

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

**2004 ANS Winter Annual Meeting
Omni Shoreham Hotel, Washington DC.
3:00 –5:00 PM, Sunday, November 14, 2004
Room: Chairman's Boardroom**

Attendees: Kune Suh, Jovica Riznic, Cetin Unal, Kurshad Muftuoglu, Yassin A. Hassan, Xiaodong Sun, Robert Martin, Jong Kim, F. Bill Cheung, L. E. Hochreiter, S. T. Revankar, T. K. Larson, David Bessette, Karen Vierow (acting secretary) (See attachment A)

Shripad Revankar chaired the Program Committee meeting in place of Martin Bertodano, who was unable to attend.

1. Opening

Shripad Revankar called the THD Program Committee Meeting to order at 3:05 p.m.

2. Agenda

Meeting agenda was introduced (Attachment B) and was approved.

3. Minutes from June 2004 Meeting

The meeting minutes from June 2004 meeting at Pittsburgh, PA were approved without further comment.

4. Action Items from June 2004 Meeting

a. NURETH-11 registration fee

The 700-Euro registration fee for NURETH-11 was mentioned as being a potential financial difficulty for some attendees. International participants have previously requested a fee reduction. Yassin Hassan will look into the fee for a Mathematics and Computation Division meeting that will be held at the same venue prior to the NURETH meeting.

b. NURETH-12

Discussion centered on the proposals to host the conference and the year of the conference. The committee agreed that the year of the conference will be 2007.

Regarding solicitation of proposals, Martin Bertodano was to announce the request

for proposals. Since the latest status was unclear, Shripad Revankar left a phone message for Martin to email Karen Vierow on this activity as soon as possible.

Before reviewing the Pittsburgh section proposal submitted at the June 2004 meeting, several members felt that confirmation is necessary that all local sections were aware of the solicitation. Other members stated that since we have a strong proposal now, we should vote at this meeting as to the acceptability of the Pittsburgh proposal. This would provide the hosts with valuable time for preparations and allow THD to have the meeting put on the ANS calendar. The matter left for further discussion by the Executive Committee.

Bill Cheung suggested that a screening committee be formed to evaluate the proposals against criteria such as financial viability. The committee nominees are Bob Martin (Chair), Tom Larson, Bill Cheung, Yassin Hassan and Karen Vierow. The committee will evaluate and send recommendations to the Executive Committee. Approval of the committee composition will be requested of the Executive Committee.

Kurshad Muftuoglu provided handouts of the Pittsburgh proposal (Attachment C). Special features of the conference would include a special session on full height OECD benchmark boiling tests, planned by K. Ivanov and Larry Hochreiter. He requested the evaluation criteria for financial assessment. Bill will send the evaluation criteria to Kurshad.

5. 2005 ANS Winter Meeting Program

Larry Hochreiter will identify potential panelists for the panel session on 10CFR50.46 revisions.

Don McEligot is responsible for a panel on Basic Thermal Hydraulic Research.

6. International Topical Meetings.

- a. NUTHOS-6 (Japan, 2004): post meeting report
Reported by Jong Kim for Hisashi Ninokata) (Attachment D)
The international turnout was strong. There was some disappointment in the small French turnout of 7 papers.

If NURETH-12 is to be held in 2007, NUTHOS-7 should be moved to 2008. Slide 6 of Attachment D suggests that NUTHOS-7 be in 2007.

There are probably 2 typos on slide 5, where 15,6000 KJPY should be 15,600 KJPY.

- b. NURETH-11 (France, 2005) update report
The income to ANS is unclear. There was no other discussion.

- c. NURETH-12 (Pittsburgh, 2007/8): Committees, etc.
Discussion is included under item 4.

7. 2006 NHTC

- a. Discuss co-sponsor issues: ANS, ASME
The conferences were too close together in 2004 for ANS THD to participate. There was not enough time to prepare for cosponsoring in 2005. The division will consider cosponsoring the 2006 conference.
- b. Propose Sessions
Chang Oh is the liaison to ASME. Sessions proposed by THD will be emailed to him.

8. Web page subcommittee report

Bob Martin updated the web page this week. He scanned in and added 8 years of meeting minutes to the web page.

Yassin asked if technical papers could be posted. Bob replied that if there is enough interest, we can publish 2 newsletters per year and have ANS pay for costs.

9. Editorial subcommittee report

This subcommittee does not exist.

10. Membership subcommittee report

Yassin noted that there are 115 student members, an increase of 40%, and that the Division should be doing more student recruitment.

Jovica Riznic reported an increase of 27 new members for a total of 880.

Bill suggested that the Division maintain 27-30 active PC members.

Yassin stated that Kurshad will be the PC secretary from June 2005.

11. New business

Tom Larson requested a THD representative to present the THD session descriptions for the Winter 2005 meeting to the National Program Committee. Shripad volunteered.

The following sessions and chairs were proposed for the Winter 2005 meeting.

Thermal Hydraulics in Gen IV Reactors: Bob Martin, Kune Suh

CFD in Heat Transfer: Yassin Hassan, Hisashi Ninokata

General Two-Phase Flow: Larry Hochreiter, Xiaodong Sun, Kurshad Muftuoglu

Thermal Hydraulics Code Development and Application: Dave Bessette, Joy Rempe, Karen Vierow

NEER Research Highlights -Kathryn McCarthy, Shripad Revankar

The meeting was adjourned at 4:30 pm

Attachment A

Attendees List

T H Program Committee Attendance List

Name	Organization	email
Karen Viorow	Purdue University	viorow@ecn.purdue.edu
Kune V. Suh	Seoul National Univ.	kyuh@snu.ac.kr
JOVICA RIZNIC	CANADIAN Nuc. Saf. Comm.	RIZNICJ@CNSC-CCSN. GC.CA
Cetin Unal	Los Alamos National Lab	cu@lanl.gov
KURSHAD MUFTUOGLU	Westinghouse Electric Co.	muftuok@westinghouse.com
Yassin A. Hassan	Texas A&M Univ.	Y-hassan@tamur.edu
Xiaodong Sun	Ohio State Univ.	Sun.200@osu.edu
Robert Martin	AREVA Framatome ANP	robert.martin@framatome-angp.com
Jong Kim	KAIST/EPRI WW	jkim@epri.com
F. Bee Cherny	Penn State Univ.	fx04@psu.edu
L. E. HOCHREITER	Penn State Univ	lehue@engr.psu.edu
S. T. REVANKAR	Purdue Univ.	shripad@ecn.purdue.edu
T. K. Sarson	INEL	tkl@inel.gov
David Besjetta	NRC	deb@nrc.gov

Attachment B

PROPOSED AGENDA

American Nuclear Society – Thermal Hydraulics Division

Program Committee Meeting

Omni Shoreham Hotel, Washington, DC

3:00 – 5:00 PM, Sunday, November 14, 2004

Location: Chairman's Boardroom

1. Opening
2. Approval of Meeting Agenda
3. Minutes from June 2004 Meeting
4. Action Items from June 2004 Meeting
5. 2005 ANS Winter Meeting Program
6. International Topical Meetings:
 - a. NUTHOS-6 (Japan, 2004): post-meeting report
 - b. NURETH-11 (France, 2005): update report (abstracts, etc.)
 - c. NURETH-12 (Pittsburgh, 2007/8): Committees, etc.
7. 2006 NHTC:
 - a. Discuss co-sponsor issues: ANS, ASME
 - b. Propose sessions
8. Web page subcommittee report
9. Editorial subcommittee report
10. Membership subcommittee report
11. New business

Attachment C

Twelfth International Topical Meeting On Nuclear Reactor Thermal-Hydraulics

NURETH-12, October 7-11, 2007, Pittsburgh, Pa

Proposal By ANS Pittsburgh Section

Two-phase Flow and Heat Transfer Fundamentals
Experimental Methods and Instrumentation
Boiling and Condensation Heat Transfer
Subcooled Thermal Hydraulics



Introduction

The International Meeting on Nuclear Reactor Thermal-Hydraulics, NURETH, is the major meeting sponsored by the ANS Thermal-Hydraulics Division. Three out of the last four meetings took place abroad. The most recent U.S. meeting was on the West Coast. The proposed Pittsburgh meeting in 2007 will be the first one on the East Coast since 1995. Pittsburgh, conveniently located for many institutions will provide a venue for the thermal-hydraulics community.

The ANS Pittsburgh Section has hosted a number of successful international topicals. The team has a proven record of delivering strong technical meetings with excellent profits.

The Pittsburgh Section is volunteering to host the NURETH-12 meeting and support the THD in meeting organization and logistics.

Proposed Topics for the Conference

Following is a list of the main topics considered for the conference. These topics are similar to those of the last two NURETH meeting. Subheadings will be expanded by obtaining concurrence with the chairs and the steering committee.

- Two-phase Flow and Heat Transfer Fundamentals
- Experimental Methods and Instrumentation
- Boiling and Condensation Heat Transfer
- Subchannel Thermal Hydraulics
- Computational Methods and Code Development
- Large-Scale Tests and Databases
- Severe Accident Thermal Hydraulics
- Operating Water Reactor Thermal Hydraulics and Safety
- Advanced Water Reactor Systems and Thermal Hydraulics
- Generation-IV Reactor Thermal-Hydraulics
- High-Temperature Gas-Cooled Reactor Systems and Thermal Hydraulics
- Thermal Hydraulics in Other Applications
- Miscellaneous Subjects
- Special Sessions

A special session on OECD/NRC Benchmark based on NUPEC BWR Full-Size Fine-Mesh Bundle Tests (BFBT) is planned. Concurrence is obtained for this topic from Professors Ivanov and Hochreiter. The projected timetable of the benchmark studies corresponds well with the proposed date of October 2007.

Timetable and Key Dates

At this stage, all proposed dates are preliminary. The dates are suggested based on recent experiences and by working backwards from the target conference date of October 2007.

October 7-11, 2007 is proposed to maintain a 2-year frequency between the most recent meetings.

Table 1: Conference Key Dates

October 2, 2005	Preliminary announcement in Avignon, France during NURETH-11
November 15, 2005	ANS calendar placement
January 1, 2006	First call for papers
February 1, 2006	Second call for papers
February 15, 2006	ANS preliminary approval of organization
May 1, 2006	Deadline for abstract submission
June 15, 2006	ANS final approval of organization
August 1, 2006	Extended deadline for abstract submission
October 1, 2006	Author notification of abstract acceptance
January 1, 2007	Paper submission deadline
March 1, 2007	Review comments to the authors
June 1, 2007	Revised manuscript deadline
July 1, 2007	Deadline for paper acceptance notification and transfer of papers to TC chair.

Please note that the October 7 through October 11, 2007 dates do not interfere with any major religious holiday. It should be noted that the conference dates do fall into the Muslim's Holy Month of Ramadan. Therefore, the organizing committee will make every effort to accommodate special requests of the participants during the conference.

Technical Program Committee

Following list is a provisional list pending confirmation from individuals as well as approval of the division.

We aim to gather a large diverse participation, both domestic and international, from universities, industry, regulators, and national labs.

We are looking forward to cooperate with and share experiences of the Korean and French organizations.

NURETH-12
Organizing Committee (*tentative list*)
(November 14, 2004)

Honorary Chair: N. Zuber

General Chair: Todreas, N. E. (MIT)

Technical Program Co-Chairs: Hochreiter, L. E. (Penn State)
Eltawila, F. (U.S. NRC)
Yadigaroglu, G. (ETH Zentrum, Switzerland)

Assistant Technical Program Chair: Muftuoglu, A. K. (Westinghouse)

Steering Committee

Cheung, F. B. (Penn State)
Choe, W. G. (TU Electric)
Levin, A. E. (U.S. NRC)
Hassan, Y. A. (Texas A&M)
Wallis, G. (Dartmouth College)
Wilson, G. E. (INEEL)

Technical Program Committee

Akiyama, M. (Tokyo U, Japan)
Aksan, N. (PSI, Switzerland)
Aktas, B. (GNF)
Andersen, J. (GNF)
Aumiller, D. (Bechtel Bettis)
Baek, W-P. (KAERI, Korea)
Bajorek, S. M. (U.S. NRC)
Bajs, T. (U of Zagreb, Croatia)
Banerjee, S. (UCSB)
Bertodano, M. (Purdue U)
Bestion, D. (CEA, France)
Bessette, D. (U.S. NRC)
Boyack, B. E. (LANL)
Carelli, M. (Westinghouse)
Celata, G. P. (ENEA Casaccia, Italy)
Chen, X. M. (GENE)
Cheung, F. B. (Penn State)
Chexal, B. (EPRI)
Choe, W. G. (TXU Energy)

Coddington, P. (PSI, Switzerland)
Corradini, M. (Wisconsin U)
d'Auria, F. S. (U of Pisa, Italy)
Delhaye, J. M. (Clemson U)
Dhir, V. J. (UCLA)
Dorning, J. J. (U of Virginia)
Dreier, J. (PSI, Switzerland)
Duffey, R. B. (SCU)
Elias, E. (Technion, Israel)
Eltawila, F. (U.S. NRC)
Frepoli, C. (Westinghouse)
Giot, M. (U of Louvain, Belgium)
Grand, D. (CEA, France)
Greenspan (UCB)
Hassan, Y. (Texas A&M)
Henry, R. E. (Fauske & Assoc.)
Hewitt, G. F. (Imperial College London, U.K.)
Hochreiter, L. E. (Penn State)
Ishii, M. (Purdue U)
Ivanov, K. (Penn State)
Karwat, H. (Munich Tech U, Germany)
Kastenberg, (UCB)
Kazimi, M. S. (MIT)
Kelly, J. (U.S. NRC)
Khalil, Y. (Northeast Utilities)
Kim, J. (EPRI)
Kojasoy, G. (Wisconsin U)
Kress, T. S. (Kress Assoc.)
Kurul, N. (Entergy)
Lahey, R. T. (RPI)
Larson, T. (INEEL)
Lee, S. Y. (Savannah River Tech. Center)
Lemonnier, H. (CEA, France)
Levin, A. (U.S. NRC)
Lillington, J. N. (AEA, U.K.)
Macian, R. (PSI, Switzerland)
Mahaffy, J. H. (Penn State)
March-Leuba, J. (ORNL)
Martin, R. P. (Areva)
Modro, S. M. (INEEL)
Moody, F. (USA)
Muftuoglu, A. K. (Westinghouse)
Nakamura, H. (JAERI, Japan)
Nigmatulin, B. I. (Electrogorsk Moscow, Russia)
No, H. C. (KAIST, Korea)
Oh, C. (INEEL)
Ohkawa, K. (Westinghouse)
Pasamehmetoglu, K. (LANL)
Peterson, P. F. (UCB)
Pilch, M. M. (SNL)

Podowski, M. Z. (RPI)
Rempe, J. (INEEL)
Reocreux, M. (IRSN, France)
Revankar, S. (Purdue U)
Reyes, J. N. (OSU)
Riznic, J. (CNSC, Canada)
Schulenberg, T. (FZK, Germany)
Shiralkar, B. S. (GENE)
Song, C. H. (KAERI, Korea)
Squarer, D. (Consultant)
Stosic, Z. (FANP, Germany)
Suh, K. Y. (Seoul Nat. U., Korea)
Theofanous, T. G. (UCSB)
Tiesch, W. (Westinghouse, Germany)
Todreas, N. E. (MIT)
Unal, C. (LANL)
Vierow, K. (Purdue U)
Wallis, G. (Dartmouth College)
Wilson, G. E. (INEEL)
Yadigaroglu, G. (ETH Zentrum, Switzerland)
Yin, S. T. (AECL, Canada)

Conference Finances

The preliminary figure for the average registration fee is approximately \$600. This compares well with other similar meetings. To achieve the average figure, typical tiered pricing will be employed. Discount for early registration and ANS membership will be offered.


Table 2: Preliminary Estimates for Registration Fees

	Early Registration fee	On-site fee
for Sponsoring Organization Members	\$500-550	\$600-650
for Non-members	\$650-700	\$750-800


Hotel costs will be negotiated to be less than or around \$175 a night. No commitment has been obtained from hotels, to date.

Attachment D

**6th International Topical Meeting on Nuclear Reactor
Thermal Hydraulics, Operation and Safety
(NUTHOS-6)**
October 4-8, 2004
Nara-Ken New Public Hall
Nara, Japan



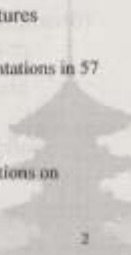
November 14, 2004
ANS THD-PC/EC
Thermal Hydraulics Division
Atomic Energy Society of Japan

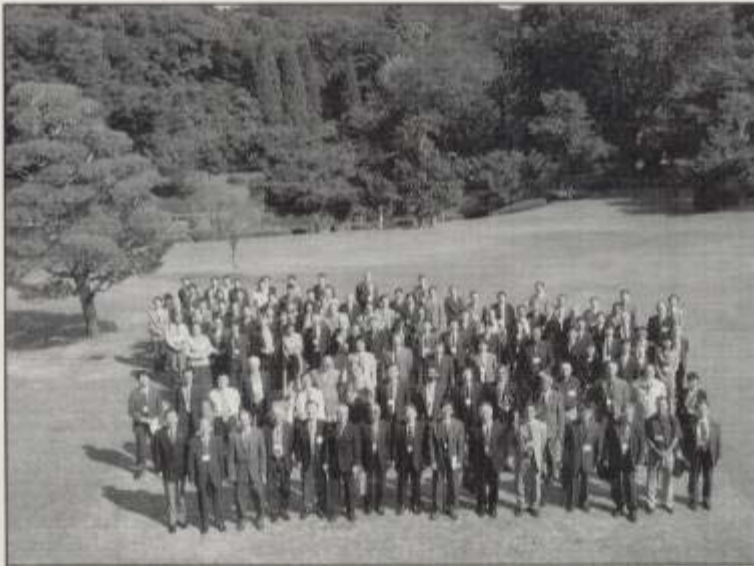


NUTHOS-6 Participants and Contributions

Austria	2	Mexico	1
Canada	1	Netherlands	1
China	14	Nigeria	2
Czech Republic	1	Norway	1
Egypt	1	Republic of Korea	52
France	7	Russia	4
Germany	8	Saudi Arabia	1
Ghana	1	Spain	3
India	3	Sweden	5
Indonesia	1	Taiwan	3
Israel	2	Turkey	1
Italy	3	Uganda	1
Japan	177	USA	28
Lithuania	1	Viet Nam	1
		Total	326

- Total: 326 (Registrants)
- 28 countries
 - Japan 177
 - Korea 52
 - USA 28
 -
- Papers/KN/PL/SS lectures contributions
 - 272 technical presentations in 57 technical sessions
 - 6 plenary lectures
 - 18 keynote lectures
 - 6 panelists presentations on nuclear regulation





NUTHOS-6 Special Events

- October 4, 2004 OECD NEA BFBT1 Workshop: 30 participants from 19 organizations of 8 countries
- 2 plenary sessions (Oct. 5-6)
- Keynote lectures in 3 parallel sessions
- AESJ/THD and ANS/THD Award Luncheon (October 6)
- Special panel session on nuclear safety regulation (October 6)
- Special lecture on nuclear non-proliferation (October 7)
- Noh play and garden party (banquet) with jazz sessions (October 7)
- Technical tours to Monju cancelled due to the big typhoon (Saturday, October 9)

NUTHOS-6 Financial Facts

- In
 - Registration fee: 11,700K JPY
 - Commemorative organization for the Japan World Exposition '70: 2,000K JPY
 - IAEA: 700K JPY
 - Nara-ken: 600K JPY
 - GENES/ANP Foundation: 500K JPY
 - Others: 100K JPY
 - Total: 15,600K JPY
- Out
 - Nara-Ken New Public Hall: 4,000K JPY
 - Program, summary proceedings, CD-ROM: 2,000K JPY
 - Homepage: 1,100K JPY
 - Travel support: 2,000K JPY
 - Banquet, Reception, ... : 2,000K JPY
 - Awards Luncheon: 600K JPY
 - Conference supports (ProActive Co., JTB, students, ...): 3,900K JPY
 - Total: 15,600K JPY

5

Decisions made and some thoughts on the conference

- NUTHOS-7 to be held in 2007 in Korea
- Special Issues in JNST and Nucl Tech
- Paper quality: in general, quite high!
- Topics - edge cutting, breadth and depth
- Weather: fortunate throughout the conference/but not afterwards (Typhoon)
- Things to be improved
 - Conference manuals should be standardized
 - Various on-line procedures and formats to be shared
 - Visa troubles: several participations cancelled (Russia)
 -

6

