



Mike MacCracken <mmaccrac@comcast.net>

05/03/2004 05:51:12 PM

Subject: Comments on Revised Information Quality Bulletin on Peer Review

May 3, 2004

Dr. Margo Schwab
Office of Information and Regulatory Affairs
Office of Management and Budget
725 17th Street, NW
New Executive Office Building
Room 10201
Washington, DC 20503

Re: Comments on the Revised Information Quality Bulletin on Peer Review

Dear Dr. Schwab:

After having submitted extensive comments on the original draft of the bulletin regarding peer review, I would like to complement OMB for the extent of the revision that was made. Based on my experiences with the peer review of major assessment reports when with the Office of the US Global Change Research Program, I think the revisions to the process and the flexibility provided will be very helpful in making the process work better while still assuring a very high quality product.

However, I would like to raise a number of issues about which I think it would be helpful to offer clarification so that problems do not arise later. Many of these issues have arisen in the various reviews that I have been involved with relating to the climate change issue, and a few of the issues even became issues in lawsuits filed against the government; others are generally logical extensions of these types of issues.

1. Application of Guidelines to Reports of Advisory Committees: The guidelines indicate that they apply to 'all agencies subject to the Paperwork Reduction Act.'² It is my recollection that the definition used in the Act includes advisory committees of all agencies, and this includes the Executive office of the President (indeed, CEI had filed a lawsuit against OSTP claiming this to be the case). However, the guidelines also indicate that they apply only to cases where the report represents agency policy. In that advisory committee reports are by definition not agency policy (a statement made in the letter settling an earlier lawsuit regarding the National Assessment), the guidelines would, therefore, not seem to apply to reports of advisory committees, no matter whether the reports are assessments or not. It would be helpful for the guidelines to make a clear statement on this issue, and in so doing make clear if the guidelines apply to both advisory committees of the agencies and advisory committees created by the Executive Office of the President. In that advisory committees are often

composed of experts whose opinions and best judgments are being directly sought, requiring all advisory reports to be subject to the guidelines might be seen by some to impinge on the process of getting advice from the experts who were appointed to the advisory committee; on the other hand, having all advisory committee reports that otherwise meet the requirements (so have to do with important matters) subject to the guidelines would improve the perception that the advice that the Government is receiving is authoritative and nonpartisan. In this regard, it would seem that consideration should be given to whether, for example, it might be appropriate to treat advisory committee reports, as are reports of individual government scientists, by requiring a disclaimer. The National Assessment situation introduces a related question. In that case, the federal advisory committee that prepared the national level report worked with a number of regional and sectoral teams to build the basis for their synthesis reports. Virtually all of these teams were based in a university (and funded by agency grants and contracts). A committee chair in the House wrote the OSTP Director arguing that these reports should also be subject to the federal register (peer) review process that Congress had mandated for the National Assessment report, and that was indeed carried out for the reports of the federal advisory committee. However, it was OSTP's judgment at that time that the review requirements could not be imposed on the university teams, not only for contractual reasons involving how agencies had transferred the funds to them, but also because a federal mandate of reviews of university reports would be an improper infringement on academic freedom. As a result, while peer review of the regional and sectoral reports was encouraged (and generally took place), the agencies did not impose it on reports done by others. In lieu of separate reviews of the underlying regional and sectoral reports, the four-stage review that the advisory committee's report went through were deemed as meeting the OSTP guidance for review of the reports. In that other advisory committees also often have substantive supporting reports, the guidelines should, in my opinion, make clear that the supporting reports do not need to be independently peer-reviewed, but that their contributions can be considered to be reviewed as part of the review of the ultimate advisory committee report.

2. Application of Guidelines to Interagency Committees Organized under the Executive Office of the President: The applicability of the guidelines to interagency committees (e.g., the Committee on Earth and Environmental Sciences and its successors, the Committee on Environment and Natural Resources and the Subcommittee on Global Change Research, and more recently the Committee on Climate Change Science and Technology Integration and its various working groups and programs) also needs to be made clear, as such entities (even those established by law, such as the CEES under PL 101-606) are not, as I recall, clearly called out in the Paperwork Reduction Act. Just a comment, that sometimes such committees are quite official, and sometimes less so.

For example, the Vice-President's Energy Task Force, which is being challenged under FOIA, would seem to be an interagency committee that was relatively official and that prepared a report of significant importance and so would in the future be subject to these guidelines, especially their requirement that all supporting material be openly

available and independently validated. In that such openness does not currently seem to be the position of the Executive Office, it would help if the guidelines were specific on how the guidelines will be applied to interagency panels and committees.

3. Application of Guidelines to Reports of Special Boards and Panels: A number of the agencies have a range of boards, panels and other such entities. For example, do the guidelines apply to the National Science Board and recommendations that they make to the NSF and other entities? The NSB approves a number of matters<to what extent are they or could they be covered, for example? Or safety panels of various agencies?

4. Application of Guidelines to Reports Forwarded by Agencies: In the case of the US National Assessment, the report was prepared by an advisory committee, accepted by an interagency committee, forwarded to OSTP by that committee in fulfillment of a letter requesting the report earlier issued by OSTP, and then forwarded on behalf of the NSTC to the Congress by the Director of the OSTP in fulfillment of a legislative requirement. Whether advisory committee reports are subject to the guidelines or not, would the President or an agency forwarding such a report to Congress, whether done at the request of the agency or the Congress, be separately subject to the guidelines in that such forwarding may imply or actually indicate that the report has been adopted as an agency position (whereas an advisory committee report is not an agency position)? Can an agency forward such a report without adopting it as its position<as was the case for the National Assessment?

As another example, the Office of the US Global Change Research Program (which supported the interagency Subcommittee on Global Change Research) routinely forwarded to members of Congress the assessment reports of the Intergovernmental Panel on Climate Change and the stratospheric ozone assessments of the United Nations Environment Programme and World Meteorological Organization, in that these reports were prepared by international bodies in which the US actively participated (e.g., sometimes by international protocol, etc.). These reports are arguably important (they were the basis for the negotiation of the Montreal and Kyoto protocols).

Would such national and international assessment reports be exempt from the guidelines because they have gone through a very stringent international peer review (e.g., much more extensive than a National Academy of Sciences report of the type that is presumed on its face to have met the requirements of the guidelines)? In general, is the forwarding of such information to the Congress by an agency covered by the guidelines, however the report might be generated and reviewed (e.g., are reviewed reports approved, unreviewed ones not)?

5. Application of Guidelines to Reports that Include both Technical and Policy Content: While the guidelines are aimed particularly at scientific and technical matters, many reports also cover policy. The guidelines do not generally make clear how such reports might be treated<are the technical parts of the reports still subject to the guidelines? It is also not always clear what the word 'policy' means, so what matters might be included or excluded. Often the choice of how to

do an analysis or how to determine uncertainties can mix the technical and policy sides of an issue <that is, the definition of 'uncertainty'² in technical fields is not something carved in stone<it is based on a choice made for particular reasons (e.g., in building the proverbial 'pyramid of knowledge,'² not wanting to be wrong more than, say, 1 chance in 20, or 1 in 100). Because what is technical to one interested party could well be policy to another, I believe the guidelines need to be clearer on the issue of policy and how reports that contain both policy and technical matters are to be treated.

6. Application of Guidelines to the Area of Economics: The guidelines are not at all clear regarding their applicability to matters of economics and economic analyses. On the one hand, an exemption is granted to issues of 'accounting, budget, and financial information'² but such information, especially projections into the future, are made with models and scenarios that should certainly be subjected to review and do not appear to be exempted. On the other hand, the guidelines only seem to specifically include 'scientific assessments related to such disciplines as the behavioral and social sciences, public health and medical sciences, life and earth sciences, engineering, or physical sciences.'² I would argue that many would say that economics is a social science, and does involve various behavioral matters, but it would really be helpful to provide a specific indication that economics-related issues are covered. The treatment of the climate change issue provides an excellent example of why matters of economics should be subjected to the guidelines: (a) In describing the state of the science of climate change, even with there being thoroughly reviewed international assessments indicating the very high likelihood of significant warming due to human activities, the Administration has explained its unwillingness to advocate stronger policies to limit emissions of carbon dioxide because of the uncertainties in the projections of climate change arising from limitations in scientific understanding; (b) By contrast, President Bush, in explaining the reasons that the US could not agree to the Kyoto Protocol, indicated that signing it would cause the loss of 4.9 million jobs ('The approach taken under the Kyoto protocol would have required the United States to make deep and immediate cuts in our economy to meet an arbitrary target. It would have cost our economy up to \$400 billion and we would have lost 4.9 million jobs.'² President Bush, Feb. 14, 2002). This number, with two-figure precision, was generated by one economic model that is generally considered to give worst case estimates (with the range extending all the way to situations that might even increase jobs) and from a calculation that was done even before the final version of the protocol was negotiated, much less signed and implemented. Quite clearly, there really needed to be a technical review of the economic justification for the decision about the US position regarding the Kyoto Protocol as there is no way that the single study cited would withstand a review under the peer review guidelines. Had this been done, my view is that the basis for the US being unable to meet the Kyoto Protocol provisions could have been much more defensibly presented and this would have allowed a much more productive international discussion of the challenge that the US faced and its need for taking an alternative approach. With that as an example, I would suggest that, with respect to the peer-review guidelines, it does not make sense to be suggesting that

matters of physical, behavioral, and social sciences should be included, yet not to be mentioning economics specifically, an area that certainly claims to be as rigorous as a number of the other areas being included, and is certainly very important.

7. Application of Guidelines to Cost-Benefit Analyses: The guidelines rather conspicuously seem to leave 'cost/benefit' analyses out of the listing of examples of types of reports that would be subjected to the guidelines. While these may be considered a subset of risk analyses, it would really help to specifically list such analyses in the guidelines.

8. Application of Guidelines to Model Projections (or even Expert Projections): While the guidelines do say that models and analyses are covered, they do not mention whether the guidelines cover the results of models<it would be helpful to be clear on this. One particular aspect of this question merits special attention, and that is whether the guidelines cover model projections into the future, such as scenarios of climate change extending out to the year 2100? At one of the NAS workshops on the draft guidelines, I asked one of the NAS panelists a question (after a panel session was over, so the exchange was not included in the transcript) about how scenarios would be dealt with. The response was that, even if the scenarios were carefully constructed with verified physically based models, because they concerned the future, they are hypothetical and would therefore legally be considered 'opinion,' which would make them exempt under the guidelines.

It is interesting that the guidelines do include a provision for review of expert judgments, and indeed the preparation of the scenarios is based on expert judgment, so scenarios might be covered in this way. However, if this is done, provision needs to be made for allowing for there to be a wide range of possible outcomes, for the recent CEI lawsuit against the National Assessment argued that since the two scenarios did not agree with each other, then one was obviously wrong and therefore would not be acceptable under the FDQA. On the one hand, scientists would argue that all scenarios are wrong as none consider all possibilities, so would this mean that no results of scenarios would be acceptable under the guidelines? On the other hand, scientists would suggest that the analysis is only reasonable if a range of scenarios are treated, and the important question is really whether they are plausible. Of course, in that case, the question becomes how wide a range of possibilities to consider plausible<for there are certainly analyses where one would want to have the worst extremes being considered.

For example, would it be acceptable to issue an assessment of the likely consequences of a category 3 hurricane striking New York City during a time of high tide (which would cause a storm surge of over 20 feet)? There are historic cases of nearby strikes of such intensity, although not at highest tide? On the one hand, peer review of scenarios would seem important; on the other hand, they certainly cannot be proven correct. Therefore, the question is if scenarios are permitted under the guidelines or are exempt?

9. Time Schedule for a Review: The guidelines do not include any

guidance on how long should be allowed for the review process, even of full assessment reports. Experiences from the US National Assessment (and, in addition, the legal requirement for similar types of reviews in the Global Change Research Act) and the IPCC process have indicated that of order 2 months is adequate and typically required. For the US National Assessment, there were quite a number of requests for an even longer period, even for as much as 6 months, although it was not clear that this was for technical reasons. It would be helpful to provide some guidance on the amount of time that should generally be permitted, and how the time should be counted (e.g., 60 days from publication of a report's availability in or through the Federal Register).

10. Estimating the Likely Cost of the Assessment to Society: While it may be possible to provide useful cost estimates for matters dealing with relatively narrow subjects such as the reduction in health costs from lowering the ozone standard, it is not at all clear how such costs could be estimated for matters relating to very broad, long-term, and uncertain global-scale issues such as climate change. Aside from there being significant contention over the costing of relatively well-defined matters like switching from one energy source to another, estimating costs/benefits with regard to much more encompassing issues such as the environmental and societal impacts across the world, which then can indirectly influence the situation in the US, seem way beyond current capabilities. In fact, it is the uncertainties involved that are often the subject of the assessment. How does one decide which studies are worthy of a full (and so likely costly and time-consuming) review and which ones need only a minor review when all of the studies contribute in some way to the overall issue? Will this all be rather arbitrarily decided or is there an objective approach that would apply?

11. Determining When a Matter is Really an Agency Position: It is not clear from the guidelines when a matter becomes an agency position, especially in the area of climate change where the scope of the issue can go from the very specific to the very general. It would be helpful to recognize that many scientific assessments are really about matters of science, and agencies should not really be taking a formal position on detailed matters of science (e.g., on what the response of the climate system is likely to be to a doubling of the CO₂ concentration). With such an interpretation, full reviews could be avoided on many of what are called assessments and syntheses in the recently released strategic plan of the Climate Change Science Program, and a full review would be triggered only when an integrative assessment is done that might lead to an agency (or more likely a set of agencies or the Administration as a whole) taking a position on whether the overall scientific basis of the issue is well enough understood to take action. In the case of the US National Assessment, such a full level review was undertaken even though the agencies were never asked to formally adopt the National Assessment reports (i.e., to agree to their contents on a word for word basis). Instead, the agencies were only asked to accept the assessment reports for their consideration as a comprehensive scientific analysis that had gone through a multi-stage peer review. Indeed, formal agency approval on matters of climate change was only sought when the agencies reviewed and approved the US Climate Action Report 2002 that was, after revision, submitted to the UN in fulfillment

of the US obligation under the Senate-approved UN Framework Convention on Climate Change to which the US is a full signatory. As part of that review process, a public review was also undertaken. What is disturbing about how it is being suggested that the guidelines may apply within the Climate Change Science Program is that issues of pure science may be subjected to the guidelines while interpretations of the comprehensive findings on the issue (such as the President's and Executive Office's official materials on climate change) are not being subjected to the guidelines. The guidelines need clarification to really make sure that they fully apply to the situations where the Administration and agencies are taking positions, and not to the bits and pieces being pursued by focused scientific research activities within the agencies.

12. Limiting and Documenting Modifications after Report is Circulated for Review: While the guidelines do indicate that agencies should document how they have responded to the review comments that are submitted, they do not provide any assurance that an agency might not go beyond the changes suggested in the review in finalizing their report. In the development of the Climate Change Science Plan, for example, the draft plan was revised and a prepublication draft was then provided to members of Congress and to the review panel setup by the National Research Council. In finalizing the report for actual publication, however, further changes were made to the revised plan and these were in direct contradiction to what the review comments had suggested and the NRC panel had recommended and there is no documentation on what the changes were and why they were made (and the Administration has rebuffed a FOIA request for materials relating to the late stage changes and has not even made available an indication of the responses to public reviewer comments). If an agency (or an Executive Office interagency committee) can, without explanation, make any changes that it wants to a plan after it has submitted it for review, including making changes in opposition to reviewers and even in the absence of reviewer comment, then the fact that there was a review does not in any way really enhance the overall credibility of the report. It seems to me that it is important for the guidelines to indicate that all changes to the report need to be documented and made public along with an indication of the basis for the change, and if an agency decides that a report must be substantially rewritten, then it must go out to a second review. The supporting materials for the guidelines make clear that for journal articles (and NAS reviews) there is a review editor someone who watches over the process to ensure that the authors are responsive to the comments, not making any fewer or more than are justified and deciding if a re-review may be needed.

These guidelines have no mechanism and offer no provisions to ensure that the revision process will be carried out in the type of manner that the guidelines suggest are exemplary. Making the basis for all the revisions public is one step in the process, requiring a multi-stage review would be another (this was the case for the US National Assessment and in the last stages, every change had to be justified and reported back to and checked by the independent review panel that OSTP had established). It is nice to have these guidelines and to claim that peer review will ensure decisions are based on sound science, but just doing the review will not guarantee this unless there is a mechanism to

check that the revised document is really as sound as the reviewers suggest.

Thank you for the opportunity to comment on these guidelines<they are a step in the right direction, but, as noted, I think they would benefit from some further clarifications.

Sincerely yours,

Michael C. MacCracken
6308 Berkshire Drive
Bethesda, MD 20814
Email: mmaccrac@comcast.net