



# Fuel Cycle & Waste Management Division

## Fall 2004 Newsletter

### Message from the Chair

This is a vibrant time for our industry, the American Nuclear Society (ANS), and the Fuel Cycle and Waste Management (FCWM) Division. ANS just celebrated its Fiftieth Anniversary at our Annual Meeting in Pittsburgh. Even as ANS is turning fifty, our industry is showing new growth. We are discussing new reactors, growth scenarios for electricity generated by nuclear energy, and new nuclear programs and increased enrollment at universities. Activities of strong interest to FCWM include the scheduled submission of the License Application for a repository at Yucca Mountain to the Nuclear Regulatory Commission in December, and the research and development budget in the Department of Energy addressing fuel cycle issues, including closing the nuclear fuel cycle.

With all these activities, it is not surprising that FCWM has experienced growth in membership. This is pleasing. I now hope that you new members, and the long-term members as well, seek to become more involved in the activities of the division and in providing direction on how FCWM and ANS can better serve members. This is a great time of year to become more involved in your professional division.

FCWM has Program and Executive Committee Meetings at each ANS national meeting. The next one is in Washington, DC on November 14-18, 2004. Our committee meetings start at noon and continue until 5:30 on Sunday, November 14, in the Senate Room at the Omni Shoreham. Any division member is welcomed, even encouraged, to attend either or both meetings. At noon FCWM hosts a luncheon where we discuss general business with a special emphasis on technical sessions for ANS national meetings. This November, we will begin generating technical sessions for the ANS

Winter Meeting a year from now in Washington. Our Program Committee Meeting starts after the lunch at 1:00. It provides an easy opportunity to become involved in the division through support of our technical sessions at national meetings and the topical meetings sponsored by our division (see article by Program Committee Chair, Karen Howden). Our Executive Committee Meeting follows at 3:30, and we cover all activities of the division including policy statements, standards, scholarships, and programs. Again, I stress that all division members are welcome.

Of course, I realize that not everyone is able to travel to national meetings to attend FCWM meetings. Even if you cannot attend either of these meetings, we would like for you to be involved. We conduct a significant amount of division business electronically. If you would like to help organize sessions for national or topical meetings, provide your ideas to me or the Program Chair prior to our Program Committee meeting. The review of technical papers is also done electronically. We always need people to help prepare and review policy papers on items ranging from reprocessing to disposal of low-level waste. Our immediate past Chair, John Dewes, provided a listing of the Top Ten ways to Get Involved in our November 2003 newsletter. I encourage you to review his tips on our webpage at <http://fcwmd.ans.org>.

I hope that I get to see many of you at the Washington Meeting. If you cannot make it, please contact me or one of our Executive Committee Members with ways that you can contribute to your division.

Mike Goff

[goff@anl.gov](mailto:goff@anl.gov)



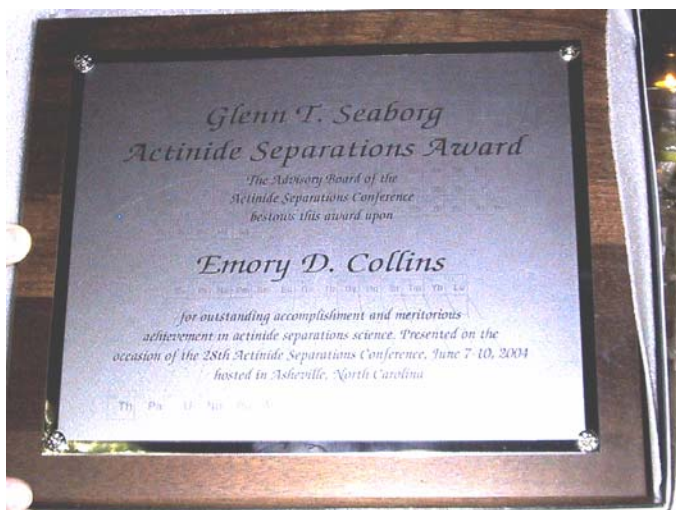
# Fuel Cycle & Waste Management Division Fall 2004 Newsletter

## Kudos

Our congratulations to **Jim Tulenko**, an active member of the FCWM Division, on his election as ANS President! We are very proud of Jim and we know he will be a great President!

Our current FCWM Vice Chair, Ruth Weiner, was recently appointed to the Advisory Committee on Nuclear Waste. In this capacity, Ruth will have a very active role in advising the NRC on waste issues. Congratulations, Ruth!

Emory D. Collins, current Secretary/Treasurer of the Fuel Cycle and Waste Management Division, was awarded the Glenn T. Seaborg Actinide Separations Award in June. The award is presented by the Advisory Board of the Actinide Separations Conference, which was held this year in Asheville, NC. Emory was given this honor for his outstanding accomplishment and meritorious achievement in actinide separations science.



Emory is a Senior Program Manager at Oak Ridge National Laboratory (ORNL) where he currently manages programs in isotope enrichment and production, defense programs, transuranium element processing, and the Advanced Fuel Cycle Initiation (AFCI). He has over 38 years of experience at ORNL in the fields of isotope production and radiochemical

separations, as well as in the technical management of isotope and process development programs.



Emory (right) receives the Glenn Seaborg Actinide Separations Award

Emory is nationally and internationally recognized in these fields with many patents and publications. He was a co-inventor of the "Modular Te-99m Concentrator" which received a 1997 Research & Development 100 Award, was patented, licensed to industry, and is being commercialized to provide significant improvements in the production and use of medical radioisotopes. Also, Emory was co-developer of the Cs-Sr removal process used to decontaminate the accident-generated high-activity-level water at the Three Mile Island Unit 2 Nuclear Power Plant.

He served as a member of the Three Mile Island Unit 2 Technical Advisory and Assistance Panel (TAAG) and the DOE Hanford Tanks Advisory Panel (TAP). He currently serves on the U. S. MOX Plant Design Review Team, the U. S. / RF Pu Conversion Team, and the AFCI Separations Working Group.

Join us in congratulating Emory on this achievement.



# Fuel Cycle & Waste Management Division

## Fall 2004 Newsletter

### FCWM Program Committee

October 4, 2004

In the last year, the FCWM Program Committee has been actively involved in organizing several very successful meetings. First and foremost, we have provided support for the ANS national meetings. The upcoming meeting in Washington D.C. will include 9 technical sessions in the fuel cycle area, including a special session entitled, "Atoms for Prosperity – The Next 10 Years," chaired by DOE-NE director William Magwood, IV. FCWM also supported the June 2004 Annual meeting in Pittsburgh.

The most recent meeting in the highly successful GLOBAL series of conferences was held as an embedded topical meeting at the 2003 Winter Meeting in New Orleans. The GLOBAL conferences focus on future nuclear energy systems and their fuel cycles; the meeting location rotates between Europe, Japan and the United States. Led by FCWM, GLOBAL 2003 included 65 technical sessions that were organized in 9 parallel sessions.

Technical sessions were included in the areas of generation IV reactors, hydrogen production and storage, aqueous and pyrochemical fuel cycles, high level waste and repository issues, homeland security, and nuclear non-proliferation. Approximately 375 papers were submitted by authors representing 22 countries. The technical program also included topical panel discussions in most technical areas. Organization for GLOBAL 2005, which will be held in Tsukuba, Japan in October 2005 is now underway.

FCWM also took the lead in organizing the technical program of the Americas Nuclear Energy Symposium 2004. The 4<sup>th</sup> in a series, this meeting focuses on nuclear energy, science and technology issues of interest to countries of North and South America. This year's meeting was held in Miami, Florida in early October.

Over 120 technical papers were submitted and participants included scientists

from Brazil, Argentina, Chile, Mexico, United States and Canada. The technical program included sessions on power production, research test and training reactors, isotope production, environmental and alternative energy sources, and fuel cycle.

### Want Free Registration?

Being a volunteer organization usually means that our only reward is professional satisfaction. In order to more tangibly thank those who contribute substantial time and effort, the Executive Committee has decided to award a meeting registration to those individuals who either shepard a FCWM Policy Statement through the approval process or who serve as a Working Group Chair for revision or creation of an ANS Standard related to FCWM (typically within the ANS-27 subcommittee standards). If you are interested in helping in these areas, contact Mike Goff [mike.goff@anlw.anl.gov](mailto:mike.goff@anlw.anl.gov) or John Dewes at [john.dewes@nnsa.doe.gov](mailto:john.dewes@nnsa.doe.gov)

### FCWM Interactions with AESJ/RRTD

The Reprocessing and Recycle Technology Division (RRTD) of the Atomic Energy Society of Japan (AESJ) invited Robert Benedict of Argonne National Laboratory to participate in meetings on the status of the nuclear fuel cycle. This invitation was extended as part of the agreement between the Fuel Cycle and Waste Management (FCWM) Division of ANS and RRTD to increase international cooperation on the nuclear fuel cycle. Bob was representing FCWM at these meetings.

On September 9<sup>th</sup>, Bob spoke at the workshop "The Issue for Energy Security in Japan and The Current Status for Nuclear Fuel Cycle in the United States." This meeting had approximately 300 people in attendance. Professor Ishii, Professor Emeritus of the University of Tokyo, and Bob were the two



## Fuel Cycle & Waste Management Division Fall 2004 Newsletter

main speakers. Before the lecture, a reporter from Denki-Shinbun, interviewed the two speakers and was very interested in the status of research and development in the United States.

On September 10<sup>th</sup>, Bob flew to Aomori to participate in a public outreach workshop on "The Role of Spent Fuel Reprocessing." This workshop was held on September 11<sup>th</sup> and was organized to help to inform the public about the benefits of reprocessing. The Rokkasyo Reprocessing plant is getting ready to initiate process start-up testing, and AESJ/RRTD wanted to help inform the public and answer questions about recycling. In addition to Bob, the speakers included Prof. Satoru Tanaka, also Professor Emeritus of the University of Tokyo, Mr. Ebina, Vice President of Aomori Prefecture, Professor Suenaga, Aomori

University, Mr. Bousequed, President of AREVA Japan Inc., Prof. Matsumoto, Saitama University, and Ms. Kuboodera. The lecture hall was completely filled with over 250 people, and many questions were asked. The questions were very insightful, and people seemed to be very interested in all aspects of reprocessing. Questions from two Japanese newspapers were also answered. This workshop was organized by RRTD, the Tohoku Branch of AESJ, and the Aomori Prefecture.

Bob appreciates the many Japanese colleagues that made this trip possible, and he encourages FCWM to continue collaboration with AESJ/RRTD. Additionally, a note of thanks was provided to FCWM after the meeting from the Chair of RRTD, Tetsuo Takeuchi, and Vice-chair, Prof. Tanaka. The collaboration between FCWM and RRTD continues to be beneficial to both organizations.