

**Minutes of the November 2013 ANS Fusion Energy Division
Executive Committee Meeting**

November 10, 2013, 3:00 to 5:00 pm EST (Eastern Standard Time)
Omni Shoreham Hotel, Council Room, Washington, DC

DETAILED MEETING MINUTES: (see Attachment 1 for Agenda)

In attendance:

Minami Yoda – Chair
Jean-Paul Allain – Executive committee member
Kevin Kramer – Executive committee member
Nermin Uckan – ORNL/Editor of Fusion Science and Technology Journal
Andy Klein (Oregon State) – Liaison to ANS Board of Directors
Rob Addis (SRNL) – Presenting regarding TRITIUM 2016
Trey Gebhardt (VT student): Observer
Blair Bromley (AECL): Observer
George Miley (Illinois): Observer
Matt Wargon – Student representing the 2014 Student Conference at Penn. State
Rachel Shapiro – Student representing the 2014 Student Conference at Penn. State

Phone/WEB (Bluejeans)

Stephen Combs – Secretary/Treasurer
Lee Cadwallader – Past Chair
Arnie Lumsdaine – Executive committee member
Brian Wirth – ORNL/University of Tennessee (Chair TOFE 2014)

By Proxy Vote – arranged by Minami Yoda

Yutai Katoh – Executive committee member

Item #1: Call to order (Yoda) at ~3:05 pm in Washington, DC

Item #2 – Summer/August Meeting Minutes (Combs)

Minutes from the summer executive committee (ExCo) meeting (June 16, 2013, in Atlanta, Georgia) were sent out, approved by e-mail vote, then were sent to ANS headquarters on July 24, 2013, and also put on the division webpage by Mark Tillack. (<http://fed.ans.org/minutes.shtml>)

Item #3 – Treasurer’s Report (Combs)

Current Status of 2013 budget

A spreadsheet showing the estimated 2013 budget and the projections for the next four years are shown below. In 2013 we carried over \$48,092 in funds from 2012. We have

Budget funds									
Year	2010	2011	2012	2013 est.	2014	2015	2016	2017	Comments
Carry forward	17,485	38,416	48,268	48,092	56,135	55,201	54,267	48,833	
Member allocation	1658	1780	1794	1866	1866	1866	1866	1866	member allocation funds
Division income	23,479	10523	0	8335	4500	0	0	10000	ANS gives the FED \$30/published TOFE paper at embedded TOFEs. Assume 19" TOFE is embedded. \$19,114.11 from 2008 TOFE received in 2010. Assume \$8335 income from TOFE 2012 received in 2013; assume \$4500 from embedded TOFE 2014 meeting; and assume \$10000 income received in 2017 from 2016 stand-alone TOFE.
Total budget	42,622	50,719	50,062	58,293	62,501	57,067	56,133	60,699	
Budget expenses									
Newsletters	0	0	0	0	0	0	0	0	
Awards, plaques	55	59	90	0	1500	0	1500	0	TOFE years, 2 Prof. awards + 1 Student paper award (cost covered by TOFE in 2012).
National meeting costs	324	1008	0	858	1000	1000	1000	1000	Includes cost of the phone (\$300 estimate for each summer and winter ExCom Meeting); these costs seem to be on the rise!
FED officer expenses	0	0	0	0	0	0	0	0	
Student support	3,300	800	1300	300	3800	800	3800	800	TOFE years have 6 x \$500 for fusion student travel assistance. Donate \$300 to student travel support to national ANS meetings. For student conference support \$500 (payments for 2012 and 2013 made in 2012). TOFE covered student travel to meeting in 2012.
Scholarship/NEED funds	500	500	500	500	500	500	500	500	Typical \$500 NEED donation yearly.
Other expenses	27	84	80	500	500	500	500	500	\$500 "other expenses" are rarely used. 2007 was Landis Challenge II support for a teacher workshop at the June 2007 ANS Summer Meeting. 2011 has earmark for held for scholarship funds
Total expenses	4,206	2,451	1,970	2,158	7,300	2,800	7,300	2,800	
Closing balance	38,416	48,268	48,092	56,135	55,201	54,267	48,833	57,899	

currently received \$1,244 in member allocation fees (\$2/member) as of the last financial report (August) from ANS HQ. We expect our full member allocation for 2013 to be \$1,866, which would be up a little from 2012. It appears that our share of the 2012 TOFE surplus will be \$8,335, and it should be deposited in the FED account by the end of 2013 (or early 2014). Thus, the estimated budget for 2013 is \$58,293. Our current expenses as of August 30 were \$1,231, including \$858 for national meeting costs (phone lines, etc.), \$300 to support student travel for two national meetings, and \$73 for miscellaneous items. However, I have also processed a form to make our annual Nuclear Engineering Education for the Disadvantaged (NEED) scholarship contribution of \$500, which was not included in our last report from ANS HQ. Assuming another \$427 (\$500 minus the expenditure of \$73) for other expenses in 2013, the total estimated expenditures for 2013 are estimated to be \$2,158; and the projected funds at the end of 2013 and for carryover to 2014 are \$56,135.

Projection for 2014 budget

There should be some surplus from TOFE-2014, and an estimate of \$4,500 is included as income in 2014 (could be deposited in 2015). The "National meeting costs" were increased to reflect the higher values incurred for recent years. Estimated expenses in 2014 are \$7,300 with a significant amount of that associated with TOFE-2014 (\$1500 for professional/student awards and \$3000 for student travel assistance – such expenses were covered directly by the stand-alone TOFE in 2012 but must be covered by the FED for the embedded 2014 TOFE). Most of the other costs are standard annual expenses (\$500 for NEED scholarship contribution, \$300 to support student travel for two national meetings, and \$500 to support the 2014 ANS student conference at Penn. St.). The projected funds at the end of 2014 are \$55,201. We depend on the FED share of the TOFE surplus for most of our income. Thus, in some years FED costs are greater than the income, which makes it somewhat difficult to grow the FED total budget significantly over just a few years. The ExCo briefly discussed increasing income in the future by being more active and sponsoring/co-sponsoring other fusion related meetings; for

instance, the “11th International Conference on Tritium Science and Technology (TRITIUM 2016)” which is discussed later.

Move to vote on approving the proposed 2014 budget.
Action was approved unanimously.

Item #4 – Student-related Items

4.1 – Report on 2014 Student Conference (Penn State University Park Campus)

Matt Wargon and Rachel Shapiro, students representing Penn State, attended the meeting since their university will be hosting the 2014 ANS Student Conference (April 3-6 in State College, PA). Two other student representatives attended our summer ExCo meeting in Atlanta and requested support for the upcoming student conference. At that time, we voted unanimously to support the meeting with a \$500 contribution that will be disbursed in January 2014. Also, at that time Minami requested that the Student Conference try to include more fusion-related topics on their agenda. Toward that objective, a fusion panel/discussions are planned for the 2014 Student Conference, including some impressive panel members that have already committed (Raj Maingi and Rob Goldston from PPPL, Chan Choi of Purdue, Leigh Winfrey from Virginia Tech, and Ron Gilgenbach from University of Michigan). Arnie Lumsdaine suggested that the organizers should consider a representative from the U.S. ITER office to serve on the panel. It appears that everything is on track for an outstanding student conference, which was also the case for the 2013 Student Conference at MIT (as reported at the summer FED ExCo Meeting). More information on the 2014 Student Conference can be found on the WEB (<http://meetings.ans.org/student2014/>).

Item #5 – FED Publications

5.1 – Newsletter (El-Guebaly)

Laila was not able to participate in the meeting; however, she provided the original agenda for the December issue of the FED Newsletter (Attachment 2). The scheduled report on NIF was never received and thus will be omitted from the upcoming newsletter. Everything else was on schedule.

5.2 – Fusion Science and Technology (FS&T) journal- (Uckan)

Nermin gave a brief report on the overall status of the *FS&T* journal. She shared a one-page document (Attachment 3) with us that was previously prepared for the December 2013 FED Newsletter – “News from Fusion Science and Technology (FS&T) Journal.” It provides details on the number of submissions/accepted papers for the 12-month period ending September 30, 2013, and other pertinent information for the journal. Nermin pointed out that “electronic access to FS&T is available from 1997-to-current. ANS has completed scans of pre-1997 back issues and will soon start adding these issues as soon

as they determine subscription protocols related to back issues.” This will be great for all that need to review and reference previous journal publications. As always, it seems that Nermin and her support staff are doing a great job and staying very busy.

Item #6 – Conferences

6.1 – Status of 20th TOFE Closeout (Lumsdaine)

Arnie Lumsdaine gave a brief follow-up report on 20th TOFE held last year in Nashville, Tennessee (August 27-31, 2012). He was finally able to secure an elusive \$3,000 contribution and should be closing out the books on this meeting soon. In any case, TOFE-2012 could not have been closed out until the publication costs were paid; the papers were published in special issues of *FS&T* in August/September of 2013. The FED share of the surplus appears to be \$8,335 as reported under Item #3. TOFE-2012 also covered the costs of two awards (\$500 Each) and six student travel assistantships (\$500 each) for a total of \$4,000. Thus, we should all thank Arnie and his support team for the success of TOFE-2012 and the “very positive impact” on the FED budget.

6.2 – Update on 21st TOFE (Wirth)

Brian Wirth, the General Chair for the TOFE-2014, gave a brief report on the status of the meeting; it will be an embedded topical meeting at the 2014 ANS Winter meeting. The meeting will be held in Anaheim, CA at the Disney Resort and Hotel from November 9-13. At this time, Brian and his team are still working to finalize the organizing committees and plans for special sessions to be held at the meeting, in preparation for widely soliciting a call for abstracts. It is anticipated that the first call for papers will occur shortly after January 1, 2014. More details of the meeting can be found in Attachment 4, entitled “Plans for the 21st Topical Meeting on the Technology of Fusion Energy” that was provided by Brian for the December 2013 FED Newsletter and shared with us.

6.3 – Update on TRITIUM-2016 (Addis)

Rob Addis gave a brief update on status of TRITIUM-2016 (11th International Conference on Tritium Science and Technology), including a nice summary on the history of this meeting. It started as a topical meeting with the first conference held in 1980 at Dayton, Ohio. A successful TRITIUM-2013 was just held in Nice, France, from October 21–25. The conference rotates between North America, Europe, and Asia. TRITIUM-2016 is scheduled for April 17–22, 2016, and is to be hosted by the Savannah River National Laboratory (SRNL) in Charleston. We previously voted on and approved an action supporting Class IV sponsorship of TRITIUM-2016. Rob mentioned that the organizers are looking for sponsors, such as the AESJ. Blair Bromley stated that the CNS would like to be a sponsor of TRITIUM-2016.

Item #7 – FED Awards

7.1 Discussion on Soliciting Nominations for Awards (Uckan)

Nermin led a brief discussion on the process of soliciting nominations for awards. She also previously shared a one-page document (Attachment 5) that was prepared for the December 2013 FED Newsletter – “Call for Nominations – ANS-FED Awards.” The document provides detailed instructions and deadlines for submitting nominations for this year. The awards will be presented at the 21st TOFE that was discussed earlier.

7.2 Discussion on TOFE Outstanding Student Paper Awards (Yoda)

Minami led a brief discussion on the TOFE Outstanding Student Paper Award. She pointed out that we tend to have a large fraction of international students presenting papers and that we should consider splitting the award funds to recognize more than a single student. It is often difficult to choose one paper that is obviously superior to other submissions. She mentioned that one award should be for students whose first language was other than English. Identifying students is always a difficulty and she recommended a question on the web site for students to self-identify to the organizers that they are interested in being considered for the best student paper award.

Item #8 – Nominations (Cadwallader)

It will soon be time to vote on and change FED officers and three ExCo members. All changes will take place at the end of our next ExCo meeting, which is scheduled for the Summer National ANS Meeting in Reno (June 15–19, 2014). At that time, Susana Reyes (our present Vice Chair) will begin her two-year term as Chair; Minami Yoda will become Past Chair, replacing Lee Cadwallader; the three-year terms will end for three of our ExCo members (Yutai Katoh, Arnie Lumsdaine, and Rene Raffray); and I will be finishing my two-year term as secretary-treasurer. During this meeting, Lee provided the following “Slate of Candidates for 2014”:

Vice-Chair/Chair-Elect: Arnie Lumsdaine (ORNL)

Secretary-Treasurer: Paul Humrickhouse (INL)

ExCo seats: Blair Bromley (AECL)
 Ahmad Ibrahim (ORNL)
 Paul Rosso (LLNL)
 Craig Taylor (LANL)
 Neill Taylor (CCFE)

Move to vote on approving the “Slate of Candidates” for FED positions. Action was approved unanimously.

Item #9 – New Business (all)

Brief discussion was carried out on possible ways to increase ANS memberships, including reduced rates for joint memberships (for instance, ANS and IEEE). We do this in part for the TOFE registration, and I suspect it is a factor for some in deciding to attend the meeting. This topic and related ones should be discussed more thoroughly in future meetings.

Item #10 – Closed meeting (Yoda) at ~ 4:30 pm in Washington, DC

Attachment 1

Agenda:

1. Call to Order (Yoda)
2. Discussion of Summer Meeting Minutes (Combs)
3. Treasurer's Report (Combs)
 - 3.1 2014 Budget forecast and four-year rolling budget
4. Student-Related Items
 - 4.1 Update on 2014 Student Conference (Bobkowski)
5. FED Publications
 - 5.1 Newsletter (El-Guebaly)
 - 5.2 Fusion Science and Technology journal (Uckan)
6. Conferences
 - 6.1 Status of 20th TOFE closeout (Lumsdaine)
 - 6.2 Update on 21st TOFE (Wirth)
 - 6.3 Update on TRITIUM 2016 (Addis)
7. FED Awards
 - 7.1 Discussion on Soliciting Nominations for Awards (Uckan)
 - 7.2 Discussion on TOFE Outstanding Student Paper Awards (Yoda)
8. Nominations (Cadwallader)
9. New Business (all)
10. Close meeting (Yoda)

Attachment 2

**American Nuclear Society
Fusion Energy Division
December 2013 Newsletter**

Letter from the Chair	Yoda
FED Slate of Candidates	Cadwallader
Plans for 2014 TOFE Embedded in ANS November Meeting	Wirth
Call for Nominations, 2014 ANS-FED Awards	Uckan
Fusion Award Recipients (Minervini, Crandall, Meyerhofer, Hollmann, Hawryluk, Porkolab, Ferron, Aymar, Ibrahim)	El-Guebaly
News from Fusion Science and Technology Journal	Uckan
<u>Ongoing Fusion Research:</u> Recent Accomplishments in NIF	Moses
<u>International Activities:</u> US ITER Report	Sauthoff

Attachment 3

News from Fusion Science and Technology (FS&T) Journal, Nermin A. Uckan, FS&T Editor, Oak Ridge National Laboratory, Oak Ridge, TN.

During the past 12 months (from October 1, 2012 to September 30, 2013), *FS&T* received a total of 294 manuscripts (184 online submissions plus 110 camera-ready papers accepted from the 2012 Open Magnetic Systems & Plasma Materials Interactions).

The following dedicated issues were published during the period 10/1/12 to 9/30/13:

- Selected papers from 7th Fusion Data Validation– FS&T Nov. 2012 & Jan. 2013
- Selected papers from 20th IFE Target Fabrication 2012 – FS&T Mar./Apr. 2013
- Open Systems & Plasma Materials Interactions 2012 – FS&T Trans May 2013
- IAEA-NFRI Atomic/Molecular Data and PMI in Fusion – FS&T May 2013
- Selected papers from 20th TOFE 2012 – FS&T Aug 2013 & Sept 2013

The following issues are scheduled/planned for remainder of 2015 and beyond:

- Selected lectures from 6th Int. ITER School 2012 – FS&T Jan 2014
- Selected papers from 2nd IAEA-ITER Materials Technol. – FS&T Mar/Apr 2014
- Selected papers from ICFRM-16 2013 – FS&T regular issues (mid/late 2014)
- Selected papers from Tritium 2013 – FS&T regular issues (late 2014)
- JA-EU Broader Approach – FS&T regular issues (in planning)
- KSTAR (Korea) – FS&T regular issue (in planning)
- Physics & Technol. for Steady-State Operation – FS&T regular issue (in planning)

New with FS&T in 2014: ANS will begin assigning DOI numbers to articles starting with the January 2014 issue. There is no timetable yet for historical/back issue DOI assignments. Also, FS&T will be introducing article-based publishing – papers will be published online as soon as possible without waiting for a full issue to be compiled. This will make the final citable articles available faster.

Electronic access to FS&T is available from 1997-to-current. ANS has completed scans of pre-1997 back issues and will soon start adding these issues as soon as they determine subscription protocols related to back issues. As always, tables of contents and abstracts of papers can be accessed at <http://www.ans.org/pubs/journals/fst/>. Individual and library subscribers can access the full text articles at <http://epubs.ans.org/>.

Please send your comments on FS&T contents and coverage as well as suggestions for potential future topical areas that are timely and of interest to fst@ans.org.

Attachment 4

Plans for the 21st Topical Meeting on the Technology of Fusion Energy (TOFE), Brian D. Wirth, University of Tennessee, Knoxville, TN

I am pleased to announce that the 21st TOFE meeting will be held during the week of 9-13 November 2014, as an embedded topical meeting at the 2014 ANS Winter meeting. The meeting will be held in Anaheim, CA at the Disney Resort and Hotel. At this time, we are still working to finalize the organizing committee's and plans for special sessions to be held at the meeting, in preparation for widely soliciting a call for abstracts. We anticipate the first call for papers will occur shortly after January 1, 2014.

I will serve as the General Chairman for the 21st TOFE, and I will be assisted by Rajesh Maingi, Vincent Chan, Jacob Leachman, and Lee Cadwallader as the lead organizers for the meeting. The technical program committee will be co-chaired by Rajesh Maingi of the Princeton Plasma Physics Laboratory, and Vincent Chan of General Atomics. Jacob Leachman of Washington State University and Lee Cadwallader of the Idaho National Laboratory will serve as co-chairs of the publication committee. We have already made arrangements to have the conference proceedings published as two special issues of the journal Fusion Science and Technology, as in past TOFE meetings.

At present, we are planning to offer a tutorial on fusion materials, including plasma surface interactions and plasma facing component materials issues, which will be organized by Juergen Rapp. A second tutorial on inertial fusion energy is also being discussed.

Special sessions that are currently planned for the 21st TOFE meeting include the safety and environmental impact of fusion will be organized by Lee Cadwallader; and the perspectives on potential fusion nuclear science facility (FNSF) – an interim facility between ITER and DEMO, which will be organized by Laila El-Guebaly and Chuck Kessel. These special sessions will be in addition to regular thematic sessions around the progress of major facilities, including the NSTX upgrade, power plant studies, plasma engineering and plasma materials interactions.

In summary, I look forward to a successful meeting with the fusion energy community in Anaheim next November. If you are interested in volunteering to participate in the organization of the meeting, please let me know by email (bdwirth@utk.edu).

Attachment 5

Call for Nominations – ANS-FED Awards, Nermin A. Uckan, FED/ANS Honors and Awards Chair, Oak Ridge National Laboratory, Oak Ridge, TN

The Honors and Awards Committee of Fusion Energy Division of American Nuclear Society [FED/ANS] is seeking nominations for two FED/ANS Awards:

- **Outstanding Achievement Awards:** This award is for recognition of a continued history of exemplary individual achievement requiring professional excellence and leadership of a high caliber in the fusion science, and engineering area.
- **Technical Accomplishment Award:** This award is for recognition of a specific exemplary individual technical accomplishment requiring professional excellence and leadership of a high caliber in the fusion science and engineering area.

Detailed descriptions of the awards (purpose, criteria, and procedure) and past recipients can be found at <http://fed.ans.org/awards.shtml>.

Note that the nominees will only be considered for the particular award for which they are nominated.

- **Nomination deadline is: July 1, 2014**

The awards will be presented at the 21st ANS Topical Meeting on the Technology of Fusion Energy (21st TOFE), embedded in the ANS Winter Meeting and Nuclear Technology Expo to be held Nov 9-13, 2014 in Anaheim, CA.

Nominations can be made by individuals and submitted anytime to the FED/ANS Honors and Awards Chair electronically at uckanna@ornl.gov.

Nomination package must include

1. Nominee's CV
2. A description of exemplary achievement(s)
3. Support letter(s) and/or co-signature on the nomination form

Incomplete submissions will not be considered. Details are available at <http://fed.ans.org/awards.shtml>.

Please send inquiries and nominations electronically to:

Nermin A. Uckan
FED Honors & Awards Chair
uckanna@ornl.gov

Nominators of 2010-12 nominees are encouraged to update their 2010-12 nomination packages and re-submit.