

**ANS Fusion Energy Division  
Executive Committee Meeting Minutes**

Sunday, November 12, 2006, 3:00-4:30 pm MST

Albuquerque Convention Center/Hyatt Regency, Ruidoso Room (Convention Center)  
Albuquerque, New Mexico

Members attending: Jeff Latkowski, Roger Stoller, Lee Cadwallader, Minami Yoda, Mark Anderson, Paul Wilson.

Members attending by telephone: Neil Morley, Brad Nelson, Brian Wirth, Franco Federici.

Others attending: Gary Rochau (TOFE TPC), Laila El-Guebaly (newsletter editor), Nermin Uckan (journal editor), Jerry Kulcinski (FED member), Tom Dolan (visitor), Aaron Kendall (RPI student, liaison to NA-GYN), Tony Elliott (OSU student), Brian Collins (OSU student).

1. Jeff Latkowski called the meeting to order at 3:03 pm. The meeting agenda is attached as Appendix A.
2. Lee Cadwallader stated that the minutes from the June 2006 meeting in Reno had been approved by e-mail. These were transmitted to ANS headquarters and to the FED website for posting.
3. Lee Cadwallader presented the Treasurer's Report. An amendment was made to the report text and the amended report was approved by voice vote. The amended report is attached as Appendix B.

Mr. Tony Elliott and Mr. Brian Collins from Oregon State University thanked the Fusion Energy Division for our contribution of \$500 to support the 2007 ANS Student Conference. The Student conference will be held March 29-31, 2007 at OSU and Mr. Elliott also hopes that FED members can attend the conference to act as judges at technical sessions and meet students. He hopes that FED members can stimulate career booths from their organizations or institutions.

Additional budget discussions: The 4-year budget was approved by voice vote with the provision that an amended amount be calculated for division profit from the embedded 17<sup>th</sup> TOFE. The average profit from the past three TOFEs had been used to estimate the 17<sup>th</sup> TOFE profit. However, the 17<sup>th</sup> TOFE will not realize the same level of profit received from stand-alone TOFEs, nor the embedded 15<sup>th</sup> TOFE (embedded in the ANS Winter meeting in Washington DC in 2002) since that embedded TOFE had contributions which increased its profits to higher than typical levels. Late Note – at the present ANS meeting, Mary Keenan from ANS HQ told Lee Cadwallader that since the FED did not support the ANS summer meeting with at least two technical sessions, then reimbursement to the division from the TOFE would be at the level of \$30/published paper (had we supported the summer meeting, we would have received double that

amount per published paper). Appropriate re-calculations were made and have been placed in the attached 4-year rolling budget. The 2007 portion of that budget will be submitted to Mr. Larry Grabowski at ANS HQ.

4.1 Laila El-Guebaly reported that the draft of the December issue of the newsletter was distributed for comments to the FED executive committee and article authors on November 9th. Craig Olson and Gary Rochau will provide a short article about the 17<sup>th</sup> TOFE after the meeting has been completed. Farrokh Najmabadi will also send a short article about fusion award winners. Jeff Latkowski asked how articles or topics are selected for the newsletter. Laila typically invites people to write articles based on current events in fusion. She is happy to have suggestions for articles from the FED executive committee.

4.2 Nermin Uckan reported that the *Fusion Science and Technology* journal is making a modest profit. The status report on the journal is in the December newsletter draft. In summary, there have been 346 papers submitted this year to the journal, with reasonable proportions between fusion countries (153 from North America, 97 from Asia, 94 were from Europe and Russia, and 2 from other countries). The journal's impact factor has increased, it has doubled since last year. Nermin stated that the 17<sup>th</sup> TOFE abstracts were not peer reviewed, but the papers themselves will be peer reviewed. Last year, she had a list of 542 referees to perform peer reviews, usually 2 or 3 per manuscript. Nermin stated that a TOFE should not have one reviewer perform more than 5 reviews unless it is absolutely necessary. More than that is an unreasonable burden to one person. Nermin also stated that in embedded topical meetings, the journal loses money on publishing the proceedings since ANS HQ directs the funding. In a stand-alone topical meeting, the journal is paid the real fee by the conference committee to provide proceedings to the attendees; this is often on the order of \$10k. She pointed out that the FED had agreed to the idea to levy an embedded topical paper charge to each lead author so that the journal did not lose money when publishing the proceedings. Two other alternatives are to sell the proceedings separately (however, people do not buy the proceedings) or to have contributions to the journal to offset its costs. In the case of the 17<sup>th</sup> TOFE, there was a contribution made to help offset the costs. Nermin concluded by saying that she would appreciate input to the editor about the journal – what should Fusion Science and Technology cover? What special issues should be pursued? What do readers like or not like about the journal?

5.1 Lee Cadwallader addressed the student travel assistance for the TOFE conference. Six students were awarded \$500 each in travel costs to attend the TOFE. Dr. Ben Cipiti of the TOFE conference committee collected student requests, 14 were submitted by the due date. A set of criteria was used involving lead authorship of a paper at the TOFE, nationality, American Nuclear Society membership, and location to select students. The officers then selected students based on lead authorship and this hierarchy of criteria:

- 1) US students who are student section or national ANS members before they requested funding

- 2) US students who are not ANS members
- 3) Foreign students who are ANS members and studying in the US
- 4) Foreign students studying fusion abroad and are ANS members
- 5) Foreign students who are not ANS members and studying in the US
- 6) Foreign students who are not ANS members and studying abroad

An effort was also made to spread the sponsorships between schools. Not every student from a particular school was selected. The results were one student from NCSU, three from GA-Tech, and two from UI-Urbana. Several students sent Lee Cadwallader e-mails stating that they would join their ANS student section if it would improve their chances to get travel assistance, but the criteria was pre-existing membership. A late request for travel funding was made by Mr. Kendall, an RPI undergraduate who is our liaison to the North America-Young Generation Nuclear organization. His request could not be honored, the assistance had already been disbursed on October 4. Dr. Kulcinski also made a late request on behalf of Wisconsin students but this request could not be met for the same reason. The FED notes the efforts of Dr. Cipiti, who "beat the bushes" most vigorously to get student requests submitted by the due date of the end of September.

5.2 As noted above, Mr. Elliott and Mr. Collins appreciate the FED contribution to the 2007 ANS Student Conference.

6.1 Gary Rochau gave the FED an update about the 17<sup>th</sup> TOFE. There are 24 technical sessions packed into 2.25 days. There are 4 parallel sessions on the last day to preclude the need to carry the meeting over another half-day on Thursday November 16<sup>th</sup>. The conference organizers heard only negative comments about the idea of extending the conference another half-day. There is one poster session, a count of 210 papers (later increased to 240 papers) and 99 of these are poster presentations. Dr. Rochau explained that there is a glitch in the Community of Science (COS) electronic paper submittal system and an accurate count of student papers was not possible to obtain from the COS. E-mail inquiries were sent and a rough count of 40-45 students are believed to be presenting at the TOFE. Some students were assigned oral presentations, and some of those are scheduled for after the fusion banquet on Tuesday night, a few were given invited session paper status before it was determined that they were students. Therefore, there cannot be any student paper judging for a Best Paper award until the completed papers are submitted by November 18<sup>th</sup>. There can be no Student Best Paper award conferred at the banquet. Tentative plans to judge paper manuscripts in December have been made. Dr. Cipiti will organize that activity. Tentative plans have been made to send the Best Student Paper results to the TOFE attendee e-mail list and also announce it in the December FED newsletter.

6.2 Jeff Latkowski stated that the 18<sup>th</sup> TOFE will be held in the San Francisco bay area in the fall of 2008. Jeff was reminded by Paul Wilson to pick his conference date soon and be prepared to discuss it at the February 2007 ANS committee meeting on Topical Meetings. Jeff Latkowski will be the General Chair and Wayne Meier will be the Technical Program Chair. Preparations are under way to submit proper paperwork to ANS HQ.

7. Said Abdel-Khalik, chair of the nominating committee, gave the slate of candidates for the coming spring 2007 elections. The nominating committee asked Roger Stoller if he would leave his seat on the executive committee and complete Susana Reyes' term as Vice Chair this year, he agreed to do so. This was approved by the executive committee via e-mail. Originally, Roger Stoller was placed on the ballot to be elected as Chair and complete Susana's term. This was Jeff Latkowski's understanding of the correct procedure after discussions with Don Hoffman of the ANS Professional Divisions Committee. Then ANS HQ reversed that direction and stated that the committee appointment of Roger Stoller to Vice Chair automatically means Roger will take the Chair the following year. Therefore, Roger Stoller will automatically become FED Chair after the June 2007 committee meeting and his name is taken from the slate of candidates. Other candidates are:

Vice Chair/Chair Elect:	Farrokh Najmabadi (UCSD)
Secretary/Treasurer (2-year term):	Lee Cadwallader (INL)
Committee members (need 3):	Patrick Calderoni (INL)
	Samuel Durbin (SNL)
	Mohamed Sawan (UW-Madison)
	John Sethian (NRL)

The slate of candidates was approved by voice vote.

8. Jeff Latkowski gave the Honors and Awards committee report that he had received from Farrokh Najmabadi. There was one recipient for the Fusion Energy Division Outstanding Achievement Award. There were no new nominations for the FED Technical Achievement Award. There will only be one Outstanding Achievement Award given at the TOFE banquet on Tuesday evening, November 14<sup>th</sup>, and no student award. Jerry Kulcinski stated that he was disappointed in the 17<sup>th</sup> TOFE Student Award outcome. All students should be scheduled to present before the banquet (typically this means placing students into poster sessions to place these dozens of presentations before the banquet). We shall work harder to organize student papers well, it is an important thing for the students to see high quality work being recognized. Student papers from the TOFE will be sent to the Honors and Awards committee chair. Laila El-Guebaly stated that if the FED is doing well financially, then we should consider increasing the award amount from \$500 to \$1,000 per professional recipient. With the budget uncertainty over TOFE profits from embedded meetings, this idea was not pursued at present but should be revisited in the future.

9. Said Abdel-Khalik stated that the ANS Public Policy Committee has not acknowledged the FED decision to have the outgoing FED Chair serve a year on the Public Policy Committee. Jeff also contacted them but has not received a reply. Jeff stated that he will attend their meeting on November 15<sup>th</sup> to tell them of the FED decision.

10. Jeff Latkowski discussed the “Standard Bylaws”. ANS HQ tried to pass a uniform, or standardized, set of Bylaws last November. Several Divisions had different operating practices than those described in the uniform Bylaws, notably term lengths for Division Secretaries and Treasurers. The uniform Bylaws have been amended to accommodate these differences. Since these amended uniform Bylaws agree with FED operations, a voice vote was taken to adopt the Standard Bylaws, it was unanimously agreed.

11. In business conducted since the last meeting, Jeff Latkowski stated that there were several e-mail decisions since the last meeting. The ANS Public Policy Statement on Fusion was edited slightly to change the tense of the US involvement in the ITER project. Susana Reyes accepted an offer to join the ITER International Team in Cadarache. The officers and nominations committee chair decided to ask Roger Stoller to fill her position. Roger agreed to do this and his appointment was approved by the FED executive committee via e-mail.

12. Lee Cadwallader had several other items of note to add to committee business:

### **Memorium – Dr. William J. Hogan**

William J. Hogan, a pioneer and leader in the field of inertial fusion energy, passed away on 19 October 2006 at the age of 66, after a heroic but short battle with pancreatic cancer. Bill had a distinguished career of 37 years at Lawrence Livermore National Laboratory (LLNL) where he led the development of the concept of inertial fusion for energy applications (IFE) and led several of the seminal system studies which showed that laser inertial fusion could be an attractive source of energy.

Bill received a B.S. with honors in Physics from the California Institute of Technology in 1962 and earned a Ph.D. in Elementary Particle Physics in 1966 from Princeton University. He joined LLNL in 1966, working on a number of energy and defense programs. In 1983 he was named the Leader of the Inertial Confinement Fusion (ICF) Applications program, and in 1986 a Deputy ICF Program Leader. Bill was an pioneer in analysing the applications of inertial fusion.

He spent a year in Moscow, Russia in 1992-93 as a Senior Project Coordinator for the International Science and Technology Center, helping Russian weapons scientists transition to non-weapons careers. Returning to LLNL he joined the National Ignition Facility (NIF) team and rose to the position of Assistant Associate Director of LLNL for NIF Programs in 1999. He retired from LLNL in 2001 but continued to consult for LLNL and for several other fusion laboratories.

Bill played a prominent role in publishing and disseminating information about inertial fusion energy and in organizing many fusion conferences. He served as Scientific Editor of the International Atomic Energy Agency (IAEA) book, Energy from Inertial Fusion, published in 1995. He was the Technical Editor of a special issue of the American Nuclear Society journal Fusion Science and Technology, on Fast Ignition Inertial Fusion, published in 2006. He was the author of the Laser Fusion Chapter and Section Editor for the Inertial Fusion Section of a Springer-Verlag Volume on Energy Sources 2002-2004.

He was the founding Organizing Chair of the series of International Conferences on Inertial Fusion Sciences and Applications (IFSA). This conference has become the leading international conference in the field.

Bill contributed generously with his time for fusion organizations. He was a member of the APS, ANS, AAAS, Sigma Xi and Fusion Power Associates. He served on the Editorial Board of *Fusion Science and Technology* and as the Associate Editor of the IAEA journal, *Nuclear Fusion*. He served as chairman of the International Atomic Energy Agency Advisory Group on Inertial Fusion Energy from 1991-1996. He was awarded the Outstanding Achievement Award of the Fusion Energy Division of the American Nuclear Society in 1996. He made significant technical and leadership contributions to the field of fusion energy and ICF during his career. His hard work, friendship, enthusiasm and positive attitude will be sorely missed by his many friends and colleagues around the world.

Bill's wife, Sharon, can be reached at their home:  
13324 Summit Ridge Drive  
Nevada City, CA 95959.  
Phone: 530-470-9170  
Email: hogansl@comcast.net

Donations in Bill's name may be made to:  
Hospice of the Foothills  
12399 Nevada City Highway  
Grass Valley, CA 95945  
Or, if you prefer, a charity of your choice.

His boundless energy and enthusiasm was an example to us all.

As Jeff Latkowski pointed out, Dr. Hogan held nearly every position within the FED throughout his career. In recent years, he had set up the Edward Teller Award for excellence in inertial fusion energy research, chaired the Edward Teller Endowment Fund, and served as the FED liaison to the Public Policy Committee.

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On September 8, 2006, the US Nuclear Regulatory Commission announced that the agency had appointed two new members to the Advisory Committee on Reactor Safeguards. These two appointees are Dr. Said Abdel-Khalik and Dr. Michael Corradini, who are both members of the ANS FED. The ACRS advises the NRC on licensing and operation of fission power plants and related safety issues.

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A member of the FED executive committee, Dr. Gianfranco Federici, announced on September 29, 2006 that he was leaving the ITER International team after 12 years and taking a position in the European Fusion Development Agreement Close Support Unit

(EFDA CSU) in Garching, Germany. He will work as a field coordinator of vessel/in-vessel design.

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On November 1, 2006, Mike Diekman from ANS HQ sent e-mail to distribute the October 2006 issue of the ANS Globe to division officers. The ANS Globe is a newsletter about the ANS International Committee activities. Anyone wishing to receive a pdf copy of the ANS Globe can visit the ANS web page:  
<http://www.ans.org/const/international/>  
or contact Lee Cadwallader at [Lee.Cadwallader@inl.gov](mailto:Lee.Cadwallader@inl.gov).

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Since the 17<sup>th</sup> TOFE banquet has been held on November 14, 2006, the winner of the Fusion Energy Division Outstanding Achievement Award can be announced. Dr. Said Abdel-Khalik of the Georgia Institute of Technology was the recipient. Since Dr. Abdel-Khalik was recovering from some minor surgery, he could not attend the TOFE. Several of his students accepted the award on his behalf.

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Jeff Latkowski thanked everyone for attending either in person or by phone and he adjourned the meeting at 4:37 pm.

Appendix A

**ANS Fusion Energy Division  
Executive Committee Meeting Agenda**

Sunday, November 12, 2006, 3:00-4:30 pm MST  
Albuquerque Convention Center/Hyatt Regency, Ruidoso Room (Convention Center)  
Albuquerque, New Mexico

1. Call to Order – J. Latkowski
2. June 2006 FED Exec Comm meeting minutes approval – L. Cadwallader
3. Treasurer’s Report and Budget – L. Cadwallader
4. FED Publications:
  - 4.1 Report on FED Newsletter – L. El-Guebaly
  - 4.2 FS&T update – N. Uckan
5. Student-related items:
  - 5.1 Student travel assistance for the 17<sup>th</sup> TOFE – L. Cadwallader
  - 5.2 FED support to 2007 ANS Student Conference – L. Cadwallader
6. TOFE Meetings
  - 6.1 Update on the 17<sup>th</sup> TOFE – TOFE committee member or designee
  - 6.2 Discussion of the 18<sup>th</sup> TOFE – J. Latkowski
7. FED Slate of Candidates for the 2007 election – S. Abdel-Khalik
8. FED Awards – F. Najmabadi
9. Report on ANS Public Policy Committee events and other findings – S. Abdel-Khalik
10. Adoption of Standard Bylaws – J. Latkowski
11. Summary of FED decisions made “on-line” since last meeting – J. Latkowski
  - 11.1 Public Policy Statement
  - 11.2 S. Reyes Vice-Chair replacement
12. Other business
13. Adjournment



## Appendix B

### Treasurer's Report November 2006

From the ANS HQ division financial report of September 30, our total budget funds were \$20,201.00. There have been seven disbursements thus far in 2006. Six \$500 travel assistance disbursements were sent to six students who were traveling to the 17<sup>th</sup> Topical Meeting on the Technology of Fusion Energy in Albuquerque. The seventh disbursement was for \$500 to support the ANS Student Conference that will be held at Oregon State University on March 29-31, 2007. Total expenses have been \$3,500 for the disbursements described above, and \$250 for the conference telephone setup for the June executive committee meeting at the Reno Hilton hotel. We presently have \$16,451.00 before other expenses during the remainder of the year.

Other planned expenditures for 2006 are awards to be conferred at the 17<sup>th</sup> TOFE. There are two cash prize professional awards budgeted. The Student Best Paper award is a cash prize. ANS has requested a Landis II challenge as well.

A new, 4-year rolling budget estimate has been prepared and is attached. Note the FED income from TOFE meetings has been \$7,644, \$9,060, and \$9,000 from the 14<sup>th</sup>, 15<sup>th</sup>, and 16<sup>th</sup> TOFEs, respectively. The 14<sup>th</sup> and 16<sup>th</sup> TOFE meetings were stand-alone, the 15<sup>th</sup> was embedded in the ANS Winter meeting in Washington DC.

Fusion Energy Division Estimate for 4-year rolling budget, 2007-2010

<b>Budget funds</b>						
year	2006 est.	2007	2008	2009	2010	Comments
Carry forward	19,454	15,218 est	19,335	13,452	20,569	
Member allocation	764	~717	~717	~717	~717	Membership average values used
Division income	0	6,000	0	8,500	0	\$30/published TOFE paper, est. 200 published papers at the embedded 17 <sup>th</sup> TOFE from 240 abstracts.
<b>Total budget</b>	<b>20,218</b>	<b>21,935</b>	<b>20,052</b>	<b>22,669</b>	<b>21,286</b>	
<b>Budget expenses</b>						
Newsletters	0	0	0	0	0	
Awards, plaques	1,000	500	1,500	0	1,500	2007-\$500 est. for purchasing plaques. TOFE years, 2 Prof. awards + 1 Student paper award.
National meeting costs	~500	600	600	600	600	Est. \$300 per phone setup at June and November FED ExComm meetings
FED officer expenses	0	0	0	0	0	
Student support	3,500	500	3,500	500	3,500	Each year incl. \$500 for upcoming annual ANS Student Conference support, TOFE years have 6 x \$500 for student travel assistance.
Scholarship/NEED funds	0	500	500	500	500	
Other expenses	0	500	500	500	500	"other expenses" are rarely used
<b>Total expenses</b>	<b>5,000</b>	<b>2,600</b>	<b>6,600</b>	<b>2,100</b>	<b>6,600</b>	
<b>Closing balance</b>	<b>15,218</b>	<b>19,335</b>	<b>13,452</b>	<b>20,569</b>	<b>14,686</b>	