



# GO NUKE!

A newsletter from the North American Young Generation in Nuclear

November 2003

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## WANTED:

### Science And Technology Ambassadors

By **Sama Bilbao y Leon**

During his remarks at the opening plenary session of the November 2002 American Nuclear Society Annual Meeting, Gov. John Sununu blamed us, nuclear professionals, for the lack of pro-nuclear government policies. Sununu said we have failed to communicate with the policymakers in a way that allows them to make policy, and we have not taken advantage of the recent public interest in nuclear related issues to educate the media, the public and, of course, the policymakers. When asked about his recommendations on how to effectively communicate with the

policymakers, he volunteered to give guidance to ANS members.

He challenged ANS to assemble a group of approximately 20 people to whom he would provide direction on how to be more effective in communication with policymakers.

#### ***Stepping Up To The Challenge***

ANS President-Elect Larry Foulke recruited the volunteers and University of Lowell-Mass professor Gil Brown organized the workshop. My colleague Robert Margolis and I were among the ANS volunteers recruited for this initiative. On



**Sama Bilbao y Leon with John Sununu at the ANS Annual Meeting in November 2002.**

Monday, March 17, 2003, with an attendance of approximately 30 people, Sununu conducted the workshop at the Crystal City Hyatt Hotel in Washington DC.

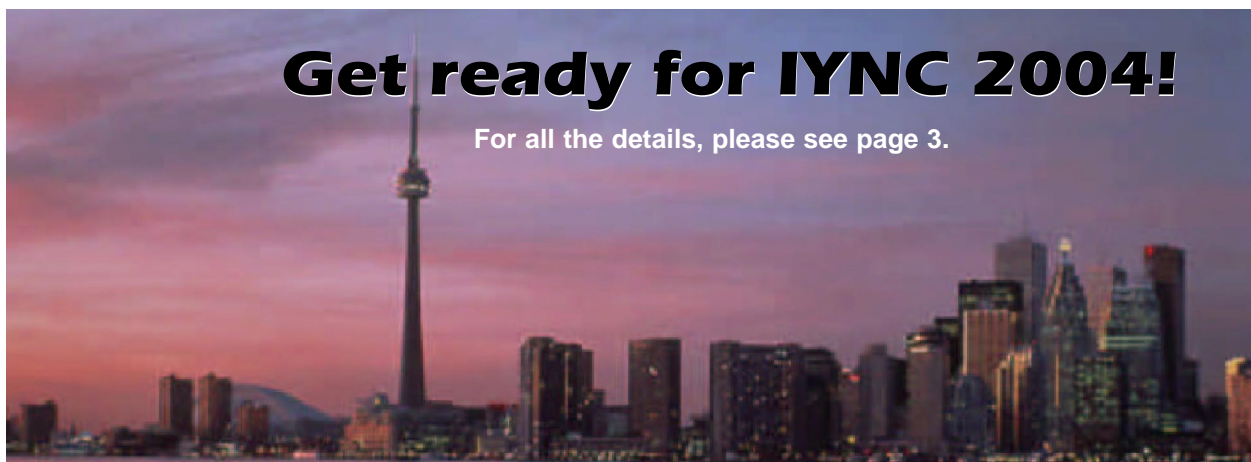
Sununu encouraged ANS to mobilize its membership

and conduct a grassroots initiative such that individual members would develop strong long-term relationships with their local/state/national officials. These relationships

**Please See Sununu, Page 7**

## Get ready for IYNC 2004!

For all the details, please see page 3.



## The President's Corner

### Don't Miss NA-YGN's Upcoming Events

In this edition of "The President's Corner" I want to first thank everyone for their hard work with this year's drawing contest. Getting in to the schools and discussing Nuclear Science and Technology is an integral part of our mission and your time and effort is greatly appreciated.



Chris Comfort

In November, NA-YGN will be hosting a panel discussion, "Status of the International Young Generation in Nuclear" at the American Nuclear Society national meeting in New Orleans, La. This panel discussion will include updates to both on-going and planned international Young Generation projects. Additional topics to be discussed in the sessions hosted by NA-YGN include:

- Public Information Activities
- Political and Lobbying Activities
- Exchange of Knowledge Between Generations
- International Cooperation Activities

Lastly, I am excited to announce that preparation for the International Youth Nuclear Congress (IYNC) meeting in May 9-13, 2004, (Toronto, Canada) is in full swing. NA-YGN is looking forward to a high level of participation from our membership at this meeting. Please check out [www.iync.org](http://www.iync.org) for more information.

For everyone that is a part of NA-YGN, if there is something that you feel this organization should attempt to do or you are interested in helping with some of our initiatives, please e-mail me at [comfort@na-ygn.org](mailto:comfort@na-ygn.org).

Respectfully,  
Chris Comfort  
President, NA-YGN

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## Pioneer Inspires Virginia Section

By Kelly Taylor

Ted Rockwell? Who? You mean the Ted Rockwell who spent so many years working as a civilian in (then) Captain Rickover's Naval Reactors group? The Ted Rockwell who was a green engineer when Oak Ridge was hiring for military projects so secret that the machine operators didn't know what they were responsible for producing? Oh, you



Ted Rockwell speaks with attendees at the Oct. 15 event.

mean THE Ted Rockwell - the "R" in MPR Associates, Inc! THE Ted Rockwell of the ANS Rockwell Award! Fabulous - what's he like?

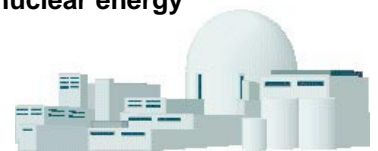
Well, for those who could not make it to the Virginia Science Museum on Oct. 15, you can get an accurate flavor

of his favorite topics from his latest book, *Creating the New World*. But you may not get the full the impact of his theme: that one person - you - can make a huge difference when you're determined to do so. From that, any group of people working together for a common vision can change the course of the world. This lesson is taught by a participant in the literal "young generation in nuclear" - who was

Please See Rockwell, Page 5

## FACT OF THE QUARTER

Since 1964, the U.S. nuclear energy industry has safely transported more than 10,000 used nuclear fuel assemblies in more than 3,000 shipments covering 1.7 million miles.



Source: Nuclear Energy Institute  
[www.nei.org](http://www.nei.org)

GO NUKE!



# IYNC 2004

**In** lieu of the annual Communications Workshop that NA-YGN typically holds in conjunction with the Nuclear Energy Assembly, the North American Young Generation in Nuclear (NA-YGN) and the Canadian Nuclear Society (CNS) are teaming up to host the **2004 International Youth Nuclear Congress**. On May 9-13, 2004, the IYNC will descend on Toronto, Ontario, Canada, to share their enthusiasm for the nuclear field. Start making your plans now – don't miss out on the main NA-YGN event for 2004!

Located on the North side of Lake Ontario, Toronto is a clean, safe, cosmopolitan city with a wonderful network of parks, recreational, and cultural facilities. The capital of the Province of Ontario, Toronto claims the title of Canada's largest city with 5 million inhabitants. With over 80 ethnic groups from Africa, Asia, and Europe, speaking over 100 languages, the United Nations has dubbed Toronto the world's most multicultural city. With a temperate May climate having average daily highs of 20°C and nightly lows of 8°C, visitors should be quite at ease exploring this metropolis. Toronto has excellent international air access, and easy-to-use local transit throughout the city will make IYNC participants feel at home.

Canada has over 60 years of history in nuclear research and



## Key Dates and Information

- Dec. 5, 2003** Final date for summary submissions. *Absolutely NO exceptions!*
- Dec. 20, 2003** Author notification for oral or poster presentations
- March 1, 2004** Early registration deadline
- March 15, 2004** Paper submission deadline
- April 9, 2004** Hotel booking deadline
- May 9-13, 2004** IYNC 2004 conference!

Detailed information on the IYNC Web site: [www.iync.org](http://www.iync.org)

Latest exchange rates can be found at: [www.xe.com/ucc/](http://www.xe.com/ucc/)

### Sponsoring IYNC:

In order to keep registration fees low for young professional attendees, IYNC relies on a significant amount of sponsorship from supporting organizations. If you or your company would be interested in sponsoring IYNC, please contact Lisa Shell, the IYNC 2004 Corporate Relations Chair at [Lisa\\_Shell@dom.com](mailto:Lisa_Shell@dom.com).

development for peaceful purposes, now involving nearly 100,000 primary and secondary jobs in over 150 nuclear companies. 14 operating CANDU reactors in 3 provinces provide 14% of Canada's electricity (over 40% in Ontario), and 6 additional units will be restarted by the end of 2004. Canada is the world leader in uranium export and production of medical isotopes, as well

as a strong candidate for the site of the ITER fusion reactor.

Intermingled with a rich technical program, Toronto provides great opportunity for social and cultural activities. One optional social event will take in the CN Tower –

**Please See IYNC, Page 4**

# Virginia Students Explore Nuclear Careers



Chris Wells, above, explains a model fuel assembly to high school students.

Dave Roberts, right, speaks at the event hosted by the Dominion YGN.

By Lisa Shell

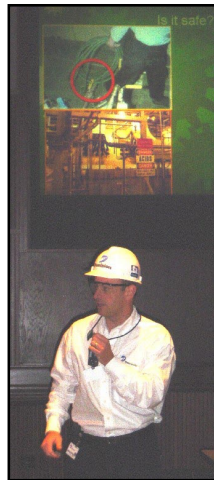
On Saturday, Oct. 11, the Dominion YGN hosted the John Tyler Community College (JTCC) Science and Technology Explorers at Dominion's Richmond facilities. The Explorers introduces high school students to careers that utilize their interests, in this case math and science.

The program began with a brief introduction to nuclear energy, including its benefits and uses. Several nuclear professionals then described their roles in the safe generation of electricity. These speakers represented a diverse mix of experience including operations, fuel procurement, fuel performance analysis, core design, nuclear safety analysis, spent fuel storage, and health physics.

Also included were brief discus-

sions about opportunities in the nuclear Navy and in research.

The students particularly enjoyed using a new interactive system in which they could answer questions using a remote. Their answers were also enlightening for the volunteers.



We were pleased that most students seemed to know that people who smoke receive a higher radiation dose than those that live near a nuclear power plant. However, we were shocked to learn that several students believed that nuclear power generated 80% of the electricity in Virginia.

We're not there yet, kids, but we'll keep trying!

As a special treat, the students were given a tour of the Corporate Emergency Response Center.

While the students dined on pizza afterward, the JTCC Explorers coordinator praised the event saying that the enthusiasm shown by Dominion's NA-YGN section really energized the students.



IYNC  
Continued From Page 3

553 metres tall and the world's tallest free-standing structure, and the SkyDome – the first fully-retractable roofed sports stadium. A cultural evening will take IYNCCers on a boat cruise along the Toronto harbor – this "Nightclub on Water" should prove to be a great evening!

The Congress program will entail technical and non-technical presentations on a wide variety of nuclear topics presented by the young professional congress attendees and distinguished invited speakers from around the world. The planned sessions will include what promises to be a heated debate on

innovative reactor concepts – "Battle of the Reactors, 2004" – that will allow the young generation to ask the experts about the many innovative reactor designs that are being considered around the world, and to offer their own opinions about each of the designs. Details on the technical program, with complete descriptions of the proposed technical tracks and subtopics, can be found at [www.iync.org/infos2004](http://www.iync.org/infos2004).

IYNC strives to provide young professionals and students opportunities to present their work amongst their peers, while also taking part in professional development and networking opportunities. Participants will be able to choose from three workshops that are aimed at different aspects of professional development:

- Learning From Effective Communication
- Media Training

## ○ Knowledge Preservation

Don't miss your chance to learn these important skills! Detailed descriptions of each of the workshops are available on the IYNC Web site.

Did you miss the deadline to submit your summary for presentation at IYNC 2004? No worries! **Summaries are still being accepted – contact [submit@iync.org](mailto:submit@iync.org) for more information.** Please note that *absolutely no summaries will be accepted after Friday, Dec. 5, 2003.* Visit [www.iync.org/submit](http://www.iync.org/submit) to find the call for papers and the template for summary submissions, then send your summary to [submit@iync.org](mailto:submit@iync.org). It's that easy!

Any questions regarding summary submissions should be sent to the IYNC 2004 Technical Chair, Shannon Bragg-Sitton, at [sitton@iync.org](mailto:sitton@iync.org).



Rodney Scott of Southern Nuclear speaks with exhibitor Wanda Lambert of Auburn University.

# Plant Vogtle Hosts Professional Development Fair

By Jesse Thomas

The Southern Nuclear, Plant Vogtle Chapter of NA-YGN sponsored a continuing education and professional society fair on June 18. The purpose of this professional development event was to give plant employees information about the educational and professional society opportunities that are available to them. Several schools presented information on educational opportunities including undergraduate, vocational, and graduate. The following schools were represented: Auburn University, Augusta State University, Augusta Technical College, Georgia Southern University, and Georgia Institute of Technology. Several of these schools offer programs geared toward working professionals and non-traditional students. This event helped plant employees of all ages and backgrounds to learn how to further their education and take advantage of the company sponsored educational benefits.

One of the main purposes of NA-YGN is to allow people that are starting a career in the nuclear industry to be active and gain leadership experience in a professional society. As NA-YGN members progress in their careers, they are encouraged to "graduate" to be active professional society members and leaders. Benefits of society membership are networking, community involvement, and professional development. The following societies were represented: American Nuclear Society, American Society of Mechanical Engineers, American Institute of Chemical Engineers, American Chemical Society, and Health Physics Society. All of the visiting organizations were pleased with the level of participation and look forward to future involvement with plant employees. Employee turnout was great and many positive comments were received.

Questions about the event may be directed to the Plant Vogtle Chair, Kristin Carnahan, [KJCarnah@southernco.com](mailto:KJCarnah@southernco.com).

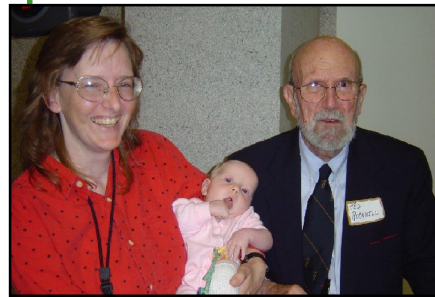
## Rockwell From Page 2

not just watching the birth of industry, but shaping its development, technology and safety. Dr. Rockwell is big on personal involvement, and shares his amazement that regulators and lawmakers were not just willing, but eager to hear from those who understood this new technology. These scientists and engineers did not question their responsibility to get involved in order to keep nuclear power on course and available to the people.

Dr. Rockwell's current goal is to take aim at the linear no threshold (LNT) theory of radiation protection. While it may seem antithetical to question "timeless" principles, it's worth a listen to hear how "too conservative" equals "inaccurate" equals "harmful." For the uninitiated, LNT means if 1000 rads causes x damage, then we conservatively assume 1 rad causes x/1000 damage - there is no threshold dose below which we can assume no harm is done.

There is not space enough here to address the ramifications of Dr. Rockwell's argument and do justice to it, but here's a tickler.

Have you considered that even oxygen or water can be deadly in the wrong dosage? It's not the substance, but the amount that generates the harm.



Kelly Taylor and 2-month old-daughter Cassidy meet Ted Rockwell.

Science and technology has a history of its own, and nuclear technology - particularly power production - is built on the foundation laid by Admiral Rickover, and the excellent professionals he surrounded himself with - like Ted Rockwell. We, for our nuclear future, can be encouraged and edified by learning about our nuclear roots. Not to mention that we should be grateful that those scientists and engineers got involved in the public forum to make sure nuclear technologies would be used to benefit people, instead of only governments.

Try to imagine building a technology without knowing whether it would work or fail, and then try to imagine where we'd be now without it. Now dream where it can yet take us and decide to make it happen!

## NA-YGN Comes To Salem And Hope Creek

By Misha Swanson

On Wednesday, Sept. 3, three young professionals from PSEG Nuclear in Salem, N.J., stood before 34 eager individuals to expound on the benefits of NA-YGN. Roseann Boyer, Craig Minarich and Misha Swanson had been planning for months to get to the moment where they could talk their peers into starting a local chapter of NA-YGN at the Salem and Hope Creek Units. In preparation, a slide show was carefully pirated from the Web site, dinky door prizes were sweet talked away from HR, and a management sponsor was invited to illustrate the company's support for this affinity group. The expectation for attendance was dismally low

based on electronic response and not enough interest forms were photocopied, but that disaster was averted. Once the meeting started, the enthusiasm was overwhelming.

Only months into our life as an organization and already things are happening. The interest meeting has been followed up with a fun kick-off meeting on Sept. 25 at a local watering hole. We discussed the structure of what would become PS-YGN and decided to keep the format of monthly meetings over pitchers. Working around outage schedules, a handful of new members hit several schools, which resulted in over 300 drawings being submitted as contenders for the National Drawing Contest.



Craig Minarich talks to 4th and 5th graders at Cedar Lane Elementary School.

Our committees have chairs and those chairs have started to make contacts. The inter-chapter chair took two other members to Washington, DC for an all day event with members from Calvert Cliffs. Our outreach chair has signed up to judge a science fair in the spring, and interest is great for college visits, career days, the Boy Scouts Atomic Energy Merit Badge and our own inter-chapter activities.

### Plant Hatch

On Oct. 6, the sixth Annual National Technology Day was held at the Georgia National Fair in Perry, Ga.

For the event, the

Georgia chapter of the Technology Student Association



tion (TSA) held several event competitions for middle school and high school students.

Plant Hatch sent NA-YGN members, George King and Amy Marshall, to participate as judges for the Custom Cruisers and Dragster Racing competitions that



Amy Marshall judges the custom cruisers and dragster racing competitions.

This success would not have been possible without the excellent efforts of DeSonya Cave, Co-Chair of Community Relations Committee.

She's so good, she even has schools lined up for next year!

### Calvert Cliffs, Southern Maryland, Westinghouse and PSEG

The Calvert Cliffs Young Nuclear Professionals, in conjunction with the Southern Maryland NA-YGN, Westinghouse NA-YGN, and PSEG NA-YGN, held a team building activity and hockey game in Washington DC on Oct. 11.

were held for this event.

### Midlands

NA-YGN Midlands officially kicked off at the VC Summer Plant on Sept. 23, right before their outage. NEI's Carol Berrigan, new NA-YGN liaison, flew down

to support the kick-off which was well-received by all attendees.

On Oct. 30, NA-YGN Midlands ended the drawing contest with the local elementary schools. With over 150+ drawing entries, this year's contest was deemed a great success.

# Meeting Your Local Congressman

By Robert Margolis

As part of the American Nuclear Society Grassroots initiative (<http://www.ans.org/pi/grassroots/>), I met with U.S. Rep. Eric Cantor (7th District of Virginia and Chief Deputy Majority Whip). As luck would have it, the congressman's office had received a large number of constituent calls about the blackout and on energy issues. In response to this increased attention, the meeting was enlarged to include Cantor, his chief of staff, and two additional staffers.

I introduced myself as an ANS and NA-YGN member and briefed the group on the new ANS initiative and thanked the congressman for his support of nuclear energy legislation. He was glad to hear that nuclear professionals are getting involved at the grassroots level. In addition,

he wanted his office to be kept informed of local progress on the initiative. Cantor also said that any other constituents from the nuclear profession are welcome to contact his office.

Following the meeting, I sent a thank you message to the congressman and his staff. I also filled out the ANS contact form (<http://www.ans.org/pi/grassroots/report.cgi>) so they can build the "nuclear rolodex."

I encourage fellow NA-YGN members to participate in the Grassroots Initiative. It took me very little time to accomplish (1.5 hours spread over six weeks for initial contact, preparation, actual meeting, and thank you/ANS form). Please let me know if you have any questions about contacting your representatives and making yourself known as a resource to our elected officials.

## Coming Soon!

Don't miss the following NA-YGN sessions at the American Nuclear Society Meeting in New Orleans, La., on Tuesday, Nov. 18, 2003.



- 8:30 - 11:30 a.m. Status of the International Young Generation in Nuclear -- Panel
- 1:00 - 4:00 p.m. Implementing the Exchange of Knowledge Between Generations -- Panel

A reception will be held immediately following the afternoon session.

## Sununu From Page 1

('Building the Rolodex') would allow ANS members to function as resources to answer questions from such officials. In Sununu's opinion, the relative lack of discussion on nuclear issues in the last ten years has created this opportunity to influence political leaders. In addition, the economics of natural gas are changing in ways that make new nuclear more competitive. ANS's objective should be to motivate 250 congressmen and women to be willing to stand up in public and say that they feel comfortable with the use of nuclear technology.

Sununu insisted that creating relationships with policymakers was paramount. The goal is to make the official understand that nuclear professionals are just like the rest of the constituents (have a family, care about community, care about the environment, etc.), and, in addition, are very proud of their profession and honestly believe in their positive contribution to society. Once the relationship has been established, the official will call on us with questions and then we will be

able to talk about the issues. Of course, the initiative works best if a large part of the ANS puts in a small amount of time (about 10 to 20 hours per year) versus a few members putting in a lot of time.

### Going Grassroots

NA-YGN members that are also members of ANS received in July 2003 a message from Foulke officially launching the "ANS Grassroots Initiative" (<http://www.ans.org/pi/grassroots/>) and encouraging them to take an active role and meet their elected representatives or their staff and try to establish a "long term relationship" with them. NA-YGN fully endorses this ANS initiative as it is perfectly aligned with our philosophy of being proactive and taking every opportunity to spread out the good news about nuclear. As a consequence, I would like to encourage all of you to support ANS in this grassroots effort.

I would like to even go a step further, and ask that all of you become full-time ambassadors of Nuclear Science and Technology (NS&T). To me, this means establishing "long-term relationships" not

only with your elected representatives, but also with a journalist in your local newspaper, your kids' teacher, your significant other's coworkers, the members of your neighborhood association and your exercise buddies at the gym. This does not mean torturing them with nuclear related issues on a regular basis, but gaining their trust on a global level and letting them know that if they ever have questions about nuclear they can ask you, because you are going to provide them with the simple and honest facts. I think that putting a human face to NS&T is the best way to ease fears and misunderstanding, particularly if that is your face, the face of a young person that cares about his family, her community and the environment and also happens to be a nuclear professional.

I know that a few of you have been very effective nuclear ambassadors for a very long time and I praise you for your efforts, but many of us could still do a better job. For that reason, I'm taking advantage of the ANS Grassroots Initiative and I'm using it as a catalyst to try to persuade all of you to intensify your efforts to educate the public, the media and the policymakers about all things nuclear.

# EVENTS

## Deadlines

**Dec. 5, 2003** Final deadline for summary submissions to International Youth Nuclear Congress 2004 (IYNC 2004). See [www.iync.org/submit](http://www.iync.org/submit) for details.

## National and International Events

**Nov. 16-20, 2003** ANS/ENS International Winter Meeting and Nuclear Technology Expo. New Orleans, La. [www.ans.org](http://www.ans.org)

**Feb. 8-12, 2004** Space Technologies and Applications International Forum (STAIF-2003); 21st Symposium on Space Nuclear Power and Propulsion. Albuquerque, N.M. <http://www.unm.edu/~isnps/staif>

**Feb. 8-11, 2004** HPS Midyear Topical Meeting. Augusta, Ga. [www.hps.org](http://www.hps.org)

**Feb. 29 - March 4, 2004** Waste Management 2004. Tucson, Ariz. <http://www.wmsym.org/wmsym>

**March 21-25, 2004** 14th Pacific Basin Nuclear Conference. Honolulu, Hawaii. [www.ans.org](http://www.ans.org)

**March 30 - April 1, 2004** ASME Power. Baltimore, Md. <http://www.asmeconferences.org/power04>

**April 25-29, 2004** International Conference on Nuclear Engineering (ICONE 12). Crystal City, Va. [www.asme.org](http://www.asme.org)

**April 25-29, 2004** PHYSOR 2004: "The Physics of Fuel Cycles and Advanced Nuclear Systems: Global Developments." Chicago, Ill., <http://www.physor2004.anl.gov>

**May 9-13, 2004** International Youth Nuclear Congress. Toronto, Ontario, Canada. Hosted by the NA-YGN and the Canadian

## Get Noticed!

Upcoming events and deadlines that you would like to be included in the *Calendar of Events* can be submitted at any time for posting on the web. Include the date, location, title of the event, and the event host or sponsor in an e-mail to [gonuke@na-ygn.org](mailto:gonuke@na-ygn.org).

Nuclear Society. [www.iync.org](http://www.iync.org)

**June 6-10, 2004** American Conference on Neutron Scattering. College Park, Md. <http://www.ncnr.nist.gov/acns/index.html>

**June 13-17, 2004** American Nuclear Society Annual Meeting. Pittsburgh, Pa. [www.ans.org](http://www.ans.org)

**July 11-15, 2004** Health Physics Society Annual Meeting. Washington, D.C. [www.hps.org](http://www.hps.org)

**July 11-15, 2004** 2004 ASME Heat Transfer/Fluids Engineering Summer Conference. Charlotte, N.C. <http://www.asmeconferences.org/htfed04>

**July 25-29, 2004** American Association of Physicists in Medicine Annual Meeting. Pittsburgh, Pa. [www.aapm.org](http://www.aapm.org)

**July 25-29, 2004** 2004 ASME/JSME Pressure Vessels and Piping Division Conference. San Diego, Calif. <http://www.asmeconferences.org/pvp2004>



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