



World Federation of Engineering Organizations Standing Committee on Engineering and the Environment 2008-2011

**In Person Meeting No. 2
JW Marriott Hotel
Kuwait City, Kuwait**

Monday November 2, 2009

Minutes

1.0 Time and Place

The second in-person meeting of the World Federation of Engineering Organizations Committee on Engineering and the Environment (WFEO-CEE) 2008-2011 was held on Monday November 2, 2009. It was held the day prior to meetings of the WFEO Executive Council and the WFEO General Assembly in Kuwait City, Kuwait.

2.0 Attendance

CEE Chair: D. (Darrel) Danyluk, P.Eng. – Engineers Canada

CEE Vice-Chairs: Engineer S. (Salim) George Aoun - Lebanon
Engineer S. (Spryros) Papagrigoriou – Greece

CEE Past Chair: Engineer B. J. Vasoya - India

CEE Members: Engineer N. (Naeemah) Ahmead Al-Hay - Kuwait
Eng. C. (Carlos) Ballester - Argentina
Engineer T. (Thabet) Fethi – Tunisia
Engineer J. (Jiming) Hao - China
Engineer Y. (Yumio) Ishii - Japan
Engineer E. (Emad) Khader - Palestine
Engineer A. (Arvind) K Poothia - India

Observers: Engineer K. (Konstatinos) Alexopoulos - FEANI
Engineer Mohammed Alrashidi – Kuwait
Engineer C. (Conrado) Bauer - Argentina
H. (Haro) Bedelian, CEng. – United Kingdom (ICE - for P. Jowitt)
Engineer D. (Daniel) Favrat – FEANI (WFEO Energy Committee)
T. () Foulkes, CEng. – Commonwealth Engineers Council
Engineer R. (Ruomo) Li – China
D. (Dan) Motyka, P.Eng. – Engineers Canada (President)
M. (Mike) Sanio – United States (ASCE/AAES)
Engineer N. (Nguyen) Son Hung – Japan



Engineer J. (Jorges) Spitalnik – Brazil (WFEO Energy Chair)
Engineer P. (Peter) Taylor – Australia
V. (Vilas) Mujumbar – United States

Regrets: Ing. I. (Irene) Campos, Costa Rica
Engineer P. (Paul) Jowitt – United Kingdom
Engineer B. (Babagana) Mohammed – United Kingdom
T. (Tony) Marjoram, CPEng – UNESCO
Engr. Z. (Zaffar) A. Zuberi – Pakistan
Ir R. (Reuben) CHU Pui Kwan – Hong Kong

CEE Secretary: D. (David) Lapp, P.Eng. – Engineers Canada

3.0 Call to Order and Approval of Agenda

Chair D. Danyluk called the meeting to order and asked members to introduce themselves, including name, country and affiliation. Observers were asked to identify themselves. Past-Chair Dr. Vasoya was asked to address the committee.

The Chair reviewed the agenda, which included the business meeting and items under other business. He noted that the Theme Leaders would be reporting at the afternoon session.

The Chair proposed two changes to the agenda both of which were accepted by members:

Add Item 5.1.4 – Future Climate Change Declaration

Item 6.3 – New members to be combined with Item 8.2 – Review of Membership.

Under new item 5.1.4 the Chair explained that several members of the WFEO Committee on Energy would join at 1100 hours for a joint meeting of the two committees to discuss the wording of a joint declaration to be presented to the Danish Society of Engineers. This written declaration will form part of the Federation's input to the upcoming United Nations Framework Convention on Climate Change Conference of the Parties Meeting Number 15 (COP-15) being held in Copenhagen, Denmark in early December.

The Chair noted that additions or changes to the agenda may be proposed by members as the meeting progresses or at his discretion.

The agenda was unanimously approved as amended.

4.0 Approval of Minutes

The minutes of the June 29, 2009 combined teleconference/webinar were reviewed (Mid-Year Meeting No. 2). This was the first combined webinar and teleconference for a business meeting of the committee. There were a couple of problems – incorrect telephone numbers and incompatibilities with international dial-in numbers. A couple of participants reported that they could connect by teleconference but were unsuccessful to hook up to the webinar technology.



The Chair noted that the cost of the teleconference/webinar meeting was in the order of CAN \$700 for connecting 11 locations around the world.

The Chair asked committee members to forward any corrections to their telephone numbers and contact information to the Secretariat. Anyone who could not participate because of the time of the call is requested to contact the Secretariat so that alternate arrangements may be considered.

There were a few minor editorial corrections to the minutes. The minutes of the webinar/teleconference were unanimously approved as amended.

5.0 Business Arising and Review of Action Items

D. Lapp reported that all action items arising from the June teleconference had been completed or would be discussed as part of this meeting.

6.0 WFEO-CEE Business Meeting

President B. (Barry) Gear addressed committee members and observers, observing that it has made good progress over the past two years through a well defined program and offered his congratulations to the group. He noted the work of Dr. Ishii and the Disaster Risk Management Task Group of the CEE and expects the group to become an official standing committee at the General Assembly. Chair Danyluk will make the proposal to the General Assembly. He encouraged the committee to post results of its work on the WFEO website to keep it updated.

President Gear reported that several organizations have expressed interest in cooperating with the Federation through its committees and other structures. A Memorandum of Agreement has been signed with UNESCO which will offer new opportunities. Both FIDIC and CAETS are looking for cooperative work in risk management and the environment.

6.1 Chair's Activity Report

The Chair reported on several international meetings he attended on behalf of WFEO and the CEE, noting that written reports were included as part of the meeting materials.

6.1.1 UN-CSD Meeting No. 17 – New York, New York

A report on the results of UN-CSD Meeting No 17 was included in the meeting materials.

The UN Committee on Sustainable Development (UN-CSD) held its meetings over a two week period in May 2009 where WFEO presented the views of the world engineering community. The WFEO representatives included the WFEO President B. Gear and the Chairs of the standing committees for Engineering and the Environment (D. Danyluk), Energy (J. Spitalnik) and Capacity Building (D. Clinton). WFEO has participated in these meetings for the past three years, moving from virtual non-recognition of the engineering community to become a major contributor to the policy discussions. It is another avenue to raise the profile of engineers at the United Nations.



The CSD considers topics over a two year timeframe where the first year is spent gathering information and opinion and the second being devoted towards the Chairs report which includes policy recommendations. The next round of topics includes sustainable consumption, waste management, transport, mining and chemicals.

6.1.2 UNFCCC Subsidiary Body Meeting No 30 – Bonn, Germany

A report on the meeting was included as part of the meeting materials.

The Chair explained that the WFEO link to the UNFCCC arose from Canada's involvement in the development of a risk assessment tool for infrastructure and climate change. Darrel Danyluk leads national committee in Canada that oversees this work.

The Chair reported that WFEO-CEE is now officially registered as a Non-Government Organization (NGO) within UNFCCC with "observer" status. This means we can attend their meetings and deliver side events which are typically 1 ½ to two hour workshops. We can also discuss issues with delegates outside of their closed negotiation meetings.

The UNFCCC spends the majority of its time on negotiating GHG reduction targets as the primary tool to mitigate climate change. However, within the UNFCCC structure there is the Nairobi Work Program that focuses on impacts and adaptation to climate change. The NWP links well with the work being done in Canada and by extension through the WFEO-CEE. The NWP focuses on tools and information dissemination. The Chair of the NWP is from New Zealand and has good linkages with the Executive Director of IPENZ – N. Cleland.

6.1.3 Farmer's First Initiative

The Chair provided some background on the Farmers First initiative noting that WFEO had partnered with them and others on a side event at a UN-CSD meeting. The WFEO has been invited to attend their meetings as observers and possibly join the group as a member later on. Because much of the work and people are located in Europe, the Chair is attempting to engage WFEO members located in Europe to attend these meetings on behalf of CEE and the WFEO in general.

Barry Grear noted that engineers can make a substantial contribution to agricultural practices to make farming more productive and reduce waste. It was noted that approximately 50% of the world's food production is wasted through poor storage, and disposal of excess food, inadequate transportation and spoilage and so forth. With problems presented clearly by groups such as Farmers First practical solutions can be developed through alliances with such groups.

B.J. Vasoya noted that major work can be done in the agriculture area by the WFEO. He reported on an initiative in India to educate through seminars to farmers in 10 villages to explain how they can help themselves and reduce waste. These seminars were held over 11 days and over 8,000 farmers attended.

One example of techniques learned was regarding the installation and operation of systems to collect and store rainwater during the monsoon season to recharge wells for use in the dry



season. They were able to secure financing to have piping installed to enable the re-charging of over 300,000 wells

Action: B.J. Vasoya to provide a copy of their report on this work related to the collection and storage of water for agricultural use.

6.1.4 IDA Future Climate Engineering Solutions Declaration

This portion of the meeting was held with the participation of several members of the WFEO Energy Committee to consider a resolution concerning action on climate change that was developed by the Danish Society of Engineers. The discussion was centred on jointly developing a recommendation to the WFEO Executive Council and the General Assembly for endorsement of a resolution on GHG reduction as tabled or as amended.

The Chair provided some background to this initiative. One year ago the Danish Society of Engineers (acronym IDA) initiated a project with 13 countries to prepare country reports on the technical feasibility of GHG reductions. Each country prepared its own country report and IDA prepared a summary report that is available through their website. The IDA has prepared a declaration that they intend to table at the UNFCCC COP-15 meeting in Copenhagen in December 2009 and have solicited for WFEO support through Chair Darrel Danyluk.

Cdr A. Poothia provided some additional background through his involvement with India who was one of the countries involved. The work started in 2008-09 with each country to prepare a climate change action plan that would be rolled up into a global plan for GHG reduction. The general conclusion was that there are technical solutions available to achieve the globally stated target of keeping global temperature rise below 2 degrees C. The main thrust of the strategy in the near term is that there are existing technologies that can be immediately applied to GHG reduction including an emphasis on renewable energy, expansion of nuclear power and enhanced efforts towards energy conservation. It is estimated that more than 50% of GHG reduction can be achieved through energy conservation and increasing energy efficiency. The report suggests GHG reductions by sector as the best means of achieving sustained reductions.

For example, it was noted that transportation is one of the largest emitters (as well as polluters) so an emphasis on lower emission vehicles as well as switching to different modes of transport and conversion of commercial and public vehicles would be good strategies.

The final summary report has been endorsed by the 13 countries and will be formally submitted to the UNFCCC at COP-15. The report emphasizes the role and importance of technical solutions and the role that engineers can play in this effort.

Chair Darrel Danyluk noted that this was an example of 13 engineering societies putting "words into action" that would lead to significant GHG reductions that exceed the targets for 2050 in most cases. The key point is that engineering is one of the keys to solving the problem, but we have not been at the UNFCCC table to present this message. The question is whether the work done by the 13 countries enough for WFEO to endorse the report and participate in the press release that will be tabled during the COP-15 meeting. It is a golden opportunity to raise the



profile of the engineering profession in the United Nations community that is reluctant to accept the work of other professionals i.e. besides scientists.

The Chair then read out the Joint Declaration and the IDA request to WFEO and asked if WFEO would add its name and logo to the Declaration and Press release. He noted that the Declaration will be submitted where WFEO agrees or does not agree. What followed was a roundtable discussion offering different perspectives of the countries present at the meeting.

Mike Sanio (US) reported on a joint declaration on climate change signed by ASCE (US), CSCE (Canada) and ICE (UK) at a joint meeting in St. John's, Newfoundland in June 2009. He read the IDA statement and noted that both declarations are similar although Newfoundland does not include numbers or percentages to be achieved. The IDA declaration does not talk about climate change adaptation whereas the Newfoundland one does by stating that engineers need to take climate change into account for infrastructure design and operation.

M. Sanio noted that he strongly supports cooperation within the engineering community on this issue and urged that the Environment and Energy Committees support the IDA statement but suggested adding a statement outlining the importance of adaptation to climate change to show that engineers are concerned about both mitigation and adaptation. ASCE has had many discussions with the World Bank on climate change adaptation and he believes a strong statement from the engineering community would help the World Bank advance their cause.

Dr. ISHII (Japan) commented that the declaration is very important. However, the 50 to 80% reductions by 2050 in the IDA report will be very difficult to achieve and complicated politically in Japan. He reported on the Yokohama Initiative to reduce GHGs in Japan by 25% by 2020 and to participate in a joint GHG reduction initiative with the US, China and India. The Science Council of Japan and are not officially supporting the 2020 target yet. He also noted that the Japan Society of Civil Engineers has published a policy to reduce GHG emission and to adapt infrastructure to climate change impacts.

Jorge Spitalnik (Brazil) provided his perspective on the way forward. WFEO needs to have its own declaration that embraces the philosophy of the IDA declaration. He expressed some discomfort with some of the statements in the IDA report e.g. energy efficiency is the easiest path and most inexpensive. He suggested that WFEO develop its own declaration that reflects the reality of the current stage of technology and its application on a world-wide basis.

Peter Taylor (Australia) noted that the Australian country report was signed off by a body of engineers in Australia that is not part of the national body IEAust. He was comfortable with the declaration and questions the estimated percentage reductions, but the thrust of the arguments is fine.

Thabet Fahir (Tunisia) agreed with IDA declaration and suggested the General assembly endorse it before Copenhagen meeting in December – it is an opportunity not to be missed.

Ruomei Li (China) agreed that energy efficiency is very important but a 50-85 % GHG reduction is impossible in China. She agreed with the declaration personally but was unsure if it would be agreed at the society level. Jiming Hao noted that the declaration deals with technology but



more important is the philosophy behind it. We need to change our prevailing philosophy that more or bigger is better. If we don't, our resources will be depleted. WFEO needs to agree on the philosophy then deal with technology. He noted that a 50-85 % reduction may be possible technically, but unsure if it is possible economically. More work is needed on economics.

Chair Darrel; Danyluk note that when we respond to the IDA invitation we can put qualifiers on our endorsement which could include our philosophy. He noted that the discussion so far shows that while such reductions are technically feasible what are the costs and who pays? The linkage between technology and economics is very important.

Haro Bedelian (UK) noted it is very important that WFEO comes forward on this issue and that we have the work from IDA to help us. Our message is to say that climate change is happening and that engineers can deal with it. Then get into the details of how etc. and note that other engineering organizations such as ASCE have done work.

Spyros Papagrigoriou (Greece) agreed with the development of a WFEO philosophy, noting that engineering is much broader than what is implied in the text of the IDA declaration. He is uncomfortable with the percentages and the lack of references to the socio-economic impacts.

Chair Darrel Danyluk offered the following conclusions from the discussion:

- That WFEO should be supportive of the IDA declaration;
- Add possible caveats including our philosophy;
- That we need to raise WFEO's profile as a leader in this area and offer our perspectives;
- That WFEO is supportive of all similar initiatives at the country and regional level as well as collaboratives such as the IDA.

Going forward, we make a recommendation via the Executive Council to the General Assembly that:

- WFEO supports the IDA declaration;
- WFEO will provide an overview statement to accompany its support of the IDA declaration;
- Have a WFEO representative at the IDA press release at COP-15 (**Secretary's Note:** D. Danyluk will be the representative)

Action: D. Danyluk, A. Poothia, M. Sanio and J. Spitalnik to develop the wording for the WFEO support for the IDA declaration and develop an overview statement for the approval of the WFEO Executive Board.

The Chair noted that, regardless of the final wording of the WFEO overview statement, the IDA can report that WFEO is supportive of their work.

The Chair thanked the members of the Energy Committee and the Engineering and Environment Committee for an excellent discussion and an agreement on the direction going forward.



6.2 WFEO-CEE Membership List and New Members

The latest version of the membership list and contact information was included with the agenda materials. The Secretariat asked members to review their information and provide updates or corrections.

Action: CEE members to provide updates to contact information as changes occur.

The Chair noted that membership on the CEE remains open to any new member countries that wish to join and participate in the work. He encouraged existing members to promote the work of CEE and encourage them to identify potential new members and have them contact him through the Secretariat.

6.3 Webinar Schedule

The Chair encouraged CEE members and particularly Theme Leaders to consider offering technical webinars that can be organized and paid for through the Secretariat. The webinars would be targeted to provide training and/or current information as well as for use in meetings. The webinar can be coordinated through the Secretariat but can be chaired/operated by the host country.

The question each theme needs to ask is whether their work has progressed to the point where your information could be disseminated through this technology. If so the Secretariat can organize the technical and logistical support while the Theme Leader organizes the topic, and secures the speakers and their presentations.

The chair expressed the hope that 1 or 2 technical webinars could be organized in 2010.

6.4 WFEO-CEE Budget Request

The Chair reported that the CEE received 6,000 euros from the WFEO budget for 2009, primarily to support communications and related activities. He noted that some standing committees were allocated budget while others were not.

The budget cannot be used to support travel in whole or in part. Other types of expenditures e.g. copying are permissible. The Chair encouraged theme leaders to contact the Secretariat in advance to determine the availability of funds to support the expense in whole or in part.

For 2009, approximately 3,000 euros has been spent to date. Budget is available to pay the operating cost of technical webinars.

6.5 WFEO-CEE Newsletter

The second newsletter was issued in October 2009, focusing on Disaster Risk Management. The Chair thanked Theme Leader Dr. Ishii and his support Dr. Nguyen for their excellent work and contributions to the newsletter.



The next newsletter will be published in April 2010 and focus on Theme 1 – Impacts of Major Sporting Events with an emphasis on Olympic Games.

The newsletter will be published twice yearly for the balance of the current mandate to 2011.

6.6 WFEO Website

WFEO President-Elect M. (Maria) Laffargue addressed the CEE on this issue and noted that the website is intended to be an important vehicle for standing committees to get their work out to WFEO members and through the national members to their governments. She asked for the committee's input on how best to communicate the work of the committees. The feedback provided by committee members was as follows:

- There is a disconnect between WFEO Paris and WFEO Tunisia where the website is housed and operated. There is a lack of timeliness in information and the placement of new or updated information on the website. There needs to be better linkages between Tunis and Paris
- Implement a better information system among members, with a service centre located in Paris.

There were no other immediate comments but the Chair encouraged all CEE members to provide their feedback so that improvements can be implemented in a timely manner.

Action: CEE Members to provide feedback on the current system and suggestions for improvements to the Chair and Secretariat for transmission to the WFEO President and Executive Director.

6.7 Upcoming Events

The Chair noted a preparatory meetings of the United Nations Commission on Sustainable Development are scheduled in February 2010 as well as regional meetings through the winter months. The main meeting (UNCSD- 18) will be held in New York in May 2010. He noted that President Gear has been publishing a compiled list of such events every month.

Action: CEE members to forward information on upcoming events (workshops, conferences, regional meetings etc) in their country or region to the Secretariat (ongoing action item)

6.8 WFEO-CEE International Conference on Climate Change

The Chair reported that preliminary plans are under development for Engineers Canada to host an international conference to be held in Calgary Alberta in the spring of 2011. An outline for the conference was included with the meeting materials.

The Chair explained that a local organizing committee is being formed. There will be a need to secure volunteers for paper and presentations. There is a need for good international



participation and the hope is to engage WFEO member countries and their representatives to help organize and encourage attendance.

Cdr. A. Poothia volunteered to assist in the organization of this conference.

7. Other Business

7.1 UNESCO Report on Activities and Upcoming Events

This item was deferred due to the absence of T. Marjoram who sent his regrets.

8.0 Theme Leader Reports and Presentations

The meeting re-convened in the afternoon of December 2, and was dedicated to reports and presentations given by the theme leaders. Copies of these presentations will be included as attachments in the final version of these minutes.

9.0 Next Meeting and Adjournment

The Chair thanked all participants and observers who attended.

The next meeting of the committee will be held in the third or fourth week of June 2010. It will be held in either a teleconference or a webinar format. Details will be provided by the Secretariat.

The next face-to-face meeting will be held in conjunction with the WFEO Executive Council meetings and the World Engineering Week Conference to be held in Buenos Aires Argentina in October 2010.

The meeting was adjourned at 5:15 p.m.

Prepared by:

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