

**Minutes of the June 2016 ANS Fusion Energy Division  
Executive Committee Meeting**

June 14, 2016, 6:00 to 8:00 pm CDT (Central Daylight Time)  
Hyatt Regency New Orleans, LA, Strand 8

**DETAILED MEETING MINUTES: (see Attachment 1 for Agenda)**

**In attendance:**

Susana Reyes (LLNL) – Chair  
Arnie Lumsdaine (ORNL) – Vice Chair  
Blair Bromley (CNL) – Executive committee member  
John Echols (U. FL)  
Jim Klein (SRNL) – Tritium 2016 Technical Program Chair  
Gregg Morgan (SRNL)  
Matthew Jasica (UW) – 2016 ANS Student Conference General co-chair  
Greg Staack (SRNL)  
Robert Addis (SRNL) – Tritium 2016 Chair  
Keith Rule (PPPL) – TOFE 2016 Organizing Chair and FED ExCo member  
Andy Klein (OR St.) – ANS President and ANS Board Liaison

**Phone:**

Paul Humrickhouse (INL) – Secretary/Treasurer  
Kelsey Tresemer (PPPL) – Executive committee member  
Neill Taylor (CCFE) – Executive committee member  
Ahmad Ibrahim (ORNL) – Executive committee member  
Kevin Kramer (Terrapower) – Executive committee member  
Chase Taylor (INL)  
Nermin Uckan (ORNL) – Editor Fusion Science and Technology Journal/Awards Chair

**Item #1: Call to order (Reyes)**

Chair Susana Reyes called the meeting to order and welcomed all attending live and by phone, including new members of the ExCo and visiting students. In addition to ExCo members, students John Echols (U. FL.) and Matt Jasica (U. WI) were in attendance, as were Gregg Morgan and Greg Staack from Savannah River National Laboratory. Rob Addis noted that SRNL, who hosted the Tritium-2016 conference, are making an effort to be more involved in the division generally.

**Item #5: Student-related Items**

Since some student representatives were present, we skipped to item #5 at this time.

**5.1 – Update on 2016 Student Conference (UW-Madison)**

Matt Jasica gave a summary of the 2016 student conference held at the University of Wisconsin. The meeting included a fusion and plasma physics panel in which some ExCo

members participated, as well as tours of a number of fusion-related facilities at UW and in the area. Some statistics regarding attendance and income from the meeting are included in attachment 3. Emily Clark from the University of Tennessee-Knoxville won the award for best paper. Arnie Lumsdaine attended the meeting and noted that it was extremely well run and had a very interesting program.

## 5.2 – Update on 2017 Student Conference (University of Pittsburgh)

Miriam Rathbun and Brendan Stack gave an update on the plans for the 2017 ANS student conference, which is to be held at the University of Pittsburgh, April 6-9 2017. The theme of the conference is “dispelling nuclear myths.” They noted the opportunity to sponsor an award in the fusion track, and expressed interest in holding a panel on fusion. Chair Susana Reyes previously participated in such a panel. Some changes are being made to the format of the conference, including the addition of plenary sessions along the lines of those held in ANS, TOFE, and other conferences, which historically have not been included in the student conference.

### **Item #2 – Discussion of November Meeting Minutes (Humrickhouse)**

The previous FED executive committee meeting was held on November 9, 2015 in Anaheim, CA. The minutes of this meeting were approved by the committee via email vote and transmitted to Valerie Vasilievas at ANS headquarters on December 8, 2015. The minutes may be retrieved from the division website at (<http://fed.ans.org/meeting-minutes>). There was no further discussion of the minutes at this time.

### **Item #3 – Treasurer’s Report (Humrickhouse)**

#### Current Status of 2015 budget

As of the end of calendar year 2015, our division had a balance of \$60,802.62. First quarter financials are not yet available, but we anticipate ~\$1700 in income from membership dues in 2016, on par with previous years. Our only expense thus far in 2016 has been a \$1,000 contribution to support the ANS student conference at the University of Wisconsin. Other budgeted expenses for 2016 include \$1700 for awards (the Technical Accomplishment award, Outstanding Achievement award, and Best Student Paper award) and plaques for the 2016 TOFE; \$600 for national meeting costs (i.e. conference call telephones); \$3800 in student support including \$3000 for student travel to the TOFE and \$300 for travel to national meetings; and \$500 to support the ANS NEED program. While we have two Class I sponsored meetings in 2016 (the recently convened Tritium conference in Charleston, and TOFE in Philadelphia in August), the books are not expected to close on either meeting within the year, so any income from these meetings will not be realized until 2017. Because the expenses related to TOFE are still incurred in 2016, our projected year-end balance will be lower, at \$55,023.

### **Item #4 – Conferences**

#### 4.1 – Report on TRITIUM 2016 (Addis)

Rob Addis gave a summary of the recently held TRITIUM-2016 (11<sup>th</sup> International Conference on Tritium Science and Technology), hosted by Savannah River National Laboratory (SRNL) in Charleston, SC on April 17–22, 2016. This conference is held every three years and rotates between North America, Europe, and Asia; it therefore is not always an ANS meeting (though the associated papers are always published in Fusion Science and Technology), but we were a class I sponsor of this meeting.

There were 282 registered attendees at the conference, 50% from the U.S., and the rest from 15 other countries. There were 231 regular and 19 student attendees; students were able to register at a greatly reduced rate. \$38,000 in support was provided by DOE-FES to cover publications, program publication, and Fusion Science and Technology journal costs, which eliminated the need for page charges to be paid by the authors. \$20,000 was contributed by Savannah River Nuclear Solutions, and additional contributions were made by the 15 exhibitors.

The 2019 meeting will be held in Busan, Korea. This will likely not be a class I sponsored ANS meeting, though the benefits (e.g. reduced registration for members) of sponsorship and co-sponsorship by professional societies such as ANS and its international analogues will be communicated to the Korean organizers. Blair noted that there is, in fact, a Korean chapter of the American Nuclear Society.

Andy Klein, incoming ANS president, joined the meeting at this point. He discussed the Nuclear Grand Challenges project, which is to be rolled out in detail in September. He expressed a desire for all of the ANS divisions (including FED) to identify these grand challenges, the “big things” we need to accomplish over the next 10 years or so (by 2030). These could become themes for future panel discussions or technical sessions at the TOFE or other meetings. He indicated that the grand challenges should be identified by November (preferably prior to that, e.g. in September), at which time the initiative will be launched in the President’s Special Session at the ANS winter meeting in Las Vegas. He encouraged FED members to get involved using ANS collaborate.

#### 4.2 – Update on TOFE 2016 (Rule)

Planning for the 2016 TOFE is in its final stages; a preliminary schedule is on the website. Four full days (and somewhat later days than usual) are planned in response to over 200 abstracts submitted. Many of these are international, and so invitation letters to assist with visa applications are being supplied as necessary. Early registration ends July 29; the room block size at the hotel (Sheraton Philadelphia Society Hill) has been increased, also in response to the healthy abstract submission. The Sheraton is a nice hotel in the historic district of Philadelphia.

ANS resources (website, staff, etc.) have proved useful in organizing the meeting, and as a result the budget is in good shape. Efforts are being made to streamline the presenter experience, and attendants to manage the A/V systems will be present in each room. The hotel is assisting in this effort. A Keynote speaker is expected to be identified shortly. Poster sessions are planned for two of the afternoons, as well as a tour of PPPL. This will overlap one of the poster sessions, and will be arranged so as to ensure poster presenters who are attending the tour will present in the other poster session. The issue of OFES

support for the publications was raised, as this had been provided for the Tritium conference. Rob described this process so that it might be pursued for the TOFE.

#### 4.3 – Update on NURER 2016 (Reyes)

ANS-FED is a class IV sponsor of the 5<sup>th</sup> International Conference on Nuclear and Renewable Energy Resources (NURER 2016) to be held in Hefei, China, September 18-21, 2016. INEST and the Chinese Academy of Sciences are organizing the meeting. Susana will present an invited talk on fusion safety.

#### 4.4 – Update on TOFE 2018 (Lumsdaine)

ExCo member Leigh Winfrey will serve as General Chair and John Gilligan (NC St.) will serve as Program Chair of the 2018 TOFE, which will be embedded in the Winter ANS meeting in Orlando, Florida, November 11-15, 2018. The embedding of the TOFE in that meeting has been approved by ANS and is listed on the ANS meeting web page.

#### 4.5 – Update on other Co-sponsored Sessions (Reyes)

There will be a general session on fusion at this ANS meeting, to be chaired by Susana on Thursday morning. Another general session is planned for the winter meeting; two papers have been submitted for it so far. If more are not submitted it may need to be combined with another session. No other co-sponsorships of other sessions are yet planned.

Arnie suggested that the ExCo meet at the August TOFE instead of at the winter ANS meeting, as the TOFE would likely be attended by more committee members than the ANS meeting. This item was tabled for later discussion.

Susana noted that sponsored and co-sponsored sessions at national meetings are a significant part of the division metrics. Blair suggested that in addition to a fusion session, we consider co-sponsoring others, for example a session on sub-critical driven systems, or a planned session on mentorship.

#### **Item #6 – Report on Elections (Yoda)**

Minami Yoda (nominating committee chair) could not be present but had distributed a list of elected executive committee members and officers prior to the meeting. They are:

Chair – Arnie Lumsdaine (ORNL)

Vice Chair – Keith Rule (PPPL)

Secretary/Treasurer – Kelsey Tresemer (PPPL)

ExCo Members – Nicole Allen (PPPL), Leigh Winfrey (UFL), and Lauren Garrison (ORNL)

Susana Reyes will assume the role of Past Chair.

Keith Rule, who was elected to the Vice Chair position, vacates his executive committee position in the process. The division bylaws are vague on a specific procedure to follow in

this event, but a potential candidate, Chase Taylor (INL), was identified and was present on the phone. He was unanimously elected by the committee to fill this vacancy for the remainder of the term (until 2018).

### **Item #7 – Scholarship Status (Winfrey)**

Leigh Winfrey was unable to attend the meeting but Susana noted that the scholarship was approved by ANS. It was desired to present the first award at the TOFE, but it was agreed that this was too soon. Susana noted that ANS usually distributes these awards in February so we should consider aligning our award with this schedule.

### **Item #8 – FED Publications**

#### 8.1 Newsletter (El-Guebaly)

Laila El-Guebaly was not present at the meeting, but was in the process of preparing the newsletter, which has since been issued and is archived online at (<http://fti.neep.wisc.edu/fednews>).

#### 8.2 Fusion Science and Technology journal (Uckan)

Nermin gave an update on the Fusion Science and Technology (FS&T) journal and upcoming conference proceedings and journal special issues. The FST full journal report and statistics are given in attachment 4.

### **Item #9 – Honors & Awards Committee update (Uckan)**

Nermin noted that the recipient of the Outstanding Accomplishment award has been selected and approved by the committee; the name will be revealed at the 2016 TOFE. Three members of the honors and awards committee wrote letters of recommendation on behalf of one of the nominees; therefore Nermin appointed three present or past ExCo members to form a temporary committee (one each from the US, Europe, and Japan) to evaluate the nominees. Those who were not selected will be re-considered in the next award cycle. No nominations for the technical accomplishment award were received.

### **Item #10 – Compliance with other ANS Division Metrics**

#### 10.1 – Update on Public Policy Statement (Reyes)

A revision to our public policy statement has been in the works for years; a revision finally went to the board, and one or two board members suggested a revision in order to acknowledge privately funded efforts to realize fusion. The mention of ITER in the statement continues to be politically controversial; it is now mentioned only in a footnote of statement. A revision of the statement has been prepared for resubmission to the board.

#### 10.2 – Update on Liaisons (Lumsdaine)

Arnie distributed a revised Tactical and Succession plan for the division, which included a

list of the liaisons. Incoming ANS president Andy Klein will continue to serve as liaison to the ANS board. Lance Snead continues as liaison to the Materials Science and Technology division. Paul Humrickhouse takes over for Mark Tillack as IEEE liaison. Bob Grove will take over as liaison to the Radiation Protection and Shielding division.

Blair noted that there is a national membership committee chaired by Dave Pointer, and suggested Ahmed (as FED membership chair) be in contact with that committee.

Matt Jasica volunteered to serve as liaison to the young members group, and was appointed to serve in that role by the committee.

### **Item #11 – New Business (All)**

#### 11.1 – Update on FED website (Tresemer)

There were few recent updates to the website, but Kelsey is planning some additions once the TOFE meeting has been completed, including some blog posts. Adding a summary of the “grand challenge” initiative was also discussed.

Arnie noted again the intention to hold the next ExCo meeting at the TOFE meeting in Philadelphia in August, rather than at the ANS meeting in November. A poll will be distributed to members to identify the best time.

### **Item #12 – Close meeting (Reyes)**

Incoming Chair Arnie Lumsdaine closed the meeting by presenting a gavel and plaque to outgoing Chair Susana Reyes in recognition of her service to the division and accomplishments during that time, including an increase in membership, establishment of the scholarship, and issuing of the public policy statement. The meeting was adjourned shortly before 8pm CDT.

## Attachment 1

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

June 14th, 2016, 6:00 to 8:00 pm CDT (Central Daylight Time)  
Hyatt Regency New Orleans, LA, Strand 8

1. Call to Order (Reyes)
  - 1.1 Welcome and Roll Call
  - 1.2 New Members Introduction
2. Discussion of Winter Meeting Minutes (Humrickhouse)
3. Treasurer's Report (Humrickhouse)
4. Conferences
  - 4.1 Report on TRITIUM 2016 (Addis)
  - 4.2 Update on TOFE 2016 (Rule)
  - 4.3 Update on NURER 2016 (Reyes)
  - 4.4 Update on TOFE 2018 (Lumsdaine)
  - 4.5 Update on FED Co-sponsored Sessions (Reyes)
5. Student-related Items
  - 5.1 Report on 2016 Student Conference (UW-Madison)
  - 5.2 Update on 2017 Student Conference (University of Pittsburgh)
6. Report on Elections (Yoda)
  - 6.1 Fill Existing Ex-Comm Vacancy (Reyes)
7. Scholarship Status (Winfrey)
8. FED Publications
  - 8.1 Newsletter (El-Guebaly)
  - 8.2 *Fusion Science and Technology* Journal (Uckan)
9. Honors & Awards Committee Update (Uckan)
10. Compliance with ANS Division Metrics
  - 10.1 Update on Public Policy Statement (Reyes)
  - 10.2 Update on Liaisons (Lumsdaine)
11. New Business (All)
  - 11.1 Update on FED website (Tresemer)
12. Close meeting (Reyes)

## Attachment 2

### List of Officers and Executive Committee Members

#### FED Officers:

Arnold Lumsdaine (ORNL)	Chair (16-18)
Keith Rule (PPPL)	Vice Chair/Chair-elect (16-18)
Kelsey Tresemer (PPPL)	Secretary/Treasurer (16-18)

#### Executive Committee:

Blair Bromley (CNL)	(14-17)
Craig Taylor (LANL)	(14-17)
Neill Taylor (CCFE)	(14-17)
Chase Taylor (INL)	(16-18)
Ahmad Ibrahim (ORNL)	(15-18)
Takeo Muroga (NIFS)	(15-18)
Lauren Garrison (ORNL)	(16-19)
Leigh Winfrey (U. FL)	(16-19)
Nicole Allen (PPPL)	(16-19)

#### Past Chair:

Susana Reyes (LLNL)	(16-18)
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#### FED Standing Committee Chairs:

Nominating Susana Reyes (LLNL) - Chair  
Honors and Awards: Nermin Uckan (ORNL) - Chair  
Program Committee: Keith Rule (PPPL) - Chair

#### FED Representatives on National Committees:

ANS Publications: Nermin Uckan (ORNL)  
ANS Public Policy: Susana Reyes (LLNL)  
ANS Program Committee: Keith Rule (PPPL)

#### Editors:

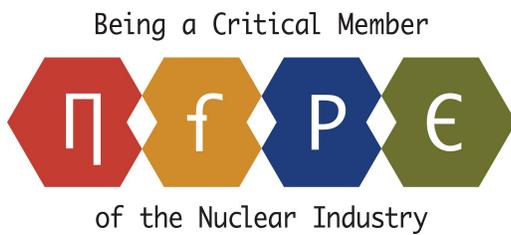
Newsletter: Laila El-Guebaly (UW)  
Fusion Science and Technology Journal: Nermin Uckan (ORNL)

#### Liaisons to other organizations and ANS divisions:

ANS Board: Andrew Klein (OSU)  
MS&T: Lance Snead (MIT)  
IEEE: Paul Humrickhouse (INL)  
RPS: Bob Grove (ORNL)  
YMG: Matt Jasica (U. WI)

#### Webmasters:

FED Website: Kelsey Tresemer (PPPL)  
UW Website: Dennis Bruggink (UW)



2016 ANS Student Conference  
University of Wisconsin-Madison

***Conference Summary***

*Total attendance:* **568** (438 students and 130 professionals)

*Universities represented:* **50**

*Companies represented:* **39**

*Countries represented:* **9**

*Total funds raised for the conference:* **\$209,150**

*Total amount distributed as student travel reimbursement:* **\$61,057**

*Number of presentations:* **157** (7 innovations, 117 podium presentations, and 31 poster presentations).

*Events:* **10** tours, **9** workshops, and **12** panels

*Complete list of award winners is available at [ansstudentconference2016.com/awards](http://ansstudentconference2016.com/awards).*

### **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 May 1, 2015 to April 30, 2016), FS&T received a total of 220 manuscripts. Of the 220 manuscripts, 89 were from North America, 63 from Europe (including Russia), from Asia, and 11 from Other regions. [*Papers rejected/withdrawn from pre-selection of the conferences and special issues are not included in paper counts and regional breakdowns in the ANS/FS&T database.*]

Following dedicated/special issues were published during the period 05/01/15 to 04/30/16:

- Selected papers from OS2014 – FS&T Jul 2015
- Selected papers from TOFE2014 – FS&T Sep & Oct 2015
- NIF-NIC Special Issue – FS&T Jan/Feb 2016
- 1st IAEA-TM on Fusion Data Processing, Validation & Analysis – FS&T Apr & May 2016

Following dedicated/special issues are scheduled for remainder of 2016 & 2017:

- Target Fabrication 2015 special issue – FS&T Aug/Sept 2016
- Selected papers from Tritium2016 – FS&T (2017)
- Selected papers from TOFE2016 – FS&T (2017)
- Selected papers from APS-DPP Mini Conf. on Measuring and Modeling of Plasma Material Interactions - FS&T (2007)

**First-Look** articles are available at: <http://www.ans.org/pubs/journals/fst/firstlook/>  
These pre-publication articles (posted on-line months ahead of print publication) are peer reviewed, copyedited, and proofread. They can be cited using DOI.

Electronic access to FS&T is available from 1981-to-current. 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/>.

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