AMERICAN NUCLEAR SOCIETY
REACTOR PHYSICS DIVISON
Spring/Summer 2011 Newsletter

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Message from the Outgoing Chair

By Ivan Maldonado
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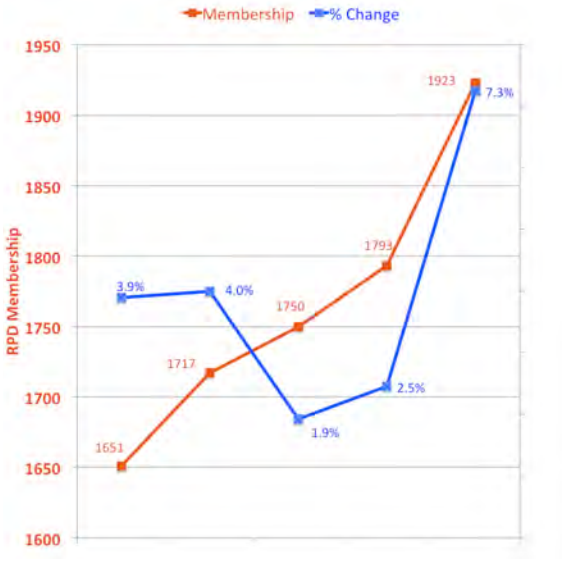
I have had the pleasure of most recently completing a cycle of approximately 8 consecutive years professional service to the RPD: Initially as your technical program chair (TPC), and subsequently through the standard path of leadership (Secretary, Treasurer, Vice Chair, and Chair). In fact, several years before this most recent streak, I had a shorter stunt as a member of the technical program committee, during which I actually helped lead our first-ever electronic paper review (long before the current ANS-managed processes began). We old timers remember the times before electronic paper reviews, during which a handful of reviewers and TPC members would physically meet at the conference venue several months in advance of each ANS meeting to shuffle around through dozens of papers needing reviews. It was not unusual to exchange reviews with members of other divisions so to get the work completed within a reasonable time, a true team effort was required.

Fortunately, technology came to the rescue and has made it easier to electronically prepare, submit, and review ANS abstracts, so that today, our current TPC Chair can nearly-effortlessly manage batches of more than 100 RPD articles published at a single meeting, in fact, setting a recent record for our division during the 2011 meeting in Hollywood, Florida. Technology has also helped advertise our division, our annual and winter meetings, and all our sponsored and co-sponsored topical meetings. This healthy communication exchange has undoubtedly contributed to our growth. Since most of us enjoy charts, I've included below the latest data on our membership from 2006 through 2010. In it, you can see that during the course of 4 years we've added 334 members, representing a total growth of about 21% over that period. Important to note, are the numbers reflecting 2010, during which 130 new members joined RPD representing a 7.3% boost in membership relative to 2009.



RPD's vitality metrics continue to be exemplary to the entire society. Our budgets are healthy year after year, while our support of students and meetings easily place us among the most active

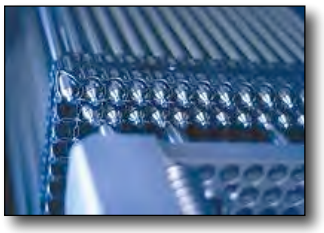
and successful divisions of the ANS. This success is directly attributed to our members, and in particular to those individuals who volunteer their time and efforts to make a difference within our technical community and leadership ranks, as well as to those who actively publish and exchange their scientific findings at our meetings.

As I walk into the sunset after several years of truly enjoyable and rewarding service to RPD, I challenge each and every one of you, new and old members of RPD, to get involved, to care, and to contribute to our division's activities and growth in whatever way you can. Your participation truly counts and you can make a difference.

What is the Reactor Physics Division?

By Mark DeHart
(Mark.DeHart@inl.gov)

The primary objective of the Reactor Physics Division of the American Nuclear Society is to promote the advancement of knowledge and understanding of the physics of reactors - the fundamental physical phenomena characterizing nuclear reactors and other nuclear systems. The Division encourages research and disseminates information through meetings, publications and the Division's web site (http://rpd.ans.org).



The Division's areas of technical interest are defined by its membership, and include nuclear data, particle interactions and transport, reactor and nuclear systems analysis, methods design, validation and operating experience and standards.

The Reactor Physics Division is one of the largest and most active professional divisions within the ANS; this is due to excellent national meeting participation, well organized and attended technical sessions and topical meetings, a very active standards program (described later in this newsletter), and the very high profile Wigner Award. The Division currently sponsors the Allan F. Henry/Paul A. Greebler Scholarship for students of any nationality pursuing graduate studies in the field of reactor physics; the Division is also studying the establishment of a second endowed scholarship.

The Reactor Physics Division is here to serve the international reactor physics community. But it is important to note that the Division is operated and maintained by Division-elected members who voluntarily serve on the Executive Committee. The Executive Committee oversees the activities of a number of other committees (Program, Scholarships and Awards, and Standards, to name of few), which are largely volunteer-driven activities. And new volunteers are always in demand. If you would like to become more involved in the various activities of the Reactor Physics Division (many of which are described in this newsletter), feel free to contact any of the Division's officers or representatives for more information.

The International Reactor Physics Experiment Evaluation Project

By John Bess
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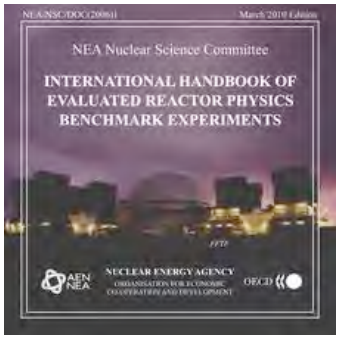
The International Reactor Physics Experiment Evaluation Project (IRPhEP) was initiated, as a pilot activity in 1999 by the by the Organization of Economic Cooperation and Development (OECD) Nuclear Energy Agency (NEA) Nuclear Science Committee (NSC). The project was endorsed as an official activity of the NSC in June of 2003. The IRPhEP is patterned after its predecessor, the International Criticality Safety Benchmark Evaluation Project, (ICSBEP), but focuses on other integral measurements such as buckling, spectral characteristics, reactivity effects, reactivity coefficients, kinetics measurements, reaction-rate and power distributions, nuclide compositions and other miscellaneous types of measurements in addition to the critical configuration. The purpose of the IRPhEP is to provide an extensively peer reviewed set of reactor physics related integral benchmark data that can be used by reactor designers and safety analysts to validate the analytical tools used to design next generation reactors and establish the safety basis for operation of these reactors.

The work of the IRPhEP is documented in an OECD NEA Handbook entitled, "International Handbook of Evaluated Reactor Physics Benchmark Experiments." The Handbook was first published in 2006 and has been published annually since. The 2011 edition of the IRPhEP Handbook contains contributions from 16 countries and includes data from 53 experimental

series (representing 31 reactor facilities). A total of 14 benchmark evaluations were either revised or newly prepared for inclusion in the 2011 edition of the Handbook. New benchmarks include evaluations of the High Temperature Engineering Test Reactor (HTTR), Neutron Radiography (NRAD) Reactor, an RBMK graphite reactor, a selection of B&W Spectral Shift Reactor lattice experiments, ZEBRA Core 8, the ZED-2 Reactor, ZPPR-13A, and ZPPR-18 C. Additional information was added as revisions to the IPEN/MB01 Research Reactor, SNEAK 7A and 7B, and ZPPR-9 benchmarks. New draft benchmarks include the LR0 VVER Physics Experiments, VENUS Configuration 9, and the Very High Temperature Reactor Critical (VHTRC). Progress is currently underway for additional benchmarks to be included in future editions of the handbook. Copies of the most recent edition of the IRPhEP Handbook may be obtained by completing the request / non-disclosure form located at http://irphep.inl.gov/.



The Fukushima Daiichi Accident and Related Reactor Physics Considerations

By Akio Yamamoto, Nagoya University
(a-yamamoto@nucl.nagoya-u.ac.jp)

First of all, as a Japanese national, a member of the Atomic Energy Society of Japan and a member of the Reactor Physics Division of AESJ, the author would like to express sincere thankfulness to the ANS-Japan Relief Fund (http://ww.ans.org/about/japanrelief/) for its heartfelt messages of support, on-site assistance and financ ial aid. This fund (currently $45,000) is being used to support workers at the Fukushima Daiichi Nuclear Power Plant, who are making every effort to stabilize the reactor situation to remediate the accident. The author would also like to express gratitude to the government of United States for its strong support and assistance with respect to the overall situation.

Immediately after the disaster on March 11, researchers within the Japanese reactor physics community, including faculty at Nagoya University, became heavily involved in correspondence with major media outlets. Since detailed plant conditions were not known at that time, it was very difficult to make technically accurate statements or interpretation based on the information available, due to large uncertainties. But it was felt that basic reactor physics knowledge would invaluable not only for accident countermeasures, but also to provide appropriate information to the Japanese public. In the following paragraphs, several reactor physics issues of the accident, as investigated at Nagoya University, are briefly described.

Since the Fukushima Daiichi accident occurred due to loss of cooling capability and loss of ultimate heat sink, decay heat analysis became the first priority. Although the post-scram decay heat source term can be roughly estimated by simplified formulas, additional information such as number of fuel bundles, bundle average exposure, and their cooling time was necessary to estimate decay heat in the spent fuel pools. Since such information was not readily available, meaningful estimation of decay heat in the spent fuel pools was very difficult, forcing external analysts to depend on the plant-internal analysis results provided by TEPCO.

Unfortunately, a significant amount of radioactive material was released to the environment during the accident. Nagoya University attempted to estimate the average exposure of damaged fuel bundles from the radioactive isotope ratio measured in the environment. Analysis was carried out by using the TRITON sequence of

SCALE 6, with the support of Dr. M. DeHart of the Idaho National Laboratory. Based on measured ratios of $^{134}Cs/^{137}Cs$, a rough estimate of the average exposures of damaged fuel bundles was determined to be approximately 20,000 MWd/t for Units 1, 2, and 3. The estimated exposure is lower than the known core average exposure of these cores, suggesting that high power (e.g. once-burnt) bundles were more damaged, hence older high-burnup bundles were less likely to have failed. More detail analysis will be carried out in the future as improved information becomes available.

Potential of re-criticality of the damaged cores was one of the biggest post-accident topics. The hypothetical re-criticality scenario during a generic BWR severe accident is as follows: loss of cooling capability of the core; increased core temperature due to decay heat; failure (melting) of control rod materials with melting points lower than that of fuel bundle materials (while fuel bundles keep their geometry); and re-flooding of the core to control decay heat, resulting in a reestablishment of a critical condition with not mechanism to control or prevent a supercritical state. However, in the reality, the possibility of this scenario is considered to be very low since failed control rod material would be mixed together with the fuel in the damaged core. In the case of Fukushima Daiichi, the sequence of events was different since the coolant level in the core decreased gradually due to decay heat. Fuel components of the core were severely damaged and portions of fuel debris were expected to have dropped to the bottom of the pressure vessel. In this situation, possibility of re-criticality would be very low when relocation of control rod material and fuel/moderator volume ratios in such conditions were taken into account. Dr. R. Mosteller et al. of Los Alamos National Laboratory have previously performed analysis of this nature that has been published in Nuclear Technology.

Nevertheless, the possibility of re-criticality has been widely discussed, primarily due to the measurement results of radioactive isotopes in environment. At one time TEPCO reported that ^{38}Cl was detected in the contaminated water at the bottom floor of the turbine building. 38Cl has short half-life and is produced by neutron capture in ^{37}Cl that is present in sea water. Since sea water was injected to the cores of Units 1-3, detection of ^{38}Cl seemed to provide evidence of re-criticality. However, the measurement data for ^{38}Cl was determined to be in error, as the result faulty TEPCO measurements. Similarly the possibility of re-criticality was discussed based on measured ratios of $^{131}I/^{134}Cs$ and $^{131}I/^{137}Cs$. Because the half-life of ^{131}I is much shorter than that of Cs nuclides, I/Cs ratios should show monotonously decreasing ratios. However, several "anomalies" were observed for the I/Cs ratio showing some peaks after reactor shutdown. If re-criticality occurred after initial reactor shutdown, the I/Cs ratio would be increased. However, there were various measurement locations for sample collection, including the contaminated water in the turbine building, spent fuel pool, sub-drain water, and other locations. Since the chemical (leaching and transport) behavior of iodine and cesium are different, I/Cs ratios would show different values when the environment samples were taken from different locations. The observed anomalies in I/Cs ratios are most likely a result of inconsistent sampling procedures. Hence, at this time no credible indications of re-criticality within the damaged Fukushima Daiichi cores have been obtained.

In conclusion, our experience at Nagoya University affirms that the knowledge of the reactor physics is one of the fundamentals for reactor safety; in other words, reactor physics analysis is invaluable for interpretation of data and for emergency responses in accident recovery. Basic reactor physics courses taught at Nagoya University have traditionally focused on understanding and design of reactors for normal operation, but perhaps in a post-Fukushima curriculum these courses should provide more emphasis on safety analysis aspect for off-normal and accident scenarios.

A Brief History of ANS-19 Standards

ANS-19 was created in 1972 under the auspices of the American Nuclear Society and in accordance with the requirements for technical standardization set forth by the American National Standards Institute (ANSI). ANS-19 is part of a broad standards program that covers most technical areas of nuclear reactor technology.

ANS-19, Physics of Reactor Design, is an active organization and operates under the Consensus Committee, N17, which in turn reports to the ANS

Standards Board. The purpose of ANS-19 was to develop standards for reactor design as the field of nuclear technology in the 1970s had reached a certain level of maturity.

The founding membership of ANS-19 included well-known names in reactor physics that came from national labs, universities, reactor vendors, nuclear utilities and independent consultants.

Paul Greebler (General Electric) was the first chairman of ANS-19. It was during Greebler's leadership that the following new standards were initiated:

ANS-19.1, "Nuclear Data Sets for Reactor Design Calculations" – First published in 1975 under Working Group Chair Robert Dannels; currently chaired by Robert Little.

ANS-19.2, "A Glossary of Reactor Physics Terms" - Published in 1978 for trial use under Working Group Chair Darrell Newman, and dropped a few years later

ANS-19.3, "The Determination of Neutron Reaction Rate Distributions and Reactivity of Nuclear Reactors" - First published in 1975 under Working Group Chair Abraham Weitzberg; currently chaired by Benjamin Rouben. Note that the title of the last revision (2011) of ANS-19.3 is "Steady StateNeutronic Methods for Power Reactor Analysis."

ANS-19.3.4, "Determination of Thermal Energy Generation Rate in Nuclear Reactors" - First published in 1976 under Working Group Chair Paul Greebler; Dimitrios Cokinos is the current acting chair.

ANS-19.4, "Guide for Acquisition and Documentation of Reference Power Reactor Physics Measurements for Nuclear Analysis Verification" – First published in 1976 under Working Group Chair Harry Graves; Dimitrios Cokinos is the current acting chair.

ANS-19.5, "Requirements for Reference Reactor Physics Measurements" – First published in 1978 under Working Group Chair Phillip Hemmig; Dimitrios Cokinos is the current acting chair.

George Minton succeeded Paul Greebler as Chairman of ANS-19 from 1977 to 1980. Abraham Weitzberg succeeded George Minton from 1980 to1987. The following standards projects were initiated under Weitzberg's leadership:

ANS-19.6, "PWR Physics Measurement Programs for Startup and Surveillance" – initiated under Working Group Chair Bernie Palowitch as a proposed standard in the early 1980s but never brought to completion; dropped shortly after initiation.

ANS-19. 7, "Doppler Coefficient in Light Water Reactors" – initiated as a proposed standard under Working Group Chair Edward Knuckles in the early 1980s but never brought to completion. It was dropped in 1987.

ANS-19.6.1, "Reload Startup Physics Tests for Pressurized Water Reactors" – first published in 1985 under Working Group Chair.

Dimitrios Cokinos succeeded Abraham Weitzberg as Chairman of ANS-19 in 1988. The standards listed below were initiated. In 1989 an existing standard (ANS-5.1) was transferred to ANS-19 from Consensus Committee NUPPSCO.

ANS-5.1, "Decay Heat Power in Light Water Reactors" - First published in 1979 under Working Group Chair Virgil Schrock; currently chaired by Ian Gauld

ANS-19.8, "Fission Chain Yields" - Working Group Chair William Wilson; work under development; initiated in 1991.

ANS-19.9, "Delayed Neutrons" - Working Group Chair Michaele Brady-Rapp; work under development; initiated in 1991.

The following two standards were initiated in 1991 and 1986, respectively, have been approved and are in actively used existence since the year of their completion:

ANS-19.1O, "Pressure Vessel Fluence in the Pressure Vessel of Light Water Reactors" - First published in 2009 under Working Group Chair Lambros Lois

ANS-19 .11, "Moderator Coefficient of Reactivity in Pressurized Water Reactors" - First published in 1997 under Working Group Chair Russell
Mosteller; currently chaired by Robert St. Clair.

Finally, a new standard was initiated in 2005:

ANS-19.12, "Nuclear Data for the Production of Radioisotopes" – Acting Working Group Chair Robert Schenter; work under development.

Program Committee News

By Fausto Franceschini
(francef@westinghouse.com)

Outgoing and New Members

I would like to thank the outgoing members of the Technical Program Committee for all the work performed during their 3-year tenure, ended in June 2011: Benoit Forget, Hansen Joo, Deokjung Lee, Mohamed Ouisloumen, Dubravkov Pevec, Zhaopeng Zhong. I wish to all of them the best for the future. I am sure they will maintain some engagement in the activities of RPD and keep benefitting the Division.

Best wishes and welcome also to the new members of the Program Committee: Germina Ilas (ORNL), Tatjana Jevremovic (University of Utah), Tomasz Kozlowski (Royal Institute of Technology, Sweden), Javier Ortensi (INL), Justin Pounders (Bechtel Marine Propulsion Corporation), Alexander Stanculescu (INL) and Baocheng Zhang (Westinghouse). The engagement and the expertise they have committed for their 3-year tenure will be a key to maintain the current high standards of the Division. A roster of current membership is included at the end of this newsletter.

Finally my renewed gratitude and appreciation go to the RPD reviewers, session chairs, special session organizers and panel organizers for their enthusiasm, reliability and unwavering effort. They are the foundation of the many accomplishments achieved by our Division. Their work culminated in a record 100 plus papers submitted to the RPD sessions for the 2011 Annual meeting.

ANS 2010 Winter Meeting, Las Vegas, NV

The 2010 Winter Meeting was held in Las Vegas, NV (November 7-11 2010). A total of 56 papers, out of the 61 submitted to RPD, have been accepted and presented in 5 technical sessions. RPD also organized one panel and co-organized another one at the meeting, with overall high technical quality and good attendance.

The three standing RPD sessions for the 2010 Winter meeting featured 32 papers divided among Reactor Physics General I and II– 11 papers, Reactor Analysis Methods (cosponsored with MCD) – 7 papers and Reactor Physics Design, Validation and Operating Experience I and II– 14 papers. In addition there have been four special sessions with 24 papers overall: "Progress in Reactor Physics Analysis for Thorium-Fuelled Reactors", organizers Blair Bromley and Ron Ellis - 9 papers, "Burnable Poison Optimization, Design, and Analysis", organizers: Moussa Mahgerefteh and Akio Yamamoto- 4 papers, "Methods, Validation and Analysis for Sustainable Nuclear Energy", organizers Pavel Tsvetkov and Lawrence Miller – 6 papers, and "Numerical Error Estimation in Nuclear Engineering Modeling", organizer Hany Abdel Khalik – 5 papers

RPD has also organized the panel "The philosophy of Benchmark Development within the ANS Joint Benchmark Committee". The organizer of the panel was Mark DeHart, with participating panelists: Barry Ganapol, Bernadette Kirk, Jim Gulliford, Russ Mosteller, Blair Briggs. RPD has also co-organized with MCD the panel "The CASL Nuclear Energy Modeling and Simulation Energy Innovation Hub" Panel organizer and panelist was Jess Gehin, with Doug Kother, Chris Stanek, Bill Martin, John Turner and Jim Stewart as the other panelists.

Best Paper Award (ANS 2010 Winter Meeting)

Based on the scores provided during the review process and the presenta-tions at the meeting, the RPD Best Paper Award for the ANS 2010 Winter Meeting has been awarded ex aequo to the papers: "Th/^{233}U Multi-recycle in Pressurized Water Reactors: Feasibility Study of Multiple Homogeneous and Heterogeneous Assembly Designs" by Di Yun, T. A. Taiwo, T. K. Kim and A. Mohamed (ANL) and "Neutronic Behavior and Impact on Fuel Cycle Cost of a Silicon Carbide Clad" by F. Franceschini and E. J. Lahoda.

Congratulations to the authors of the papers and appreciation to the judges.

ANS 2011 Annual Meeting, Hollywood, FL

A record number of papers, over 100, were submitted to the ANS 2011 Annual Meeting in Hollywood, FL (June 26-30). Particular recognition should be given to the impeccable organization of special sessions that gathered great interest: Nuclear Data Covariance: Evaluation, Processing and Application I and II, 17 papers, organized by Luiz Leal and Gerardo Aliberti, Advances in Nuclear Reactor Kinetics I and II, 15 papers, organized by Piero Ravetto, David Chandler, Trent Primm and Akio Yamamoto; Advances in Small and Medium Sized Reactor Designs, 7 papers, organized by Youssef Shatilla and co-sponsored by OPD; Design and Analysis for Plutonium and Minor Actinides Transmutation I to IV, 26 papers, organized by Mark DeHart and Ivan Maldonado and co-sponsored by FCWMD.

The three RPD standing sessions featured respectively: Reactor Physics General I and II– 14 papers, Reactor Analysis Methods I and II (cosponsored with MCD) – 13 papers and Reactor Physics Design, Validation and Operating Experience I and II– 12 papers.

RPD also organized a panel session entitled "Current Issues in LWR Core Design and Reactor Engineering Support". The organizers of the panel were David Orr and Moussa Mahgerefteh, with contributing panelists Mike Reitmeyer (Exelon), Dave Hoppes (South Texas Project), Erik Mader (EPRI) and Bob St Clair (Duke Energy).

Finally, RPD co-sponsored the session "Sensitivity and Uncertainty Methodologies in Nuclear Calculations" with MCD - 15 papers.

Thanks and congratulations to the session and panel organizers and to the reviewers for the effort they put forward in the timely resolution of the many papers submitted.

Coming Up: ANS 2011 Winter Meeting, Washington, D.C., October 30-November 3, 2011

52 summaries have been submitted and reviewed for the 2011 Winter meeting. Resolution of the final status of papers is still underway.

Paper counts for the RPD standing sessions are as follows: Reactor Physics General - 12, Reactor Analysis Methods - 9, and Reactor Physics Design, Validation and Operating Experience – 8.

A number of special sessions were also organized: "Reactor Physics Design and Analysis for Compact Power Systems for Terrestrial and Space Applications" received 9 papers, "Current Activities in Reactor Physics Methods Validation Based on Experimental Measurements" received 8 papers, and "Model Adaptation and Data Assimilation for Reactor Core Calculations" received 6 contributions. Final numbers may change as reviewer's comments are resolved.

The meeting will also feature a tutorial session on VESTA, the Monte Carlo depletion interface code by Wim Haeck.

Efforts of the Program Committee reviewers to complete all of these reviews is greatly appreciated. If you would like to be added to the RPD list of reviewers please send your request to the Program Chair, Dr. Fausto Franceschini, at francef@westinghouse.com

Special Sessions at Upcoming ANS Meetings

Please consider organizing a special session or panel at one of the upcoming ANS meetings. Timely special sessions and panels on topics of interest to academia and industry, with good quality contributions, have kept RPD one of the most active and relevant divisions.

Participation in Program Committee Activities

The success of our division is due to the active involvement of its members. I would like to encourage you to continue to contribute by submitting technical papers, organizing special sessions, reviewing papers, chairing sessions, and as members of the Program Committee and RPD governance in general.

Reactor Physics Standards

By Dimitrios Cockinos
(cockinos@bnl.gov)

Members of the ANS-19 Committee, "Standards for Reactor Design", and its Working Groups have been involved in various activities related to the update and revision of existing standards,

developing new standards and responding to inquiries submitted to ANS by standards' users. A brief summary of activities in each of the currently on-going projects is given below.

ANS-19.1 – "Nuclear Data Sets for Reactor Design Calculations." This standard has been undergoing a major revision and expansion to reflect the state of the art of nuclear data sets. A draft is expected during this year.

ANS-19.3 – "Steady State Neutronics Methods for Power Reactor Analysis." A complete revision of this standard has been completed and balloted by ANS-19. All comments have been addressed and the standard is now in the process of review and voting by N-17 the consensus committee (the parent organization of ANS-19). It is expected that within the next three months it will receive the approval of the ANS Standards Board and the American National Standards Institute (ANSI).

ANS-19.6.1 – "Reload Startup Physics Tests For PWRs." The revised version of this standard has generated some by members of N-17 and those comments are now being addressed by the Working Group.

ANS 19.11 – "Calculation and Measurement of the Moderator Temperature Coefficient of Reactivity for Pressurized Water Reactors." This just-revised standard is now in the process of review by the members of ANS-19.

ANS 5.1 – "Decay Heat Power in LWRs." This standard is currently being revised Specific changes in the current revision will include (a) improvements to the treatment for neutron capture by fission products, (b) inclusion of decay heat power from all actinides, and (c) an improved uncertainty analysis method

ANS-19.9 – "Delayed Neutron Parameters for LWRs." This proposed standard is in the process of development.

International Standards. In addition to the Decay Heat standard which has been submitted earlier for adoption by the International Standards Organization (ISO), four additional ANS-19 standards have been submitted and are now being reviewed by the ISO for possible adoption as ISO standards. These are: ANS-19.1, ANS-19.3, ANS-19.6.1 and ANS-19-12, Nuclear Data for Radioisotope Production.

Call for Volunteers

ANS-19 is seeking qualified people to work on the revision of the following standards:

ANS-19.3.4 – "Determination of he Thermal Energy Deposition Rates in Nuclear Reactors." Required knowledge: Atomic Physics, Nuclear Physics and Reactor Physics.

ANS-19.4 – "Reference Power Reactor Physics Measurements for Nuclear Analysis Verification." Required experience: 3D power reactor simulation, analysis and benchmarking; core follow calculations; code verification and validation.

ANS-19.5 – "Requirements for Reference Reactor Physics Measurements." Individuals are needed to work on identifying and documenting high quality measured data obtained from critical and subcritical experiments carried out at various institutions to date.

Honors & Awards

By Dimitrios Cockinos
(cockinos@bnl.gov)

ANS Fellow Award

RPD members are invited to nominate candidates worthy of elevation to the ANS Fellow status. The candidate must be an ANS member for at least the past five years. Five sponsors, geographically dispersed, are needed to submit letters of recommendation for their candidate, with one sponsor being the principal nominator. Selection of new ANS Fellows is made twice a year. More details can be found at the ans.org web site.

Eugene P. Wigner Reactor Physicist Award

Nominations are invited for candidates for the prestigious Wigner Award. This award, in its 21st year of its existence, has been established in 1990 with Professor Wigner being the inaugural recipient, to recognize significant individual contributions to the field of reactor physics. Three letters of recommendation by individuals familiar with the achievements of their candidate must be submitted. The candidate need not be an ANS member or even a U.S. citizen. Details for this yearly, whenever possible, award may be found at

the ANS web site, ans.org. Deadline for submission of nominations is April 1st.

2011 Election Results

The following individuals constitute our new RPD Executive Committee leadership team:

Benoit Forget - Chair
Alireza Haghighat - Vice Chair
Mark D. DeHart Treasurer
Ronald J. Ellis - Secretary

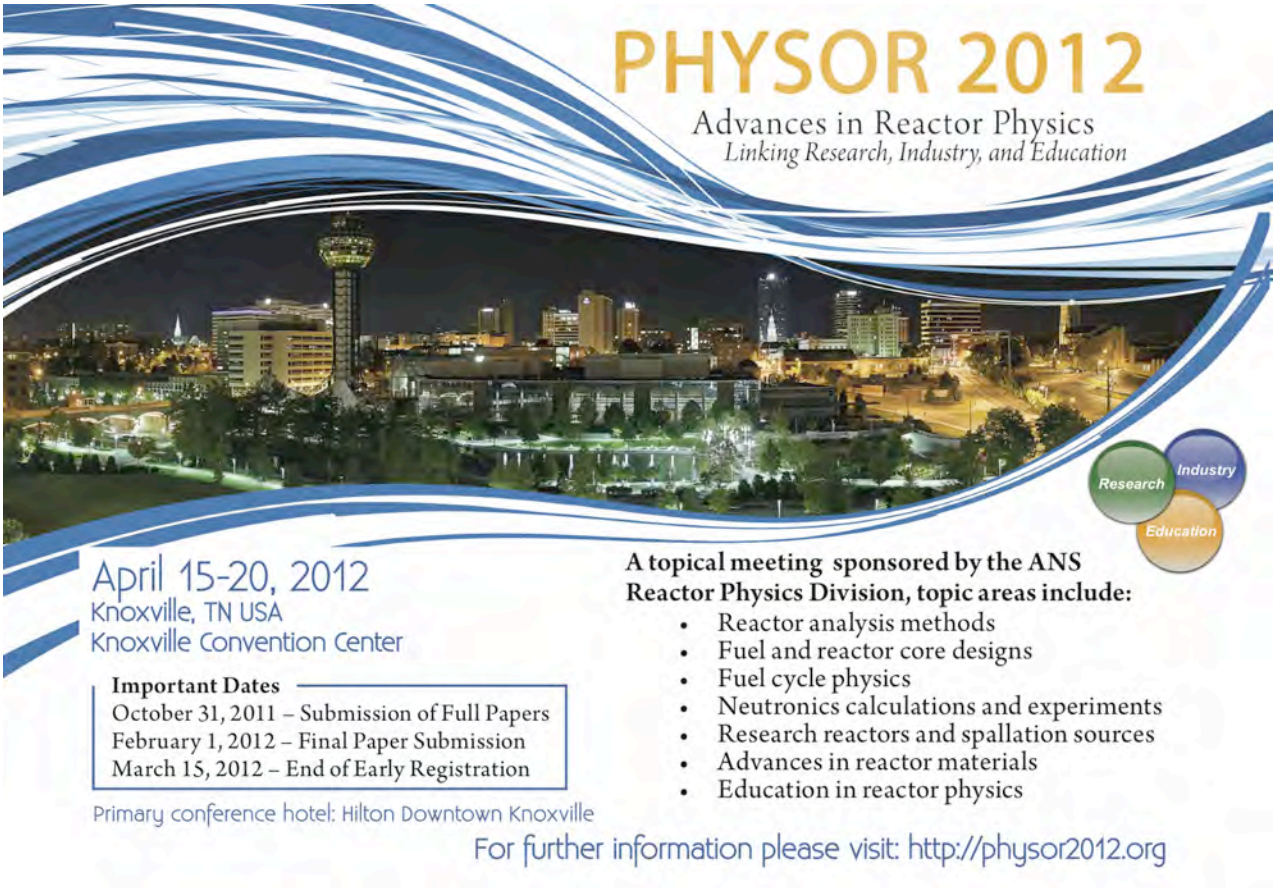
The following individuals have been elected to serve in the Executive Committee:

David W. Nigg
Mohamed Ouisloumen
Ugur Mertyurek
Massimo Salvatores

We thank those members who have recently completed leadership terms in our division:

Germina Ilas
Eleodor Nichita
Ron Ellis (newly elected Secretary)
Robert St Clair (past-past Chair)

The following page lists the 2011-2012 membership of the Reactor Physics Division Executive Committee.



20011-12 Reactor Physics Division Officers

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Executive Committee		
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