**February**

**DINNER MEETING**

**Speaker:** David Lochbaum  
Nuclear Safety  
Engineer,  
Union of  
Concerned  
Scientists  

**Topic:** Future of Nuclear  
Power: Renewal or Rerun?  

**When:** Thursday, February 15, 2007  
Social Time 6:00 – 7:00 PM  
Dinner 7:00 – 8:00 PM  
Presentation 8:15 - 9:00 PM  

**Where:** Far East Restaurant  
5055 Nicholson Lane, Rockville, MD  
301-881-5552, (see p. 3 for directions)  

**Cost:** Members: $25.00  
Non-Members: $30.00  
Full-time Students: $12.50  
Cash Bar for soft drinks & alcoholic beverages during Social Time  

**Menu:** Chinese Family Style  

**RSVP:** NO LATER THAN CLOSE OF BUSINESS (COB), Feb. 12, 2007  
to: ANS_DC_RSVP@yahoo.com,  
OR Kevin Witt at 301-728-7547.  

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**About the Speaker**

David Lochbaum is one of the nation's top independent experts on nuclear power. At UCS, he monitors safety issues at the nation's nuclear power plants, raises concerns with the Nuclear Regulatory Commission, and responds to breaking events, such as current concerns over aging power plants and plant fire safety.

Lochbaum is a nuclear engineer by training and worked in nuclear power plants for 17 years. In 1992, he and a colleague identified a safety problem in a plant where they were working, but were ignored when they raised the issue with the plant manager, the utility, and the Nuclear Regulatory Commission. They decided to go to Congress, and the problem was eventually corrected at the original plant and at plants across the country. Concerned about nuclear safety and frustrated with the NRC's complacency, Lochbaum joined UCS in 1996.

He has written numerous reports, including *The Good, the Bad, and the Ugly: A Report on Safety in America's Nuclear Power Industry, Three Mile Island's Puzzling Legacy*, and the book *Nuclear Waste Disposal Crisis*. He is widely quoted in the media and a frequent guest on network news programs.

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**Please RSVP EARLY! Please COME if you RSVP!** The ANS DC Section may be charged for each reservation, whether everyone comes or not. Therefore, if you make a reservation but don't cancel by NOON on February 14, we may ask you to pay the dinner cost even though you don't come.
SCIENCE FAIR JUDGES STILL NEEDED
Submitted by Burt Koske, Education Chair

As I reported in the last newsletter, the Science Fair season is upon us. We still need more judges for each of the six major Science Fairs in the D.C. Region. We would like to get four judges for each team. We currently have only 3 judges for Howard County (February 24), and we need 7 to 10 more judges to cover the 4 Fairs on March 17 and the one on March 24. Also, it’s always good to have extra team members, or alternates. Please review the schedule below and contact Burt Koske (202-475-1548, or kobur@cox.net) to indicate which of the Fairs you would like to judge.

Judging a Science Fair is a great opportunity to encourage students’ interest in the nuclear sciences and engineering fields. Thanks for the work you have done in past years. Let's get out again this year and represent the ANS Washington DC Section in this very worthwhile endeavor.

Science Fair Locations, Times & Dates

February 24, 2007
Howard County Mathematics, Science & Technology Fair
Marriott Ridge High School
Marriottsville, MD
Check in: 8:00 - 9:00 AM; Judging: 9:15 to Noon

March 17, 2007
Northern VA Regional Science & Engineering Fair
Arlington, VA
Judging: 10:00 to noon

Montgomery Area Science Fair
Montgomery County Fairgrounds
Gaithersburg, MD
Judging: Noon - 5pm

D.C. Mathematics Science and Technology Fair
McKinley Technology HS
Washington, DC
Judging: 8:45 to noon

Fairfax County Regional Science & Engineering Fair
Fairfax, VA
Check-in: 7:30; Judging: 8:30 to noon

March 24, 2007
Prince George’s Area Science Fair
PG Community College
Upper Marlboro, MD
Check-in: 7:45; Judging: 8:15
DIRECTIONS to the FAR EAST RESTAURANT

Driving: The Far East Restaurant is located just east of White Flint Mall on Nicholson Lane. From I-495, take the MD-355/Rockville Pike exit toward Bethesda/Rockville - go 2.1 miles on MD-355/Rockville Pike. Turn right on Nicholson Lane - go 0.4 miles to 5055 Nicholson Lane. The Far East Restaurant is on the north side of the street and has onsite parking.

Metro: The Metro station nearest to the Far East Restaurant is the White Flint Station on the Red Line. The distance is about 0.7 miles, but unfortunately, the route is not very conducive for walking.

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LOOKING AHEAD

WHAT: March Dinner Meeting
PLEASE STAY TUNED.
DETAILS FOR THIS MEETING ARE NOT SET YET.

WHAT: April Dinner Meeting
Speaker: Dr. Harold F. McFarlane
2006-2007 ANS National President
Dep. Associate Lab. Director for Nuclear Programs
Idaho National Laboratory

Topic: The Indian Nuclear Program: Opportunities and Challenges

WHEN: Wednesday, April 11, 2007, 6:00 PM
WHERE: Far East Restaurant
Rockville, MD

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Lawmakers weigh cutting nuclear security agency – 01/30/2007 – WASHINGTON – Lawmakers on Tuesday (Jan. 30) proposed eliminating the NNSA, which was created seven years ago to oversee the country's nuclear weapons stockpile, citing continued security failures at the Los Alamos laboratory in New Mexico.

http://www.govexec.com/story_page.cfm?articleid=35989&dcn=e_gvet

Report says man causing global warming – 02/02/2007 – PARIS - Scientists from 113 countries issued a landmark report Friday saying they have little doubt that recent global warming has been caused by man. The report from the Intergovernmental Panel on Climate Change, which released its report at a morning press conference Webcast around the world, also said global warming could not be reversed.

ANS DC Section Student Paper Competition Winner

Submitted by Burt Koske, Education Chair

Congratulations to Mr. Mohammad Pourgol-Mohamad, PhD candidate at the University of Maryland, upon being selected by the ANS Washington DC Section to receive the 1st place award in its 2007 Outstanding Young Engineer Research Paper competition. Mr. Pourgol-Mohamad won for his paper titled: “Treatment of Uncertainties; Output Updating in Complex Thermal-Hydraulics (TH) Computational Codes.” The award carries a $500.00 cash prize. Also, the ANS DC Section has submitted this winning paper to the DC Council of Architectural and Engineering Societies’ (DCCEAS) 2007 Outstanding Young Engineer Research Paper competition, which covers most other engineering disciplines in addition to nuclear. Winners of the DCCEAS 2007 paper competition will be announced at the National Engineers Week Banquet on February 24, 2007 (see page __ for Banquet information).

Unfortunately, Mr. Pourgol-Mohamad will be out of the DC region for the next few months. We hope he will be able to attend one of the ANS DC Section dinner meetings later this year so that he can meet our members, and they can congratulate him on his excellent work.

Summary of Remarks by NRC Commissioner Peter B. Lyons

Submitted by Nancy Ranek, Newsletter Editor

Dr. Peter B. Lyons, a Commissioner on the U.S. Nuclear Regulatory Commission (NRC), spoke to a group of approximately 100 members of the DC Section of the ANS and the Baltimore-Washington Chapter of the Health Physics Society on January 17, 2007 at the Far East Restaurant in Rockville, Maryland. During his presentation to the joint meeting, Dr. Lyons addressed the NRC Mission, New Reactor Licensing Strategies, Human Resource Issues, International Collaboration, Status of Recommendations of the International Commission on Radiological Protection, Emergency Preparedness, and Future Challenges.

Dr. Lyons made the following points during his presentation.

• The NRC’s strategic objective is to enable (not promote) the use and management of radioactive materials and nuclear fuels for beneficial civilian purposes. In fulfilling this objective, the Commissioner’s are allowed to apply judgment, provided that human health and safety and the environment are adequately protected.

• Public openness is critical to the regulatory process. Because of security concerns and business confidentiality, the NRC staff and Commissioners cannot always be as open as they would prefer, but they realize that seeking public comments and addressing them as openly as possible is essential to the NRC’s strength as a regulator.

• The outlook for nuclear energy is currently quite positive. However, this outlook will be realized only if nuclear power plants continue to demonstrate reliable, safe operation. For this reason, safety is JOB #1 at the NRC.

• Safety is the first consideration at all times in the NRC’s regulation of both reactors and nuclear materials. Even so, because emphasis has historically been on reactors, special attention is now needed in the area of materials safety.

• Successful risk-informed regulation requires backing up risk insights with defense-in-depth concepts and safety margins.

• Committed licensees and dedicated inspectors are essential to ensuring safe reactor operations.

• The traditional approach to reactor licensing (under 10 CFR Part 50) required separate approvals for construction and operation. This led to some nuclear plants to be constructed, but never operated, which created an unacceptable economic risk for utilities.

• To mitigate this unacceptable risk, a new combined license approach (under 10 CFR Part 52) ensures that an operating license will be issued to a plant that is verified, using inspections, tests, and analyses, to have been built according to acceptance criteria approved prior to construction.

• 10 CFR Part 52 also allows utilities to seek early reviews of sites, which allows early determinations of site acceptability. This, in combination with the provisions for certification of vendor reactor designs is expected to significantly shorten plant licensing schedules. Even so, because the 10 CFR Part 52 approach remains untested, the reactor licensing process is still viewed as a risk by utility decision makers.
• The NRC has been notified of plans for submissions of a total of 29 new reactor license applications over the next year. Dr. Lyons believes the only way the NRC will be able to process this many applications in a timely manner is if licensees standardize the applications for plants having the same reactor design. That way, the NRC would only need to consider issues one time for a particular reactor design.

• Human resource issues will define the future of the nuclear industry. A serious problem for all industry in the U.S. (not just the nuclear industry) is that not nearly enough scientists and engineers to fill future domestic demand are being trained in American colleges and universities.

• The NRC has very ambitious staffing goals, which, so far, have been met. Notwithstanding, meeting such goals in the future is expected to be a tremendous challenge because of delayed appropriations and a dearth or qualified applicants.

• Other countries, such as France, Japan, and China, have been growing their nuclear power programs for nearly three decades while the U.S. program was idle. As a result, the days of U.S. domination of the industry are long past. International collaboration is necessary now, and the NRC is pursuing it. Opportunities for standardization of reactor designs across international borders are being investigated and a multinational design evaluation program is being established.

• The International Commission on Radiological Protection plans to issue revised standards in March 2007. The NRC is requesting an additional opportunity for comment before the final revised standards are published. Areas of particular concern include:
  - Radiation protection standards for flora and fauna. The NRC believes these are not needed.
  - Continued reliance on the linear no threshold (LNT) approach for calculating radiation risk. The NRC believes that the extreme difference of opinion among professionals in the field suggests that more study is warranted.
  - Collective dose calculations should not be used for assessing risk.

• Education of the public regarding the nature of the danger during a radiological emergency is very important. Without better public education, emergency preparedness will always be a challenge. For example, many people do not currently understand why it might be better to shelter in place than to evacuate during a radiological emergency.

• The NRC Commissioners now agree that a 1982 Sandia study estimating the effects of a nuclear accident on the surrounding population should be revisited using more realistic assumptions.

The slides used by Dr. Lyons are available from Nancy Ranek. If interested, please send an email request to her at ranekn@anl.gov.
National Engineers Week

National Engineers Week (NEW), founded in 1951 by the National Society of Professional Engineers and sponsored by more than 100 engineering, scientific, and education societies, and major corporations, is dedicated to increasing public awareness and appreciation of engineering and to promoting pre-college interest in math, science, and engineering as a career option. This 56th NEW will be celebrated by thousands of engineers, engineering students, teachers, and leaders in government and business.

The DC Council of Engineering and Architectural Societies (DCCEAS) invites you to help celebrate the Washington DC area NEW Events. See the Engineers Week flyer on the next page for details on the Engineers and Architects Day Luncheon scheduled on Wednesday, February 21st and the Awards Banquet scheduled on Saturday, February 24th. These events are a great opportunity to meet and network with engineers from all professional societies in the DC area.

For more information visit the NEW web site at http://www.eweek.org.

NOTE: The NEW web site also points out that making visits to classrooms and leading other activities that involve young people helps promote a better understanding of engineering and its role in society.

Check out the NEW link and bring your kids to “Discover Engineering Family Day” at the National Building Museum on Saturday, February 17, 2007. The impressive main hall of the National Building Museum is taken over by thousands of children of all ages experiencing the excitement of engineering, not to mention slime.

Members of the ANS D.C. Section should make reservations for the Engineers and Architects Day Luncheon or the Awards Banquet by contacting BURT KOSKE by phone at 202 475 1548 or by e-mail at kobur@cox.net no later than February 12, 2005.

Individual ticket price is:
$25 for the Luncheon
$45 for the Banquet

STUDENT MEMBERS of ANS are encouraged to attend these events at NO CHARGE, but you still need to make reservations with Burt Koske, as indicated above.
Engineers & Architects Day Luncheon

Wednesday, 21 February 2007, 11:30 am
Pier 7 Restaurant
650 Water St SW, Washington, DC, 202-554-2500

Complimentary 3 hours of parking, or walk from the Waterfront Metro Station.

Dr. Mark McHenry
President, Shared Spectrum Company (SSC)

Join us to proclaim Engineers Week in the Washington DC area! We will enjoy a buffet lunch, followed by Dr. McHenry’s discussion of Next Generation (XG) Dynamic Spectrum Sharing Radios that determine locally unused spectrum and operate on these channels without causing interference to the existing “non-cooperative” users.

Tickets: $25.00 per person, or tables of 10: $250.00

Awards Banquet

Saturday, 24 February 2007, 6:30 pm
Lincoln Ballroom at Crowne Plaza Hotel, Silver Spring
8777 Georgia Avenue, Silver Spring, MD 20910, 301-589-0800

4 Blocks from the Silver Spring Metro Station. Free parking behind the hotel.

Mr. Mark L. Uhran
Assistant Associate Administrator for the International Space Station
NASA Headquarters, Space Operations Missions Directorate

The program includes DCCEAS awards for the Engineer and Architect of the Year. The DC Region’s winning team for the Future Cities Competition will also be recognized at the banquet. Our keynote speaker will be Mr. Mark Uhran, who is the lead program manager for the International Space Station (ISS) Program. He will give us an update on the ISS.

Tickets: $45.00 per person
For student members of ANS the price is free

Reservations for both luncheon and banquet are due by February 12, 2007
To Burt Koske email: kobur@cox.net or phone 202-475-1548

Please make dinner menu choice
For each banquet reservation, please specify one of four dinner entrées: 1) Prime Rib of Beef, or 2) Breast of Chicken, or 3) Blackened Salmon Fillet, or 4) Vegetarian. If no preference is specified, the default choice of Breast of Chicken will be assumed.
Membership Form

AMERICAN NUCLEAR SOCIETY (ANS)
WASHINGTON, D.C., LOCAL SECTION
Business Year: July 1, 2006 to June 30, 2007

Note: Please include your e-mail address because we have moved to an electronic distribution of newsletters/announcements/information. Membership fee is $10 per year. Please make your check out to: ANS Washington D.C. Section.

Name: __________________________________________________________

Mailing Address: __________________________________________________________________________
__________________________________________________________________________________________

Place of Employment: __________________________________________________________

Telephone Number: _____________________

E-mail Address: __________________________________________________________

Do you need to receive announcements/information via regular mail because you do not have access to electronically sent information in a timely manner? _____ Yes _____ No

Mark which of the following activities (if any) you are interested in assisting us with:
_____ Education  _____ Public Information  _____ Programs
_____ Newsletter Editor  _____ Webmaster  _____ Other (describe below)
____________________________________________________________________________
____________________________________________________________________________

Are you a new member to this Local Section? _____ Yes _____ No

Were you recruited by a current Member? _____ Yes _____ No  Name ________________

Are you a National ANS Member? _____ Yes _____ No

Please provide us with any ideas/potential programs you would like us to consider:
____________________________________________________________________________
____________________________________________________________________________

To join the Local Section, fill-out this form and bring it with a check to one of our meetings, or send them both to:
American Nuclear Society, Washington D.C. Section
Kevin Witt, Membership Chair
PO Box 2475
Kensington, MD 20891

To register for membership in ANS National, go to the following web site: http://www.ans.org
If you have questions, please contact Kevin Witt at kevin_witt@yahoo.com.