

Minutes of the Program Committee Meeting

**Thermal Hydraulics Division
2010 American Nuclear Society Winter Meeting
Riviera Hotel & Casino, Las Vegas, NV
2:30 – 4:30 PM, Sunday, November 7, 2010
Location: Capri 116**

Attendees: Kurshad Muftuoglu (Chair), Elia Merzari, DuWayne Schubring, Dave Pointer, Kimberly Becker, F. Bill Cheung, Chang Oh, Yassin Hassan, Hisashi Ninokata, Whee Choe, Si Young Lee, Jong Kim, C. Channy Wong, John Luxat, Jovica Riznic, Xiaodong Sun, Selim Kuran, David Aumiller, Mine Yilmaz, Brian Collins, Donald Todd, Eric Volpenhein, Mike Podowski, Gary E. Wilson, Francesco D’Auria, Stephen Bajorek, Seungjin Kim, Steven Arndt, Joy Rempe, Brian Woods, Rui Hu (same order as in Attachment A).

1. Opening

Kurshad Muftuoglu called the THD Program Committee Meeting to order at 2:37 p.m.

2. Approval of Meeting Agenda

The meeting agenda (Attachment B) was introduced. A motion was made to approve the agenda. All approved.

3. Minutes from June 2010 Annual Meeting

The meeting minutes from the June 2010 meeting in San Diego, CA (Attachment C) were approved.

4. Action Items from June 2010 Annual Meeting

- a. Transaction and full paper review guidelines, Review Standards Committee (Vierow/ S. Kim)

Seungjin Kim introduced a document on THD reviewer guidelines for ANS Transactions summaries and hull-length papers that Karen Vierow and he prepared (Attachment D). Some discussions followed. It was recognized that there are differences between transactions and full-length papers. Meeting attendants were asked to communicate with Vierow and Kim for comments.

- b. Providing 100-word abstracts for sessions proposed for 2010 Winter Meeting (Muftuoglu)

Completed.

c. Solicitation for hosting NUTHOS-9 (Ninokata)

Hisashi Ninokata indicated that the NUTHOS meeting series have been held in Eastern Asia, including Japan, Korea, China, and Taiwan. There were discussions to change this pattern. NUTHOS could be one of the THD major meetings in the future. No solicitation for proposals was sent out for organizing NUTHOS-9. Ninokata reported that Taiwan was planning to submit a proposal to host NUTHOS-9 (A proposal was submitted later after the November meeting and was selected by the Conference Selection Committee).

d. Solicitation for hosting NURETH-15 (Ninokata)

A solicitation for NURETH-15 proposals was distributed. Three proposals were received.

e. Inquiry on Randy Gauntt's availability to be the THD point of contact for the Severe Accident Topical Meeting proposed by NISD

The PC members present at the meeting indicated that they had no knowledge about this NISD meeting proposal. It was later discovered that there was a solicitation on Severe Accident Topical Meeting by NISD.

5. Session Status of 2010 ANS Winter Meeting in Las Vegas, NV (Muftuoglu)

a. Submittal Statistics

Statistics for the meeting (Attachment E) were reviewed. A total of 75 summaries were submitted to THD sessions, including the Mark Mills Award paper, out of which 4 summaries were withdrawn after the review, resulting a total of 71 summaries to be presented at this Winter Meeting.

b. Submittal Statistics

Kurshad Muftuoglu indicated that late submittals would not be accepted for the future ANS national meetings. It is the ANS National Program Committee's decision to accept or reject a late summary. Muftuoglu recognized the contributions from various reviewers (see Attachment E). In view of the increased needs of reviewers and to keep the summaries of high quality, Muftuoglu urged more participation from the PC members to help with the summary review. Prof. Francesco D'Auria volunteered (and was added to the THD reviewer list after the meeting).

c. Session Assignments

Kurshad Muftuoglu indicated that THD had a total of 12 sessions at this meeting and that all the THD sessions would run as parallel sessions. Efforts made by Steve Bajorek and Seungin Kim in organizing the Interfacial Area Transport sessions were recognized.

Bill Cheung suggested that session chairs identify summaries that could be suitable for presentation at NURETH-14 and that they provide the author names of those summaries to NURETH-14 organizer. The NURETH-4 organizer can then invite these authors to submit full-length papers to NURETH-14.

6. 2011 ANS Annual Meeting Program in Hollywood, FL (Muftuoglu)

a. Announced Sessions/Organizers

Muftuoglu indicated that the session information was included in the THD PC meeting minutes at the 2010 Annual Meeting. The list of the sessions is included as follows (with correction to a typo):

1. Next Generation of Safety Analysis Code (Sun/Aumiller)
2. Licensing Applications of Best Estimate Codes (D'Auria/Muftuoglu)
3. General Thermal Hydraulics (Oh/Vierow)
4. Computational Thermal Hydraulics (Woods/Lee)
5. Experimental and Computational Two-phase Flow (Guillen/Ninokata/S. Kim)
6. Thermal Hydraulics of Small Modular Reactors (Reyes/Suh)

7. 2011 ANS Winter Meeting Program in Washington, DC (Muftuoglu)

The 2011 ANS Winter Meeting will be held in Washington, DC. Muftuoglu urged members to make extra efforts to stimulate summaries since fewer summaries would be expected after the NURETH-14 meeting. The following are the agreed upon tentative sessions for the 2011 ANS Winter Meeting along with the session organizers. Note that 100 word summaries are required for any new sessions that are proposed.

1. General Two-Phase Flow (Kuran/Schubring)
2. Experimental Two-Phase Flow (S. Kim/Oh)
3. Computational Thermal Hydraulics (Bajorek/Pointer)
4. Thermal Hydraulics Code Verification and Validation (Sun/Wong)
5. Thermal Hydraulics: General (Collins/Todd)
6. Young Professional Thermal Hydraulics Research Competition (Merzari)

There were some discussions to have a session devoted to "Highlights of NURETH-14." Some concerns were raised about the short time to prepare such a session after the NURETH-14 meeting as well as the potential lack of interest in such a session based on experience from other divisions.

Action: For proposed technical sessions that are new, provide 100 word abstracts to Program Committee Chair by the end of July. (Session Organizers, Sun/Wong)

8. NUTHOS-8 Report (Ninokata)

The NUTHOS-8 conference was organized by the Chinese Nuclear Society and hosted by Shanghai Jiao Tong University. It was held at Eton Hotel in Shanghai, China, October 10-14, 2010. Hisashi Ninokata reported on behalf of Prof. Xu Cheng that 211 participants from 26 countries and regions attended the meeting, with 240 papers contributed. Ninokata also conveyed appreciation to the ANS THD from Prof. Cheng for its support to NUTHOS-8.

9. NURETH-14 Status (Luxat)

John Luxat reported that the conference planning was on the right track. A monthly teleconference was held among the general chairs and technical program chairs. By this THD PC meeting, there were a total of 85 abstracts submitted. The abstract submission deadline was Nov. 15, 2010, which would be extended to Dec. 31, 2010. There would be little room for further extension after Dec. 31. Luxat urged the members to promote and stimulate abstract submissions. The meeting will be held at Toronto Hilton Hotel. The last day for early room reservation will be August 16, 2011 and the hotel rate will be 209 Canadian dollars/night. The early and regular registration fee for members will be 790 and 890 Canadian dollars, respectively. The registration fee will include author's breakfast, at least two luncheons, three receptions and many coffee breaks. Luxat also indicated that the conference website was being updated and the update will be completed by the end of Nov. 2010. There was a discussion as to whether THD TAA award should be presented at this NURETH meeting. One concern was raised that the TAA awardee may not have been selected by the time when the meeting starts.

10. NUTHOS -9 Status

A solicitation for proposals to host NUTHOS-9 was not published. Ninokata reported that Taiwan was planning to submit a proposal to host NUTHOS-9 (A proposal was submitted later after the November meeting and was selected by the Conference Selection Committee). NUTHOS-9 will be held in 2012 to avoid conflict with NURETH series.

11. ATH'12 (Advances in Thermal Hydraulics-2012) Embedded Topical Meeting Status (Muftuoglu)

ATH'12 will be the first embedded topical meeting for the Division. It will be on an off-year of NURETH series (since NURETH-14 and 15 are to be held in 2011 and 2013, respectively). Muftuoglu suggested that this ATH series be held regularly or irregularly depending on the level of participation. It will be for full-length papers only. Since it is an embedded meeting to an ANS national meeting, THD do not need to have regular summary sessions for that national meeting. This ATH series is similar to the NISD's Best Estimate embedded topicals.

A concern was raised that this proposed ATH series could be in conflict with NURETH and NUTHOS series. It was recognized, however, that NUTHOS typically had had limited participations from the U.S. In addition, one member argued that research activities in

thermal hydraulics area had been increased over the years mainly from other countries and that as a result, more papers would be expected in the next few years.

Muftuoglu indicated that 80 full-length papers would be expected for ATH'12. The Division will use ATH'12 as the first opportunity to evaluate the feasibility of having such an ATH series added to the THD's list of major conferences.

12. NURETH-15 Planning (Ninokata)

Ninokata indicated that it had been a guideline (even though not a rule) to alternate the NURETH series among North America, Europe, and Asia. A total of three proposals were received to host NURETH-15, one from Europe and two from local sections in the U.S. (Chicago Section and Wilmington Section) by the submission deadline Oct. 31, 2010. Since Canada is hosting NURETH-14, it would be acceptable for Europe to host NURETH-15.

Ninokata asked the THD Conference Selection Committee to evaluate all of the three proposals and submit the comments and a recommendation to the EC by the end of January 2011.

Action: THD Conference Selection Committee to evaluate the three proposals and submit a recommendation to the EC for approval by the end of January 2011 (J. Kim)

13. Old Business

There was no old business to discuss.

14. New Business

There was no new business to discuss.

The meeting was adjourned at 4:42 p.m.

Minutes prepared by Xiaodong Sun

Attachment A

**American Nuclear Society – Thermal Hydraulics Division
 Program Committee Meeting
 Riviera Hotel & Casino, Las Vegas, NV
 2:30 – 4:30 PM, Sunday, November 7, 2010
 Location: Capri 116**

Sign In Sheet

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American Nuclear Society – Thermal Hydraulics Division
Program Committee Meeting
Riviera Hotel & Casino, Las Vegas, NV
2:30 – 4:30 PM, Sunday, November 7, 2010
Location: Capri 116

Sign In Sheet

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Attachment B

PROPOSED AGENDA (Draft)

**American Nuclear Society – Thermal Hydraulics Division
Program Committee Meeting
Riviera Hotel & Casino, Las Vegas, NV
2:30 – 4:30 PM, Sunday, November 7, 2010
Location: Capri 116**

1. **Opening (Muftuoglu)**
2. **Approval of Meeting Agenda (All)**
3. **Minutes from June 2010 Annual Meeting (Sun)**
4. **Action Items from June 2010 Annual Meeting**
 - a. **Transaction and full paper review guidelines, Review Standards Committee (Vierow)**
 - b. **Providing 100-word abstracts for sessions proposed for 2010 Winter Meeting (Muftuoglu)**
 - c. **Solicitation for hosting NUTHOS-9 (Ninokata)**
 - d. **Solicitation for hosting NURETH-15 (Ninokata)**
 - e. **Inquiry on Randy Gauntt's availability to be the THD point of contact for the Severe Accident Topical Meeting proposed by NISD (Vierow)**
5. **Session Status of 2010 ANS Winter Meeting in Las Vegas, NV (Muftuoglu)**
 - a. **Submittal Statistics**
 - b. **Reviews**
 - c. **Session Assignments**
6. **2011 ANS Annual Meeting Program in Hollywood, FL (Muftuoglu)**
 - a. **Announced Sessions/Organizers**
7. **2011 ANS Winter Meeting Program in Washington, DC (Muftuoglu)**
8. **NUTHOS-8 Report (Ninokata)**
9. **NURETH-14 Status (Luxat)**
10. **NUTHOS-9 Status**
11. **ATH'12 (Advances in Thermal Hydraulics-2012) Embedded Topical Meeting Status (Muftuoglu)**
12. **NURETH-15 Planning (Ninokata)**
13. **Old Business (All)**
14. **New Business (All)**

Attachment C

Minutes of the Program Committee Meeting

**Thermal Hydraulics Division
2010 American Nuclear Society Annual Meeting
Town and Country Resort, San Diego, CA
2:30 – 4:30 PM, Sunday, June 13, 2010
Eaton**

Attendees: Brian Woods, Francesco D’Auria, Kurshad Muftuoglu (Chair), DuWayne Schubring, Pradip Saha, Seungjin Kim, Donna Guillen, Theron Marshall, Elia Merzari, Xiaojing Liu, Joy Rempe, David Aumiller, Si Young Lee, Xiaodong Sun, John Luxat, Hisashi Ninokata, Chang Oh, F. Bill Cheung, Karen Vierow, C. Channy Wong, Kune Suh, Sama Bilbao y León, Kent Welter, Kevin O’Kula, José Reyes (same order as in Attachment A).

1. Opening

Kurshad Muftuoglu called the THD Program Committee Meeting to order at 2:30 p.m.

2. Approval of Meeting Agenda

The meeting agenda (Attachment B) was introduced. A motion was made to add a discussion item concerning the co-sponsoring of a stand-alone topical meeting. The agenda as amended was approved.

3. Minutes from November 2009 Winter Meeting

The meeting minutes from the November 2009 meeting in Washington DC (Attachment C) were approved conditionally. Several spelling errors were noted as well as a correction to item 4.c. Attachment C contains the corrected minutes.

4. Action Items from November 2009 Winter Meeting

a. NURETH Evaluation Criteria (Muftuoglu)

The evaluation criteria used for NURETH-13 have been resent to the Chair of the Conference Selection Committee (Jong Kim).

Item closed.

b. Rules for holding International Meetings as Class I Meetings (Muftuoglu)

It was reported that it is possible to cooperate with others groups in the organization and sponsorship of class I meetings. There are no special rules. A question was raised over the ability to sponsor a Class I meeting even if it is not held in the US. This has become an important issue since the next NURETH will be held outside of the US and financial returns from meetings such as NURETH are a vital funding mechanism for the division. It was reported that there is no hard restriction at the national level that limits Class I Meetings to the US only. If we have a close relationship with a host in the future we may want to explore holding future international NURETH Meeting as Class I meetings.

Item closed.

5. Session Status of 2010 ANS Annual Meeting in San Diego CA (Muftuoglu)

Statistics for the meeting (Attachment D) were reviewed. There were 38 summaries including 1 transfer. This ties the THD with the Reactor Physics Division for the largest number of summaries submitted for the San Diego meeting. All summaries received an adequate review through the new electronic review system. Special thanks to Xiaodong Sun who helped with the summary review recommendations. It was stressed that the number of reviews obtained per summary has decreased since the Atlanta meeting in June 2009. Members are encouraged to revitalize their reviewing efforts.

A question was raised concerning the availability of meeting summary review standards. It was noted that there are summary review standards on the division website. Further discussion ensued about summary review standards. The following are the highlights of the summary review standard discussion threads:

1. What is the appropriate level of review for the meeting summaries? Should we reserve the rigorous review for the full length paper meetings like NURETH and NUTHOS?
2. What is the appropriate placement for the summary review standards? Should they be linked to the ANS electronic review system?
3. Should there be separate review standards for different areas in TH such as CFD, experimental TH, etc.?
4. What is the most appropriate mechanism for selecting summaries to be recommended for full paper preparation and publication?

Following discussion an adhoc committee was formed to develop transaction expectations and full paper expectations. The committee consists of Karen Vierow, Seungjin Kim, and Kurshad Muftuoglu. It was noted that journals such as *Nuclear*

Engineering and Design or Nuclear Technology may have guidelines that could be used as a starting point.

Action: Karen will lead the adhoc committee on developing Transaction and full paper review guidelines by the November 2010 ANS Winter Meeting. (Review Standards Committee)

6. 2010 ANS Winter Meeting Program in Las Vegas, NV (Muftuoglu)

The following are the sessions that have been proposed for the 2010 Winter Meeting:

1. Young Professional Thermal Hydraulic Research Competition (Vierow/Collins)
2. Interfacial Area Transport (Bajorek/Seungjin Kim)
3. Severe Accident Management (Gauntt/Suh)
4. General Thermal Hydraulics (Schubring/Arndt)
5. Computational Thermal Hydraulics (Hassan/Martin)
6. Experimental/CFD Analysis of Generation IV Reactors (Oh/Woods)
7. Two Phase Flow and Heat Transfer Fundamentals (Cheung/Sun)

There have been a low number of submittals at this stage. Organizers please push to get summaries in. The NPC will meet on the week of July 12th.

Kurshad Muftuoglu will be on the National Program Committee for a 3 year term. There is a need to have a separate THD representative to the NPC. It was recommended that Xiaodong Sun serve as the division's representative to the NPC during Kurshad's three year term on the NPC and that Seungjin Kim serve as the division's backup representative. Both recommendations were approved by acclamation.

There will be a Young Professional Thermal Hydraulic Research Competition at the 2010 Winter Meeting. The competition has been advertised through the normal channels as well as during the 2010 ANS Student Conference. It was reported that no summaries have been submitted for the competition to date. It was identified that the biggest concern for the young professionals is the travel expense to the meeting and that anything the division can do to help with travel expenses would be welcome. Xiaodong Sun highlighted that there are \$500 that still needs to be allocated this year and travel support might be an excellent use of the money. It was noted that students are welcome to submit to the competition.

The Interfacial Area Transport session was originally envisioned as a panel session. The session organizers have recommended that the session be conducted as an invitational summary session instead of a panel. The draft list of people for invitation has been prepared and submitted. The hope is that there will be enough participants that the session can be broken into two sections: (1) theory and (2) experiment. There

is also the desire that this session can be continued at NURETH-14—the session organizers are encouraged to liaison with the NURETH-14 organizers.

7. 2011 ANS Annual Meeting in Hollywood, FL (Muftuoglu)

The 2011 ANS Annual Meeting will be held in Hollywood, FL. The following are the agreed upon tentative sessions for the 2011 ANS Annual Meeting along with the session organizers. Note that 100 word summaries are required for any new sessions that are proposed.

1. Next Generation of Safety Analysis Code (Sun/Aumiller)
2. Licensing Applications of Best Estimate Codes (D'Auria/Muftuoglu)
3. General Thermal Hydraulics (Oh/Vierow)
4. Computational Thermal Hydraulics (Woods/Li)
5. Experimental and Computational Two-phase Flow (Guillen/Ninokata/Kim)
6. Thermal Hydraulics of Small Modular Reactors (Reyes/Kuh)

Action: For proposed technical sessions which are new, provide 100 word abstracts to Program Committee Chair by the end of July. (Session Organizers)

8. NUTHOS -8 Status (Liu)

228 full papers have been submitted. It is anticipated that reviews will be completed by the end of June. All panelists and plenary speakers should be set and all technical sessions and chairs should be finalized by the end of July. The program should be fixed by August. By September, it is hoped that the registration work should be finished and the program and abstracts completed.

9. NURETH-14 Update (Luxat)

A detailed update was included in the spring 2010 THD newsletter. It was reported that the local NURETH team is well established with a standing conference call being held every four weeks. The first call for papers is out and the website is up and running. Organizers are looking to get sponsorship income—currently they have a number of promises and are waiting for budgets to be set. The conference organizers would like to have a gallery of thermal hydraulics related (past and present) pictures running in a loop during the conference—any image contributions are welcome.

10. NUTHOS -9 Status (Ninokata)

The solicitation for applications to host NUTHOS-9 has not been published yet. Through Hisashi, a potential host organization expressed in holding NUTHOS-9 in Taiwan in October 2012. The proposed dates still need to be checked for religious

holidays and the blackout period conflicts. It was reported that it is very difficult to get approval for Class IV Meetings during the blackout period. If we want to hold NUTHOS as a Class II Meeting, it is even that much more difficult to get it approved during the blackout period.

Action: Publish and distribute the solicitation for the submittal of host organization applications for NUTHOS-9. (Ninokata)

Action: Publish and distribute the solicitation for the submittal of host organization applications for NURETH-15. (Ninokata)

11. Old Business

There was no old business to discuss.

12. New Business

a. Co-sponsoring Severe Accident Topical Workshop

The Nuclear Installation Safety Division (NISD) has expressed its desire to hold a standalone Severe Accident Topical Meeting in the 2012 timeframe. This topical would be a full paper meeting. There is a strong thermal-hydraulic component to this topic and NISD felt that the Thermal Hydraulic Division would be a good partner; therefore, NISD has requested that the THD co-sponsor this topical meeting. NISD specifically requests that one or two members of the THD be identified to start working with the NISD meeting organizers. It is anticipated that the THD liaison(s) will be involved in conference calls with the topical working group every few weeks. This working group will lay the groundwork for the meeting organization. If the decision is made to go forward with the development of this joint topical meeting, it is anticipated that the working group will move toward ANS calendar placement at the ANS Winter Meeting in Las Vegas in November 2010. The THD Executive Committee has not taken an official vote approving the THD's involvement in this topical.

Issues were raised about the impact of co-sponsoring this meeting with NISD. Who is the lead organization for this meeting? What would the revenue sharing look like? Would co-sponsoring this meeting result in the THD losing papers on severe accident topics to NISD in the future? Is there a market for this? Although a number of questions were raised and discussed it was clear that an agreement must be in place with NISD prior to the meeting which clarifies a number of these questions. It was also clear that the Executive Committee will need additional information before making a decision. It was agreed that the best course of action is to discuss this item with Randy Gauntt and collect the background information needed to make a decision prior to the November 2010 Winter Meeting.

Action: Ask Randy Gauntt on his availability to be the THD point of contact for the workshop. (Vierow)

b. NURETH-15 Host Request

The Italian team who submitted a proposal for hosting NURETH-14 announced their intention to submit a proposal for hosting NURETH-15 in 2013. Since the official solicitation has not been published and distributed, the team did not make a presentation at this PC meeting.

The meeting was adjourned at 4:26 p.m.

Minutes prepared by Brian Woods

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Program Committee Meeting
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2:30 – 4:30 PM, Sunday, June 13, 2010
Location: Eaton

Sign In Sheet

| Name | Affiliation | Email | Phone |
|-------------------|---------------------------|-----------------------------|-------------------|
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Town and Country Resort, San Diego, CA
2:30 – 4:30 PM, Sunday, June 13, 2010
Location: Eaton

Sign In Sheet

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PROPOSED AGENDA

**American Nuclear Society – Thermal Hydraulics Division
Program Committee Meeting
Town and Country Resort, San Diego, CA
2:30 – 4:30 PM, Sunday, June 13, 2010
Location: Eaton**

- 1. Opening (Muftuoglu)**
- 2. Approval of Meeting Agenda (All)**
- 3. Minutes from November 2009 Annual Meeting (Woods)**
- 4. Action Items from November 2009 Winter Meeting**
 - a. NURETH evaluation criteria (Muftuoglu)**
 - b. Rules on holding international meetings as Class I (Muftuoglu)**
- 5. Session Status of 2010 ANS Annual Meeting in San Diego, CA (Muftuoglu)**
 - a. Submittal Statistics**
 - b. Reviews**
 - c. Session Assignments**
- 6. 2010 ANS Winter Meeting Program in Las Vegas, NV (Muftuoglu)**
 - a. Announced Sessions/Organizers**
 - b. Young Professional Thermal Hydraulics Research Competition**
- 7. 2011 ANS Annual Meeting Program in Hollywood, FL (Muftuoglu)**
- 8. NUTHOS-8 Status (Xu)**
- 9. NURETH-14 Status (Luxat)**
- 10. NUTHOS-9 Planning (Ninokata/Vierow)**
- 11. Old Business (All)**
- 12. New Business (All)**

Minutes of the Program Committee Meeting

**Thermal Hydraulics Division
2009 American Nuclear Society Winter Meeting
Omni Shoreham Hotel, Washington, DC
3:00 – 5:00 p.m., Sunday, November 15, 2009
Congressional A**

Attendees: Kurshad Muftuoglu (Chair), Xiaodong Sun, Brian Woods, Seth Cadell, Brian Collins, Bob Martin, John Luxat, Kune Suh, Dana Powers, Randall Gauntt, DuWayne Schubring, Elia Merzari, Hisashi Ninokata, Karen Vierow, Theron Marshall, Chang Oh, Jong Kim, Steven Arndt, Bill Cheung, Seungjin Kim, Steve Bajorek, Joy Rempe, Cheng Xu, and Yassin Hassan (same order as in Attachment A).

1. Opening

Kurshad Muftuoglu called the THD Program Committee Meeting to order at 3:02 p.m. During introductions Dana Power introduced himself as the NISD liaison with the THD.

2. Approval of Meeting Agenda

The meeting agenda (Attachment B) was introduced and approved.

3. Minutes from June 2009 Annual Meeting

The meeting minutes from the June 2009 meeting in Atlanta, GA (Attachment C) were approved conditionally. It was agreed that committee members will notify the Program Committee Chair following this November Program Committee Meeting with any comments concerning the minutes from June.

4. Action Items from June 2009 Annual Meeting

a. NURETH Evaluation Criteria (Muftuoglu)

The evaluation criteria used for NURETH-13 has been sent to the Chair of the Conference Selection Committee (Jong Kim) however there was some uncertainty as to if it was received. The Program Committee Chair will resend.

Action: Provide NURETH-13 evaluation criteria to Chair of the Conference Selection Committee. (Muftuoglu)

b. Availability of Hochreiter Family for TAA presentation (Martin)

The Award was brought to the 2008 Winter Meeting in Reno and presented to Jack Brenizer. He has passed the award onto Susan Hochreiter.

c. Panelist Invitation Acceptances (Oh/ Muftuoglu)

Two panel sessions are scheduled for this meeting. The first is the Next Generation Nuclear Plant Technology Challenges session for which six people have accepted the invitation and will be coming to this meeting. The second is the 10CFR50.46 Loss-of-Coolant Accident Criteria Revision session for which five people have accepted the invitation and will be coming to this meeting.

d. Update on tutorial on Scaling (Muftuoglu for Revankar)

Pradip Saha will be organizing the tutorial for BWR scaling. Someone for PWR scaling is still needed. The thinking is that this will be a three hour session at the June meeting in San Diego, CA. A tentative agenda has been provided to the PC Chair. There was some discussion as to the pros and cons of hosting a full day professional development seminar.

e. NUTHOS-8 Approval as a Class IV Meeting (Muftuoglu)

Since NUTHOS-8 lies within the 4 week window of a national meeting, approval had to be sought for the meeting by the National Program Committee. Thermal Hydraulic Division sponsorship of NUTHOS-8 has been approved by the NPC.

f. Update on NUTHOS-8 Conference Selection Committee (Kim)

The Conference Selection Committee currently consists of Jong Kim (Chair), Mike Podowski, Randall Gauntt, Steve Arndt and Qiao Wu. The general points of evaluation for the applicants were discussed as developed by the Conference Selection Committee. These centered around 3 major themes: (1) Organizational aspects; (2) Technical aspects including the professional stature of the technical organizing chairs, and THD involvement; and (3) Budget issues. The bottom line is the prospects of success for this conference are good. Discussion ensued concerning the desirability of selecting a host that will maintain contact with the Thermal Hydraulic Division and attend TH Program Committee meetings for a number of years before the actual conference.

g. Rules for holding International Meetings as Class I Meetings (Muftuoglu)

A question was raised over the ability to sponsor a Class I Meeting even if it is not held in the US. This has become an important issue since the next NURETH will be held outside of the US and financial returns from meetings such as NURETH are a vital funding mechanism for the division. It appears that there is no hard restriction on the national level that limits Class I Meetings to the US only. If we have a close relationship with a host in the future we may want to explore holding future international NURETH Meeting as Class I Meetings.

We have discussed and agreed to leave NURETH-14 alone but in the future for NURETH Meetings outside of the US, if we have a close relationship with the host, hold the NURETH meeting as a Class I meeting.

5. Session Status of 2009 ANS Winter Meeting in Washington DC (Muftuoglu)

Statistics for the meeting (Attachment D) were reviewed. It was mentioned that a review of a paper must be beyond a format review only—the technical review is what is important. In addition it was announced that the Awards Ceremony will be held after the Tuesday pm session. All sessions have at least one chair.

There will be a Young Professional Congress at this Meeting. The division had proposed a Young Professional Thermal Hydraulic Competition but it was not picked up. Such competitions have been successful in the past. The sense is that ANS did not want a competition during the Young Professional Congress and thus the Thermal Hydraulic session was changed to “Innovations in Thermal Hydraulics”. This session has only two submitted papers which will make it a rather weak session. In addition, there was a feeling expressed by some that the topic of this Young Professional Congress session detracts somewhat from the TH sessions in the ANS Winter Meeting proper. This situation highlights the importance of improving our dialogue with the Young Members Group. The consensus is that the division is fully in support of the Young Members Group but sponsoring a session that takes away from the division’s winter meeting sessions is probably not acceptable in the long term.

6. 2010 ANS Annual Meeting Program in San Diego, CA (Muftuoglu)

a. Announced Sessions/Organizers

Kurshad will be the technical program chair of the San Diego Meeting. The following are the sessions that have been proposed for the 2010 Annual Meeting (one session each):

1. General Thermal Hydraulics
2. General Computational Thermal Hydraulics
3. Computational Two Phase Flow
4. Scaling Analysis Techniques Tutorial
5. Regulatory Guide 1.167 Revision Panel
6. Thermal Hydraulics of VHTR
7. Thermal Aspects of Nuclear Material Process Handling and Storage

It is anticipated that this will be a busy meeting for the Thermal Hydraulic Division.

ANS IT personnel will be replacing the COS meeting abstract submittal and review system starting with the June Annual Meeting. A number of demo sessions (six) will be held during this meeting (Winter Meeting in DC) for this new system. A question was asked if this is the same system as the new journal review system. There was no firm answer for this question. In addition, there was some discussion concerning whether or not each reviewer's current information will port over to the new system if we are already registered in the COS system. Kurshad reported that if one is an ANS member their information will port over to the new system. If one is not a member of ANS, additional information may be required by the new system. Kurshad will also push to use this system at topical meetings.

7. 2010 ANS Winter Meeting in Las Vegas, NV (Muftuoglu)

The 2010 ANS Winter Meeting will be held in Las Vegas. This venue has been changed from New Orleans. The following are the agreed upon tentative sessions for the 2010 ANS Winter Meeting along with the session organizers. Note that 100 word summaries for new sessions are required for any new sessions that are proposed.

1. Young Professional Thermal Hydraulic Research Competition (Vierow)
2. Interfacial Area Transport (Bajorek/Seungjin Kim)
There was discussion about possibly running this session as a tutorial/panel which would be more in depth than the regular technical session.
3. Severe Accident Management (Gauntt)
4. General Thermal Hydraulics (Schubring/Arndt)
5. Computational Thermal Hydraulics (Muftuoglu/Martin)
6. Experimental/CFD Analysis of Generation IV Reactors (Oh/Woods)
7. Two phase flow and heat transfer fundamentals (Cheung/Sun)

Action: For proposed technical sessions which are new, provide 100 word abstracts to Program Committee Chair by 12/15/09. (Session Organizers)

8. NURETH-13 Report (Ninokata)

Hisashi expressed his thanks to everyone that helped to make NURETH-13 a tremendous success. All in all, there were 430 people from 28 countries—350 papers and 420 reviewers which lead to approximately 3 reviews per paper. There were only 36 papers from the US. More than half of the papers from the US and Europe combined. The cost of the conference was around \$300K which will not result in any appreciable surplus.

9. NUTHOS -8 Status (Xu)

Dr. Xu announced that the abstract deadline is at the end of November. A second call for abstracts will go out two days prior to the first deadline and will extend the deadline 4 to 6 weeks (to mid January). Note that it is not required that one wait until the second deadline to submit an abstract and early submissions are always appreciated.

The NUTHOS-8 webpage is up and running and the hotels have been booked. The NUTHOS-8 staff is in place. 81 people have accepted invitations to serve on the NUTHOS-8 Technical Program Committee. So far, the good news is that there is strong support from China and its industry. The bad news is that there are only 40 abstracts submitted yet of which zero are from the US. Dr. Xu discussed the potential conference schedule including plenary sessions, technical sessions, lectures and special sessions. It appears that the NUTHOS-8 fee schedule is comparable to that of NUTHOS-7. It was mentioned that Shanghai (the host city) is expensive and thus the NUTHOS-8 organizers are approaching additional industrial partners for further funding. It was recommended that hotel rates be published on the website.

10. NURETH-14 Update (Luxat)

John reported that the core organizational committee is in place and that Professor Ishii has been selected as the honorary chair. The call for papers is included in these minutes as Attachment E. Currently, the NURETH-14 organization is at the stage of soliciting sponsorship and putting together budgets. So far NURETH-14 has secured approximately \$80K in sponsorship. NURETH-14 is preparing to make a donation to ANS under a revenue sharing agreement which can be used for funding of endowed THD scholarships and awards. There was discussion about potentially providing a list of attendees from NURETH-13 and NUTHOS-8 to the organizers of NURETH-14—however; questions were raised about the legality of such an action. In addition, Joy Rempe suggested that the NURETH-14 organizers get the list of letters to external organizations (ASME, etc.) that have been developed for NURETH-13.

11. Old Business

The following are a few reminders:

1. The Honors and Awards Luncheon will be held Tuesday at lunch. Both Mujid Kazimi and Hisashi Ninokata will be honored at this ceremony. Please consider attending and gathering with all THD members. Session chairs are asked to make announcements during all sessions.
2. The Tuesday morning technical session is the Larry Hochreiter Memorial Session. Please plan on attending.
3. The Technical Achievement Award presentation will be made following the Tuesday afternoon technical session. Mujid Kazimi will be honored as the winner of the 2009 THD TAA. This will be followed by a lecture by Dr. Kazimi. The best paper award will also be made during this session.

12. New Business

The Thermal Hydraulic Division is looking to co-sponsor a session and/or meeting with other divisions. The NISD has a proposal to sponsor a standalone topical meeting on the Severe Accident Analysis and Safety Analysis of advanced reactor concepts in May 2011. There is a strong thermal-hydraulic component to this topic and NISD felt that the Thermal Hydraulic Division would be a good partner. Albuquerque has volunteered to host the topical. There was a positive response from the group. Kurshad welcomes the idea and recommended that they contact the National Program Committee as soon as possible. NISD looked at the idea of doing this topic during an embedded topical but the feeling was that there would be too many people interested in it and the financials were better if it were completed as a standalone meeting.

Action: Work with NISD in the preparation of a proposal to the National Program Committee. (Muftuoglu)

The need to identify a Thermal Hydraulic Division representative to the ANS Young Members Group was discussed. This representative should be someone active in both groups and is tasked with facilitating technical sessions which crosscut both the THD and the YMG. Further discussion is table until the THD Executive Committee Meeting.

The meeting was adjourned at 5:07 p.m.

Minutes prepared by Brian Woods

ANS 2010 Annual Meeting, San Diego CA

There were again a high number of summaries submitted for THD sessions. We have received total of 38 summaries, including one transfer from another division.

Three of these summaries were accepted (A) without further comments, 34 were accepted with revisions (A/R), and one was rejected unless revised (R/R). One summary was withdrawn later by its author. In total, 37 summaries made to the conference. Reconciled review recommendations for the summaries are as follows:

| | |
|----|-----------------------------|
| 3 | Accepted (A) |
| 34 | Accept with Revisions (A/R) |
| 1 | Reject Unless Revised (R/R) |
| 0 | Rejected (REJ) |

Overall, the review participation was sufficient but needs to be improved. All the papers received adequate review on a timely basis. The distribution is as follows:

| | |
|----|------------|
| 17 | 2 reviews |
| 15 | 3 reviews |
| 6 | 4+ reviews |

There were 102 review recommendations that needed to be coordinated from 21 reviewers. Large reviewer participation is positive; however half of our reviewer pool did not participate. There is also a downward trend in total number of reviews per paper.

Most recent reviewer participations were as follows:

| | | |
|-----------|------------------|---------------|
| San Diego | 102 reviews from | 21 reviewers |
| D.C. | 135 reviews from | 22 reviewers |
| Atlanta | 191 reviews from | 25 reviewers |
| Reno | 73 reviews from | 11 reviewers |
| Anaheim | 89 reviews from | 19 reviewers. |

Following individuals contributed to the reviews of the summaries:

| | |
|--------------|----|
| D. Aumiller | 14 |
| S. Revankar | 9 |
| X. Sun | 9 |
| J. Riznic | 8 |
| J. Lane | 7 |
| T. Marshall | 7 |
| S. Arndt | 6 |
| D. Todd | 6 |
| C. Tzanos | 5 |
| B. Cheung | 3 |
| D. Guillen | 3 |
| H. Ninokata | 3 |
| J. Rempe | 3 |
| D. Schubring | 3 |
| K. Vierow | 3 |
| J. Watson | 3 |
| B. Woods | 3 |
| B. Collins | 2 |
| R. Martin | 2 |
| K. Muftuoglu | 2 |
| S. Lee | 1 |

There still remain some PC and EC members who are not actively participating in the reviews.

There are total of 6 sessions, including a half-length session, in the meeting. These are:

| Session | # of speakers | Time Slot | Chairs |
|--|---------------|-------------|----------------------|
| Computational Two-Phase Flow | 5 | Mon. p.m. | D. Guillen |
| Thermal Hydraulics of VHTR | 8 | Tues. a.m. | C. Oh K. Vierow |
| Computational Thermal Hydraulics | 8 | Tues. p.m. | D. Aumiller |
| Scaling Analysis Techniques – Tutorial | 2 | Wed. a.m. | P. Saha J. Reyes |
| General Thermal Hydraulics – I | 9 | Wed. p.m. | J. Lane J. Riznic |
| General Thermal Hydraulics – II | 7 | Thurs. a.m. | S. Lee |

All the sessions will be held in “Windsor”.

During the reviews, I have asked for participant confirmation to serve as a session chair. Only very few people responded. We need more cooperation from EC/PC/Review Pool members for the whole process, including soliciting participation, reviewing summaries, and volunteering to co-chair the sessions.

K. Muftuoglu
PC Chair

Attachment D

THD Reviewer Guidelines for ANS Transactions Summaries

Proposed by Adhoc Committee consisting of S. Kim, K. Muftuoglu, K. Vierow
(Ref.: email from ANS broadcasts@ans.org, June 24, 2010)

- * The summary should report significant new factors or ideas which have not been published in the open literature.
- * Each review should include a statement of how the submission would be useful and/or of interest to the technical community.
- * Both the objective(s) and the conclusion(s) should be clearly stated.
- * The Contributed summary must include results. Promissory abstracts for which results are expected to be available by the time of presentation *will be rejected*. An exception is a contributed summary that provides the updated progress or status of a continuing program or project. Such summaries must clearly discuss significant new developments since previously submitted and published summaries.
- * The summary will succinctly discuss how the conclusion(s) was reached, based on the objective(s) provided in the summary. For example, a discussion of the analytical methods applied and the results should provide the necessary connection between the objectives(s) and the conclusion(s).
- * All figures or graphics contained in the summary must be reasonably organized, with detail kept to a minimum, clearly understandable, and - importantly - consistently independent. For example, multiple independent figures arranged and titled as one figure is not acceptable.
- * While the citation of pertinent references is helpful to the reviewer, the length of the reference material list must be limited to that which is absolutely necessary. Each reference listed at the end of the summary must be appropriately cited in the narrative or text of the summary.
- * If applicable, the summary should give proper credit to key individual(s) whose work on the same subject matter or topic has been used to help reach the stated conclusions.
- * The contributed summary must be categorized as addressing the technical interest of the Society. Even though policy or socio-technically oriented issues may provide interesting discussions, contributed summaries are limited to technical subject matter; other ANS program formats are available for non-technical subjects.

The online "Guidelines for TRANSACTIONS Summary Preparation" is to be followed for editorial details. Of particular note are the requirement of SI units and the word limitation.

<http://www.ans.org/pubs/transactions/docs/guidelines.pdf>

THD Reviewer Guidelines for Full-length Papers

These guidelines will apply to full-length papers submitted to THD meetings, topical, or other events. The ad hoc committee suggests using the Reviewer Guidelines from *Nuclear Technology*.

Reviewer Instructions from Nuclear Technology
(Ref.: Nuclear Technology Editorial Management System website
<http://www.editorialmanager.com/ntech/default.asp>)

Performing the Manuscript Review

When reviewing the submitted contribution, please consider the following list of questions, at least partially, in your review.

1. Is this an original contribution? Is new and important information presented?
2. Are the title and, particularly, the abstract consistent with the text?
3. Is the manuscript correct and complete?
4. Is the subject presented clearly? Are the conclusions clear and consistent with the work done?
5. Does it give adequate credit to earlier work in the field? If no, please identify omitted work, if possible, by indicating specific references.
6. Your recommendation:
 - a. Publication as is
 - b. Publication after minor revision following comments provided
 - c. Publication after major revision following comments provided
 - d. Rejection
7. Should it be published as:
 - a. technical paper, or
 - b. technical note?

Comments

If revision or rejection is indicated, please give detailed, specific, and substantive comments.

In a technical note authors may present preliminary results of work in progress or extension/refinement of results already published; work on subjects of limited interest to NT readers may also appear as a technical note. A note may also summarize information presented fully elsewhere, e.g., a lab report or the proceeding of a meeting.

A reviewer is not expected to include a manuscript in the review. However, in addition to your review, we would appreciate information on any errors that you may note, or minor changes in wording you may wish to suggest. We would appreciate it if you would indicate such errors or suggested changes on the manuscript, and upload it along with your review or fax a copy to 708-579-8313.

Please remember that THE COPY EDITORS WILL NOT CORRECT UNITS. All American Nuclear Society publications **require the use of SI units**; if the author(s) used non-SI or mixed units please state this in your review.

Nominations for Archival Papers

A Transactions summary or full-length paper submitted to an ANS THD activity may be nominated for archival paper publication.

Summary nomination:

The nominator should evaluate whether the first several questions for full paper review can be answered with a positive response. Since only limited information is available in the summary, emphasis should be placed on estimating the originality and value of the information a full-length archival paper could present.

1. Is this an original contribution? Is new and important information presented?
2. Are the title and, particularly, the abstract consistent with the text?
3. Is the manuscript correct and complete?
4. Is the subject presented clearly? Are the conclusions clear and consistent with the work done?
5. Does it give adequate credit to earlier work in the field? If no, please identify omitted work, if possible, by indicating specific references.

The author(s) must be notified that the full-length version of the paper will undergo a journal peer review based on the review criteria set by the ANS journal *Nuclear Technology*.

Conference or topical full-length paper nomination:

The nominator should provide answers to the questions above and give technical feedback on the paper. Emphasis should be placed on estimating the originality, value and quality of the information. Since the entire paper is available, careful examination of the paper details should be made to ensure quality.

The author(s) must be notified that the paper will undergo a journal peer review based on the review criteria set by the ANS journal *Nuclear Technology*.

Attachment E

ANS 2010 Winter Meeting, Las Vegas NV

I would like to recognize and thank Prof. Xiaodong Sun for taking the leadership and for all of his dedicated efforts in preparation of the Las Vegas meeting, as he has personally attended NPC meeting at Chicago in July.

We have received a record number of summaries submitted for THD sessions. There are 75 papers submitted in the system, including the Mark Mills Award paper.

28 of these summaries were accepted (A) without further comments, 37 were accepted with revisions (A/R), and 10 were rejected unless revised (R/R). One summary was withdrawn later by its author. In total, 37 summaries made to the conference.

Reconciled review recommendations for the summaries are as follows:

| | |
|----|-----------------------------|
| 28 | Accepted (A) |
| 37 | Accept with Revisions (A/R) |
| 10 | Reject Unless Revised (R/R) |
| 0 | Rejected (REJ) |
| (4 | Withdrawn) |

Overall, the review participation was barely sufficient, however inadequate compared to the number of summaries received. All but one of the papers received adequate review on a timely basis. The distribution is as follows:

| | |
|----|---|
| 1 | 0 reviews (Mark Mills Award paper – already reviewed) |
| 1 | 1 review (late submittal) |
| 45 | 2 reviews |
| 23 | 3 reviews |
| 4 | 4 reviews |
| 1 | 5 reviews |

There were 102 review recommendations that needed to be coordinated from 21 reviewers. Large reviewer participation is positive; however half of our reviewer pool did not participate. There is also a downward trend in total number of reviews per paper. Most recent reviewer participations were as follows:

| | | |
|-----------|------------------|---------------|
| Las Vegas | 181 reviews from | 20 reviewers |
| San Diego | 102 reviews from | 21 reviewers |
| D.C. | 135 reviews from | 22 reviewers |
| Atlanta | 191 reviews from | 25 reviewers |
| Reno | 73 reviews from | 11 reviewers |
| Anaheim | 89 reviews from | 19 reviewers. |

Following individuals contributed to the reviews of the summaries:

| | |
|---------------|----|
| S. Bajorek ✓ | 46 |
| D. Aumiller ✓ | 18 |
| E. Merzari ✓ | 16 |
| S. Kim | 12 |
| S. Revankar | 12 |
| X. Sun | 11 |
| D. Guillen ✓ | 8 |
| K. Muftuoglu | 8 |
| K. Vierow ✓ | 7 |
| B. Collins | 6 |
| H. Ninokata | 5 |
| J. Riznic | 5 |
| D. Schubring | 5 |
| S. Arndt ✓ | 4 |
| B. Cheung | 4 |
| S. Kuran | 4 |
| E. Baglietto | 3 |
| J. Watson— | 3 |
| S. Lee | 2 |
| P. Saha | 2 |

There still remain some PC and EC members who are not actively participating in the reviews.

There are total of 12 sessions, including two half-length sessions, in the meeting.
These are:

| Session | # of speakers | Time Slot | Location | Chairs |
|---|---------------|-------------|-------------------|--|
| General Thermal Hydraulics—I | 7 | Mon. p.m. | Grande Ballroom C | Y. Hassan J. Watson |
| Experimental and CFD Analysis of Gen-IV Reactors—I | 6 | Mon. p.m. | Grande Ballroom D | C. Oh B. Woods |
| Interfacial Area Transport—I <i>Theory & Modeling</i> | 6 | Tues. a.m. | C | S. Kim S. Bajorek M. Ishii |
| Computational Thermal Hydraulics—I | 7 | Tues. a.m. | D | H. Ninokata D. Aumiller |
| Interfacial Area Transport—II <i>Exps</i> | 6 | Tues. p.m. | C | S. Bajorek D. Bestion |
| Interfacial Area Transport—III <i>Code applications & CFD</i> | 6 | Wed. a.m. | C | X. Sun S. Kuran |
| Young Professional Thermal Hydraulics Research Competition—I | 7 | Wed. a.m. | D | B. Collins S. Arndt |
| General Thermal Hydraulics—II | 8 | Wed. p.m. | C | DW Shubring J. Watson |
| Young Professional Thermal Hydraulics Research Competition—II | 7 | Wed. p.m. | D | D. Todd |
| Computational Thermal Hydraulics—II | 8 | Thurs. a.m. | C | E. Merzari |
| Experimental and CFD Analysis of Gen-IV Reactors—II | 3 | Thurs. p.m. | C | K. Suh |
| Severe Accident Management | 3 | | | K. Muftuoglu |
| | | | | |
| Total | 71 | 11 | | 20 |

All the sessions will be held in "Grande Ballroom C or D".

During the reviews, I have asked for participant confirmation to serve as a session chair. As in the past, we have relied on review participation in the assignments. Some chair assignments did not work out due to scheduling constraints.

K. Muftuoglu
PC Chair