

**Minutes of the Program Committee Meeting
ANS Thermal Hydraulics Division**

**2007 ANS Annual Meeting
Boston Marriott Copley Place
Boston, MA
3:00 –5:00 PM, Sunday, June 24, 2007
MIT Room**

Attendees: Karen Vierow, K. Y. Suh, Chang Oh, L. E. Hochreiter, Shripad T. Revankar, Whee Choe, F. Bill Cheung, Kurshad Muftuoglu, Jong H. Kim, Brian Woods, Dana A. Powers (NISD Liaison), Steven Arndt, Xiaodong Sun, Hisashi Ninokata, Cesare Frepoli, Robert Brackmann, Sama Bilbao y Leon, Robert Martin, Joy Rempe (same order as in Attachment A)

1. Opening

Kurshad Muftuoglu called the THD Program Committee Meeting to order at 3:02 p.m.

2. Approval of Meeting Agenda

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

3. Minutes from November 2006 Winter Meeting

The meeting minutes from the November 2006 meeting (Attachment C) in Albuquerque, NM were approved as submitted.

After the meeting, an editorial change to item 4 was approved. “Bill Cheung reported” was changed to “the Committee has decided”.

4. Action items from November 2006 Winter Meeting

a. Solicitation of NURETH-13 host proposals

A host solicitation for NURETH-13 in 2009 was not issued although one proposal has been received. The openness of the host selection process was discussed. To ensure that interested parties have the opportunity to submit, the Screening Committee has contacted representatives in Canada, Italy and India. Canada and Italy are showing interest. The timeliness and the past locations of recent NURETH conferences (2005 – France, 2007 – US) favor the proposal already received from Asia.

A motion was made and passed for the PC to recommend to the EC that the Screening Committee proceed with a proposal from Japan to host NURETH-13.

5. Session Status of 2007 ANS Annual Meeting in Boston

This item was covered simultaneously with item 6.

6. Review of Session Assignments and Feedback

Kurshad reported that the division received 39 abstracts, including 2 summaries transferred from other divisions. Based on the reviews:

9 summaries were accepted as submitted

24 summaries were accepted with revisions

6 summaries were rejected unless revised (this includes 3 just for the format)

No summaries were rejected flat out

Five papers were withdrawn after the first reviews. Three of these papers had been accepted with revisions. The 34 summaries were divided into 7 different sessions, including 2 half-sessions. Because there were sufficient papers in the General Thermal Hydraulics session to create a new session, the following was added:

Nanofluids, Surfactants, and Particles in Thermal Hydraulics, Tues. a.m.

Cochairs: Xiaodong Sun, Fan-Bill Cheung

THD had a reviewer pool of 40 reviewers for the 39 summaries. The number of submitted summaries is surpassed only by RPD and MCD.

For further details, see a summary report distributed at the meeting (see Attachment D).

7. 2007 ANS Winter Meeting in Washington DC

Twenty-three summaries had been submitted as of the PC meeting. Thirty summaries is a desirable figure. PC members should solicit additional summaries.

Technical sessions are:

1. Research Needs and Current Developments in Best Estimate Computational Thermal Hydraulic Codes, Paper session – Muftuoglu, Woods
2. Research Needs and Current Developments in Best Estimate Computational Thermal Hydraulic Codes, Paper session, Panel session – Hochreiter, Frepoli
3. Young Member Paper Competition – Todd, Unal
4. General Thermal Hydraulics – Marshall, Hassan, Reyes
5. Co-sponsor of a Multiphysics session – Guillen, Larson
6. General Two-Phase Flow – Vierow, Rempe

7. Thermal Hydraulic Research Needs for GNEP – Larson, Sun, Unal, Suh

During the review process, any abstracts that could be extended to full papers should be noted. Authors will be contacted and invited to submit their full paper to *Nuclear Technology*.

Action Item: PC members should solicit additional summaries.

8. Update on Session Organizer Participation

Action item: Kurshad will email organizers reminding them of their duties and assignments.

9. 2008 ANS Annual Meeting Program in Anaheim

The committee discussed publication of meeting highlight summaries at subsequent meetings to increase exposure of technical accomplishments. The sessions to highlight may be based on session attendance.

NURETH-12 will be highlighted at the Anaheim meeting. The method of highlighting is to be determined. Organizers will be Larry, Bill, Kurshad, Joy and Karen.

Proposed technical sessions are:

1. NURETH-12 Highlights - Kurshad, Larry, Joy, Bill, Karen
2. Panel on Thermal Hydraulic Aspects of Nuclear Hydrogen Systems (joint panel session with the Nuclear Hydrogen Working Group) - Shripad, Chang
3. General Thermal Hydraulics - Hisashi, Karen, Brian Woods
4. Two-Phase Flow Experimentation - Yassin, Xiaodong
5. CFD Analysis of Rod Bundles - Larry, Cesare, Hisashi
6. Thermal Hydraulics of Spent Fuel - Steve Arndt, Larry
7. Thermal Hydraulic Aspects and Licensing of Gen III and Gen III+ Reactors - Larry, Cesare, Kune, Sama Bilbao y Leon

Action Item: Organizers of newly proposed sessions must send Kurshad a 100-word abstract by Wednesday, June 27.

Note: This date was later changed by Kurshad to the following week.

10. NURETH-12 Update

260 abstracts were submitted. To date, 190 full papers have been received. There are 60 to 75 papers outstanding.

Immediate action items:

1. Add the hotel registration forms and information to the NURETH-12 website.
2. Add the advanced registration form and information to the NURETH-12 website.
3. Post the preliminary program*.
4. Inform the reviewers of their sessions, the papers they are responsible for and provide clearer review instructions (detailed below).
5. Karen will look for the NURETH-11 letter inviting authors to attend the conference and send it to Kurshad. Kurshad will update it and forward it to the authors.

*Bill Cheung noted that care must be taken in the preliminary program to avoid overlap in the times that people are chairing sessions and presenting papers.

Revised review process:

Due to the shortage of time, **the following immediate actions will be taken** to hasten the review process.

1. Kurshad will identify a lead chair for each session and co-chairs. He will inform the lead chair and co-chairs of their assignments.
 - a. The lead chair will coordinate review comments and send them directly to the authors.
 - b. The lead chair will send the results of the final reviews to Kurshad and Bill.
2. Kurshad will revise the reviewer instructions and resend to all reviewers.
3. Kurshad will distribute an updated list of sessions and session organizers.
4. Larry will work with Kurshad to provide a more even load distribution to the reviewers. For example, Joy and Karen have been assigned 3 sessions, and two of their sessions have 4 co-chairs. The number of co-chairs per session will be reduced.

11. NUTHOS-7 Update

Kune distributed a NUTHOS-7 flyer that provides an update (Attachment E) on the plans for this conference.

12. Old Business

Bob stated that no additional information is available on the Best Estimate '08 conference, an embedded topical in the 2008 Annual Meeting.

13. New Business

- a. Inquiry by journal editor about a NURETH-12 special issue
Cesare was approached by the editors of an online journal, *Science and Technology of Nuclear Installations*, regarding interest in a NURETH-12 special issue. The Chief Editor is D' Auria.

The PC committee responded that we would need to know the publication charges and details of the review process to further the discussion. NURETH-12 publications have already been determined.

b. Journal publication of NURETH-12 papers

Bill suggested that preliminary recommendations of the best NURETH-12 papers for journal papers be made at the 2007 Winter PC meeting and the journal editors contacted.

The meeting was adjourned at 5:00 pm.

Minutes prepared by Karen Vierow

Attachment A

Attendee List

June 24, 2007

THO Program Committee Meeting

Name	Phone	Email
Karen Vierow	979-458-0600	vierow@ne.tamj.edu
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Joy Rempe	208-526-2897	joy.rempe@inl.gov

Attachment B

PROPOSED AGENDA

American Nuclear Society – Thermal Hydraulics Division

Program Committee Meeting

**Boston Marriott Copley Place
Boston, MA**

3:00 – 5:00 PM, Sunday, June 24, 2007

Location: MIT room

1. Opening (Kurshad)
2. Approval of Meeting Agenda (All)
3. Minutes from November 2006 Winter Meeting (Karen)
4. Action Items from November 2006 Winter Meeting
 - a. Solicitation of NURETH-13 host proposals (Kurshad)
5. Session Status of 2007 ANS Annual Meeting in Boston (Kurshad)
6. Review of Session Assignments and Feedback (Kurshad)
7. 2007 ANS Winter Meeting in Washington DC (Kurshad)
8. Update on Session Organizer Participation (Kurshad)
9. 2008 ANS Annual Meeting Program in Anaheim (Kurshad)
10. NURETH-12 Update (Kurshad)
11. NUTHOS-7 Update (Kune Suh)
12. Old Business (All)
13. New Business (All)

Attachment C

(attachments from these minutes are not included)

Minutes of the Program Committee Meeting ANS Thermal Hydraulics Division

**2006 ANS Winter Meeting
Albuquerque Convention Center
Albuquerque, New Mexico
3:00 –5:00 PM, Sunday, Nov. 12, 2006
Acoma Room**

Attendees: Kurshad Muftuoglu, Larry Hochreiter, Chang Oh, Cesare Frepoli, Whee Choe, F. Bill Cheung, Jong Kim, Cetin Unal, Dana Powers (NISD Liaison), Brian Woods, Donna Guillen, Jose Reyes, Joy Rempe, Yassin Hassan, T. K. Larson, Steven Arndt, Karen Vierow, Don Todd, Hisashi Ninokata (same order as in Attachment A)

1. Opening

Kurshad Muftuoglu called the THD Program Committee Meeting to order at 3:00 p.m.

2. Approval of meeting Agenda

The meeting agenda was introduced (Attachment B) and was approved as amended to correct “1:00-3:00” to “3:00-5:00” and “June 4” to “Nov. 12, 2006”. Item 6 was changed from “2006 ANS Annual Meeting (Boston) to “2007 ANS Annual Meeting (Boston)”.

3. Minutes from June 2006 Annual Meeting

The meeting minutes from the June 2006 meeting (Attachment C) in Reno, NV were approved.

4. Action items from June 2006 Annual Meeting

Regarding the proposed special session recognizing Dr. Ishii at the 2007 ANS Annual meeting in Boston or at NURETH, the Committee has decided that such a session will not be held at this time.

5. Session Status of 2006 ANS Winter Meeting (Albuquerque)

Kurshad reported that the division had a record number of abstracts (40). The papers were divided into 6 sessions. There were also a large number of rejections (6) because of formatting issues.

6. 2007 ANS Annual Meeting (Boston)

Proposed technical sessions are:

1. Computational Thermal Hydraulics – Guillen, Vierow, Hassan
2. General Thermal Hydraulics – Hassan, Sun, Vierow, Rempe, Arndt
3. Uncertainty Treatments in Nuclear Science and Engineering – Martin, Unal, Muftuoglu
4. Thermal Hydraulics of Steam Generators – Woods, Riznic, Reyes
5. Thermal Hydraulics of Gen-IV Reactors – Oh, Revankar, Suh, Cheung, Todd

7. 2007 ANS Winter Meeting Program (Washington DC)

Proposed technical sessions are:

1. Research Needs and Current Developments in Best Estimate Computational Thermal Hydraulic Codes, Paper session – Muftuoglu, Woods
2. Research Needs and Current Developments in Best Estimate Computational Thermal Hydraulic Codes, Paper session, Panel session – Hochreiter, Frepoli
3. Young Member Paper Competition – Todd, Unal
4. General Thermal Hydraulics – Marshall, Hassan, Reyes
5. co-sponsor of a Multiphysics session – Guillen, Larson
6. General Two-Phase Flow – Vierow, Rempe
8. Thermal Hydraulic Research Needs for GNEP – Larson, Sun, Unal, Suh

Action Item: Organizers of newly proposed sessions must send Kurshad a 100-word abstract.

8. NURETH-12 Update

The abstract deadline is in December. Kurshad reported that there are currently there too few papers. He requested that we submit papers as soon as possible.

Action item: Kurshad will send a general email on the Call for Papers to potential participants and encourage the TPC by email to solicit papers.

The TPC consists of 53 members from 12 countries.

Action item: Kurshad requested that PC members look at the list on the website and suggest international (outside of US) names.

Action item: Kurshad will send an invitation letter to PC members and we will forward it to potential attendees.

9. NURETH-13 Solicitation Proposals

ANS will send our invitation letter for potential hosts to all sections.

The EC will form a screening committee to evaluate proposals. A proposal from Japan has not yet been submitted although intentions were made at previous THD meetings that they intend to submit.

Action item: The THD should solicit proposals from other countries.

10. Publication of NURETH Papers/Relations with NED

Past status: ANS is given the first right of refusal to publish NURETH papers. ANS journals have first dibs on Class 1 conferences for a certain period of time, after which the authors are free to publish unselected papers elsewhere.

Current issues: Wolfgang Wulff claims there is an agreement between all NURETH conferences and journals to publish without further review. His NURETH-11 paper received review comments from NED and this may be a reason for his dissatisfaction with the current publication process.

Kurshad: the NURETH organizers will approach NS&E (Dan Cacuci, editor) about a special edition. NT (Nick Tsoulfanidis) is responsive to a special edition.

Larry and Kurshad will draft the NS&E request to show Joy and Mary Beth Gardner (ANS staff on publications). Then he will talk with Dan Cacuci.

Note from the secretary: This issue was resolved during later meetings and emails between the NURETH organizers, journal editors and ANS Publication staff.

11. Old Business

A response is owed to Bob Leyse on his NURETH submittal.

12. New Business

Dana Powers introduced the Best Estimate '08 conference and encouraged participation by THD.

The meeting was adjourned at 5:00 pm.

Minutes prepared by Karen Vierow

Attachment D

6. Review of Session Assignments and Feedback (Email from Kurshad to PC members, June 24, 2007)

Dear Colleagues,

Thank you for your support for the Boston meeting. THD received 39 summaries, including the 2 summaries transferred from other divisions. Based on the reviews:

- 9 summaries are accepted as submitted
- 24 summaries are accepted with revisions
- 6 summaries were rejected unless revised (this includes 3 just for the format)
- no summaries were rejected flat out.

Five papers were withdrawn after the first reviews. Surprisingly, 3 of these papers were accepted with revisions.

34 summaries are divided into 7 different sessions, including 2 half-sessions. There were enough papers with a common topic, I have created a new session instead of leaving them in the general session: "Nanofluids, Surfactants, and Particles in Thermal Hydraulics".

The final program for THD sessions is as follows:

- Uncertainty Treatment in Nuclear Science and Engineering, Mon. p.m.
Session Organizers: Robert P. Martin, Cetin Unal, Kurshad Muftuoglu.
Cochairs: Robert P. Martin, Cesare Frepoli
- Nanofluids, Surfactants, and Particles in Thermal Hydraulics, Tues. a.m.
Cochairs: Xiaodong Sun, Fan-Bill Cheung
- General Thermal Hydraulics, Tues. p.m.
Session Organizers: Joy Rempe, Xiaodong Sun, Karen Vierow, Steve Arndt
Chair: Kune Y. Suh
- Thermal Hydraulics of Steam Generators, Wed. a.m. (1/2 session)
Session Organizers: Brian Woods, Jose Reyes
Chair: Brian Woods
- Computational Thermal Hydraulics-I, Wed. a.m. (1/2 session)
Session Organizers: Yassin Hassan, Karen Vierow, Donna P. Guillen
Chair: Kurshad Muftuoglu
- Thermal Hydraulics of Generation IV Systems, Wed. p.m.
Fan-Bill Cheung, Shripad Revankar, Donald Todd
Chair: Chang Oh
- Computational Thermal Hydraulics-II, Thurs. a.m.
Session Organizers: same as above
Chair: Steven A. Arndt

The general support for the reviews continues to increase. I would like to express my gratitude to every one who has helped. Following individuals (in alphabetical order) actively participated to the review process:

Steve Arndt, Bill Cheung, Cesare Frepoli, Donna Guillen, Yassin Hassan, Tom Larson, Jean-Marie LeCorre, Bob Martin, Kurshad Muftuoglu, Chang Oh, Joy Rempe, Shripad Revankar, Kune Suh, Rusi Taleyarkhan, Don Todd, Cetin Unal, Karen Vierow, and Brian Woods.

But particularly following individuals supported more than average number of reviews:

32 reviews by Kune Suh

15 reviews by Shripad Revankar

11 reviews by Kurshad Muftuoglu

10 reviews by Jean-Marie LeCorre

8 reviews each by Donna Guillen, Cesare Frepoli, and Don Todd,

Thank you again for your support!

A. Kurshad Muftuoglu

Thermal Hydraulics Division

Program Committee Chair

July 3, 2007 note from Karen Vierow: Xiaodong Sun's name will be added to the participating reviewer list above.

Attachment E



First Announcement and Call for Papers

NUTHOS-7

The 7th International Topical Meeting on
Nuclear Reactor Thermal Hydraulics, Operation and Safety
October 5-9, 2008, Grand Intercontinental Hotel, Seoul, Korea



Invitation

Nuclear energy continues to be faced with major challenges such as waste, economics, proliferation and last, but not least, safety. The Three Mile Island and Chernobyl accidents have underscored the importance of safety design and operation to the future use of nuclear power. With the preamble of evolutionary and revolutionary concepts around the globe including, but not limited to, the Generation IV Nuclear Energy Systems and Global Nuclear Energy Partnership, multilateral R&D opportunities are being explored in multidisciplinary fields. NUTHOS proves to be an important series of international topical meetings in the area of thermal hydraulics, operation and safety of nuclear power plants. NUTHOS has provided the global nuclear community with an open forum where premium state-of-the-art information is exchanged among the specialists and executives. Now the seventh of the series, NUTHOS-7, calls for the up-to-the-minute knowledge and leading-edge research results from both hemispheres. It is our greatest pleasure to welcome you all to this momentous congress.

Suggested Topics

- Single- and Two-Phase Flow Dynamics and Heat Transfer
- Mathematical and Computational Methods, Theory and Validation
- Computational Fluid Dynamics Application and Validation
- Porous Media Approach and Subchannel Analysis
- Thermal Hydraulics of Steam Generators and Heat Exchangers
- Thermal Hydraulics of Power Conversion Systems
- Thermal Hydraulics and Safety of Advanced Reactors
- Thermal Hydraulics and Safety of Containments
- Thermal Hydraulics of Plant Power Upgrading
- Thermal Hydraulics of Waste Management and Spent Fuel Repository

- Advances in Measurements and Instrumentation and Control
- In-Core Fuel Management
- Plant Load-Follow Strategies
- Plant Operation, Retrofitting, and Maintenance Experiences
- Plant Monitoring and Diagnostics
- Plant Licensing Renewal and Continued Operation
- Plant Simulators, Analyzers, and Operator Training
- Application of Digital Engineering Technology to Plant Operation
- Application of Artificial Intelligence, Expert Systems, and Robotics
- Steam Generator Operation and Maintenance

- Beyond Design Basis Accident Analysis and Management
- PSA Applications to Design, Operation and Maintenance
- Risk-Informed and Performance-Based Regulation
- Safety Culture and Related Organizational Aspects
- Proliferation Resistance and Physical Protection

Organizers

- **Honorary Chair**
Prof. Neil E. Todreas (MIT)
Dr. Mamoru Akiyama (IAE)
- **General Chair**
Prof. Soon H. Chang (KAIST)
Dr. Dae J. Wang (NTHU)
- **Organizing Committee**
Chair Dr. Jong H. Kim (KAIST-EPRI) ~~www~~
Co-chair Prof. Hisashi Ninokata (TITech)
- **Technical Program Committee**
Chair Prof. Kune Y. Suh (SNU)
Co-chair Prof. Min Lee (NTHU)
- **Local Organizing Committee**
Chair Dr. Won P. Baek (KAERI)
Co-chair Mr. Chang H. Yang (KHNP)

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Japanese Society of Mechanical Engineers
American Nuclear Society (TND)
American Society of Mechanical Engineers
Canadian Nuclear Society
Chinese Nuclear Society

Important Dates

November 16, 2007	Summaries Due for Review
December 21, 2007	Notification of Acceptance
February 22, 2008	Full Manuscripts Due for Review
April 25, 2008	Notification of Acceptance
June 13, 2008	Camera-Ready Manuscripts Due
August 29, 2008	Pre-Registration Due
October 5-9, 2008	Conference

Web Sites and More Information

<http://www.nuthos7.org> info@nuthos7.org
<http://www.intercontinental.com/>