

**3rd Executive Committee Meeting of the
IEA Implementing Agreement for
CO-OPERATION ON TOKAMAK PROGRAMMES (CTP)**

At Cadarache, France, Wednesday 12th December.2012

MINUTES

Attendance: Steve Eckstrand (US) Chair, Duarte Borba (EU) Secretary, Francesco Romanelli (EU), David Campbell (ITER-IO), James Wilson (US), Bruce Lipshtuz (US), Hartmut Zohm (EU), Mickey Wade (US), Yutaka Kamada (JP), Gunther Janeschitz (ITER-IO), Jong-Gu Kwak (KO), Yeong Kook Oh (KO), Jin-Young Kim (KO), Kouji Shinohara (JP), Charles Greenfield (US), Michiya Shimada (ITER-IO).

Welcome and Approval of the agenda and minutes of the last meeting

The chair welcomed all participants; in particular, the ITER participation in the 3rd Executive Committee Meeting for the first time as a member, since the accession of ITER was approved in October 2012. David Campbell apologised for the absence of some of the Exco members of ITER-IO and confirmed that the ITER-IO is represented by David Campbell (ITER-IO) and Gunther Janeschitz (ITER-IO).

The Minutes of the 2nd Executive Committee Meeting were summarised in the annex 3 of the Report to IAEA 2011, and were approved.

Reports on the Completed Workshops and Personnel Assignments for

Jan. 2012 – Dec. 2012

There were no Workshops organised in addition to the CTP-ITPA Planning Meeting for Joint Experiments (JEX) (W74), which took place on 10th to 12th December 2012 at the ITER-IO Head Quarters in Cadarache. The Personnel Assignments reports were presented by the different parties and adopted, following a short discussion.

Hartmut Zohm commented that the list of EU assignments from IPP-Garching contained some exchanges with China, as China were involved as guests in the Poloidal Divertor Implementing Agreement. Hartmut Zohm enquired on the status of China's membership of the CTP-IA.

Steve Eckstrand (US) Chair answered that China was invited and are a part of some agreements; however the reason why there is a delay on China joining the CTP-IA is unclear.

Mickey Wade (US) had a question related to the trips listed under the Bilateral US / JP Agreement. Yutaka Kamada (JP) informed that the US/JP Bilateral Agreement has expired and it will be renewed soon. Steve Eckstrand (US) clarified that exchanges under the US / JP Agreement have been listed in the past for cross reference, since some collaborations are done under booth agreements.

It was also discussed if the participation in advisory committees should be listed in the staff assignments.

Jong-Gu Kwak (KO) clarified that KO / JA and KO / US exchanges are done under bilateral agreements.

Jong-Gu Kwak (KO) asked a specific question related to two staff exchanges from the US.

James Wilson (US) answered that one exchange is the continuation of the previous proposal.

Proposals for Workshop and Personnel Assignments and for Jan. 2013 – Dec. 2013

The proposal for Workshops and Personnel Assignments were presented by the different parties and adopted with the following comments.

ITER will make proposals by written procedure, since it only joined the agreement in October 2012.

Yutaka Kamada (JP) asked how ITER intends to use the CTP-IA.

David Campbell (ITER-IO) replied by saying that collaborations in the past were done with exchange of letters or under a memorandum of understanding. This procedure is adequate for some collaborative exchanges such as exchanges involving hardware, but for other collaborations such as the ITER-IO participation in some collaborative experiments the CTP-IA would be more appropriate.

Yutaka Kamada (JP) enquired about the policy of ITER regarding papers with ITER-IO members as authors or co-authors. David Campbell (ITER-IO) clarified that if the lead authors of the paper are from the ITER-IO the paper is under ITER-IO responsibility, and it should be

cleared by ITER-IO and is under the ITER-IO copyright rules. Papers with a co-author from the ITER-IO, the publication rules of the lead author's organisation should be followed, but the paper needs clearance from the ITER-IO.

Mickey Wade (US) said that the Test Blanket Module (TBM) experiments in DIII-D were organised informally, and the CTP-IA could be a basis for this or similar collaborations. David Campbell (ITER-IO) confirmed that the participation of the ITER-IO in the DIII-D Test Blanket Module (TBM) experiments was by invitation from General Atomics and that having the CTP-IA will simplify the procedures in the future. Each organisation is different and having an umbrella agreement for such experiments is a more efficient way to proceed.

A proposal for a Workshop on Disruptions was proposed by the US. US have the responsibility of constructing the Disruption Mitigation Valve for ITER. The US could host this workshop later in the year, around September 2013. Hartmut Zohm mentioned that in general, it is not mandatory for a Workshop to be hosted under the CTP every year. However, Charles Greenfield (US) stressed that co-ordination is required for the development of the ITER Disruption Mitigation Valve and this needs to be co-ordinated with the MHD ITPA Topical Group. Steve Eckstrand (US) reminded that last year it was agreed not to organise a workshop during a year with an IAEA fusion energy conference, but this year there isn't an IAEA conference. Jong-Gu Kwak (KO) asked if others, non-members of the CTP-IA could participate in this Workshop.

Mickey Wade (US) asked if the participation in the ITER research elaboration plan could be part of the CTP-IA and an informal exchange of views took place among the members on how the CTP could facilitate contributions to various aspects of the ITER programme

Yutaka Kamada (JP) remarked that a statement regarding ITER joining the CTP should be put on the ITER website.

Chairman's term of office

Since, the usual mandate of a chair in the other IEA agreements is 2 years, it was proposed and agreed that the present chair (US) would serve for another year. After this, ITER or INDIA could take the chair. ITER offered to take the chair in the following year and David Campbell (ITER-IO) will make this proposal to Osamu Motojima (ITER-IO).

There was a question on the role of the chair and this was clarified. The chair will have, among other duties to present the CTP-IA annual report to the IEA Fusion Power Coordinating Committee (FPCC), and prepare the required documents. This could include a request for the extension of the agreement, but following the approval of a 5 year extension this will not be required for a few years.

Date of the Next meeting

The 4th Executive Committee Meeting is scheduled for 11th December 2013, together with the next ITPA Coordinating Committee meeting, the 12th Workshop on Joint Experiments.

Any other business

Yutaka Kamada (JP) enquired about the role of Reverse Field Pinches (RFPs) and Stellarators in the CTP-IA. Hartmut Zohm clarified that ITPA have Stellarator experts and that Reverse Field Pinches and Stellarators have their own IEA agreements, namely the Reverse Field Pinches (RFPs) IEA-IA and Stellarator-Heliotron Concept IEA-IA. IEA asked to reduce the number of agreements. The Poloidal Divertor agreement was merged with the Large Tokamak Agreement, but the Stellarator-Heliotron Concept and Plasma Wall Interaction in TEXTOR agreements remained as a separate agreement. The possibility of joining with the Spherical Tori (ST) agreement has been also considered and may be done the next time the Spherical Tori (ST) agreement expires.

Annex I Summary on IA-CTP Membership Status

India has joined the IA-CTP in April 2011 and the ITER-IO in October 2012. China and Russia have been invited to join. The ascension of China is pending internal approval and the ascension of Russia is under discussion.

Annex II Executive Committee Membership

Revised November 2012 CTP Executive Committee Membership

Name	Delegation	E-mail Contact	
Francesco Romanelli	EU	francesco.romanelli@jet.efda.org	Member
<i>Lars-Göran Eriksson</i>	<i>EU</i>	<i>lars-goran.eriksson@ec.europa.eu</i>	<i>Member (t.b.c)</i>
Duarte Borba	EU	duarte.borba@jet.efda.org	Alternate
Hartmut Zohm	EU	hartmut.zohm@ipp.mpg.de	Alternate
Predhiman Krishan Kaw	IN	kaw@ipr.res.in	Member
R. Jha	IN	rjha@ipr.res.in	Member
Takaaki Fujita	JP	fujita.takaaki@jaea.go.jp	Member
Yutaka Kamada	JP	kamada.yutaka@jaea.go.jp	Member
Yoshihiko Koide	JP	koide.yoshihiko@jaea.go.jp	Alternate
Kouji Shinohara	JP	shinohara.koji@jaea.go.jp	Alternate
Naoyuki Oyama	JP	oyama.naoyuki@jaea.go.jp	Alternate
Jong-Gu Kwak	KO	jgkwak@nfri.re.kr	Member
Yeong-Kook Oh	KO	ykoh@nfri.re.kr	Member
Jin-Yong Kim	KO	jkim@nfri.re.kr	Alternate
Woong-Chae Kim	KO	woong@nfri.re.kr	Alternate
Steve Eckstrand	US	steve.eckstrand@science.doe.gov	Member
Randy Wilson	US	rwilson@pppl.gov	Member
Earl Marmor	US	marmor@psfc.mit.edu	Alternate
Punit Gohil	US	gohil@fusion.gat.com	Alternate
Mickey Wade	US	wade@fusion.gat.com	Alternate
Osamu Motojima	ITER	osamu.motojima@iter.org	Member
Remmelt Haange	ITER	rem.haange@iter.org	Member
Alexander Alekseev	ITER	alexander.alekseev@iter.org	Member
David Campbell	ITER	david.campbell@iter.org	Alternate
Guenter Janeschitz	ITER	guenter.janeschitz@iter.org	Alternate
Mario Merola	ITER	mario.merola@iter.org	Alternate