

## Evaluation Committee Report

The objectives of the committee are, in a few words, to check on the retrospective evaluation of projects under the relatively new project-driven system. Conference evaluation is also seen to come under this objective.

### (a) Project evaluation: methodology.

As set out in the minutes of the 2004 EvC meeting, the first step is for the Secretariat to compile a list of measures for each completed project (e.g. citation data), to be sent to the EvC Chair and thence to the appropriate DP with a request for the appropriate information. In actuality, the requested information was not made available to the current EvC.

As it became apparent that the information could not be obtained in time for the Beijing meeting, the EvC Chair sent the following request to the DP of Divisions I-VII:

For two projects which have been completed within the last three years:

- Name of project
- Original milestones as listed in the application
- Milestones as actually achieved (papers, reports, etc.)
- Original criteria listed for retrospective evaluation
- Achievement of those criteria, or at least as much information as available at present.

(Division VIII was felt to be too new for meaningful data to be available and so was excluded from this request. Also it was felt that receiving evaluation information for only two projects per Division was better than requesting much more detailed information but receiving none.) Reminders were sent to DPs before the due date.

Replies were received from Divisions I, V and VI. These are given in the Appendix.

### (b) Conference evaluation: methodology.

As set out in the minutes of the 2004 EvC meeting, the first step is for the Secretariat to compile annually the information for all approved conferences for review by the EvC. This information will include the forms, AIS and FIS submitted, and the reviews provided. It will also include citation data for those conferences published in *PAC*. The EvC would then proceed to an appropriate form of evaluation.

In actuality, the requested information was not made available to the current EvC.

### (c) Conclusions

It is apparent, *for the projects from the Divisions which replied*, that these projects are fulfilling their original goals (or the spirit of these goals), as stated in the original project applications.

*No comments can be made about other projects, including those from other Divisions*, and there is not enough information from the whole gamut of projects to make any generic conclusions.

The overall conclusion is that the present retrospective evaluation system **cannot work until a reliable mechanism for collecting the necessary data can be achieved.**

#### **(d) Recommendations of Evaluation Committee Chair**

- That an *ad hoc* committee be set up to recommend a mechanism for an effective retrospective project evaluation procedure to be implemented, and that conferences can be evaluated.
- This committee could comprise a former DP, a person nominated by the NAOs making the largest IUPAC financial contributions (the top rung of the levy scale), and a person nominated by the Bureau from other NAOs. (The NAOs provide funding for IUPAC projects; the former DP could provide expertise in project administration.)
- Set up a system in the Secretariat so that the information needed for preliminary and subsequent evaluation is automatically flagged to the EvC Chair and to the DPs.
- That information be requested at the following intervals: (a) 6 months after the termination date originally given in the Project Submission form, (b) at the date nominated by the DP at which the project is effectively completed (e.g. submission of last report to *P&AC*), and (c) at a later period nominated by the DP appropriate for the retrospective evaluation stated in the original project application.
- The work required to supply the requested information is only a tiny fraction of that required to complete the project.
- The following quote from the VP's critical assessment is noted: "Discussions should begin in an attempt to achieve a consensus as to how any future increases in Division/Standing Committee project funding might be tied to success within the project system"
- One might have a simple evaluation score based on information provided for retrospective evaluation of a Division's projects (say, with a score for each project of 0–4, on a scale of *project not completed* through to *project completed and exceeding evaluation criteria as stated on original application*).
- "Project not completed" include not completed in a timely manner (obviously, unexpected minor delays would not be a problem: for example, completion of a 3-year project in 3 1/2 years is certainly within the spirit of timely completion).
- That this information be part of the data sent to Council.

## Appendix: responses received from Division Presidents

### *Division I*

**Ron D. Weir 22 June 2005**

**Title:** Critical compilation of vapour liquid critical properties {2000-026-1-100 (continuation of [121/10/87](#))}

Original Milestones: Work on data collection is being carried out, with data assessment, recommendation and estimation of uncertainties to follow. A meeting of the Task Members to discuss the recommended values and their uncertainties, and prepare these for publication, will be arranged when the preliminary results for these series of compounds have been prepared.

1. Milestones actually achieved:

A. Seven papers in the series "Vapour-Liquid Critical Properties of Elements and Compounds" were published in the *Journal of Chemical & Engineering Data*: Part 1. An introductory survey, **40**, 345-350 (1995); Part 2. Normal alkanes, **40**, 531-546 (1995); Part 3. Aromatic Hydrocarbons, **40**, 547-558 (1995); Part 4. Aliphatic Alkanols, **40**, 1025-1036 (1995); Part 5. Branched Alkanes and Cycloalkanes, **41**, 365-372 (1996); Part 6. Unsaturated Aliphatic Hydrocarbons, **41**, 645-656 (1996); Part 7. Oxygen Compounds other than Alkanols and Cycloalkanols, **46**, 457-479 (2001); Part 8. Organic Sulfur, Silicon and Tin Compounds **46**(3) 480-485 (2001).

B. The following papers are in the final stages of publication.

(i). Part 9 - **Nitrogen compounds**: reviews from 8 referees have been received and the report will be finalized for publication in *Journal of Chemical & Engineering Data* for June 2005.

(ii). Part 10 - **Halogen compounds**: manuscript ready to be sent to IUPAC reviewers in June 2005.

(iii). Part 11 – **Miscellaneous compounds** is 95 % complete and is awaiting the publication of parts 9 and 10.

3. Original criteria listed for retrospective evaluation:

The following is quoted from the project application form. *The success of this project can only be determined by the use which is made of the recommended values as, for example, by the number of citations which the publications receive after 5 years.*

4. Achievement of those criteria:

The citation numbers for each of the journal Parts in paragraph 2 A above are as follows. The numbers are cumulative to 20 Jun 05.

Part 1 – 19; Part 2 – 83; Part 3 – 28; Part 4 – 22; Part 5 – 27; Part 6 – 20; Part 7 – 102; Part 8 – 37.

**Title:** New Edition of Experimental Thermodynamics Vol II (120/16/97)

1. Original Milestones: The original milestone defined a single large volume. This was revised into two separate volumes of manageable sizes. The original target date of publication of 2000 had to be revised due to changes in publishers. First the original agreement that IUPAC would publish the volumes changed and the subsequent arrangement between IUPAC and Blackwell's collapsed. Arrangements were finally concluded successfully that Elsevier would publish the two volumes.

2. Milestones actually achieved:

Experimental Thermodynamics: Volume VI. Measurement of the Thermodynamic Properties of Single Phases. Editors: A.R.H. Goodwin, K.N. Marsh, W.A. Wakeham. Elsevier: Amsterdam. 2003. 558pp. cloth: ISBN 0-444-50931-3.

Experimental Thermodynamics: Volume VII. Measurement of the Thermodynamic Properties of Multiple Phases. Editors: Th. DeLoos, R.D. Weir. Elsevier: Amsterdam. Late 2005. About 450 pp. cloth: ISBN 0-444-51977-7.

3. Original criteria listed for retrospective evaluation: The success of this project can be determined by the use that is made of the books. The number of citations that the publications receive after 5 years is one measure of the success.

4. Achievement of those criteria: It is too soon to know the number of citations. Volume VII is slated to appear late in 2005.

#### ***Division V***

1. Name of project:

IUPAC 2000-033-1-500 Assessment of uncertainty associated with soil sampling in agricultural, semi-natural, urban, and contaminated environments (SOILSAMP)

This is a large international project to which IUPAC was invited to participate. The mode of participation was that IUPAC representative (A. Fajgelj) was invited to be a member of the international Advisory Expert Board of SOILSAMP project. Project itself was fully funded by the Italian Environment Protection Agency (APAT), including IUPAC part (reimbursement of the second payment is pending from APAT).

2. Original milestones as listed in the application

[From EvC Chair:] Extensive information given in various attachments. In brief: Selection of sampling areas and procedures; Definition of the nomenclature to be used; Determination of reference distribution of trace elements in the soil; Intercomparison between soil sampling devices; Analysis by INAA; Data evaluation; Guidelines and recommendations; Workshop

3. Milestones as actually achieved (papers, reports, etc.)

Meetings organized in schedule, IUPAC reports submitted in time. Numerous publications have been produced within the frame of the project, but there was no reason for IUPAC to be involved in all of them.

4. Original criteria listed for retrospective evaluation

This project is not a classical IUPAC project and was also not requested/approved in a standard way.

5. Achievement of those criteria, or at least as much information as you have at present.

There are numerous measurable criteria:

1. The sampling site in northern Italy, selected and characterized within this project, has become the testing site for evaluation of measurement uncertainty associated with sampling equipment.
2. Terminology article has been published
3. Report in the International Conference on Biological and Environmental Reference Materials - BERM 9 was presented in Berlin 2003.
4. There were numerous other publications resulting from SOILSAMP where IUPAC was not directly involved

### ***Division VI***

**Project No:** 1999-017-1-600

**Title:** Regulatory limits for pesticide residues in waters

#### **Original Milestones:**

- Preliminary workplan and assignments (3Q/1999)
- Draft report and preliminary recommendations (4Q/2000)
- Final recommendations and report publication (3Q/2001)

#### **Proposed Evaluation Criteria:**

- A measure of success would be the degree of adoption of the findings by national regulatory agencies and international advisory bodies, but this is unlikely to happen in the short term.
- Another measure of success would be to evaluate the number of literature citations to the published report as summarized in a scientific citation index. This would be most appropriate about 3-4 years post-project completion

#### **Actual Project Outcomes**

- “Regulatory limits for pesticide residues in water”, IUPAC Technical Report, *Pure Appl. Chem.* 75(8), 1123-1155, 2003.
- “Evaluation and standards for pesticide residues in water”, *Proceedings of the IUPAC-KSPS International Workshop on Pesticides*, 13-16 October 2003, Seoul, South Korea, pages 70-75.
- “Regulatory limits for pesticide residues in water”, *ILSI-ICMR-ITRC International Symposium on Risk Assessment of Pesticide Residues in Water and Food*, 28-29 October 2003, New Delhi, India.

“Establishment and interpretation of limits for pesticide residues in water”, *Proceedings of the IUPAC-UCR-MAG International Workshop on Crop Protection Chemistry in Latin America*, 14-17 February 2005, San Jose, Costa Rica, supplement pages 1-7.

**Project No:** 2000-016-1-600

**Title:** Environmental implications of endocrine active substances: Present state-of-the-art and future research needs

**Original Milestones:**

- June 2000 - SAC (Scientific Advisory Committee) meeting to initiate the project
- August 2000 - Each topic contributors' meeting
- June 2001 - SAC meeting for evaluating and confirming the progress
- November 2002 - SAC meeting to evaluate draft reports
- November/December 2002 - Workshop
- March 2003 - SAC meeting to complete the project, and to prepare for publishing the report

**Proposed Evaluation Criteria:**

- Submission of a questionnaire to academic societies, and other interested sectors.
- Checking No. of citation in academic journals.

**Actual Project Outcomes**

- The International SCOPE/IUPAC Symposium on Endocrine Active Substances, Yokohama, Japan, 17-21 November 2002.
- Environmental Implications of Endocrine Active Substances, Conference Report, *Chem. Int.* 25(2) 2003.
- Special Topic Issue on the Implications of Endocrine Active Substances for Humans and Wildlife, *Pure Appl. Chem.* 75(11-12), 1617-2615, 2003.