RSC
The Royal Society of Canada
The Academies of Arts,
Humanities and Sciences
of Canada

SRC
La Société royale du Canada
Les Académies des arts,
des lettres et des sciences
du Canada

Expert Panels: Manual of Procedural Guidelines

Adopted June 2010

Introductory Note

The procedures detailed in this *Manual* indicate the steps that are required to be followed for all expert panel processes that are to be conducted under the auspices of Royal Society of Canada and its Committee on Expert Panels (CEP). A copy of the *Manual* should be supplied to every person who is asked to assume the role of Chair of an expert panel, at the time of her or his appointment. The panel chair should decide whether it is advisable for other panel members to peruse all or part of the *Manual* before beginning their deliberations.

The President of RSC, with the advice of the Committee on Expert Panels has the authority to suspend or modify any of the provisions in the *Manual*, should it be deemed necessary to do so in the interests of completing an expert panel report. In cases such as this, the President would explain in an introductory note to the panel report exactly which provisions were suspended or modified, and what the reasons were that occasioned this action.

This *Manual* was prepared using extracts from a wide variety of procedural guideline documents developed by a group of related institutions in the United States: The National Academy of Sciences, the National Research Council, the National Academy of Engineering, and the Institute of Medicine. The documents were supplied by Dr. Myron F. Uman, then Assistant Executive Officer (Special Projects), National Research Council, who graciously granted us permission to use them for our own purposes. The initial version of this *Manual* was prepared by William Leiss in 1996, with the assistance of members of the first Committee on Expert Panels. It was revised slightly in 1998 and again in 2004. Following further revisions in 2009, this *Manual* was officially adopted by the Society in June 2010.

The Formal Organization of the Expert Panel Process

All Expert Panels of the RSC, whether commissioned, initiated in partnership with another organization, or undertaken in the sole discretion of the Society, must be established with the explicit approval of the Society. Formally, this approval is expressed by the President, acting on behalf of the Council of the Society.

To ensure the independence and efficient management of Expert Panels, the Society has established an organizational structure involving three decision-making bodies. First, the Society has established the position of Expert Panel Secretary. The Secretary is a member of the Council of the Society, and serves as Chair of the two key Committees governing the Expert Panel Process: the Committee on Expert Panels and the Scientific Advisory Committee on Expert Panels.

The second decision-making body is the Committee on Expert Panels. This is a Standing Committee of the Council of the Society. It is Chaired by the Expert Panel Secretary and its membership comprises one member appointed by the Council of each Academy of the Society, and one member appointed by the Council of the Society. The Committee is the Society's clearing-house for the selection of Expert Panel Topics. It is ultimately

responsible for managing the entire Expert Panel process. In particular it is responsible for approving topic selection, governance and financial matters relating to Expert Panels.

The third decision-making body is the Scientific Advisory Committee on Expert Panels. This Committee is appointed by the Committee on Expert Panels and is also Chaired by the Expert Panel Secretary. The Committee has primary responsibility for overseeing all substantive aspects of the Expert Panel process, including approving the initial terms of reference for panel projects, recommending the membership of panels, including the Chair, overseeing the conduct of panel activities, managing the peer review of the draft final report, selecting the Peer Review Monitor, and assisting the Panel Chair and its members with any difficulties that arise during the conduct of their work.

Members of the Scientific Advisory Committee on Expert Panels (2010):

Ex officio:

Roderick A. Macdonald, President, Royal Society of Canada

Appointed members:

1. Keith Banting, CM, School of Policy Studies, Queen's University
2. Françoise Baylis, FRSC, FCAHS, Philosophy, Dalhousie University
3. Tim Caulfield, FRSC, FCAHS, Faculty of Law, University of Alberta
4. T. Geoffrey Flynn, FRSC, Biochemistry, Queen's University **(Associate Chair)**
5. Chris Garrett, FRS, FRSC, Lansdowne Professor of Ocean Physics, U. of Victoria
6. John Grace, FRSC, Chemical and Biological Engineering, UBC
7. Steve Hrudey, FRSC, School of Public Health Sciences, U. of Alberta
8. Jeffrey A. Hutchings, Marine Biology, Dalhousie University
9. Réjean Landry, FRSC, Department of Management, Université Laval
10. David Layzell, FRSC, Dept. of Biology and Director, IEEE, University of Calgary
11. William Leiss, OC, FRSC, McLaughlin Centre, University of Ottawa **(Chair)**
12. Louise Lemyre, FRSC, Psychology and GAP Santé, University of Ottawa
13. Gordon McBean, FRSC, Departments of Geography and Political Science, University of Western Ontario
14. Jeremy McNeil, FRSC, Department of Biology, University of Western Ontario
15. Mona Nemer, FRSC, Vice-President, Research and Faculty of Medicine, University of Ottawa
16. Harrie Vredenburg, Haskayne School of Business, University of Calgary

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1. A copy of Section 5, "Guidelines on Disclosure of Personal Involvements and other Matters potentially affecting Panel Service," should be sent to each panelist who is asked to fill out Form 2.
2. A copy of Form 4.1 should be sent to each reviewer.
3. A copy of Form 5 should be sent to each panelist with the final draft copy of the panel report.

GLOSSARY

Committee on Expert Panels (CEP):

Royal Society of Canada (RSC) Committee on Expert Panels

"Points of View":

As used in the procedural guidelines documents under which expert panel processes are managed by the U.S. National Research Council and its related institutions, this means "views stated or positions taken that are largely intellectually motivated or that arise from the close identification or association of an individual with a particular point of view or the positions or perspectives of a particular group." In this usage the term has no pejorative connotations, and holding any particular point of view is not in itself a cause for disqualification for panel service.

Society:

Royal Society of Canada (RSC)

Scientific Advisory Committee on Expert Panels (SACEP)

Royal Society of Canada (RSC) Scientific Advisory Committee on Expert Panels

Sponsor(s):

Organizations that provide funding for the expenses associated with the conduct of expert panel processes according to the procedures approved by the Committee on Expert Panels. Sponsors may be one or more government agencies, industry associations, foundations, corporations, or public-interest groups.

Study Director:

The Expert Panel Secretary of the Society, who is *ex officio* also chair of the Committee on Expert Panels, and chair of the Scientific Advisory Committee on Expert Panels, or the Associate Chair of the Scientific Advisory Committee on Expert Panels, or a person appointed by the Expert Panel Secretary to serve in this capacity. The Study Director is the senior administrative staff person assigned to a panel project and serves as the executive assistant to the panel chair. The Study Director is not a member of the panel itself.

SECTION 1:

PROJECT PROPOSALS -- OVERVIEW

1.1 **Origin of the Project**.

A project must be formulated carefully to ensure a clear understanding of the nature of the task, its aim and extent, any limitations or restrictions, and the range of disciplinary expertise required among the members of the committee that will undertake it. Agreement on these elements should be sought with the sponsor(s); careful consultation is important to avoid misunderstandings later. Once agreement on these essentials has been reached, however, it must be made clear that conduct of the work is the responsibility of the panel, including determination of the approach to be taken and the substance of the report or other resultant product. RSC/SRC itself may assume the role of sponsor in the case where its own funds are used for the project.

1.2 **Estimates of Time and Cost.**

Realistic estimates must be made of the time and costs required to complete the task. These estimates must include provisions for assembling the panel and staff, holding meetings, preparing the report and seeing it through the internal review process, and publishing and disseminating the final result. Estimates of time and costs are especially difficult in the early stages; underestimating is common.

Budget line items are the usual ones: professional, technical, and support staff salaries and benefits, included prorated reimbursement for the time of the RSC/SRC staff; research associates and assistants; communications and travel costs; subcontracts, especially for technical services; materials and supplies; rental of facilities, if required; advertising, duplication, publication, and dissemination costs; translation costs; and an overhead charge.

When approval-in-principle is sought, one of the major costs items (travel) will be uncertain, since both the number and place of origin of the panelists will not have been determined. Upper and lower estimates of total travel costs should be made at this point; the contract terms can be finalized only after the panel selection has been completed.

Other inevitable uncertainties in this regard are: (1) estimating the number of different occasions on which the panel will be convened; (2) estimating the number of days on each such occasion during which the panel will deliberate; and (3), forecasting the likelihood that the panel will have to re-convene after the peer review comments have been received. (On this last point, see below, section 6.7.)

1.3 **Inclusion of a Technical Writer.**

Certain projects may include a technical writer in the staff complement, in cases where the demands on the time of panel members and panel chair are such that the inclusion of a technical writer in the staff complement would prove to be a distinct advantage in the drafting of the panel report.

1.4 **Authorization for the Project.**

Authorization is provided by the Committee on Expert Panels, acting on behalf of RSC, which appoints the panel members and acts as oversight committee for panel procedures.

SECTION 2:

PROJECT DEFINITION GUIDELINES

2.1 **Initiation.**

Project definition comprises (1) conceiving and refining the problem to be addressed, (2) seeking authorization from the Committee on Expert Panels to conduct the project, and (3) securing sponsors to finance the project. It begins with the conception of the problem and ends with the preparation of a formal agreement with the sponsor(s).

Projects normally are initiated when sponsors approach RSC/SRC with a request to conduct an expert panel process dealing with a specific set of issues or questions. The Committee will then work with sponsors on the formulation of the project prospectus.

2.2 **Documents for Project Definition.**

Every project proposal must be reviewed and approved by the Committee on Expert Panels before being undertaken. This authorization process involves consultation with and a recommendation from the Scientific Advisory Committee on Expert Panels. It ensures that the project is feasible and employs an impartial approach. The prospectus is the project document through which the required approvals are obtained. The prospectus must include a clear statement of what work will be done by the study committee. This section of the prospectus becomes the statement of task, which not only guides and constrains the panel but also guides the review process in determining the adequacy of the final report. The proposal, which is used by potential sponsors as the basis for their financial support of the project, draws heavily on sections of the prospectus, including the statement of task. Finally, sponsor support for the project is formally affirmed through the award of a contract to the Society. The role each of these documents plays in project definition is described further below.

2.3 **Prospectus (Form 1).**

The prospectus serves as the vehicle for gaining formal authorization to conduct the project. In brief, the prospectus states what the panel will be asked to do, how the project concept originated, what expertise should be represented on the panel, and what kinds of products (e.g., a written report subjected to peer review procedures) will result. The prospectus should:

1. Demonstrate that there is a reasonable and feasible technical approach to the problems that will be addressed;

2. Contain a plan of action for how the panel will perform the study;

3. Provide reasonable estimates of the time and resources (panel expertise, information, finances, staff) required to complete the study according to the suggested technical approach and the required Committee on Expert Panels procedures; and

4. Serve as a sound, albeit preliminary and tentative, plan for executing the project.

The plan of action consists of four parts: (1) A statement of task that is adequate to guide the panel during the project and serve as the reference point by which outside reviewers can assess whether the panel's report is adequate and appropriate for the work the panel was asked to do. (2) A description of the type of panel that will be the author of record, or responsible body, for the report. (3) A brief and preliminary work plan. (4) A description of the product(s) from the study and how it or they will be disseminated.

2.4 **Proposal.**

The prospectus also serves as the basis for the proposal (in many cases the prospectus will also serve as the proposal). The proposal is a formal offer to sponsors to perform specified services in exchange for remuneration of expenses incurred. Some sponsors will have been involved from the beginning, but additional sponsors may be approached for support afterward.

The general principle is that nothing in this formal offer to a sponsor should contravene Committee on Expert Panels procedures as stated in this *Manual.* Among the problems that may arise are the following:

- Potential sponsors may want some form of "review approval" or veto over panel membership, particularly over the chair, which of course is not permitted.

- While suggestions from sponsors are entirely appropriate, administrative unit personnel must make it clear that sponsors cannot dictate who is or is not on the panel. That decision rests with the Committee on Expert Panels.

- Government agencies typically require contractors to submit drafts of reports as contract deliverables, with review and acceptance of the draft as a condition of contract performance. Submission of a report draft containing the panel's conclusions or recommendations to any sponsor prior to its delivery to the Committee on Expert Panels is unacceptable.

2.5 **Contract.**

For many reasons, sponsors may seek to modify the wording offered in the proposal when the contract is drawn up. Sometimes changes of wording to the statement of task (in government contracts, this may appear under the heading "statement of work") or to

other performance provisions of the contract will be innocuous, but sometimes they are not.

The "ideal" contract will contain provisions acknowledging the uncertainties referred to in section 1.2 above and providing a means for appropriate adjustments as those uncertainties are resolved. If this is not feasible, then at a minimum the contracting parties should explicitly recognize those uncertainties, and their impact on possible later contract revisions, in writing, in a formal exchange of correspondence done at the time when the contract is presented for signature.

Beyond ensuring that the statement of task has not been altered from what the Committee on Expert Panels has approved, there are other areas of the contract that should be examined with care: (1) As noted above for proposals, contracting officers will sometimes insert requirements for delivery of report drafts. Therefore, it is important to check the contract sections that list and describe the *deliverables, delivery dates*, and *reporting requirements*. (2) Some clauses and terms that contracting officers routinely incorporate for other contractors can conflict with the procedures specified here. Examples that represent unacceptable terms in this context include:

1. Restrictions on or assertion of copyright;
2. Constraints on subcontracting, if the approved prospectus calls for a subcontract to perform data collection, analysis, etc., for the panel;
3. Requirements for deliverables not consistent with the "statement of tasks" as a precondition for the release of installment payments;
4. Requirements for a final report to be reviewed and approved by a representative of the agency before the final installment payment is authorized.

2.6 Interim "Scoping" Contract.

Sometimes it may be desirable for the Committee on Expert Panels to ascertain from the Scientific Advisory Committee on Expert Panels whether a suitable panel may be named, within the proposed time-frame and terms of reference, before a full contract is negotiated. In this case an interim contract may be arranged with the sponsor(s), which would carry the proposal through the project prospectus and panel screening phases. Among other things, this procedure also can reduce the scope of some of the uncertainties referred to above. However, under no circumstances will the Scientific Advisory Committee on Expert Panels or the Committee on Expert Panels disclose *any* of the panel screening information which may have been assembled for these Committees, to the sponsor(s).

It is expected that the use of this scoping contract option will be the exception rather than the rule. It is designed to accommodate situations where, for example, the sponsor(s) believe that, owing to special circumstances, a panel should be asked to deliver its report in an unusually short period of time, and the Committee has to determine whether a suitable panel can be formed at all under those circumstances.

SECTION 3:

ASSEMBLING THE PANEL

This section discusses the process of forming a panel, including the resources for identifying potential chairs and members. It includes scripts for staff interviews with potential chairs and members. At the end is an outline of steps for program staff responsible for developing a nomination package.

3.1 Composition and Balance in a Panel Profile.

The first step in assembling the panel nomination slate is to develop a profile of the panel. The two key dimensions of this profile are composition and balance. Composition concerns the mix of expert knowledge and experience needed for the panel to understand, analyze, and draw sound conclusions about the issues before it. It can be represented in the question, "What kinds of knowledge should the panel have?" A well-composed panel will be technically competent to deal with the task.

Balance concerns the even-handed representation of differing points of view that can be expected to affect the conclusions on issues the panel will address. Because these differences often involve values and value judgements held by a committed adherent to one side of an issue, the question of balance can be represented as, "What kinds of value judgements may be relevant to the panel's task?" In rare cases balance can be achieved by having opposing views represented in the panel membership, but this can make the objective of reaching consensus almost impossible to achieve. In most circumstances, particularly when the opposing views are strongly held and not subject to a factual test, it is preferable to seek members who are not strong proponents of the contending perspectives. The panel profile in such cases should aim for more balance in each member and rely on other means to bring forward the best evidence and arguments from the strongly opposed sides. However it is achieved, a balanced panel is one that has good prospects of achieving impartiality in its final conclusions and recommendations.

The panel profile must explicitly address both composition and balance. To do so, the project profile must be taken into account:

1. Project scope: Will the study be limited to technical problems, or will it address broad issues of public policy?

2. Degree of controversy: Do the problems to be addressed have alternative resolutions that are controversial, affecting parties who have strong emotional, political, or financial stakes in the outcome, or are there no stakeholders with strong commitments to a particular outcome?

3. Technical support: Will the panel's conclusions and recommendations be based more on data analysis or on the panel's expert judgement?

4. Will the panel's conclusions adequately discuss the uncertainties?

5. Disciplines: Do the issues involve a single discipline or are the issues interdisciplinary in nature?

Every project requires careful attention to panel balance, and appropriate panel composition will be critical in a highly interdisciplinary project.

3.2 **Guidelines for Interviewing.**

The following guidelines cover the key points in interviewing potential panel chairs and members. Items that apply just to interviews of potential chairs are in [square brackets]. The person being interviewed is referred to as "the candidate." It is sometimes advisable to communicate in writing first, by sending a candidate a copy of the statement of work and a note saying you intend to call to explore her/his interest in serving.

1. Identify yourself and say that you are acting on behalf of RSC Committee on Expert Panels.

2. Indicate that the context for the call concerns the expert panel nomination process. Identify the study by title and sponsor.

3. At the beginning of the interview, first discuss the origin of the project, its objectives, and the statement of task, asking the candidate to comment on the task and to offer suggestions about it and how the study might be carried out. The responses will give you a very good idea about what the candidate knows about the subject, his or her thought processes, points of view, etc. Then ask what kinds of expertise are required to make up an appropriate committee, including soliciting suggestions of individuals who meet the requirements. Only then should the interviewer ask about the candidate's interest, availability and willingness to serve.

4. State that another purpose of the call is to explore the candidate's interest and availability to serve on the study panel, if nominated. [In interviewing a potential chair, state that you are, in particular, interested in whether the candidate would be interested in being considered for the panel chair.] Explain that you are putting together a nomination slate from which the final panel selection will be made by the Committee on Expert Panels on the advice of the Scientific Advisory Committee on Expert Panels, both of which must take into account many composition and balance factors. It is therefore important to communicate that this is not the final step in the panel selection process.

5. Offer to elaborate on why the study is being undertaken -- on both the charge to the panel and on any sensitivities of the study. Describe the

expected time demands of the study. Be candid! [In interviewing the potential chair, be especially clear on these points, above all on the time demands and other chair responsibilities anticipated.]

6. Listen carefully to the candidate's response and the level of interest it conveys. Ask questions, as appropriate, to better gauge the motivation to serve as a member [or as panel chair].

Be prepared to answer the question "What made you consider me a prospective candidate to serve on [or chair] the study?" For example, if the person was identified through networking, you might give a general description of the types of persons who were contacted and what their general comments were. Do not mention the names of the persons who suggested specific candidates to those candidates or provide any information that would permit the drawing of inferences on the matter. If it is apparent that the candidate is interested in serving, explain that there is one more major topic you need to discuss. The subject of balance and conflict of interest is especially important to cover well.

Staff: We are trying to assemble a panel that is free of direct conflicts of interest and appropriately balanced with respect to different points of view on the study's issues. For this purpose, each panel member will be asked to complete a confidential form, the purpose of which is to disclose any "points of view" or conflict of interest. At the first meeting, panel members will also be asked to discuss their backgrounds and activities as indications of their perspective and any strongly held views or commitments relevant to the study task.

I'd like to run quickly through the areas of principal concern. At this time, you don't need to give specific, detailed answers, but you may want to ask about any that you think might apply. Positive response to any of them does not necessarily indicate a problem with serving on the panel; more often it indicates areas we need to consider when balancing the panel.

Ask the following questions, giving time for the candidate to respond. Emphasize that a positive response, in itself, does not disqualify a candidate from serving or even count as a negative. It is more important to have any "points of view" known to the staff and to the rest of the panel, so they can be balanced.

* *Organizational affiliations*. Do you have any business affiliations or volunteer non-business affiliations, (with or without remuneration), such as with professional societies, trade associations, and civic groups, or with organizations that might benefit in a direct way from this study if the issues came out a certain way? To your knowledge, have any of these organizations taken a public stand on the issues related to the study?

* *Financial interests*. Do you have financial interests, whether through employment, consultancies, or investments, in companies or other entities whose value or business would be directly affected by a particular resolution of the issues in this study?

* *Research support*. Do you receive any research support from agencies, organizations, etc., that might have an interest in the outcome of this study?

* *Government service*. Have you provided services or been employed by a federal, state, or local government, including advisory boards, that would be seen as relevant to the topics covered by this study?

* *Public positions*. Have you published articles, given testimony, or made speeches that might be viewed as stating a commitment to a particular view on the issues in this study? Do you hold office in or otherwise formally represent an organization that is closely identified with a particular point of view on the issues this study may address?

7. In going over the five areas listed above, if the candidate asks about circumstances that you are unsure about, say that you will get back to the individual with a more definitive answer (if you say this, be sure to follow through). Don't be afraid to say you are unsure about a particular point. If an obvious conflict of interest has been identified, indicate that it could pose a problem for panel membership *per se*, but would not preclude other contributions to the study, perhaps through an oral or written briefing.

8. Express appreciation for the candidate's time and thoughtfulness in responding to your questions. Emphasize the exploratory nature of the call and reiterate that a larger slate of nominees will be put forward than will actually serve. If it seems appropriate, you can explain that many aspects of balancing a panel, including academic versus industry background, different points of view and expertise, age, gender, and so on, are often considered. Not being selected is in no way a judgement on a nominee's technical qualifications. Inquire whether the candidate has suggestions for other panel members.

3.3 **Procedure for Developing the Nomination Package.**

1. Define the panel profile. Use the project profile and the statement of task to define a profile of the panel. What areas of expertise are needed for composition? What points of view or different perspectives on the issues are needed for the panel to be balanced?

2. Develop a “long list” of candidates.

3. Cut down to a “short list” and establish a slate of primary nominees and alternates. Unless they have been contacted previously during the “long list” step, exploratory telephone calls are made to the candidates selected as primary nominees and alternates. Each slate must include at least one alternate for the chair and at least one alternate in each major expertise category. Where a category requires several nominees, more than one alternate should be proposed. The alternates must be serious candidates--not just “gap fillers.” Alternates for the chair can also be proposed as primaries or alternates elsewhere on the slate.

4. You may wish to use or modify Forms 3.1 and 3.2 in connection with developing the nomination package.

3.4 **Roles of an Expert Panel Chair.**

The chair guides a study panel that must analyze and seek solutions for technical, scientific, policy, professional, or social issues that are often complex and, occasionally, controversial. The chair serves as facilitator and team builder for the panel and as lead architect/integrator of the panel's report. In addition, the chair aids the Study Director in project management and is the chief spokesperson in representing the panel to sponsors, the Committee on Expert Panels, and the study's audiences during dissemination. Facets of these major roles as panel facilitator, project manager, report architect/integrator, and spokesperson are detailed below.

3.4.1 **The Chair as Panel Facilitator.**

The chair is both a facilitator of the panel's group process, who works to bring out individual contributions and to stimulate discussion, and a team-builder responsible for achieving consensus on key issues.

1. At the first meeting, the chair must guide the panel to agree on a work plan and report architecture (working outline).

2. The chair is instrumental in making team or individual writing assignments, at the stage of initial drafting and for subsequent rounds of draft revision.

3. As the study progresses, the chair must ensure that the entire panel not only takes ownership of the project design but ultimately also crafts and signs off on the report, particularly on its conclusions and recommendations.

4. Given the essentially diverse composition of a panel, the chair must often be as concerned with the panel's progress toward consensus on the range of issues involved as with the thoroughness of the panel's fact-finding. The chair should encourage expression and discussion of diverse viewpoints. Fairness and flexibility should be employed toward the goal of moving beyond the often-considerable differences in initial views and achieving a group consensus view where possible.

3.4.2 **The Chair as Report Architect and Integrator.**

The chair directs a creative effort, a project that evolves through members' interactions and their information gathering by means of briefings, site visits, panel discussion, and other activities.

1. At the outset of the project, the chair provides critical substance to the study's work plan, reviewing and refining its directions, methods, schedule, and activities.

2. When a report is to be the principal product of the study, the chair works with the Study Director on the draft outline for presentation to the panel.

3. The chair should review all drafts of the report and ensure that the report as a whole is consistent, well reasoned, and coherent. The chair's intellectual leadership should be exercised through analysis, constructive criticism of the contributions of others, and recommendations for improvement, rather than by overruling objections or seizing control over the report's message.

4. Whether the chair should take responsibility for initial drafts of major sections or stay with the role of assessing, revising, and integrating drafts prepared by others will depend on several project-specific factors. Tying up the chair's time as initial drafter may diminish her or his ability to act as architect and integrator of the entire report. On a study with sharp differences of view, the chair may do better to reserve the right to compose a “neutral version” of sections, or a version that incorporates the arguments for the opposing sides, rather than writing initial drafts. On the other hand, if a chair brings special expertise to the panel, she or he may be the best choice for initial writer on those topics.

3.4.3 **The Chair as Project Manager.**

The Study Director has primary responsibility for monitoring the panel's progress relative to the study plan, tracking the financial status against a time-phased budget keyed to the plan, ensuring that the statement of task is being followed, and initiating actions needed to keep the study, viewed as a project constrained by its task, schedule, and resources, on course. But the chair can support and give leverage to the study director's actions in ways that no one else can. Ideally, Study Director and chair should work together as a management team, complementing each other's roles and strengths.

1. Prior to the first panel meeting, the chair should meet with the Study Director to review the statement of task and tentative (straw man) project plan that will be presented to the panel for review, revision, and approval. It is useful for the chair to understand, in broad terms at least, what the resource constraints are and how they affect the study plan.

2. At the first panel meeting, and all subsequent panel events, the chair's support of the Study Director's efforts to guide the study process to a successful conclusion, within schedule and resource constraints, can be invaluable in managing a “volunteer” group. For the chair to play this supportive role in good conscience will often mean working closely with the study director before the meeting to ensure that such guidance is indeed mutually acceptable.

3. In the event that circumstances lead the panel to consider revising the statement of task or undertaking work that would require expanding the schedule or budget, the chair can play a key role in ensuring that all options have been reasonably assessed and that the panel has provided the Study Director with a convincing rationale to present to the Committee on Expert Panels and sponsors, to win approval of the changes.

3.4.4 **The Chair as Spokesperson.**

From initial meetings with the sponsor, even before the first panel meeting, through dissemination activities such as briefings, writing of “op-ed” articles, or appearances at parliamentary committee hearings, the chair is expected to represent faithfully the perspective of the panel.

1. The Chair may be asked to work with the Study Director regarding sponsor expectations (e.g., scope of work, timeliness, and panel participation in dissemination activities).

2. The chair works represents the panel throughout the report review process and in revising the report in response to reviewers (through consulting other panel members as appropriate about substantive revisions). Nonetheless, each panel member must have the opportunity to review and question the changes made to the report, as well as the responses made to the reviewers' comments, before the report is released for delivery and printing.

3. The chair serves as the chief spokesperson for the report after it is released, in press conferences, hearings, and briefings, to the media, agencies, and professional or trade groups. Of course, all panel members are free to express their views on the project after the release of their report.

Overall, during the course of the study, the chair may prefer to take more of a hands-on approach in some of these roles or may prefer to delegate certain tasks to other panel members. But, as these illustrative duties show, the chair is the principal intellectual leader for panel operations throughout the project, the Study Director's colleague in project management, and the chief spokesperson for the panel in its interactions with sponsors, Committee on Expert Panels, and dissemination audiences.

SECTION 4:
PROCEDURES FOR THE CONDUCT OF PANEL PROCESSES

4.1 **The Role of an Expert Panel.**

The panels are expected to investigate and study the topics assigned and to set forth their conclusions and recommendations in written reports. These reports are the only lasting products of the panels' work and deliberations. Thus, reports must be given early and close attention. This will be discussed further in Section 4.2.

The Committee on Expert Panels has definite expectations of its panels and the members of these panels. Among the most important of these are the following:

1. Expert panel reports are technical inquiries utilizing specialized knowledge and expertise; they require the same standards of integrity and conduct that apply to all academic work in a university setting.

2. Panels should strive for a consensus report, but not at the expense of substantially watering down analyses and results; it is much better to report serious disagreements and explain why the disagreements exist than to paper over such problems. Lack of consensus on all points is not a failure of the panel and will not be treated as such. (See further Section 7. 12)

3. Members serve as individuals, not as representatives of organizations or interest groups. Members are expected to contribute their own expertise and good judgement in the conduct of the study.

4.2 The Report is the Product.

The reports that expert panels prepare should be given early and careful attention in panel deliberations. Experience shows that consensus building and report writing are the most difficult and frustrating parts of the study process. The following items are important:

1. Start early.

2. Define early, no matter how tentatively, the “architecture” of the report. Refine it and fill it in as the study unfolds.

3. Give writing assignments to panel members as early as soon as it is practical to do so.

4. Produce writing assignments on time, even if they are rough and incomplete.

4.3 **Do Not Provide a Briefing on Studies Before They Are Done.**

Panels should never be tempted to review the results of their projects with sponsors before the report review process is completed and reports are signed off. Such briefings are against the policy of the Committee on Expert Panels for several good reasons:

1. They may lock panels into a position before their work in "proving" the position is done. This can be very damaging. For example, a panel might not be able to sustain conclusions and recommendations through report review. Or, as a panel finishes writing the report, the panel might want to change its conclusions or recommendations. This will be much harder, and damaging to the panel, if the panel has already told the sponsor that the panel's conclusions and recommendations are something other than appears in the written report.

2. Premature briefings open a panel to the charge that it subjected its conclusions and recommendations to the approval of the sponsor, compromising the independence of the Committee on Expert Panels and the panel. One consequence is that the utility of the report to the sponsor is diminished. These consequences are destructive to everyone.

3. Other interested parties can demand reciprocal rights for early briefings.

4. Such briefings increase the risk of "leakage" to the press or to interested parties who then can interfere with the project. This can devastate a sensitive study or one where panel consensus is still emerging.

5. Experience shows that such briefings diminish the panels' incentives to complete their tasks of producing a high quality report.

These proscriptions do not preclude panels from talking to any interested parties with a view to obtaining information relevant to the study. But it is easy to recognize when the findings and recommendations are being disclosed prematurely, and it is this situation that is to be avoided.

4.4 **Maintaining Confidentiality.**

Closely related to the issue of premature disclosure is maintaining confidentiality of the work of the panel as it progresses. Panel members should not talk to the media until after their report is published; among other considerations, a sense of fairness to one's colleagues on the panel justifies this rule. In addition, panelists should not discuss the ongoing study with colleagues unless they are absolutely sure those colleagues will respect the confidential nature of the discussions.

4.5 Guidelines for the First Panel Meeting (Open Meeting).

4.5.1 General Meeting Objectives.

1. To complete panel formation through the discussion of panel composition and balance.

2. To ensure the panel understands the expert panel process and the role of the Committee on Expert Panels.

3. To introduce the panel to its task, by clearly conveying:

    a) The study's origins and context;

    b) Study objectives (Statement of Task);

    c) Sponsor expectations;

    d) Possibly, expectations of other important audiences, e.g., governments.

4. To begin the immersion of the panel in the subject matter of the task.

5. To produce an agreed-upon plan by which the study will be conducted:

    a) The general nature of the report to be written (e.g., through a topical outline).

    b) A strategy for conducting the study:

        i. Research methods, data acquisition approaches, etc.;
        ii. Panel structure, if any, and/or roles of panel members;
        iii. Assignments to various panel members for undertaking specific study tasks;
        iv. Topics for future meetings;
        v. Future meeting schedule;
        vi. An agreed-upon milestone chart for project tracking.

4.5.2 Typical First Meeting Architecture.

<u>Session 1.</u>

Discussion of the origin, background, task statement, and objectives of the initial study plan, led by the chair or the study director involved in preparing the prospectus.

Session 2.

Discussion with sponsor(s) of the task statement, and their views on origins, context, schedule imperatives, objectives, and so forth.

Session 3.

Expectations of other important audiences, if any.

Session 4.

Discussion of panel composition and balance, plus full presentation by each panel member and staff of her/his background as it relates to the study.

Session 5.

Initial immersion in the subject matter of the study, often through briefings by sponsors and others on subjects of major importance to the study.

Session 6.

Discussion among the panel and project staff of the study approach and plan, resulting in an agreed-upon approach and plan.

4.5.3 **Other Considerations.**

Sessions 1- 5 can allow the participation of invited guests, such as sponsors, if approved in advance by the chair and the Study Director, except where matters of personal privacy may be concerned. Session 6 is held in executive (closed) session.

4.6 Policy on Public Access to Information concerning Studies conducted under the Auspices of The Committee on Expert Panels.

1. During the initial stage of a project, additional open panel meetings with outside parties (following the initial meeting) may be scheduled, if appropriate, at the sole discretion of the panel and with the prior approval of the Study Director. Such meetings, which may involve only a subset of the panel, would be intended to review technical matters, e.g., to receive data, evidence, and points of view on specific questions from groups or individuals. If such a meeting is held, a formal record of meeting will be kept, and certified by all parties present at the discussion, and this record should be appended to the panel report.

2. All other meetings of panels are not open to outside parties.

3. If a study is of special topical interest, arrangements may be made to schedule a public session after submission of the final report at which issues, findings, conclusions and recommendations of the report are presented.

4. The following information in connection with any study undertaken by the Committee on Expert Panels will normally be made available to the public at any time: (a) the project prospectus and related official correspondence; (b) the names and principal affiliations of panel members.

5. Upon completion of the study, reports will become public documents.

6. Following public release of a report, information developed in connection with the preparation of the report will be made available to the public as follows: (a) copies of all unpublished documents from sources external to the study panel that were put before the panel involved in the preparation of the report; (b) reports from consultants that were placed before the study panel.

7. Trade secrets, or information of a personal nature concerning specific individuals, will be kept confidential.

4.7 **Records Management.**

4.7.1 **Recording and Transcribing Meetings (Optional).**

If recordings or transcripts of meetings are made, they shall be made separately for the open and closed parts of meetings, with separate files maintained for each. The records of open meetings may be made available to the public during or at the completion of studies, depending on the nature of the record. Records of closed sessions will remain confidential.

4.7.2 **Destruction of Records**.

Verbatim records of closed meetings are not to be retained after minutes or summaries have been prepared or after the project has been completed, if the records were intended to be used to prepare reports. Those verbatim records not explicitly required to be retained shall be destroyed in a timely fashion; magnetic tape recordings and electronic files should be erased and all paper copies should be discarded. [Note: Electronic files containing verbatim transcripts should be managed with care. If these files are stored on network drives or other drives that are periodically saved to back-up media, permanent records will be made automatically. It may not be practical to erase these records when their usefulness has expired. Therefore, staff should not place these files on network drives or other drives of which copies are routinely made.] Verbatim records used to prepare reports should be destroyed when the reports have successfully completed the review process. Only formally approved minutes and summaries may be retained and placed into archival files.

This directive is based solely on the desirability of encouraging a full, free, and utterly frank set of discussions among panel members, as they make their way towards a sought after consensus position. Retention of verbatim records of such discussions inevitably would hinder this process, for example, by allowing hypothetical or “straw-man” remarks to be taken out of context, thus distorting their meaning and intent.

SECTION 5:

GUIDELINES ON DISCLOSURE OF PERSONAL INVOLVEMENTS AND OTHER MATTERS POTENTIALLY AFFECTING PANEL SERVICE

5.1 **Introduction.**

The Committee on Expert Panels and the Scientific Advisory Committee on Expert Panels accord special importance to the guidelines for assuring the integrity of, and hence the public confidence in, the reports prepared by its panels. Extensive efforts are made to assure the soundness of reports issued under the auspices of RSC/SRC by selecting highly qualified panel members. Yet, if a report is to be not only sound but also effective as measured by its acceptance in quarters where it should be influential, the report must be, and must be perceived to be, (1) free of any significant conflict of interest, and (2) not compromised by any apparent imbalance in points of view. Conclusions by fully competent panels can be undermined by allegations of lack of objectivity or conflict of interest among its members.

5.2 **"Points of View" and "Conflict of Interest."**

Individuals participating on expert panels are asked by the Study Director to complete a "Points of View and Conflict of Interest" form. In addition, panels are asked to discuss the general questions of balancing of viewpoints and conflict of interest, and the relevant circumstances of their individual members, at the first panel meeting. Information regarding balancing of viewpoints or conflict of interest is carefully considered by the Committee on Expert Panels in the overall composition of panels and in the appointment of individuals to panels.

For any individual who has completed a "Points of View and Conflict of Interest" form, any changes in information previously reported or any new information relevant to the question of potential bias or conflict of interest should be promptly reported to the Study Director. Such newly reported information will be promptly considered and such action will be taken as deemed necessary or appropriate by the Committee on Expert Panels, in consultation with the affected individual.

5.3 **Defining "Points of View" and "Conflict of Interest."**

1. General
2. Individual Economic Impact
3. Proprietary Information
4. Public Statements and Positions

5. Access to Government Information
6. Reviewing One's Own Work
7. Employment by a Sponsoring Agency
8. Conclusion

1. **General.**

"Points of View" means views stated or positions taken that are largely intellectually motivated or that arise from the close identification or association of an individual with the positions or perspectives of a particular group. Holding any such viewpoint does not in itself constitute grounds for disqualification from panel service. Indeed, it is sometimes necessary, in order to ensure that a panel is fully competent, to appoint members in such a way as to represent a balance of viewpoints, backgrounds, or professional or organizational perspectives.

It is also essential that the work of panels not be compromised by any significant conflict of interest, or in some circumstances the significant appearance of conflict of interest, on the part of any member of a panel or anyone associated with the work of a panel. For this purpose, the term "conflict of interest" means any financial or other interest which conflicts with the service of an individual because it (l) could impair the individual's objectivity or (2) could create an unfair competitive advantage for any person or organization. The existence of a significant conflict of interest ordinarily disqualifies an individual from service.

The following guidelines addressing commonly occurring situations are provided as an aid to defining and identifying a particular viewpoint or conflict of interest in connection with studies, reports, panel composition and operation, and other functions associated with an expert panel process.

2. **Individual Economic Impact.**

Actions taken on the basis of reports or other activities of expert panels may result in an economic benefit or loss to particular individuals or groups. For example, the stringency of environmental regulation in a given industry may be relaxed or tightened. The fact that an individual is part of a group that may be directly affected, with a possible indirect economic effect on the individual or on others with whom the individual is associated or related, would normally be associated with the holding of an identifiable viewpoint. But where the potential economic effect on the individual or on others with whom the individual is associated or related is substantially more direct and immediate, there may be a conflict of interest.

(i) For example, if an individual is selected to serve on a panel conducting a broad study of proposed new regulations of chemicals, the fact that the individual is an employee of a chemical company normally would be an indicator that an identifiable viewpoint is held. Or if an individual is selected to serve on a panel conducting a study of research alternatives and funding priorities in a particular scientific field, the fact that the individual is a faculty member or research scientist at an institution that conducts research in that field also may be such an indicator, depending upon the individual's own involvement in the field and other factors. In either example, the existence of such a

viewpoint would not ordinarily disqualify an individual from service but would be a factor to be taken into account in the overall composition of the panel.

(ii) On the other hand, an individual should not participate in a study in which there is a significant possibility, based upon the nature and scope of the study, that policy recommendations or other similar advice resulting from the study would, if implemented, have a direct and substantial economic impact on the individual, on others with whom the individual is closely associated, or on any person with whom the individual has a family or marital relationship or similar close personal relationship. For example, if a panel were conducting a study of proposed modifications in the federal regulation of a particular application of biotechnology, any individual proposed for study panel membership who is a stockholder or a director of a biotechnology company would necessarily receive extra scrutiny. If an independent observer could reasonably conclude that the individual's objectivity could be compromised because the particular company involved would be likely to experience a direct and substantial change in market value if the regulatory requirements under study were changed, that individual would have a significant conflict of interest with respect to that study.

(iii) In addition, an individual should not participate in any decision regarding the award of a contract or grant or any other substantial economic benefit, to the individual, to any person with whom the individual has a family or marital relationship or similar close personal relationship, to the individual's immediate employer, or to any organization in which the individual has a substantial financial interest or from which the individual has derived or may derive a substantial economic benefit, since to do so would be a conflict of interest. Where appropriate safeguards have been established, an individual described in the preceding sentence may participate in a study or activity so long as that individual is excluded from all deliberations and decisions on matters arising in the course of that study or activity for which the individual has a conflict of interest as described in the preceding sentence. A written record of the deliberations and decisions from which an individual has been excluded should be maintained by the panel chair.

3. **Proprietary Information.**

In the course of a study or other activity of a panel, an individual employed by or associated with a particular organization or enterprise should not be given access to proprietary information (e.g., trade secrets, confidential financial information, etc.) of a competitor or potential competitor unless appropriate safeguards have been established that reasonably protect the interests of all parties. Otherwise, such access may create an unfair competitive advantage, as well as possible liability for improper disclosure or use.

4. **Public Statements and Positions.**

An individual may have become committed to a fixed position on a particular issue through public statements (e.g., testimony, speeches, interviews, etc.), through publications (e.g., articles, books, etc.), through close identification or association with the positions or perspectives of a particular group, or through other personal or professional activities. This would ordinarily be an indicator of the holding of an identifiable viewpoint. In extreme situations -- e.g., where the individual is currently

president of a professional society that espouses the same fixed position on the issue -- the situation may constitute a conflict of interest.

5. **Access to Government Information.**

The opportunity to have access to sensitive government information during the course of a panel study, if abused or misused, may confer an unfair competitive advantage. An individual should not participate in a study or other activity involving access to sensitive government information that is not reasonably available to the general public if the individual intends to use, or uses, such information for the individual's own direct substantial economic benefit. The same rule applies if the individual intends to disclose, or discloses, such information (albeit not unlawfully) to other individuals or to organizations in such a manner that a direct economic benefit may be conferred on such individuals or organizations. The restrictions described above do not apply to information once it has entered the public domain. In some situations (e.g., classified information, medical records, proprietary information, certain procurement information, etc.), special limitations on access to and use of government information will be required.

6. **Reviewing One's Own Work.**

It is not uncommon for individuals serving on panels engaged in particular studies to find that their own published and professional work, in common with others in the field, is part of the technical basis and literature for the panels. This ordinarily would not constitute a source of conflict of interest. However, an individual may not consider it appropriate to serve as a member of a panel engaged in a study in which a critical review and evaluation of the individual's own work, or that of his or her immediate employer, is expected to be a central purpose of the study. This will usually be a matter of judgement in which the exercise of individual discretion will be sufficient.

7. **Employment by a Sponsoring Agency.**

An individual who is employed by an agency that is sponsoring a study or other activity in which a particular panel is engaged ordinarily cannot be a member of that panel, although the individual can serve as an agency liaison representative. However, in special circumstances and to the extent not prohibited or limited by law or regulation, such an individual may serve as a member of such a panel where the following requirements are met: (1) the service of the individual on the panel must be based upon the unique scientific or technical expertise which the individual brings to the panel; (2) the individual must not be involved in any way within the agency in any deliberative or decision-making process or any policy-making or similar process relating to the study or other activity or the expected or intended results of the study or other activity; and (3) it must be specifically determined during the panel appointment process that service by the individual will not compromise, or appear to compromise, the independence or objectivity of the particular study or other activity in which the panel is engaged.

5.4 **Procedures for Addressing Possible Imbalance and Conflict of Interest.**

The Committee on Expert Panels and the Scientific Advisory Committee on Expert Panels follow a procedure that seeks (1) to guard against conflict of interest and lack of balance in panel composition, (2) to maximize the credibility of reports among those to whom they are directed and among any others concerned, and (3) to identify individuals whose service in a particular capacity would not be appropriate. In so doing the Committee on Expert Panels and the Scientific Advisory Committee on Expert Panels seek to defend panel members, their selection for the task, and their reports against possible allegations of conflict of interest or unacceptable imbalance in the range of viewpoints held by panel members.

Points of view and conflict of interest are considered by CEP and the SACEP, based upon available information, in the initial process of selecting panel members prior to proposing panel appointments. Individuals appointed to panels are asked to complete a "Points of View and Conflict of Interest" form, listing relevant connections and interests and any relevant positions taken that may constitute the holding of an identifiable viewpoint or conflict of interest within the meaning of this policy in light of the tasks to be undertaken by the panel. Thereafter, any changes in the information previously supplied or any new information, new employment, new consulting relationships, new investments that are relevant to these matters should be promptly reported to the Scientific Advisory Committee on Expert Panels.

Panels are also asked to discuss the general questions of balance of viewpoints and conflict of interest, and the relevant circumstances of their individual members, at the first panel meeting. This discussion procedure is used because of a belief that an important source of protection for the public interest and for panel members and their work lies in a frank discussion within the panel, of whether there is cause for concern about the panel's actual objectivity or its credibility in light of its tasks and its members' interests.

The completed forms [Form 2], as well as information developed during the panel discussion, are reviewed by the Study Director to determine whether a conflict of interest exists and whether the desired balance in panel composition has been achieved. Adjustments may then be made, for example, by adding additional members to the panel or by limiting or reconsidering the participation of a particular individual. If previously unknown connections revealed by the forms raise questions, they are taken up with the individual involved. If questions persist, the final decision regarding the composition of a panel or a particular individual's service on the panel rests with the President of RSC.

All completed forms are treated in confidence. Access to these forms is restricted to those offices whose proper business they are. It is the policy of the Committee on Expert Panels that the forms may be released, on a privileged basis, to the head of an agency sponsoring the study or other activity in which a panel is engaged, if that official so requests in writing and if the President of RSC concurs. These forms are not otherwise released except with the approval of the individuals completing the form.

The request for information on the "Points of View and Conflict of Interest" [Form 2], and the discussion of these matters in panel sessions, are not intended to question the personal integrity of any individual. Indeed, the "Points of View and Conflict of Interest" form is designed to elicit only that information which is relevant and merits disclosure in light of the policy set forth above and the tasks to be undertaken by the particular panel on which the individual would serve. The responsibility for determining the information to be reported rests in the first instance with the individual completing the form, in reliance upon the individual's own sense of integrity and good judgement. The overriding objective is to ensure that the work of those who volunteer their time and energy to the panel and the national interest is not compromised or diminished.

5.5 **Summary.**

"Points of View and Conflict of Interest" forms are to be sent to all members when they are appointed (or immediately after their acceptance). When completed, forms should be returned to the Study Director. Note that the first page of the form is to be completed before the form is sent to the individual.

1. **Review.**

Each completed form should be carefully reviewed by the Study Director, on behalf of the CEP, when it is returned by the panel member. If, in the judgement of the Committee on Expert Panels, there is information that raises a question, further action is up to the director in consultation with the panel chair and the Committee.

There are often circumstances in which an adequately informed and competent panel cannot be constituted without individuals who have current or recent connections that might be interpreted by some persons as the holding of identifiable viewpoints or having a clear conflict of interest. In these cases, it is necessary both to seek a balance of such viewpoints among the members and to ensure that all involvements that might reasonably be interpreted as constituting an actual or potential conflict of interest have been fully disclosed by a panel candidate.

2. **Discussion in Panels.**

The matters of points of view and conflict of interest are to be raised formally for discussion at the first meeting of every new panel.

3. **Privileged Nature of Discussions.**

All discussions of these matters within panels are to be regarded as privileged, as are any minutes of such discussions.

4. **Changing Circumstances.**

The statement on the first page of Form 2 notes that if there is a change in the circumstances reported on the Form during an appointee's service, the appointee should promptly report such changes to the Study Director.

5. **Records.**

Each copy of Form 2 should be retained by the Study Director under proper control to ensure that its confidentiality is maintained.

SECTION 6:

THE PANEL REPORT

6.1 **Charge.**

Reports should contain a complete and accurate statement of charge, scope, limitations, and discussion of why the panel chose to address the specific issues in the report. However, panels should also be allowed considerable flexibility in deciding the amount of detail that should be devoted to explanations of scope and limitations.

6.2 **Description of Panel Composition.**

A report may contain a discussion of the considerations that entered into the design of the study panel, perhaps by noting in an appendix the relevant background, experience, the research activities of the members of the study panel, and the disciplines and kinds of expertise that were felt necessary to allow the panel to meet its charge. This description would go beyond the names and institutional affiliations often listed. No attempt should be made, however, to provide an explicit one-to-one identification of panel members and the considerations that led to their selection.

6.3 **Scientific Uncertainty.**

A report should include discussion of the types and degrees of uncertainty associated with its findings. This principle applies as a general rule where judgements about scientific evidence are being made, and it is especially relevant where risk estimates about human health or environmental impacts are given.

6.4 **Distinguishing Evidence from Assumptions.**

Reports should clearly identify and justify any assumptions on which the panel relied in analyzing the risk(s) under study. For example, panel reports that purport to offer a full assessment of the risk posed by a putative hazard should state explicitly what key assumptions have been made and the justification for those assumptions. Panels should also explain in the report the impact of the key assumptions on the conclusions, and, where possible, the consequences of making alternative assumptions.

6.5 **Distinguishing Analysis from Policy Choice.**

Panel reports should be careful to separate analyses from views about what, if any, policy choices should be made by governments or private parties. This is not to suggest that members should not hold such views. Nor, if the charge calls for advice on what response options ought to be considered, should the panel refrain from expressing the judgement of its members on these matters. But the distinction should be maintained, so far as possible, in panel discussions and in the report.

Risk-related reports should include some discussion of where their conclusions fit in the analysis of and choice among policy options, especially in the usual case where the panel's function is to inform policy choices, not to recommend policy. When a panel is asked to discuss policy options, one strategy that deserves consideration is the use of a "parametric" treatment. That is, the panel can list the various policy options that are available to decision makers and then, without endorsing a single choice, can identify and explain the policy implications of each option.

6.6 **Citation of relevant Literature and Reports.**

Reports should make reference to relevant literature. The report should call particular attention to reports and documents that address the same or similar issues. In addition, the report should inform the reader of the literature dealing with aspects of the subject that are not directly discussed in the report.

6.7 **Managing Study Completion.**

No report should be submitted for review until it is approved by the full study panel, and until it is essentially complete in all material respects, including its summary, preface, references, and any dissents. While dissenting statements of individual panel members should not be encouraged (see Section 7. 12), the working assumption should be that no dissent will be included in the printed report if it was not available when the report was submitted for peer review.

The period required for peer review should be made clear to the panel chair and members at the outset of the study and this time should be built into and reflected into all formal panel schedules. Panel members and work deadlines should be scheduled with an adequate "window for review" in mind.

Budgetary allowance might be made for convening a post-review meeting of the panel, or representative members, if reviewers urge major changes in the report. Neither peer reviewers nor panel members should be pressured to compromise views because budgetary reasons make it difficult to assemble the panel for an additional meeting.

6.8 **Consensus and Disagreement.**

Attempts to reach consensus should not obscure substantial differences of judgement or opinion since pressures to arrive at a consensus may invite obfuscation. When unanimity of opinion does not develop, a report should characterize areas of agreement and

disagreement in a manner acceptable to all study panel members. If this is not possible, the report should include alternative or minority statements.

However, it is undesirable for dissents to become a routine feature of panel reports. There is a value in working to achieve a panel-wide consensus judgement where evaluations of the evidence and reasoned debate allow it to be achieved.

The chair of the panel may comment in the preface on any points raised by any dissents in order to sharpen understanding of the scope of agreement within the panel and put into context the points on which there was disagreement.

SECTION 7:

GUIDELINES FOR REPORT REVIEW

7.1 **Purpose.**

Every report prepared under RSC authorization is reviewed by a group other than its authors. This independent review is a hallmark of scientific inquiry and distinguishes the expert panel process from others that offer the federal government and other sponsors scientific and technical advice on important issues. The purpose of the review is to assist the authors in making their report as accurate and effective as possible and to ensure that both the authoring panel and RSC are creditably represented by the report published in their names. While report review is sometimes regarded as a final "hurdle" in the project progression, much experience has demonstrated the positive benefits of careful review in enhancing the clarity and cogency of panel manuscripts.

7.2 **Confidentiality.**

The peer reviews of a report are considered to be privileged communications in order to encourage individual reviewers to express their views freely and to permit the authors to modify their positions when convincing arguments to the contrary are presented. **To protect the confidentiality of the deliberative process reviewers, panel members, and staff are asked to refrain from disclosing any contents of the draft report or review comments to outside parties. Reviewers are also asked to return or destroy copies of the draft manuscript.** These restrictions are imperative for safeguarding the integrity of the panel's work.

7.3 **Planning.**

To maximize the effectiveness of the peer review process, it is important that the panel and its staff fully understand what is expected of them and plan accordingly. Planning begins at the initiation of the project by allowing sufficient time in the schedule to obtain and respond to comments on the report and by being cognizant of the criteria and standards by which the report is to be judged. Since the actual time required to complete the review of a report may depend on several factors including the size of the

manuscript, the cooperation of reviewers, and the responsiveness of the authoring panel, the study director should, in planning the project schedule, consult with the Unit's director. If the project schedule demands an exceptionally fast pace, the study director should, early in the course of the study, consult with the panel chair. Past experience has shown that, when necessary, a rapid turnaround in review is possible with careful planning.

7.4 **Criteria for Review.**

Since expert panel reports cover a broad range of topics and appear in a variety of different forms, no uniform set of review criteria may be applicable to all reports. However, reviewers are usually encouraged to consider the following general questions:

1. Is the charge to the panel clearly described in the report? Are all aspects of the charge fully addressed? Does the panel go beyond its charge or its expertise? If a panel has gone beyond its explicit charge, does it explain why it has done so? Or, alternatively, has it done so in a constructive manner that clarifies the context of the study and the underlying assumptions behind the specific tasks?

2. Are the conclusions and recommendations adequately supported by evidence, analysis, and argument? Are uncertainties or incompleteness in the evidence explicitly recognized? If any recommendations are based on value judgements or the collective opinions of the authors, is this acknowledged?

3. Are the data and analyses handled competently? Are statistical methodologies applied appropriately? Are there any apparent errors or important omissions in the data presented?

4. Are the exposition and organization of the report effective?

5. Is the report fair? Is its tone impartial and devoid of special pleading?

6. Does the Executive Summary concisely and accurately describe the key findings and recommendations? Is it consistent with other sections of the report?

Careful consideration of these questions at the outset of a study may be helpful to the panel in preparing its report and in avoiding subsequent delays in review.

Line numbers should be added in the production of the draft report document, so that reviewers can easily refer to specific passages in the text.

7.5 **Peer Reviewers**

The Study Director, in consultation with the Peer Review Monitor, prepares a list of potential Peer Reviewers for each Expert Panel. The number of peer reviewers chosen for any panel will vary according to the number of discrete and important subject-matter specializations covered by a panel report. Peer Reviewers are asked to review the Draft Report according to the criteria set out in section 7.4 and forward comments to the Peer Review Monitor.

7.6 **Review Monitor.**

The Scientific Advisory Committee on Expert Panels appoints a Peer Review Monitor for each panel report. The Peer Review Monitor receives the names of peer reviewers from the Scientific Advisory Committee on Expert Panels and compiles their comments for the panelists. The Monitor (who may be a member of the Committee) prepares a "Review Monitor Summary," listing the peer reviewer comments for which a panel response is required. **At this point, the names of reviewers should not be revealed to the panel members or anyone else not involved in the administration of the review.** Reviewers' comments, with all identifiers removed to protect anonymity, are passed along to the authors for their consideration.

While the authors of the Report are not obligated to incorporate the changes suggested by reviewers, every point should be carefully considered. If a particular change is not made, the panel prepares an explanation in a "Response Memorandum" to be sent to the Monitor. (The Peer Review Monitor may wish to use or modify Forms 4.1 and 4.2 for these purposes.)

All members of the panel should examine the draft panel report manuscript, the summary of the Peer Review Monitor and the "Response memorandum" to be certain that the Report and the Response reflects a consensus of panel views. In an effort to expedite the completion of its work, a panel may choose to authorize its chair (or a few of its members) to prepare a response to reviewers' comments and to revise the draft accordingly. This does not obviate the need to consult with all panel members regarding any substantive issues raised in review and to provide them with an opportunity to examine all revisions before their report is published.

If the Monitor is not a member of the Committee on Expert Panels, the completed Response Memorandum, signed by the Monitor, should be filed with the Study Director. Ultimately the Study Director and the Peer Review Monitor jointly determine whether the authors have been responsive to reviewers' comments. The Monitor's sign-off is required before the report can be published. No report may be released to the project sponsor or the public until the Monitor indicates that the peer review has been satisfactorily completed.

Names of peer reviewers will be listed in the final published version of the panel report. However, the specific comments of peer reviewers will remain anonymous.

7.7 **Letter Reports.**

The full-length report, based on the extensive deliberations of a panel and providing supporting evidence for its conclusions and recommendations, remains the principal expert panel mechanism. Another mechanism sometimes used, however, includes letter reports and other abbreviated statements of an expert group. This alternative reporting mechanism requires a different set of review criteria and procedures. All letter reports are examined by the Study Director, with the assistance of the Scientific Advisory Committee on Expert Panels, to make certain that the tone of the document is appropriate and that the advice given is based on objective and sound judgement. In

some cases other reviewers may be consulted. The brief document should clearly specify the reasons for its being composed (most are written in response to formal requests of government agencies), and it must demonstrate a relationship between the advice proffered and the expertise of the authoring group.

7.8 **Issues of Concern.**

While it is obviously not possible to anticipate all the criticisms and concerns that may arise during the course of a review, there are a few that deserve special mention. Some of the most challenging problems to resolve involve conclusions and/or recommendations grounded primarily on the collective views and experiences of panel members rather than on a specific body of data. In such cases it is essential that alternative judgement options be carefully weighed and that the panel explain its rationale for selecting a specific option.

7.9 **Review by Sponsor(s) of Statements of Fact in a Draft Report.**

As indicated earlier, there should be no disclosure of a panel's findings and recommendations, to the sponsor(s) or anyone else, prior to the release of the panel report. However, it is also very important that purely descriptive material and statements of fact contained in the report, especially those concerning the activities of the sponsor(s), are strictly accurate. It is appropriate, therefore, for the Study Director to send *these sections only* of the draft report to the sponsor (s) for review, requesting confirmation of the accuracy or correction where necessary. Care must be taken not to disclose prematurely the report's findings and recommendations.

7.10 **Handling of Data.**

In reports that contain extensive analyses of data it can be difficult to detect errors in the analytical results being reported, errors that when later discovered may prove embarrassing to the authors and undermine the credibility of their report. Because of the complexities and time required, reviewers are not expected to be responsible for verifying the accuracy of the data; that responsibility must rest solely with the authoring panel. To minimize the likelihood of statistical errors creeping into a report, checking by an independent group of experts may be advisable. A related concern has to do with the use of cost-benefit analyses, probabilistic risk assessments, and other such methodologies. It is important that these analytical techniques are carried out in accordance with professional standards in the field. To assure that this is done it may be necessary for the panel to involve consultants with appropriate expertise. Finally, careful attention should be given to the presentation of analytical results to make certain that all underlying assumptions and data limitations are stated and that the level of statistical significance is appropriate.

7.11 **Executive Summaries.**

Every full-length study report must contain an Executive Summary, typically 10 pages or less, that provides a synopsis of the panel's key findings, conclusions, and recommendations. This synopsis ought to be written so that it is easily comprehensible to the non-expert in the field and conveys a balanced and accurate summary of the

detailed chapters. In drafting this summary the authors should keep in mind that this may be the only section of the report that is read by some individuals who lack either the time or the inclination to examine the entire report. Any free-standing summary or other compendium based on the panel's work must be reviewed in accordance with the usual procedures and this review should be conducted simultaneously with the peer review of the study report.

7.12 **Statements on Consensus and Dissent.**

The unique contribution that expert panel reports make to debates about national policy issues derives from a deliberative process in which a panel, balanced with respect to members' areas of expertise and their perspectives on the key issues under consideration, is expected to consider carefully the available evidence and to reach consensus on its findings, conclusions, and recommendations. Panel consensus generally implies unanimous agreement among members on the report as a whole.

Although it is expected that most expert panels will develop a consensus, occasionally circumstances may arise in which not all members concur with the views of the majority. When these circumstances do occur, several alternatives are available to the panel. One option is to report both the majority and minority views, fully explaining the rationale for each. This approach is most useful when all members can at least agree that there are legitimate differences of opinion regarding assumptions, methods of analysis, or other factors that can lead to disagreements on findings or recommendations. When only one or two relatively minor points of contention impede a panel from reaching consensus, agreeing to describe the differences objectively in the body of its report usually can help a panel reach its overall objectives. Even when a panel finds that it is unable to reach consensus on the major substantive issues, the members should be encouraged to explain the reasons for the differences, since this explanation conveys important information.

A second option is to present the pros and cons of alternative judgements without indicating the extent to which panel members subscribe to one view or another. This approach, while less helpful than the first option, may be preferred when scientific evidence on which to base recommendations is scanty or when interpretations of the evidence are highly disputed.

A third option, a measure of final recourse, is to include in an Appendix a dissenting statement signed by the member (or members) disagreeing with the rest of the panel's consensus views. When this third option is exercised, the dissenting view should be a brief statement that clearly identifies the issues of contention and succinctly describes the arguments in support of the minority position. A dissenting statement is to be distributed to all members of the panel as well as to peer reviewers of the report. A dissent may not contain references to the panel's deliberative process and should not address issues that are beyond the charge to the panel. It is imperative that the preparation of a dissent should not delay the panel's progress or the subsequent publication of its report. Therefore, when a dissent is anticipated, the panel chair and staff may have to adjust the schedule for preparing the draft report and should establish a reasonable deadline for the preparation of the dissent.

SECTION 8:

COPYRIGHT

Each member of a panel authorized by the Committee on Expert Panels is expected to assign whatever copyright interest he or she may have in its report to the Royal Society of Canada [Form 5]. The purpose of this request is to protect the interests of both the Society and the panel members who are the authors of a report.

Notwithstanding the general prohibitions for unauthorized reproduction of copyrighted works, it is the intention of the Royal Society of Canada that its reports be widely used for educational and scholarly purposes. Accordingly, permission is routinely granted for making copies of a chapter or parts of chapters of a report for non-commercial educational classroom use, provided not more than one copy per student is made, provided the copies are not for resale, and provided each copy carries the copyright notice of the original report. Individuals are also routinely granted permission to reproduce for personal use one copy of the materials contained in a copyrighted Royal Society of Canada report for purposes of research, assessments, studies, and information dissemination so long as such use does not involve republication of the report or portions thereof for resale and does not involve the promotion of commercial products or services.

Members of a panel shall always receive permission to use material from the reports to which they have contributed, without restriction, for subsequent publication in an academic journal or book; these provisions applies to the entire report as well as to its individual sections.

SECTION 9:

PLANNING FOR EFFECTIVE DISSEMINATION

9.1 **Introduction.**

Every panel report has its own audience. Some report topics maybe of interest to only a small number of policy-makers in a narrow field; others may interest whole scientific and technical communities. Some reports are intended for broad audiences of government officials, political interest groups, consumers, or other large segments of the public. "Success" in dissemination is not defined by whether a report gains wide attention, but in whether it reaches its intended audience. Achieving this requires several steps, as outlined below.

9.2 **Define the Message.**

Although expert panel reports deal with complex subjects, successful dissemination requires that the conclusion be distilled and explained as clearly as possible. Many worthwhile reports have received far less attention than they deserved mainly because their findings were too indirect or convoluted. Thus, a critical task for any panel completing a report is to decide exactly what its "message" is -- and to say it forthrightly. Reports that are to-the-point are far more likely to receive attention from busy reporters, officials, and others.

9.3 **Define the Audience.**

Related directly to the job of defining the message is the need to define the audience for a report or project. This requires a panel to think through the expected consequences of its work. Is it reviewing the technical programs of a single federal agency or devising solutions for a pervasive problem, such as preventing the spread of a communicable disease? Which specific groups will be affected by the panel's likely recommendations? With the primary audience in mind, the panel then can check more easily whether its report is understandable to and useful for the right people.

9.4 **Integrate Dissemination into Panel Plans.**

Dissemination needs should be considered throughout the development of a report: It is not advisable to wait until a report is being printed before thinking about how to disseminate its findings. It is important to discuss dissemination activities with a sponsor at an early stage because it is much easier to budget money for dissemination at the outset than to add it to the contract later. Whenever possible, dissemination activities should be included explicitly in development of a budget. The contract also

must ensure that the sponsor imposes no inappropriate restrictions. The Royal Society of Canada guards the independence of its activities and does not allow anyone to interfere with its release of reports, news releases, or related materials. Once the project begins, panel members should be reminded regularly about the importance of effective dissemination. Otherwise, they may assume that their sole job is to produce a competent report that “somebody” will publicize for them. On the other hand, it is acknowledged that the Royal Society of Canada has primary responsibility for the ongoing dissemination of all panel reports.

Since the Executive summary of the report (Section 7.11) is likely to be the most widely-distributed product of the panel's activities, care should be taken to ensure that it is written in such a way as to maximize the possibility of a broad public understanding of the findings.

Forms

FORM 1:

PROJECT PROSPECTUS and CONTRACT CHECKLIST

Section A: **Context.**

The purpose of this section is to provide a basis for evaluating the project against criteria on intrinsic merit and the availability of a technical basis for the activity. This section should contain a description of the policy and scientific contexts that provide a framework for the project.

A. 1 **Origin and Policy Context.**

As appropriate, the description of the policy context should include a summary of recent developments from which the need for the proposed project emerges and a description of how the proposed activity will contribute to furthering policy development and public understanding. Length guideline: two paragraphs.

A. 2 **Intellectual Issues Context.**

Note the substantial issues in science, engineering, medicine, ethics, or other areas that are to be addressed; the availability of data or the nature of the appropriate literature should be briefly described. Length guideline: two paragraphs. (A formal analysis of the literature or review of the state of knowledge with citations should not be included.)

Section B: **Plan of Action.**

This section should provide a description of the proposed project as it is currently planned. The section should be divided into two distinct parts, as follows:

1) Statement of Task:

Give a concise statement of the proposed terms of reference for the project, for example, in terms of a list of questions which a panel will be asked to answer. Length guideline: one paragraph.

2) Responsible Body:

A brief description of the type of panel that will assume responsibility for the project, including a listing of the expertise required and the considerations of balance to be used in assembling an appropriate panel. Length guideline: one paragraph.

Section C: **Preliminary Work Plan.**

Give a summary description of the proposed approach to the study plan that has been the basis for developing the budget, including the types of information gathering activities, public meeting(s), etc., that the Unit anticipates will be required to accomplish the project. Detailed schedules or agendas should not be included. However, any unusual items in the budget should be explained in a sentence or two, including for example the purpose of using consultants, off-site personnel, borrowed personnel, and subcontracts if a substantial sum (more than 10 percent of the total estimated cost) has been identified for any of these purposes. Length guideline: two paragraphs.

Section D: **Product and Dissemination Plan.**

A brief description of the anticipated product(s) and the elements of a preliminary dissemination plan should be provided. If the product is other than a consensus report, explain how it is to be prepared. Length guideline: one paragraph.

Form 1-1:
Contract Checklist

Name of Expert Panel:

_____

1. *Travel Cost Estimates:*
   - ☐ Number of panelists: _____
   - ☐ Number of panel meetings: _____
   - ☐ Total cost estimates, upper $_____ lower $_____
     Breakdown (attach sheet): _____

2. *Special cost items:*
   - ☐ No
   - ☐ Yes: Nature of item and amount:
     _____

3. *Major subcontracts or contract staff:*
   - ☐ No
   - ☐ Yes: Name of subcontractor:
     _____

4. *RSC/SRC Overhead (or administrative fee):*
   - ☐ Amount: $_____
   - ☐ Approved by sponsor(s)

5. *RSC/SRC staff costs reimbursements:*
   - ☐ Amount: $_____

5. *Direct costs (telecommunications, duplication, report production, etc.:*
   - ☐ Amounts: $_____
     Breakdown (attach sheet): _____

6. *Translation:*

- ☐ Provided for in contract terms.
- ☐ Amount: $_____
- ☐ Not required (state reason): _____

7. *Peer Review requirement:*

- ☐ Peer review process provided for in draft project timetable.

8. *Sponsor(s):*

- ☐ Cleared with Chair, CEP

9. *Report publication and dissemination:*

- ☐ Prospectus and contract recognize RSC/SRC as the official publisher of the panel report.
- ☐ Dissemination plan included in project prospectus.

10. *Review of unacceptable contract provisions (Manual, sections 2.4, 2.5):*

- ☐ No restriction on RSC copyright.
- ☐ No unacceptable constraints on subcontracting (if relevant).
- ☐ No sponsor control over panel/peer reviewer selection.
- ☐ Contract deliverables appropriate.
- ☐ Installment payment conditions appropriate.
- ☐ No sponsor review of draft panel report as a condition of interim payment.
- ☐ No sponsor review of final panel report, prior to its publication, as a condition of interim or final contract payment.

Name: _____
Date: _____

FORM 2:

Declaration of Points of View and Conflict of Interest

INSTRUCTIONS TO THE INDIVIDUAL COMPLETING THIS FORM

1. Please read the "Guidelines on Disclosure of Personal Involvements and Other Matters Potentially Affecting Panel Service." Report on pages 2-4 only that information which is directly relevant to, and merits disclosure in light of, those "Guidelines" and **the tasks to be undertaken by the particular panel or other group on which you will serve**.

2. For each category for which there is no information that needs to be reported, write the word "NONE" in the space provided.

3. Contact the person listed below if you have any questions regarding this form.

4. When this form has been completed, sign and date this form and return it to the person listed below. Retain a copy for your records.

5. If you simultaneously serve on more than one panel, you may receive a form to be completed for each activity. You may list all relevant information for all activities on one form and attach a photocopy of that form to each of the other forms in lieu of fully completing each separate form.

6. During an individual's period of service in connection with the activity for which this form is being completed, any changes in information reported on this form or any new information relevant to the these matters should be promptly reported to the person named below.

Contact: [Name of Study Director]

_____

Form 2-1:

Declaration of Points of View and Conflict of Interest
to be completed by prospective expert panel member

This statement is privileged to that named officer of the Committee on Expert Panels whose proper business it is. It is the policy of the Committee on Expert Panels that this statement may be released, on a privileged basis, to the head of any agency sponsoring the study or other activity in which a panel is engaged, if that official so requests in writing and if the President of RSC/SRC concurs. It will not be otherwise released except with the approval of the individual completing the form.

Name: Tel:
Title: Fax:
Employer: E-Mail:

Address:_____

For each category for which there is no information to be reported, write the word, "NONE" in the space provided. Attach additional sheets if necessary.

I. **Organizational Affiliations**.

Report relevant business relationships (as an employee, owner, officer, director, consultant, etc.) and relevant remunerated or volunteer non-business relationships (e.g., professional organizations, trade associations, public interest or civic groups, etc.).

_____
_____
_____

II. **Financial Interests**.

Report relevant information regarding financial interests and investments in companies, partnerships, joint ventures, trusts, real property, stocks and bonds, etc., by listing the company, partnership, etc. by name and a brief description and by listing the property by location. Please list the approximate value of any interest or investment reported.

_____
_____
_____

III. **Research Support**.

Report relevant information regarding sources of research support (other than your present employer).

_____
_____
_____

IV. **Government Service**.

Report relevant service (full-time or part-time) with federal, provincial, or local government (including advisory boards etc.).

_____
_____
_____

V. **Public Statements and Positions**.

List relevant articles, testimony, speeches, etc., by date, title, and publication (if any) in which they appeared. Provide a brief description of relevant positions of any organizations or groups with which you are closely identified or associated.

_____
_____
_____

VI. **Additional Information**.

If there are other circumstances in your background or present connections that in your opinion might reasonably be construed as unduly affecting your judgment in matters within the assigned task of the group to which you have been appointed, or which might be reasonably viewed as creating an actual or potential bias or conflict of interest or the appearance of a bias or conflict of interest, please describe them briefly.

_____
_____
_____

VII. **Maintaining Confidentiality.**

Maintaining confidentiality about all aspects of the deliberations of a panel project as it progresses is important for the ultimate success of its work. Panel members should not talk to the media until after their report is published; among other considerations, a sense of fairness to one's colleagues on the panel justifies this rule. In addition, panelists should not discuss the ongoing study with colleagues unless they are absolutely sure those colleagues will respect the confidential nature of the discussions. Please refer any questions you have about the interpretation of this rule to the Study Director. Your signature on this form indicates a willingness to comply with these requirements.

SIGNATURE: DATE:
_____

Reviewed by:
Study Director:_____
Date_____

FORM 3-1:

Screening Process for Panel Selection (I)

Name of Expert Panel:

_____

First-round screening:

Keep a record sheet for every person contacted. For panel screening, it is necessary to have available, for the potential candidates, at least the draft terms of reference, proposed time-frame, and any relevant conditions, such as the honorarium payment, travel reimbursement, etc.

Name: _____

Location: _____

Yes (all "yes" required):

☐ Availability (in principle) during time-frame indicated.

☐ Has required expertise [specify area(s):

_____

_____

☐ Has no conflict of interest as commonly understood.

☐ Will send by fax short-form c.v. immediately.

Further assistance required:

☐ Suggestions of other names.

☐ Comments on terms of reference.

☐ Any other comments relevant to this undertaking.

FORM 3-2:
Screening Process for Panel Selection (II)

Name of Expert Panel:

_____

Second-round screening:

Following a consultation with the Chair, Committee on Expert Panels, on the results of the first-round screening, a second-round list of names is drawn up and the persons on that list sent, by fax, a copy of Form 2, "Points of View and Conflict of Interest." These persons are then re-contacted. **Keep a record sheet for every person contacted.**

Name: _____

Location: _____

Yes (all "yes" required):

☐ Availability confirmed.

☐ Has indicated no point of view that would require "balancing," or, if so, type of balancing required:

_____

☐ Has no conflict of interest according to Form 2.

☐ Short-form c.v. received.

Evaluation and Comments by Unit Director:

☐ Recommended for panel membership.

☐ Recommended as peer reviewer.

FORM 4:

GUIDELINES FOR THE REVIEW OF REPORTS

Thank you very much for agreeing to review the enclosed manuscript. This preliminary draft, which is to be treated as a privileged communication, has been prepared by a panel appointed by the Royal Society Canada's Committee on Expert Panels. Review by you and others not involved in the preparation of this report is regarded as an essential, final step in the process. The primary purpose of this review is to assist the authors in making their report as accurate and effective as possible. Your comments, with name and other identifiers removed, will be transmitted to the authors for their consideration. Although no uniform set of review guidelines may be applicable to all reports, many reviewers may find some of the following questions useful in formulating their comments:

(1) Is the charge to the panel clearly described in the report? Are all aspects of the charge fully addressed? Does the panel go beyond its charge or its expertise? If a panel has gone beyond its explicit charge, does it explain why it has done so? Or, alternatively, has it done so in a constructive manner that clarifies the context of the study and the underlying assumptions behind the specific tasks?

(2) Are the conclusions and recommendations adequately supported by evidence, analysis, and argument? Are uncertainties or incompleteness in the evidence explicitly recognized? If any recommendations are based on value judgments or the collective opinions of the authors, is this acknowledged?

(3) Are the data and analyses handled competently? Are statistical methodologies applied appropriately? Are there any apparent errors or important omissions in the data presented?

(4) Are the exposition and organization of the report effective?

(5) Is the report fair? Is its tone impartial and devoid of special pleading?

(6) Does the Executive Summary concisely and accurately describe the key findings and recommendations? Is it consistent with other sections of the report?

In commenting on the draft report, please bear in mind that you are being asked primarily to decide whether in your judgment the arguments presented are sound and the report is fully responsive to the panel's charge. The review process is considered confidential in order to encourage individual reviewers to express their views freely and to permit the authors to modify their positions when convincing arguments to the contrary are presented. The authoring panel will be provided a copy of your comments, with name and other identifiers removed to protect anonymity.

Please do not compromise the confidentiality of the draft report. After submitting your comments you are requested to return or destroy the manuscript and to refrain from disclosing any recommendations, findings, or other material contained in this draft report. These restrictions are necessary to protect the integrity of the panel's work and to maximize the impact of its product. A copy of the final, printed version of the report will be sent to you. Notwithstanding the public release of the final report, the draft manuscript and your review remain confidential. We are most grateful to you for agreeing to undertake this important task.

You may wish to use or modify the structure suggested in Form 4.1 (attached) for your report.

Form 4-1:
Evaluation Format to be used by Peer Reviewers*

Name of Expert Panel:

_____

Reviewer Code: _____
*To be returned by (date) :*_____

A. Points to which the panelists must respond:

1.
2.
3.
4.
5.

B. Other points the panelists may wish to consider:

1.
2.
3.
4.
5.

C. Other Comments, references, etc.:

1.
2.
3.
4.
5.

*NB: Name of reviewer should appear only on an attached cover sheet.

Form 4-1:
Assignments for Responses to Peer Reviewers: Summary

Name of Expert Panel:

_____

A. Mandatory Responses:

Reviewer	A.1	A.2	A.3	A.4	A.5
Peer Reviewer Code: I					
Peer Reviewer Code: II					
Peer Reviewer Code: III					
Peer Reviewer Code: IV					

B. Optional Responses (Points to consider):

Reviewer	B.1	B.2	B.3	B.4	B.5
Peer Reviewer Code: I					
Peer Reviewer Code: II					
Peer Reviewer Code: III					
Peer Reviewer Code: IV					

C. Optional Responses (General Comments):

Reviewer	C.1	C.2	C.3	C.4	C.5
Peer Reviewer Code: I					
Peer Reviewer Code: II					
Peer Reviewer Code: III					
Peer Reviewer Code: IV					

FORM 5:

COPYRIGHT ASSIGNMENT

I, the undersigned, hereby irrevocably grant and assign exclusively to the Royal Society of Canada my rights, including copyright interests, in materials or work that I will contribute to the preparation of the report identified below, and in the report, under all laws, treaties and conventions throughout the world, in all forms, languages and media, now or hereafter known or developed without limitation.

I warrant that the material or work that I will contribute to the preparation of the report is original with me, has not been published, that I now own all rights granted hereunder, that copyright interests in the contribution have not been assigned, licensed, or otherwise transferred to another party, except as specifically noted on any contributed materials or work.

I further agree that if any of the materials or works that I contribute to the report or this activity contains material copyrighted by others, or otherwise fails to meet the warranties described above, I shall inform the Unit staff and provide sufficient information to assist staff in obtaining the necessary permissions to reproduce the materials.

In making this assignment, I understand that it is the Royal Society of Canada's policy to grant permission to me to use materials prepared for this report without fee upon application to the Society.

Panel on:
Provisional Report Title:_____

Printed Name: _____
Signature: _____
Date: _____