

Executive Committee Meeting Minutes

American Nuclear Society – Thermal Hydraulics Division
Executive Committee Meeting
Mariott Wardman Park, Washington, D.C., USA
4:30 – 6:00 PM, Sunday, October 29, 2017
Location: Maryland C

Attendees:

Maria Avramova, Fatih Aydogan (EC Member), Igor Bolotnov, Lane Carasik (EC Member), Chih-Wei Chang, Fan-Bill Cheung, Paolo Ferroni, Yassin Hassan (EC Member), Lui HU, Jun Liao, Yang Liu (EC Member), Davis Liscowski, John Luxat (EC Member), John Kelly-(Board Liaison), Jong Kim, Annalisa Manera (EC member), Giovanni Maronati, Robert Martin, Elia Merzari (EC Member), Kurshad Muftuoglu (Chair), Hisashi Ninokata (EC Member), W. David Pointer (Vice Chair), Piyushi Sabharwall (EC Member), DuWayne Schubring, Chul-Hwa Song (Secretary), Xiaodong Sun, Sipeng Wang, Bao-Wen Yang (EC Member), Matt Zimmer

Proxies:

Prof. S.J. Kim assigned to Dr. C.-H. Song

Scanned copy of the sign-in sheets is included in Appendix A.

1. Opening (Muftouglu)

Dr. K. Muftuoglu, 2017-2018 Thermal Hydraulics Division Chair opened the Winter Meeting of the American Nuclear Society Thermal Hydraulics Division Executive Committee at 16:31 on Sunday, October 29, 2017. Quorum was established with 15 voting members present.

Dr. K. Muftuoglu invited all the participants, including Non-EC members as well as first-attendees, to introduce themselves.

2. Approval of Meeting Agenda (All)

The proposed agenda was distributed and reviewed by those in attendance and no item was newly proposed.

MOTION by Dr. D. Pointer to approve the agenda
SECONDED by Dr. Carasik
APPROVED without objection

3. Remarks by Dr. John Kelly (Board Liaison)

Dr. Kelly, ANS President Elected and THD Liaison, briefly introduced the current status of ANS HQ in terms of finance and number of members pointing out the decreasing situation of HQ Revenue and members mainly due to the decrease of members from industry and the increase of retiring members.

Dr. Kelly also mentioned that DOE has been asked to review nuclear policies in a step toward revitalization of US nuclear industry. A need to rethink licensing basis (e.g., LB-LOCA) to account for extensive operating experience based on risk-informed approach has been proposed and this could be significant cost saver. It is needed to look for policies and regulations that can be put into more of a risk informed perspective and the ANS THD should be prepared to support this technical review.

4. Approval of Minutes from 2017 ANS Annual Meeting (All)

Draft meeting minutes for the THD Executive Committee Meeting at the 2017 ANS Annual Meeting were distributed by Dr. D. Pointer for review. Some minor corrections, including a correction (Prof. Merzari → Dr. Merzari), were offered by Dr.s X. Sun and C.-H. Song, are to be implemented in the final version.

MOTION by Prof. J. Luxat
SECONDED by Dr. P. Sabharwal
APPROVED without objection

5. Visitors from Student Conferences

Preparing for Student Conference at the University of Florida has been briefly introduced by the TPC chair, Mr. Zander Mausolff, providing the Call for Papers to Dr. C.-H. Song. Details of this event are on the ANS website. It has been confirmed that the ANS-THD has traditionally been providing financial support of 500 USD to this event annually. The THD members are encouraged to join this event as reviewers and judges. The flyer provided is included in Appendix B(1).

6. Action Items from 2017 Annual Meeting

a. Request for Young Professionals Congress Support (Merzari)

Dr. Merzari reported that THD was represented at networking lunch

b. Populate ANS Collaborate (Pointer)

Dr. Pointer reported that the Collaborate site is active.

c. Scholarship Policy and Coordination Committee (Muftuoglu)

Dr. Muftuoglu reported that this item is still in progress and to be updated.

d. Establish Ad Hoc Finance Committee (Muftuoglu)

Dr. L. Carasik volunteered to join this committee as member together with the division Chair/Vice-Chair/Secretary.

e. Re-start Service Award (Aumiller)

ACTION ITEM – Dr. Muftuoglu will follow up with Dr. Aumiller.

- f. Update the THD website (Shaver)

Dr. D. Shaver completed creation of the 'excellence in review' award page and also completed update of professional division.

ACTION ITEM – Dr. Pointer to send final meeting minutes to Dr. Shaver for posting

- 7. Report from Professional Divisions Workshop (Muftuoglu)

Dr. Muftuoglu reported that ANS Professional Divisions Committee has established a Bi-Annual Leadership Activity Roadmap. (See the roadmap in Appendix B(2)).

- 8. Report from President's Meeting with Division Chairs (Muftuoglu)

Dr. Muftuoglu reviewed the presentation given by ANS President, Bob Coward.

ACTION ITEM – Begin to think about how we can help to support the re-evaluation of nuclear policy for the future (Proposed by Dr. Kelly)

- 9. Treasurer's Report (Marcum)

Prof. W. Marcum explained Treasurer's Report with a budgetary proposal by teleconference. (See the Treasurer's Report in Appendix B(3))

ACTION ITEM – *Prof. Marcum to propose THD budget by email*

ACTION ITEM – *Dr. Pointer will set up doodle poll for teleconference in the last week of November or first week of December*

- 10. Program Committee Report

- a. 2017 ANS Winter Meeting Program in San Francisco, CA (Merzari)

Dr. Merzari referred the EC to the Program Committee Report since all were present for the Program Committee Meeting

- b. 2018 ANS Annual Meeting Program in Philadelphia, PA (Merzari)

Dr. Merzari referred the EC to the Program Committee Report since all were present for the Program Committee Meeting

- c. ATH 2018 Report (Merzari)

EC Members were referred to the Program Committee Report since all were present for the Program Committee Meeting

- d. NURETH-17 Report (B.W. Yang)

EC Members were referred to the Program Committee Report since all were present for the Program Committee Meeting.

The following statistics on the NURETH-17 were introduced by Prof. B.W. Yang who was the TPC Chair of the conference:

- 1020 abstracts submitted and 732 final papers were included in the proceedings (259 papers from China, 112 from U.S.)
- 686 presentations and 789 registered attendees from over 35 countries
- 939 participants additionally with 150 staff
- The following Awards provided during the Conference Banquet: 3 NURETH Fellows, 9 Best Papers, 5 Young Professionals, 10 Student Scholarship Awards, 3 Best Poster Award, 5 Best Reviewer Award

e. NUTHOS-12 Report (Sun)

EC Members were referred to the Program Committee Report since all were present for the Program Committee Meeting

f. NURETH-18 Report (Merzari)

EC Members were referred to the Program Committee Report since all were present for the Program Committee Meeting

g. Motions from the PC Meeting (Merzari)

Members of the EC were reminded by Dr. Merzari that motions presented by the Program Committee, as a standing committee, do not require a second.

i. Approval of *Program Committee Membership*

MOTION by PC chair (Dr. Merzari) to appoint Dr. Benhamadouche as PC member

APPROVED without objection

11. Membership Committee Report S.Y. Lee

No report

12. Division Website Report Shaver

No additional updates

13. Honors and Awards Committee Report Aumiller

Update has been provided by Dr. Muftuoglu, which include the followings:

- TAA: The committee has not finalized the selection of 2017 TAA, and will finalize and announce winner before the end of this year if decision can be reached.
- Best Paper Award: This award has not yet been finalized, and will be finalized before end of the year

14. Nominating Committee Report S.J. Kim

The Nominating Committee will recommend Nominations to the EC.

15. New Business

- a. Actions from Professional Divisions Workshop Muftuoglu

No actions

- b. Actions from President's Meeting with Division Chairs Muftuoglu

No actions

- c. Interactions with Other ANS Entities – Committees, etc. Muftuoglu

Dr. Muftuoglu reviewed the responsibilities of Division liaison.

- d. Interactions Discussion with Past ANS President (Prof. A. Klein) on the leadership of ANS-THD for Nuclear Grand Challenge (Accelerate Utilization of Simulation and Experimentation), Scheduled on 17:15. Muftuoglu

This item has been addressed out of order to accommodate the schedule of Prof. A. Klein. Prof. Klein emphasized the leadership of ANS-THD for NGC (See the Request by Prof. Corradini in Appendix B(4))

Dr. Merzari suggested that we could leverage overlap between NURETH and M&C in Portland to address this challenge.

It will not establish timeline and metrics, but rely on natural leadership and It is need to use all available resources inside and outside the society

- e. Discussion on the Request to ANS HQ, THD and NISD by Prof. M. Corradini on Co-sponsoring an Initiative Preserving Key Nuclear Safety Data. (See the Request by Prof. Corradini in Appendix B(5)) Muftuoglu

Prof. F.B. Cheung explained this Initiative, and stressed that this may already be a relevant ANS position.

MOTION to endorse by Dr. L. Carasik

SECONDED by Dr. E. Merzari

APPROVED without objection

- f. Student Member of the EC Muftuoglu

ACTION ITEM – Prof. S.J. Kim will recommend that.

The Executive Committee meeting was adjourned at 6:05 pm

APPENDIX A

Executive Committee Meeting Sign-in Sheets

*Thermal Hydraulics Division
Executive Committee Meeting
Marriott Wardman Park Hotel
Washington DC
October 29, 2017*



Name	Initial when present
Only those listed below are voting members of your division	
Kurshad Muftouglu, Chair	<i>[Signature]</i>
David Pointer, Vice Chair	<i>[Signature]</i>
Chul-Hwa Song, Secretary	<i>Chul-Hwa SONG</i>
Wade Marcum, Treasurer	
Seungjin Kim, Immediate Past Chair	<i>Proxy to C-H. SONG</i>
John Kelly, Board Liaison	<i>J. E. Kelly</i>
Fatih Aydogan	<i>[Signature]</i>
Philippe Bardet	
Lane Carasik	<i>[Signature]</i>
Xu Cheng	
Yassin Hassan	<i>[Signature]</i>
Jeffrey Lane	
Yang Liu	<i>[Signature]</i>
John Luxat	<i>[Signature]</i>
Annalisa Manera	<i>[Signature]</i>
Elia Merzari	<i>[Signature]</i>
Nisashi Ninokata	<i>[Signature]</i>
Piyush Sabharwall	<i>[Signature]</i>
Bao-Wen Yang	<i>[Signature]</i>
Others, please PRINT in	(if there is not enough space, feel free to use the other side)
Name	E-mail
<i>Bill Cheng</i>	<i>fx04@psu.edu</i>
<i>Dariusz Lisowski</i>	<i>dlisowski@anl.gov</i>
<i>Igor Bolotnov</i>	<i>ibolotn@ncsu.edu</i>

Article B10.2 - A quorum for the transaction of business at all Division (or TG) meetings shall consist of fifteen (15) qualified voters or twenty (20) percent of the qualified voters.

Thermal Hydraulics Division
 Executive Committee Meeting
 Marriott Wardman Park Hotel
 Washington DC
 October 29, 2017



Others, please PRINT in

Name	E-mail
Sipeng Wang	wangspeng@stu.xjtu.edu.cn
Dwayne Schubring	dlschubring@vtl.edu
MARIA AVRAMOVA	mriavramo@ncsu.edu
Matt Zimmer	mdzimmer@ncsu.edu
JUN LIAO	LIAOJ@westinghouse.com
Rui Hu	rhu@and.gov
PAOLO FERRONI	pferroni@westinghouse.com
Robert Martin	r.p.martin@bwxt.com
Xiaodong Sun	xdsun@umich.edu
Giovanni Maronati	gio.maronati@gmail.com
Chih-Wei Chang	cchang11@ncsu.edu

Article B10.2 - A quorum for the transaction of business at all Division (or TG) meetings shall consist of fifteen (15) qualified voters or twenty (20) percent of the qualified voters.

APPENDIX B(1)

2017 Student Conference Flyer



ANS Student Conference
University of Florida • April 5-7, 2018

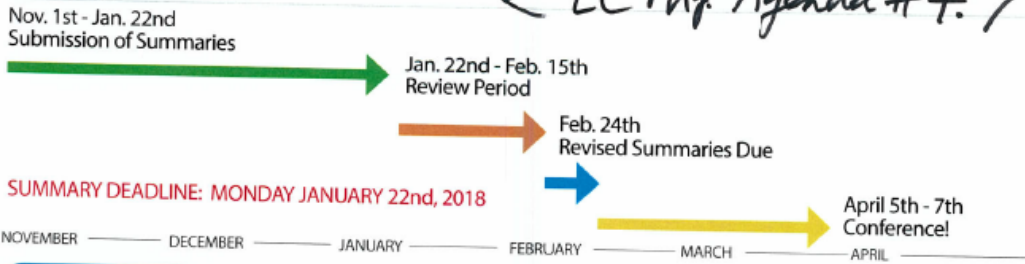


nuclear equality
in policy, energy access & the engineering community

CALL FOR PAPERS

NUCLEAR EQUALITY: Nuclear Equality in Policy, Energy Access, & the Engineering Community

TIMELINE



FORMAT

Scope of summaries include research results, internship projects, senior design posters or an interesting take on nuclear policy. Authors are **REQUIRED** to use the ANS Template provided on the ANS Web site. See www.ans.org/pubs/transactions or www.ansstudentconference2018.com to find the proper paper templates.

SUBMISSION

Summaries must be submitted electronically using Adobe Acrobat (PDF) files or original Microsoft Word documents.

Find our submission portal via ANS's Electronic Paper Submission (EPSR) and Review System at <http://epsr.ans.org/>

On <http://epsr.ans.org/> scroll to find the link to our submission portal or use QR

Detailed instructions on submissions may be found at www.ansstudentconference2018.com



TRACKS

- Accelerator Applications
- Advanced Reactors
- Aerospace Nuclear Science and Tech
- Biology and Medicine \$, *BMD*
- Decommissioning & Environ. Sciences
- Detection and Measurement
- Nuclear Nonproliferation
- Fuel Cycle & Waste Management \$, *FCWMD*
- Fusion Energy & Plasmas \$, *FED*
- Human Factor, Instrumentation & Controls \$, *HFICD*
- Isotopes and Radiation \$, *IRD*
- Materials Science & Technology \$, *MSTD*
- Mathematics and Computation
- Thermal Hydraulics & Fluids
- Nuclear Criticality Safety \$, *NCSD*
- Nuclear Installations Safety \$, *NISD*
- Operations and Power
- Radiation Protection & Shielding \$, *RPSD*
- Reactor Physics \$, *RPD*
- Robotics & Remote Systems
- Special Session: Nuclear Policy \$, *UF*

\$ = Cash prize available for best paper or presentation. Up to \$250 per award! Sponsored by professional ANS divisions and the conference.
 ▲ = Additional funding given to winner to present paper at next ANS Winter Meeting.
 Additional information about ANS professional divisions may be found at: <http://www.ans.org/const/divisions/>



OFFICIALS

Pat Moo
General Program Chair
pat@ansstudentconference2018.com

Zander Mausloff ✓
Technical Program Chair
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Rae Bruenderman
Logistics Chair
rae@ansstudentconference2018.com

Hosted by: ANS University of Florida Student Section

SUMMARY DEADLINE: MONDAY JANUARY 22nd, 2018

APPENDIX B(2)

ANS Professional Divisions Committee's Bi-Annual Leadership Activity Roadmap

American Nuclear Society Professional Divisions Bi-Annual Leadership Activity Roadmap

This roadmap lays out responsibilities by time period for the two-year cycle over which Divisions plan and execute activities in the nominal Vice-Chair/Chair cycle and in the support of sessions at the national meetings. This does not cover all activities in which a Division is expected to be engaged but is focused upon elections, finances, and national meetings for which timely interaction with ANS National is necessary. Additional resources can be found on the websites for the [Professional Divisions Committee](#), [Meetings, Bylaws and Rules](#), and [Planning Committees](#). The [Professional Divisions Collaborate](#) page also includes presentations from the PD Workshops, other forms, and discussion threads on issues confronting divisions.

Specific documents to be used for planning and guidance
[Topical Meeting Manual and associated forms](#)
[National Meeting Manual](#)
[Professional Divisions Manual](#)

Division Chair is responsible for assigning responsibilities for each task (if not otherwise specified in the Division Rules)

Elections and Planning

Financial

National Meetings* (Y1AM: Year 1 Annual Meeting, etc.)

*[Topical Meetings](#) may not follow a set schedule in accordance with the fiscal or election year. Please consult the [Topical Meeting Manual](#) to view the activities and deadlines relative to the date of the Topical Meeting.

Month/Yr	Activity or Deadline
Jan 01	Send names of nominees for Society standing committees to ANS Vice-President/President-elect (or to Val) Deadline for summaries to Y1AM. Recruit reviewers.
Feb Y1	Submit preliminary set of Panel descriptions and list of panelists to HQ for Y1AM Complete reviews of summaries for Y1AM. Vice Chair/Chair elect commences Annual Planning
Mar Y1	Compile Division Performance metrics and compare against annual/strategic goals Revised summaries due for Y1AM. Complete final reviews and disposition. Suggest topics for sessions/tracks/panels for the next WM to be put in the CFP
Apr Y1	Chair recruits and identifies fellow officers for the Professional Division Workshop (officer training) Vice Chair/Chair Elect presents Tactical (Annual) Plan and Goals to EC for consideration and approval. Updates to the 5-Year Strategic Plan are proposed. Submit final set of Panel descriptions and list of panelists to HQ for Y1AM Begin accepting summaries for Y1WM. Recruit reviewers.
May Y1	Chair distributes draft Executive Committee agenda/proposals to Officers (if EC is meeting

	<p>in June)</p> <p>Prepare Division <u>Presentation</u> to the Board (if <u>scheduled</u>) and submit to PDC Staff Liaison Deadline for summaries to Y1 WM. Reviews underway</p>
Jun Y1	<p>Y1AM – PD Workshop – EC meeting</p> <p>Y1AM – National Program Committee</p> <p>Submit updated Succession Plan and Annual Plans to HQ (into your Division folder)</p> <p>Submit preliminary set of Panel descriptions and list of panelists to HQ for Y1WM</p> <p><u>Treasurer Webinar/Training for newly elected treasurers</u></p>
Jul Y1	<p>Division Chair appoints the Division Nominating Committee</p> <p>Secretary finalizes EC Minutes and submits to HQ</p> <p><u>Budget Planning begins for upcoming year</u></p> <p>Complete reviews of summaries for Y1WM.</p>
Aug Y1	<p>Submit nominations for National ANS Officers and Board Members to the Society Nominating Committee Chair (Past President)</p> <p><u>Division EC approves budget for upcoming year</u></p> <p>Revised summaries due for Y1WM. Complete final reviews and disposition.</p>
Sep Y1	<p>Division Nominating Committee proposes a slate of candidates for the Spring election</p> <p>Chair recruits and identifies attendees for the Professional Division Workshop (officer training)</p> <p><u>Treasurer submits Final Division Budget for upcoming year to HQ</u></p>
Oct Y1	<p>Chair prepares Division <u>Presentation</u> to the Board (if <u>scheduled</u>) and submit to PDC Staff Liaison</p> <p>Chair distributes draft Executive Committee agenda/proposals to Officers (if EC is meeting in November)</p> <p>Begin accepting summaries for Y2AM. Recruit reviewers.</p> <p>Suggest topics for sessions/tracks/panels for the next AM to be put in the CFP</p>
Nov Y1	<p>Y1WM – PD Workshop – EC meeting</p> <p>Y1WM - National Program Committee</p> <p>Y1WM -Chair presents <u>Presentation</u> to the Board (if <u>scheduled</u>)</p> <p><u>Division Treasurer submits a proposed budget for the following year to the ANS Accounting Manager</u></p> <p>Submit final slate of candidates to HQ for the Spring election</p>
Dec Y1	<p>Secretary finalizes EC Minutes and submits to HQ</p> <p><u>Send Final Disbursement requests to ANS Headquarters –Outreach Department to process before year-end.</u></p>
Jan Y2	<p>Send names of nominees for Society standing committees to ANS Vice-President/President-elect.</p> <p>Deadline for summaries to Y2AM.</p>
Feb Y2	<p>Submit preliminary set of Panel descriptions and list of panelists to HQ for Y2AM</p> <p>Complete reviews of summaries for Y2AM.</p> <p><u>Vice Chair/Chair elect commences Annual Planning</u></p>
Mar Y2	<p>Compile Division Performance metrics and compare against annual/strategic goals</p> <p>Revised summaries due for Y2AM. Complete final reviews and disposition.</p> <p>Suggest topics for sessions/tracks/panels for the next WM to be put in the CFP</p>
Apr Y2	<p>Chair recruits and identifies fellow officers for the Professional Division Workshop (officer training)</p> <p>Vice Chair/Chair Elect presents <u>Tactical (Annual) Plan</u> and Goals to EC for consideration and</p>

	<p>approval. Updates to the 5-Year Strategic Plan are proposed. Submit final set of Panel descriptions and list of panelists to HQ for Y2AM Begin accepting summaries for Y2WM. Recruit reviewers.</p>
May Y2	<p>Chair distributes draft Executive Committee agenda/proposals to Officers (if EC is meeting in June) Prepare Division <u>Presentation</u> to the Board (if <u>scheduled</u>) and submit to PDC Staff Liaison Deadline for summaries to Y2WM. Reviews underway</p>
Jun Y2	<p>Y2AM – PD Workshop – EC meeting Y2AM – National Program Committee Submit updated <u>Succession Plan</u> and <u>Annual Plans</u> to HQ (into your Division folder) Submit preliminary set of Panel descriptions and list of panelists to HQ for Y2WM Treasurer Webinar/Training</p>
Jul Y2	<p>Division Chair appoints the Division Nominating Committee Secretary finalizes EC Minutes and submits to HQ Budget Planning begins for upcoming year Complete reviews of summaries for Y2WM.</p>
Aug Y2	<p>Submit nominations for National ANS Officers and Board Members to the Society Nominating Committee Chair (Past President) Division EC approves budget for upcoming year Revised summaries due for Y2WM. Complete final reviews and disposition.</p>
Sep Y2	<p>Division Nominating Committee proposes a slate of candidates for the Spring election Chair recruits and identifies attendees for the Professional Division Workshop (officer training) Treasurer submits Final Division Budget for upcoming year to HQ</p>
Oct Y2	<p>Chair prepares Division <u>Presentation</u> to the Board (if <u>scheduled</u>) and submit to PDC Staff Liaison Chair distributes draft Executive Committee agenda/proposals to Officers (if EC is meeting in November) Suggest topics for sessions/tracks/panels for the next AM to be put in the CFP</p>
Nov Y2	<p>Y2WM – PD Workshop – EC meeting Y2WM - National Program Committee Y2WM -Chair presents <u>Presentation</u> to the Board (if <u>scheduled</u>) Division Treasurer submits a <u>proposed budget</u> for the following year to the ANS Accounting Manager Submit final slate of candidates to HQ for the Spring election</p>
Dec Y2	<p>Secretary finalizes EC Minutes and submits to HQ Send Final Disbursement requests to ANS Headquarters –Outreach Department to process before year-end.</p>

APPENDIX B(3)


2017 THD Treasurer's Report (Proposed)

The following financial report for the Thermal Hydraulics Divisions reflects the state of our divisions account as of September 30, 2017. The present actual balance of the THDs account is \$58,890.75. This is a \$5,737.31 net positive variance when compared to the division's budget. Additional revenue and fewer expenditures than anticipated have resulted in this outcome. Revenue contributions have included \$150 through Dues Allocations beyond that anticipated as well as a \$5000 donation from the NUTHOS-11 meeting (less \$20 resulting from processing charges through ANS HQ). At present the Division's expenditures have been fewer as well including a single expenditures for awards dissemination at the ANS Annual meeting of \$134.75. Student conference support includes the distribution of \$500 to the student conference and a total of 10 scholarship at \$100 each for student travel support to ANS conferences (summing to \$1500 in Student Support). Two additional expenditures were accrued which were not projected within the budget, including a single postage charge of \$7.87 and printing charge of \$0.07 (totaling \$7.94 in Other Expenses). The current status of the budget is healthy with positive net increases in funding balance over the past three consecutive years.

	Actual	Budget	
	9/30/2017	9/30/2017	Variance
Revenues			
Dues Revenue Allocation	\$ 1,875.00	\$ 1,725.00	\$ 150.00
Contribution Revenue	\$ 4,980.00	\$ -	\$ 4,980.00
Total Revenue	\$ 6,855.00	\$ 1,725.00	\$ 5,130.00
Expenditures			
Awards, Plaques	\$ 134.75	\$ 750.00	\$ (615.25)
Student Support	\$ 1,500.00	\$ 1,500.00	\$ -
Other Expenses	\$ 7.94	\$ -	\$ 7.94
Total Expenditures	\$ 1,642.69	\$ 2,250.00	\$ (607.31)
Net Surplus / (Deficit)	\$ 5,212.31	\$ (525.00)	\$ 5,737.31
Fund Balance at 1/1/2017	\$ 53,678.44	\$ 53,678.44	\$ -
Fund Balance at 9/30/2017	\$ 58,890.75	\$ 53,153.44	\$ 5,737.31

APPENDIX B(4)



Prof. Klein's Request on the Leadership of ANS-THD for Nuclear Grand Challenge



ANS NUCLEAR GRAND CHALLENGES

GOING FORWARD

- Encourage members, divisions, and leadership to promote and discuss the Challenges with public policymakers, government officials, community leaders, industry, others
- Encourage divisions to hold focused topical meetings, technical, and plenary sessions to determine paths forward
- Encourage technical journal papers, books, webinars, social media, ANS Collaborate discussions, position statements, curriculum development, *Nuclear News* and *Radwaste Solutions* articles, letters to the editor

ANS NUCLEAR GRAND CHALLENGES

Engaging ANS to Move NGCs Forward

Grand Challenge	Suggested Lead Division(s)	Suggested Cooperating Divisions	Suggested Cooperating Committees	Applicable Policy Statements
Transform the way the nuclear technologies sector thinks about public engagement	OPD	NCSD, BMD, IRD, ETWDD, RPSD	Communications, Government Relations, PWANS	24, 26, 63, 77, 79, 83
Establish the scientific basis for modern low-dose radiation regulation	RPSD & BMD	IRD, OPD, YMG, NISD	Communications, Government Relations, Public Policy, International	28, 41, 74
Close the nuclear fuel cycle	FCWMD	DESD, AAD, MSTD, OPD, RPD	Communications	11, 22, 45, 47, 74, 76, 78, 80



Engaging ANS to Move NGCs Forward

Grand Challenge	Suggested Lead Division(s)	Suggested Cooperating Divisions	Suggested Cooperating Committees	Applicable Policy Statements
Ensure continuous availability of radioisotopes	IRD	BMD, YMG, AAD, FCWMD, NNPD	Government Relations, Public Policy	18, 28, 30, 72
Rejuvenate nuclear technology infrastructure and facilities	DESD & NCSD	NISD, RRSd, HFICD		13, 26, 53
Accelerate development and qualification of advanced materials	MSTD	FED, ANSTD, MCD		12, 25, 40



Engaging ANS to Move NGCs Forward

Grand Challenge	Suggested Lead Division(s)	Suggested Cooperating Divisions	Suggested Cooperating Committees	Applicable Policy Statements
Accelerate utilization of simulation and experimentation	MCD & THD	RPD, FED, RRSd		12, 25, 40, 48, 51
Expedite licensing and deployment of advanced reactor designs	NISD	YMG, THD, ANST, HFICD, NNPD	Government Relations, Public Policy	24, 25, 46, 77, 80
Expedite nuclear education updates and knowledge transfer	ETWDD	YMG, OPD	APPC, SPCC, NEED	21, 29, 48, 61, 66

APPENDIX B(5)

Request to ANS HQ, THD and NISD by Prof. M. Corradini et al. on Co-sponsoring an Initiative Preserving Key Nuclear Safety Data

보낸이	Michael Corradini <corradini@engr.wisc.edu>	날짜	2017.10.22 22:33:42
받는사람	chsong@kaeri.re.kr <chsong@kaeri.re.kr>		
참조			
제목	REQUEST OF TH-DIVISION and ANS		
상태	<input type="checkbox"/> 긴급		

Dear Dr. Song:

I am writing you today in your capacity as a member of the ANS Thermal Hydraulics executive committee. We seek your support for a n initiative we ask your committee to discuss next week (I am not at ANS on Sunday - so see attached). It concerns the preservation of experimental safety-related information important for nuclear reactor safety, licensing, and development of new reactors --- these data represent the fundamental basis for understanding reactor safety. For a variety of reasons these data are becoming increasingly difficult to obtain.

This initiative was started by Bob Henry, Frank Rahn, Bob Budnitz, Mike Corradini and Neil Todreas. We hope you will join us to co-sponsor this endeavor. In seeking your support, we welcome your ideas and suggestions. If you will not be able to attend the ANS meeting, it would be helpful if you could send an e-mail to your other committee members and leadership indicating your support (or not) of the proposal. Please copy me as one of us will go the ANS Board on Thursday for their endorsement.

Sincerely,

Mike

Michael Corradini
Nuclear Engr. & Engr. Physics
University of Wisconsin
corradini@engr.wisc.edu
[Ph] 608-263-1648

첨부명	파일크기
1 Request to ANS.docx	18Kbyte

Request to ANS Exec Committee, and the Thermal Hydraulics and Nuclear
Installation Safety Divisions, to Sponsor an Initiative⁺
Preserving Key Nuclear Safety Data⁺

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+

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Summary:⁺

Over the years, much important experimental data relevant to nuclear power plant safety has become difficult or impossible to obtain. These data are an important part of the technical basis for our understanding of nuclear reactor safety. Its loss may eventually call into question the design and licensing of reactors because the physical basis of computer codes and engineering analysis can no longer be assured. This paper requests the ANS and its related Divisions to sanction an activity to collect and preserve key safety data. This is not a request for funding, but simply a request to endorse such an activity as critically important to a sustained nuclear future. ⁺

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Background⁺

Much safety information is being lost these days, because there is no coordinated effort being taken to preserve it. Often it is simply discarded by people that have no background regarding the importance of the information. Some limited data for important experiments such as LOFT, Marviken, CST, CVTR, etc. can be found on the internet. However most of the actual source data are hard to find or lost completely. Often the organization originally sponsoring the experiment is no longer in operation. Furthermore, the research facilities may have been decommissioned and the researchers who performed the experiments may be no longer working. Hence, critical experimental details that resided in their memories are lost. ⁺

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Objective⁺

The objective is to ensure critical data are preserved and easy to obtain. The ultimate goal would be an overarching organization that could preserve safety related information from old experiments, including notebooks and observations from retiring engineers and scientists. Equally important would be to archive information from current safety research projects as they are concluded. This could relieve the organization performing the experiments from a custodial role. ⁺

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Project Scope and Approach⁺

The ultimate goal is to assemble all experimental information important to licensing and safety in a repository that is in the public domain. These experiments include thermal /hydraulic, hydrogen, aerosols, criticality benchmarks, MCCI, fission products just to name a few. The repository could preserve journal and conference papers from decades ago that discuss early safety experiments or which present somewhat different technical approaches or interpretations of the data. Data from critics should be included as long as they are published, rigorous and well vetted through the usual technical review process. ⁺

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Data preservation could be an important educational component if the project had students working in an organized manner with older experts who could provide guidance on what important data to capture and develop simple ways to do it. That suggests working with one or more universities to establish a data center. Having students and post-docs on the project

would have the further benefit of training a cadre of people who understand what information is available.⁴

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Unresolved for the time being are copyright and licensing issues. Also unresolved is exactly how the data would be preserved. This would be an initial task for the data center.⁴

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The issue of financial support is also not addressed at this point, but ANS endorsement would add weight to a discussion with potentially interested parties. Other organizations such as NRC, DOE, EPRI, vendors, international laboratories and others might choose to be cosponsors.⁴

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Further Insights⁴

Three examples of data loss come to mind, pointing out the urgency of the initiative. The LOFT data was recorded on wide magnetic tape. The last machine that could read the tapes cost too much to maintain so the access to the source data was lost. Second example: when HDR was decommissioned, the experimental data for the tests that were performed were cataloged, boxed-up and sent to Karlsruhe for safe keeping. When it arrived at the ~~KfK~~, it was promptly lost and never found. Last example: most of the ~~Marviken~~ experiments were performed through OECD. One ~~Marviken~~ containment test was an international standard problem, but when OECD (Paris) was asked for a copy of the test report they could not find it in their files. Luckily, one of the young engineers at ~~Marviken~~ at the time of the experiments had a copy of the report in his garage. That was the only copy that could be found in Sweden. Numerous other examples exist.⁴

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What we are requesting⁴

We are requesting an endorsement of the interested ANS divisions and in particular the Nuclear Installations Safety Division and the Thermal Hydraulics Division. With the support of these divisions, we are also seeking the endorsement of this initiative by the ANS Board of Directors. To further advance the project we also request that the ANS Executive committee establish an Ad Hoc committee to develop a plan for future actions/responsibilities, and a set of sequential implementation steps. The ad hoc committee would also be charged with producing recommendations concerning the technology to collect and secure the data along with an organizational structure for the data repository.⁴

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