product is passed on to the client (or user within the context of an insurance company). It is important to remember that the depth and breadth of the review will vary based on the nature, complexity, and potential business risk associated with a particular assignment, and on the availability of a qualified reviewer. Outlined below is a simple chart, constructed in a consulting context, that demonstrates a typical correlation between the intensity of review and the nature of the work product. A major consideration in interpreting how this chart may apply is to remember who the client is, i.e., identify not only the end user of the work product but also how the product will be used and the level of reliance that the user is expected to place on the work product.

	Nature of Assignment		Level of Review
LEVEL OF COMPLEXITY	Simple letter with commentary (no conclusions)	1	Proofreading
	Straightforward calculation result to client	2	Checking arithmetic
	Analysis, commentary, simple recommendation, or conclusion	3	Second opinion read-over
	Substantial analysis or numerous calculation of routine nature—significant financial implications	4	Pre-release peer review of procedures and report
	Report including analysis and conclusions of uncertain or non-routine nature that has substantial financial implications	5	Substantial concurrent peer re-view or parallel calculations and analysis

LEVEL OF INTENSITY OF REVIEW

In general, the review is intended to ensure the correctness of the results and the proper applicability of the work product to the issue being addressed, i.e., is the answer right and is it answering the right question? The qualified reviewer is also providing a second opinion on compliance issues (laws, regulations, professional standards); business-risk issues (data reliance, limitation of use, appropriate caveats); and qualitative issues (thoroughness, clarity, proper methods, and assumptions). There may be instances where the qualified reviewer may not be an actuary.

## Post-Release Project Review

In some circumstances, it may not be feasible to conduct a thorough review of a work product before it is passed on to its user. This, however, does not necessarily preclude a post-release project review. The basic issues to be addressed are the same as the pre-release project review — was the work product correct, and did it address the proper issues? This review is most beneficial if completed as soon as possible following release of the work product. It is not intended to be a second-guessing exercise undertaken after subsequent developments may have affected the results of the work.

Although review of a work product after its release may somewhat diminish the direct value of the review to the user of the work product, it often occurs that a more thorough (less harried) review is possible, thereby having greater potential benefit to future projects.

## Post-Release Procedural Review

A procedural review is generally performed by a senior actuary (or perhaps other professional) from another office, department, or even company. The procedural review typically has a somewhat different focus than the project review. The emphasis is not so much on the quality of a specific work product, but rather on the work procedures that are used by the practitioner to produce and ensure a quality work product.

Accordingly, in a typical post-release procedural review, the reviewer would evaluate a number of previously completed projects by looking at such items as the following:

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1. Final Reports	Clarity, completeness, applicability of analysis to client issues, compliance with laws and professional standards, use of appropriate caveats, all reports signed by qualified professional
2. Files	Ability to track work and to find all necessary items
3. Work Procedures	Work flow and monitoring, adequate checking recording of client communications, appropriate supervision, pre-release peer review
4. Client/Business Issues	Avoidance of conflict of interest, clear understanding of scope of assignment and authority to proceed, consideration of associated business risk

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## Special Reviews

In some circumstances, it may be appropriate to institute targeted or “limited” reviews, which are focused on one or two specific issues. For example: (1) Are different units all

using similar engagement letters? (2) Does each practice appropriately document compliance with actuarial standards of practice? and (3) Are all practices utilizing mandatory pre-release review checklists?

The basic principles of such special reviews would be similar to the broader procedural review described above.

## Discussion of Independence/Objectivity

Ideally, peer review would be performed by an independent professional (one with no direct interest in the specific results or conclusions of a given work product). As a practical matter, this ideal is rarely achievable. A second, and less stringent approach, would call for the reviewer to be an objective third party (a professional with no direct involvement in the production phase of the project). In many situations, even this less stringent approach can be difficult or impractical to achieve. On larger, more complicated projects, the peer reviewer may need to be involved in early decisions regarding methods and assumptions. It may not be reasonable to attempt another full-scale review by an uninvolved individual at a later point in time. This whole issue is best considered and addressed in the unique context of each actuary’s individual working unit. A prudent actuary will attempt to obtain a reasonably objective peer review that will help to ensure correctness, completeness, and appropriateness of the work product.

These are examples of the more common types of peer review being practiced by some actuarial organizations. A professional may find it necessary to modify some features to fit a specific set of circumstances.

# WHY HAVE PEER REVIEW?

**A** formal peer-review program requires discipline and diligence, possibly added expense, and, in some cases, modest delays in project completion. A legitimate question, therefore, is why bother?

It is not a major oversimplification to say that the need, benefit, and objective of a peer review program can be boiled down to one word: quality. While the definition of quality in the context of an actuarial work product may be subjective, in general, quality encompasses such concepts as (1) reduced probability of computational errors; (2) reduced probability that inappropriate assumptions or methods were employed; (3) reduced probability that laws, regulations, or professional standards may have been violated; and (4) reduced probability of misunderstanding by the user of the work product. Further, peer review has many potential additional and/or related benefits to both the actuary as well as to the recipient of the actuary's work product.

## Benefits of Peer Review to the Users of the Actuary's Work

1. The first benefit is that properly executed peer review usually results in a better work product. A second opinion may identify a new perspective to be considered, a point of confusion that needs to be clarified, or a questionable assumption that should be disclosed, if not changed. Furthermore, the valuable insights of a second opinion tend to improve not only the specific work product being reviewed, but also the professional practices of the reviewed actuary when performing future work.
2. Users can have more confidence in the results reflected in a work product that has had the scrutiny of a second professional. This can be particularly valuable in cases where the recipient of the work product is using the results as a basis for making significant business decisions.

## Benefits to the Actuary

1. The actuary can realize substantial professional growth through the peer review process, both as a reviewer and as a reviewee. A properly executed peer review program creates an exchange of ideas that might not otherwise occur. Furthermore, peer review can be a very effective educational process. Both the reviewee and the reviewer often learn a lot by being exposed to new ideas and procedures.
2. The actuary can achieve a higher level of confidence in his or her work having had a second opinion. This can be particularly useful when pursuing work assignments in new or non-routine areas. In a very real sense, it frees the actuary to be more innovative and creative, because he or she knows that another professional will be reviewing the work for correctness, reasonableness, and appropriateness. With the assurance that work will be appropriately reviewed, assignments can, in some instances, be given to less experienced actuaries than might be the case otherwise.
3. The knowledge that someone else will be looking at

one's work encourages an actuary to complete various work projects with even greater care and sensitivity.

4. The actuary, and the actuary's employer, can realize an enhanced reputation through the production of higher-quality work products. Work products tend to be more complete, less narrowly focused, and more user-friendly through the peer-review process.
5. In most cases, peer review can strengthen the actuary's position should his or her work be questioned or challenged. This is true whether the challenge may come from elsewhere in the company, as a professional inquiry, or as a potential malpractice claim.

## Benefits to Company Management

1. Management level personnel can have more confidence in the work products produced.
2. There is likely to be a greater consistency of procedures and quality work products among all business units once a program of peer review is fully implemented.
3. Operations generally become smoother. Pre-release peer reviews can encourage effective cross-training. Since work will be reviewed by a second qualified professional, each assignment does not necessarily have to be given to the in-house expert or specialist in a given area. In this way, institutional review procedures give managers more flexibility in making assignments and scheduling work.
4. It is simply good business to produce better work products.
5. An established and well-documented peer review program can be used as a strong positive in promotional literature and presentations about the company.
6. Since properly executed peer review should help to reduce errors of all types, it should help to reduce exposure to future claims of malpractice. Sooner or later such reduction in exposure should be reflected in a reduced cost for errors and omissions insurance.

## Benefits to the Profession

As the actuarial profession becomes more visible to the general public, it becomes increasingly important to protect and enhance the profession's good reputation. While "professionalism" encompasses many things, nothing is more important as a foundation than performance of quality work. Conversely, nothing damages a reputation more than careless, shoddy, or incorrect work. This committee believes that increased utilization of peer review by companies that employ actuaries could be a positive step toward enhancing the public image and reputation of the actuarial profession.

*These thoughts on why an actuary may want to implement a peer-review program are intended as food for thought. While not all reasons will be applicable to each actuary's practice, it is likely that most practices can find enough positive reasons to at least consider the establishment of some form of peer review.*

# HOW TO START OR IMPROVE A PEER REVIEW PROGRAM

There can be many reasons for wanting to start or improve a company's peer review program, as addressed in the last section. To maximize the likelihood that a peer-review program will be beneficial to the actuary and to the users of actuarial services, several important elements need to be present:

1. A good peer-review program is positive, not defensive. It is pursued based on a desire to prepare higher-quality work products, not because it may help to avoid trouble.
2. Support for successful programs is strong at all levels of the organization. If upper management (whether actuarial or not) does not care, then how can the rest of the staff be motivated? If the clerical and para-professional staff does not buy into the program, then key elements simply will be omitted. To achieve success, everyone needs to agree that it is in the best interest of the company and the users of its work products to participate in the peer-review program.
3. Deming's principles of quality management state that inspection (including peer review) should be implemented on an all-or-nothing basis. Therefore, if practical considerations limit peer-review efforts, it may be wise to split work products into "higher risk" versus "lower risk" and do a thorough job on the higher-risk projects and forego review on the lower-risk ones.

Beyond these general principles, below are some specific ideas that may be useful. Some may be more applicable to a particular situation than others.

## Suggested Components of a Peer-Review Program

1. The review should be completed by a qualified professional, i.e., someone who is a "peer" of the professional who is primarily responsible for the project.
2. Both the work product and the work file should be reviewed.
3. The work product should be reviewed first from the perspective of the reader.
  - a. Is it clear?
  - b. Is it right? Are the results and recommendations reasonable?
  - c. Do the conclusions flow logically from the data and numerical analysis performed?
  - d. Is it complete?
  - e. Does it meet the needs of the user?
  - f. Are all assumptions and methods specified? Are they reasonable for this assignment?
4. The work product should also be reviewed from a professional standpoint.
  - a. Does it meet actuarial standards of practice or other applicable professional standards?
  - b. Does it satisfy pertinent laws and regulations?
  - c. Would another actuary reading this work product be inclined to disagree with methods used, assumptions employed, or conclusions reached?
5. The reviewer should look at business-risk issues from the actuary's standpoint.
  - a. Is the scope of the assignment clearly spelled out and adequately covered?
  - b. Are any limitations on the intended user of the work product clearly delineated?
  - c. Are the sources of data and extent of reliance identified? Are they appropriate and reasonable for this assignment?
  - d. Is potential variability of results adequately discussed?
  - e. Is there any statement that may be misinterpreted or that might lead the user to an inappropriate conclusion?
6. Work files should be reviewed to determine the following:
  - a. Can work be tracked from input to conclusion?
  - b. Has appropriate checking occurred throughout?
  - c. Have decisions regarding key methods and assumptions been appropriately documented?
  - d. Has the work flow been appropriately monitored and has the person responsible for the work product been involved in key decisions as well as in review of the work?
  - e. Has compliance with all applicable actuarial standards been adequately documented?
7. A key to a successful peer-review program is "getting it done." Here are some thoughts.
  - a. Allow time in your work plan for peer review.
  - b. Make peer review a priority.
  - c. Make peer review a habit.
  - d. Make sure that all staff understand that peer review is an important step to be completed before a project is finished.
  - e. The use of forms and checklists may be helpful, particularly if work procedures and products tend to be similar from project to project.
8. A common problem for the small practice is what to do when there are no "peers" readily available. Here are some ideas.
  - a. An actuary in a small and isolated practice of a larger company may need to plan ahead to get review help from another location. Since this may

necessitate the transmission of files and perhaps more discussion time to resolve questions, more time may need to be allowed.

- b. Actuaries Online provides a non-threatening, non-adversarial forum for asking questions, floating new ideas, or seeking guidance. Other services or media may provide similar opportunities.
- c. The development and use of appropriate forms and checklists may be particularly valuable to the sole practitioner. For most routine projects, a “self-review” that utilizes a comprehensive checklist may be nearly as helpful as a second-opinion review.
- d. For non-routine or particularly sensitive projects, a second opinion review can be especially important. The sole practitioner may wish to seek out (ahead of time) other knowledgeable professionals who can perform this function on an as-needed basis. Practitioners who are concerned or unable to reach a reasonable agreement with potentially competing individuals might look for help among university professors or recently retired actuaries.

## Common Characteristics of Effective Programs

### **Effective peer-review programs have certain principles in common:**

1. Effective programs are supported by strong commitment from top management. Adequate resources are made available to help ensure that peer review occurs. Commitment is made in writing as part of corporate materials. Peer review becomes part of the corporate culture.
2. Effective programs are viewed by both reviewee and reviewer as positive, constructive exercises aimed at improving overall quality and professionalism, as opposed to some sort of police action based on intimidation and/or embarrassment.

3. Educational aspects are emphasized. Criticism, while a necessary part of the process, is constructive, not demeaning.
4. Open communication between the reviewee and the reviewer is encouraged to avoid misunderstandings or inappropriate findings.
5. Findings are to be treated with utmost confidentiality. As one company put it, “We want to clean up our act, but we don’t want to air our dirty laundry.”
6. The process is given adequate priority. If peer review is treated by reviewer or reviewee as having lower priority than other work, then it may not accomplish its objectives.
7. Feedback and follow-through are important. Effective programs push toward the objective of higher quality. They are not just “feel-good” exercises.

## Some Thoughts Specific to Post-Release Procedural Review

The frequency and intensity of post-release procedural review may vary substantially based on the circumstances. Is post-release peer review the primary quality control effort or is it supplementary to pre-release peer review? Is it an internal review by professionals from a different operating unit within the same company, or is it a review performed by a professional completely outside the reviewed actuary’s company? While not carved in stone, general guidance might suggest that these reviews should be performed no more frequently than annually, no less frequently than once every four years.

Obviously, the size and structure of the actuarial organization will dictate much about the actual structure and process of post-release peer review. In some organizations, it is likely to be part of, or adjunct to, the corporate audit program. In others it may become a formal program with dedicated staff or a designated committee. Still others may address the need periodically on an as-needed basis.



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