CALL FOR PAPERS

Summary Deadline: February 15, 2013

LWR Fuel Performance Meeting/ Top Fuel 2013

September 15 – 19, 2013
Charlotte, NC, USA Westin Charlotte Hotel

Conference Purpose:

TopFuel's primary objective is to bring together leading specialists in the field from around the world to analyze advances in nuclear fuel management technology and to use the findings of the latest cutting-edge research to help manufacture the high-performance nuclear fuels of today and tomorrow.

Sponsors:

American Nuclear Society (ANS)
Westinghouse Electric Company

Co-Sponsors:

European Nuclear Society (ENS)
Korean Nuclear Society (KNS)
Atomic Energy Society of Japan (AESJ)
Chinese Nuclear Society (CNS)

General Co-Chairs

Dave Culp, *Duke Energy*
José Emeterio Gutiérrez, *Westinghouse Electric Company*

Technical Program Chair:

Zeses Karoutas, *Westinghouse Electric Company*

Paper Acceptance Criteria:

Papers are expected to contain descriptions of work that is new, significant, and relevant to the conference purposes. Both summaries and full papers will be reviewed prior to acceptance. Submissions should contain new data and investigations in scientific or program areas that are of general interest, address problems of interdisciplinary significance, or include in-depth discussions of scientific and technical issues related to public-policy questions.

Criteria for selection include originality of work, relevance of topic, validity of method, clarity and conciseness of communication, and adherence to the scientific method (if appropriate). Compliance with content and length guidelines (following) are also part of the acceptance requirements. Both summaries and full papers must be submitted electronically to www.ans.org/meetings/tf2013. Papers may be submitted for oral or poster presentation; papers may be designated for submission to a refereed journal. All submissions must be in English.

Electronic Submissions:

To submit a paper electronically, please refer to the detailed instructions available on the Internet at: www.ans.org/meetings/tf2013.

Instructions to Authors
Format of Summary for Review:

1. Summaries must be submitted electronically in ASCII text, HTML, Word, WordPerfect, and/or PDF (Adobe Acrobat) format.
2. Use SI units (with English units following in parenthesis, if desired). Exceptions are made for ev and barns.
3. List references numerically at the end of the summary, and use numbers in the text, enclosed within brackets.
4. If using the ASCII text of HTML format, please include tables or figures in GIF or JPEG format. Also, please upload your original source document for use in the printed program, if available.

Please note:

– The title of your summary will be used as the title of your presentation in the preliminary program.

– Authors of accepted papers will be expected to register for the conference. There are no funds available in the conference budget to support travel fees or complimentary conference registration.

Summary Length:

1. Title Maximum - 10 words.
2. Text Minimum - 250 words.
3. Text Maximum - 500 words.
4. Figures and Tables - One figure and/or table maximum.

Content:

The contents of the summary must include the objectives of the study/investigation and the methodology used. It should also briefly describe the main findings and their potential applications. Sufficient information should be included for an independent reviewer to determine its suitability for the conference.

Deadline:

Your summary must be submitted electronically no later than February 15, 2013, in order to ensure that it is included in the review process.

Author's Organizational Approval:

– All internal reviews and organization approvals must be completed prior to submittal of the final paper.

– It is the responsibility of the author to protect proprietary information.

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Paper Preparation for Publication in Conference Proceedings

Important Information:

- Accepted papers will be included in the CD-ROM Proceedings that will be distributed at the beginning of the conference.
- After the full paper review is completed by the Technical Program Committee, authors of accepted papers will receive information for preparation of final papers in camera-ready format via email.
- Authors of accepted papers will be allowed 8 pages for publication at no charge. Authors who exceed the 8 page limit will be billed a per-page charge of $150.
- All type and illustrations should appear within designated margins—dimensions are 7 in. (178 mm) by 9 in. (229 mm). We recommend 10-point type with 12 points of leading (spacing between lines). Use Times Roman typeface or an equivalent.
- Indent each paragraph 1/4 inch (use tab; do not use the space bar to indent). Single-space your text in two-column format. Your equations, figures, and tables do not need to comply with the two-column format. In other words, equations, figures, and tables may span the columns.
- Changes to accepted papers must be limited to revisions or changes requested by the Technical Program Committee.

Important Dates:

– Summary Deadline:	15 February 2013
– Notification to Authors:	27 March 2013
– Full Draft Papers Due for Review:	8 May 2013
– Acceptance Notifications to Authors:	17 June 2013
– Final Paper for CD-ROM Publication*:	29 July 2013
– Early Registration Deadline:	23 August 2013
– Submission of PowerPoint Presentation:	3 September 2013
– Conference:	15-19 September 2013

*Full paper revisions must be submitted electronically to www.ans.org/meetings/tf2013. Full papers will be reviewed.

The ANS Scientific Publications Department may be contacted at the address and phone number below:

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TopFuel 2013 Technical Program Tracks:

1. Operation and Experience

- Fuel operating experience and performance
- Reliability
- High burn-up fuels
- Water side corrosion and hydriding
- Stress corrosion cracking
- MOX fuel performance
- Post-irradiation data
- Pool-side and hot cell examinations
- NDE
- Radiation effects
- Water chemistry and corrosion counter-measures
- Assembly distortion
- Mixed-core operation
- Re-use after transportation/storage
- Power Maneuver Flexibility

2. Transient Fuel Behavior

- Transient fuel behavior and criteria (RIA, LOCA, ATWS, power ramps …)
- Fuel safety-related issues
- Pellet-cladding interaction (PCMI/PCI)
- Transient fission gas releases
- Cladding bursting/ballooning, pellet fragmentation/dispersal during transient events
- Small and large-scale fuel testing facilities
- Fuel behavior under extended loss of cooling, re-criticality

3. Design, Materials and Testing

- Advances in fuel assembly design
- Fuel processing and manufacturing
- Cladding and structural alloy development
- MOX fuel design and manufacturing
- Fuel design for improved thermal hydraulics, mechanical and corrosion-resistant behavior, and irradiation experience in test reactors

4. Modeling

- Development, verification and validation of fuel modeling codes
- Multi-scale modeling
- Multi-physics coupling
- Fuel behavior modeling during operation and under back-end conditions
- Water chemistry crud and corrosion modeling
- Treatment of uncertainty
- Statistical analysis design and analysis methods

5. Spent Fuel Storage and Transportation

- Fuel characteristics and performance for transportation and interim/long-term storage
- Criticality
- Fuel behavior in dry containers, wet storage ponds and during transportation; aging
- R&D activities

6. New Fuel Concepts

- New fuel concepts such as accident tolerant fuel
- Fuel design optimization for disposal
- Innovative fuel concepts, new fuel designs for next generation III+ and Small Modular Reactors