

## Division VI- Chemistry and the Environment (DCE)

### Division Meetings

Moscow, Russia, 15-16 May 2010

### Draft Minutes

#### 1. *Opening, welcome, call by name of members attending, apologies*

##### Present:

Prof Nicola Senesi (NS) - Division President and meeting chair, Dr Rai Kookana (RK), Dr Keiji Tanaka (KT), Prof Nadia Kandile (NK), Prof Hemda Garelick (HG), Prof Petr Fedotov (PF), Dr Yehuda Shevah (YS), Prof Sirpa Herve (SH)

##### Apologies:

Leo Klasinc; Manos Dassenakis; Ewa Cukrowska; Laura McConnell (LMc); Willie Peijnenburg (WJP); Werner Koerdel; Paul H. Wine; Kenneth D. Racke (KR); Iqbal Bhangar; Etelka Tombacz; Christoph Von Holst; Guibing Jiang; Michael E. Goodsite; Ting Kueh Soon; Marjan Weber; Nelly Manay.

Professor Senesi welcomed the new members and thanked all the former members whose term was completed after the Glasgow meeting.

Professor Senesi also reminded the committee of the passing away of Professor Pan Ming Huang whose contribution to the divisional committee was invaluable. A minute of silence was observed in His memory and condolences were formally forwarded on due time through Professor Senesi to His family.

In the absence of the Secretary WJP, NS also kindly invited PF, with the help of HG, to take notes of the discussions and care for the preparation of draft minutes. Both kindly accepted, and this was unanimously approved by the present members.

**The agenda was approved.**

#### 2. *News communications from the President*

NS reported on the access of the Division members to the IUPAC internet forum. Brian Pearson is in charge of the internet sites and provides the appropriate access. The Division has agreed to keep the access to former members of the Division and extension to the new subcommittee membership.

##### **Action WJP:**

**to write to Brian Pearson and inform him of the decision of the Division and provide him with the up to date sub-committee membership list**

- NS reported that a new executive director (Dr. Terry A. Renner) has been appointed to replace John Jost

- Report on the conference call facilities
- Reminder: August 8-13 2010 is the date for the International Conference on Chemical Education in Taipei, Taiwan

### 3. **Budget status.**

NS reported that for the Biennium 2010-2011 (finishing Dec 2011) the Divisional budget is \$68K  
 Approx 30% (\$20K) is intended for operational expenses  
 Approx 70% (\$50K) is intended for projects

In addition funding is available from the following:  
 Project committee (PC)  
 Strategic opportunity fund (SOF)  
 IUPAC Conference Sponsorship (AIS)

### 4. **Current Projects Status/Reports received**

NS reminded the Division that project Leaders who completed projects must send a final/conclusive report to Fabienne Meyers in order to ensure that the project is considered officially completed and taken off the outstanding list  
 Action need to be taken on the following projects

Katayama 1999-041-1-600

Project report published in "Reviews of Environmental Contamination and Toxicology" (2010)

Felsot 2001-023-1-600  
 may be finished

**Action LMc**  
 contact Felsot

Wauchope 2001-039-1-600  
 no news about progress

**Action KR, LMc**  
 contact Wauchope

Carazo 2003-013-1-600  
 should be already completed

**Action KR**  
 try to contact Carazo

Hertel 2008-058-1-600  
 now taken over by Dr. Goodsite  
 (project was given an extension until Dec 2009)

**Action HG**  
 contact Dr. Goodsite

#### 4.1 Reports received:

<p>2005-024-2-600 (Von Holst) Establishment of guidelines for the validation of qualitative and semi-quantitative (screening) methods by collaborative trial: a harmonized protocol (continued as 2006-027-1-600)</p>	<p>Progress has been achieved. A study from 16 laboratories has been reported. First draft of the outcome of the validation study is expected in July 2010. Deadline was postponed till Dec 2010</p>
<p>2006-011-1-600 (McConnell) Critical review of available methods to predict VOC emission potentials for pesticide formulations (ongoing)</p>	<p>An extension until July 2010 is needed to get the paper published. This extension is granted by Division</p>
<p>2006-014-1-600 (Senesi) Biophysico-chemical processes involving natural nonliving organic matter in environmental systems</p>	<p>Book published: project completed. This is the 2<sup>nd</sup> volume on biophysical-chemical processes in environmental systems. Editors Prof. Pan Ming Huang, Prof. Baoshan Xing and Prof. Senesi. <b>NS( DP) to write a report to Fabienne Meyers</b></p>
<p>2006-015-3-600 (Kleter) Evaluation of food and feed safety implications of (altered) residues of pesticides applied on transgenic (GM) crops</p>	<p><i>YS reported on the project progress.</i> It was intended to submit at least one manuscript on the topic to a scientific journal in the course of 2009. Another output will be the publication of a lecture paper on changed pesticide use in transgenic crop for an academic winter school sponsored by the Indian government. No money was spent Abstract was submitted to PAC. Presentation in Melbourne August 2010 The project deadline is Dec 2010</p>
<p>2006-039-1 (Fedotov) Extraction and fractionation methods for risk assessment related to trace metals, metalloids and hazardous organic compounds in terrestrial environments</p>	<p><i>PF reported</i> The manuscript was submitted for publication in Critical Reviews in Environmental Science and Technology <b>PF to send a final report to Fabienne Meyers</b></p>
<p>2006-044-2-600 (Linders) Environmental risk assessments for the registration of pesticides used in rice paddy fields</p>	<p>Project team met in Oct. 2007. Division VI agreed in Glasgow to extend the project until June 2010. 100% budget spent in meeting in Beijing and Bristol 2009 Abstract will be submitted to PAC in July 2010. Chen for the US has taken over from Linders as project leader.</p>

	<p>The project is nearly completed  <b>Final report to be submitted</b>  Note: An additional budget and extension were requested. DC has not accepted this request because if the project opens new challenges, a new project proposal should be submitted.</p>
<p>2006-049-2-600 (Dassenakis)  Combination of chemical analytical measurements and remote sensing techniques for coastal water monitoring. The cases of Eastern Mediterranean and Black Sea</p>	<p>The project team has gathered literature on the subject (remote sensing technology, applications and Mediterranean case studies).  A workshop was organised with various scientists (invited speakers) working on the subject.  The team is preparing a booklet with the presentations of the invited speakers.  The final technical report is being prepared and will be submitted to "Pure and Applied Chemistry".  Deadline June 2010 to complete the publication and submit to PAC.</p>
<p>2007-017-1-000 (Melton) What are dietary fibres?</p>	<p>No money (\$3500) has been spent. NS has written to LM but there was no reply.  <b>NS will write to Project Leader and inquire about an alternative Project Leader or suggest the termination for the project.</b></p>
<p>2007-026-1- (Kalderis). Soils contaminated with explosives – Environmental risk assessment and evaluation of the state of the art treatment processes.</p>	<p>A draft was submitted to IUPAC and was send to the division members for review. NS has summarised the main points of the reviewer: These have been presented to the division meeting. Recently, a revised version has been submitted, and it is now in review.  <b>The next step is to wait for the comments of reviewers on the revised version.</b></p>
<p>2007-057-1 (Dr. Alleluja). 3rd International Workshop on Crop Protection Chemistry in Latin America: Environment, Safety, and Regulation</p>	<p>Budget has been spent. A workshop was organized in Rio de Janeiro in November 2009. Project is now completed.  <b>Report to be submitted.</b></p>
<p>2008-001-1 (Xing). Biophysico-Chemical Processes Involving Anthropogenic Organic Compounds in Environmental Systems.</p>	<p>A report has been submitted. 22 chapters all have been reviewed, revised and accepted. Copyright permissions are being worked on. Expected to have the book published by September 2010.</p>

2008-003-3-600 (Shevah). Regional Drinking Water Quality Assessment in the Near East (Palestinian Authority, Jordan, and Israel) – An Overview and Perspective.	A very comprehensive project report has been submitted. An article has been submitted to Chemistry International.
2008-011-2-600 (Parker). Development of a Pesticide Ecological Risk Assessment and Training Module	Project recently initiated, deadline is 2012.
2008-039-1 Letcher – A guide on the chemical recycling and management of waste.	Project report state early achievements. A plan for a handbook of 29 chapters on wastewater and recycling.
2008-041-1 (Unsworth). Global Availability of Information on Agrochemicals	Report has been submitted to NS. There have been some difficulties but the IT supplier to IUPAC has validated the system and these will be updated on the IUPAC site Work is progressing – project will last until 2012.
2009-007-2 Kördel. Guidance for substance-related environmental monitoring strategies.	Meeting between members of the group was organised recently. A project outline has been circulated to the project team for comments.

## 5. New Project proposals

<p>5.1.1 2010-013-1(Heinzen)</p> <p>Critical Review of methods to assess volatility of pesticides with respect to estimating and minimizing human exposure.</p>	<p>Review feedback from the Division: What is the originality/progress compared with a previous recent project on VOCs (2006-011-1-600)? It should be proven that there is no overlapping, there is progress and enlargement.</p> <p>Clarify what is meant by human exposure. Describe which criteria/methodology will be used to relate pesticide volatility to human exposure.</p> <p>The involvement of the Division of Human Health (VI) is suggested Budget is too high and not clearly justified.</p> <p><b>Recommendation: resubmit after extended revision.</b></p>
<p>5.1.2 2010-014-1 (Shaw) Chemistry Information International: Planning Phase</p>	<p>Review feedback from the Division: This project refers to a general need. The project aims are too general and are beyond the scope of a particular division. All IUPAC Divisions, possibly the PC, should be involved.</p> <p><b>Recommendation: revise the objective, global strategies, outcomes etc (see reviewers comments) and submit to one of the standing committees (e.g. CHEMRAWN)</b></p>
<p>5.1.3 2010-016-1 (Caldas) Ecological Risk Assessment Harmonized Guidance for Brazil and Uruguay</p>	<p>Review feedback from the Division: Not a very original project.</p> <p>In the title it should be clear that it is about crop protection.</p> <p>Objectives 4 and 5 appear not suitable/ not appropriate for the Division.</p> <p>More reference should be given to the global view. A very similar project in another geographical area (2010-017-1) has been presented and evaluated. Budget is excessive.</p> <p><b>Recommendation: resubmit after extended revision, possible combination with project #2010-017-1 and adaptation of budgetary requests to what is available from IUPAC.</b></p>

<p>5.1.4 2010-017-1 (Chen) Development of Guidance to Promote Consistent and Transparent Pesticide Ecological Risk Assessment in China</p>	<p>Review feedback from the Division: Not a very original project. More reference should be given to the global view. A very similar project in another geographical area (2010-016-1) has been presented and evaluated. Budget excessive There are only 2 participants from the same Institute in China in the group. The rest from North America. No adequate representation from China. <b>Recommendation: resubmit after extended revision, possible combination with project #2010-016-1 and adaptation of budgetary requests to what is available from IUPAC.</b></p>
<p>5.1.5 2010-018-1 (Chen) Quantitative Review of Pesticide Environmental Fate Parameters and Their Relationship with Soil and Climate Conditions</p>	<p>Review feedback from the Division: The proposal was view positively but revisions are proposed as follows:</p> <ul style="list-style-type: none"> <li>• To consider further the effect of climate and geographical areas.</li> <li>• To enlarge the task group to include member form other continents (e.g. Europe) and to include senior soil scientists.</li> <li>• To refer to the previous IUPAC reports on the subject (e.g. Wauchope) and demonstrate progression from there.</li> <li>• Further clarify the specific questions being asked and the target clients.</li> <li>• To strongly reduce the budget and provide better justification (max \$5000 from the division).</li> <li>• To possibly involve the Analytical Chemistry Division</li> </ul> <p><b>Recommendation: resubmit after extended revision.</b></p>
<p>5.1.6 2010-020-1 (Racke) IUPAC International Award for Advances in Harmonised Approaches to Crop Protection Chemistry</p>	<p>Approved by electronic mail by Division members. All the \$6000 to come from Dow. This is a mechanism for managing the corporate donation for the award.</p>
<p>5.1.7 AIS-10-04-02-Racke 13<sup>th</sup> IUPAC Pesticide Congress, San Francisco, USA (Racke)</p>	<p>NS reported that this has already been processed and approved following positive response by email from members.</p>
<p>5.1.8</p>	<p>Positive feedback from the division and will be ready to support the project up</p>

<p>2010-028-1 (<i>Sakellariadou</i>)</p> <p>Management of maritime pollutants in shipping and commercial ports based on relevant physical and biogeochemical environmental parameters.</p>	<p>to \$5000</p> <p>Comments:</p> <p>More detail on the dissemination plans: Where is the report to be published (e.g. PAC?) and is the website intended to be the IUPAC website?</p> <p>Clarify the geographical limitation of the project (limit to European ports).</p> <p><b>Recommendation: resubmit after revision taking in due account the comments above and those of external reviewers.</b></p>
<p>2009-007-2 (<i>Raccanelli</i>)</p> <p>Evaluation of measurement procedures and QA/QC for PCDD/F, PCB and PAHs in environmental matrices (air quality, soil, sediments and wastes) used in estimation of global pollution.</p>	<p>The DP has written to the PL the division response but has received no reply yet.</p>
<p>2009-010-1 (<i>De Zorzi</i>)</p> <p>Requirements for proficiency testing for environmental sampling</p>	<p>The DP has written to the PL and recommended to revise and resubmit the proposal but has received no reply yet.</p>
<p>5.1.9 Open Discussion of future Divisional projects</p>	<ol style="list-style-type: none"> <li>1. Nanoparticles (WJP and NK): A new project concept on Nanoparticles was discussed and the committee would be happy to consider a formal application in due course.</li> <li>2. A new project idea on “Addressing data deficiency on environmental fate of pesticides in tropical countries” was presented by RK and the committee would be happy to consider a formal application in due course.</li> <li>3. HG possible phytoremediation project</li> <li>4. NK: Role of Natural Polysaccharides for Leaching Heavy Metals (as mentioned in the Division meeting in Glasgow, August 2009)</li> </ol>

## 6. *Proposal for the institution of an Interdivisional (I,III,V,VI) Committee on Green Chemistry*

NS provided a review of the history of the development.

- I. The bases of the development
- II. The submission to IUPAC Executive Committee (EC)
- III. The EC recommendation (forum with no money and only TMs reps)
- IV. Letter of objection from the proposers in January 2010

NS reported that there was no further news on the subject from IUPAC-EC.

## 7. *Subcommittee reports*

### 7.1 *Biophysico-chemical Processes*

The chair NS reported briefly on the activity of the subcommittee.

The chair has expressed concerned about the commitment of Some members. Some are more active than others.

### 7.2 *Crop Protection Chemistry*

The chair KR submitted a full report.

The division has noted the activities of the sub-committee as good practice.

### 7.3 *Chemistry of Environmental Compartments*

The chair HG reported about the activities of the subcommittee

### 7.4 *Food Chemistry*

No report was received. Chair/members not present to report orally.

## 8. *Division representative reports*

8.1 CCE (Garellick)	HG reported on the activities of the committee and submitted a report.
8.2 COCI (Tanaka)	KT reported on the activities of the committee and submitted a report.
8.3 ICTNS (Fedotov)	Reported that it is an effective committee. Hoping for collaboration in the area of

	terminology.
8.4 PAC (Senesi)	Reported on the position and activities. The division proposed that the journal will be made freely available electronically after 6 months or a year in order to increase the impact factor.
8.5 CODEX (Racke)	No report received.
8.6 IUSS (vacant)	The position was held by Ming Huang. NS will take this position.
8.7 AACC (Fitzgerald)	Suggest we reconsider Division representative in Puerto Rico.
8.8 AOAC (Anklam)	This needs to be appointed or deleted. Prof. Fedotov will consider.
8.9 CCRP (Racke)	No report received
8.10 SCORE	To leave decision to maintain a Division representative in Puerto Rico
8.11 COSPAR	To be deleted. <b>Action WJP</b>
8.12 SCOPE (Klein)	No report was submitted. NS reported that the committee has been dismissed by ICSU and the committee has become an independent organization. The decision was left for Puerto Rico.
8.13 CACGP (Klasinc)	No report received
8.14 IFCS (Yong Hwa)	No report received

### **9. IUPAC-ACS relations report (McConnell)**

Report submitted. NS reported back. The main cooperative action will be the International Year of Chemistry.

### **10. 2011 IUPAC World Congress Puerto Rico. Division symposium/symposia**

- The congress arrangements were discussed
- LMc has taken the lead in organising the divisional symposium, has communicated with Division and has submitted an application to the ACS.
- HG has proposed a second symposium which was discussed in the Division, and has submitted an application to the ACS.
- The division will officially propose 2 symposia to the congress organisers.

#### **Action NS**

### **11. International Year of Chemistry (IYC). Division contribution**

NS reported on 3 types of activities:

1. National activities (no divisional input)
2. Central IUPAC initiatives
3. Possible divisional proposals/initiatives

WCLM has one day allocated In the Puerto Rico congress (The challenges for chemistry in sustainable development). A number of plenary Speakers will be invited. Round Tables or breakout discussion groups to be decided.

**Action: All Division members are invited to propose topics for roundtable/discussion group debates.**

### **12. ICSU Project**

NS reported:

ICSU grant programme for 2010

- IUPAC was allowed one application.
- NS circulated the request but no response from division members.
- NS reported that IUPAC did not submit an application.

### **13. Conferences supported by the Division**

Full support has been given by the Division to the 13<sup>o</sup> IUPAC Pesticide Congress, to be held in San Francisco (USA) in 2014.

### **14. Other businesses**

SH circulated information on the EUChem MS Chemistry Congress. Web site will be circulated by email.

**Action SH**