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Liaisons



A Quarterly Newsletter Published by the International Safeguards Project Office

July 1, 2006

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Recruitment for the Department of Safeguards

Donna Occhiogrosso

The following positions are being
advertised by the IAEA

Department of Safeguards:

Section Head (P-5)

Section for Installed Systems
Division of Technical Support
Vacancy Notice No. 2006/034
Deadline: August 14, 2006
Published Salary: \$110,000

Security Systems Engineer (P-4)

Section for NDA Systems & Seals
Division of Technical Support
Vacancy Notice No. 2006/037
Deadline: August 14, 2006
Published Salary: \$92,000

Senior SGs Inspector (P-5)

Division of Operations A
Vacancy Notice No. 2006/040
Deadline: August 21, 2006
Published Salary: \$110,000

Safeguards Analyst (P-4)

Division of Concepts and Planning
Vacancy Notice No. 2006/047
Deadline: September 19, 2006
Published Salary: \$90,000

Senior Inspector (P-5)

Division of Operations B
Vacancy Notice No. 2006/050
Deadline: September 25, 2006
Published Salary: \$114,000

Section Head, Toronto Regional Office (P-5)

Division of Operations B
Vacancy Notice No. 2006/053
Deadline: October 02, 2006
Published Salary: \$114,000

Nuclear Trade Monitoring Specialist (P-3)

Office of the Deputy Director
General
Vacancy Notice No. 2006/909
Deadline: August 28, 2006
Published Salary: \$77,000

Nuclear Trade Monitoring Specialist (P-4)

Office of the Deputy Director
General
Vacancy Notice No. 2006/910
Deadline: September 04, 2006
Published Salary: \$92,000

SGs Training Officer (P-4)

Section for SG Training
Division of Technical Support
Vacancy Notice No. 2006/908
Deadline: August 21, 2006
Published Salary: \$92,000

Nuclear Technology Advisor (P-5)

Office of the Deputy Director
General
Vacancy Notice No. 2006/911
Deadline: August 28, 2006
Published Salary: \$110,000

Cost-Free Expert Positions:

The initial duration of a Cost-Free Expert (CFE) appointment is two years. CFEs are employed by the IAEA, with funding provided by the U.S. or another member state. The following positions are currently available:

05/ISI-002 Expert (P4) – IT Vulnerability Management

05/TIE-006 Expert (P5) - Unattended Monitoring System Engineer

02/IIS-009 Expert (P4) – Imagery Analysis

Please visit the ISPO website at www.bnl.gov/ispo/ for further information and details regarding these postings.

IAEA Additional Protocol Complementary Access Pilot Course

Brian D. Boyer, LANL

During the month of June 2006, 12 IAEA inspectors received training from the IAEA Safeguards Training Section in complementary access (CA) activities that are part of implementing the Additional Protocol (AP).



The APCA course students and instruction staffs from IAEA and BNL.

The Agency conducted this Additional Protocol Complementary Access (APCA) course June 12-23, 2006, at IAEA Headquarters (HQ) in Vienna, Austria, and at Brookhaven National

Laboratory (BNL) in Upton, New York. During the HQ portion (June 12-16) the inspectors received classroom instruction from Agency staff and from the BNL team in the AP and issues of CA. They prepared for the following week's field activities at BNL which took place in the proud but fictitious state of "Freedonia". Freedonia was a mock state BNL and the IAEA created to simulate a non-nuclear weapons state consisting of New York State's Long Island (Kings, Queens, Nassau, and Suffolk counties), with a flagship nuclear and high-technology research center at BNL, and a shutdown power reactor at Shoreham, New York. Its significant neighbors consisted of "Sylvania", a large nuclear weapons state to the west, and "Maplonia", a non-nuclear weapons state to the north of Sylvania. During the BNL portion (June 19-23) of the course, the 12 inspectors and their five IAEA instructors practiced the "art" of CA. The IAEA has given this course in several European countries but this was the first time it was given in the US. Because the inspectors will encounter large diverse nuclear and high-technology research centers around the globe (e.g., Swierk in Poland, Karlsruhe in Germany, Pelindaba in South Africa, and Ispra in Italy), BNL provided a perfect environment for the inspectors to do complementary access. Such a site provides the challenge of interpreting a State's advanced nuclear activities and determining whether a State may be misusing advanced technology to create a clandestine nuclear weapons program.

BNL offered the following three facilities to the IAEA training group for the exercise. The magnet production facilities at BNL provided the inspectors a chance to see if magnets were being manufactured or used for a clandestine EMIS program or as part of an accelerator-based system for transmutation to produce U-233 or plutonium. The laser development facilities at the Accelerator Test Facility (ATF) provided the inspectors the opportunity to learn about laser enrichment and ponder if a State could take absolutely common and legitimate lasers and stretch them into AVLIS or other laser enrichment technologies. The Waste Management Facility (WMF) provided the inspectors a chance to see if the radwaste moving through the main waste processing station of the lab contained undeclared nuclear materials and if materials were being clandestinely kept and reprocessed in a small hot cell laboratory. BNL also included tours of the shutdown Brookhaven Medical Research

Reactor (BMRR) and the decontaminated and decommissioned Shoreham Nuclear Power Station (SNPS). BNL also supplied maps, satellite photographs, the relevant AP declarations for the BNL site, and a synopsis of Freedonia's nuclear activities. The focus of the course was not only the concept of catching the state "misbehaving", but it also tried to help the inspectors expand their horizons and learn to evaluate the nuclear capabilities of a State. In the AP the inspectors must be able to understand state capabilities so they can implement a State Level Approach to Agency safeguards that relies on a deep understanding of a state's capabilities and nuclear aspirations.



The challenging WMF facility – hot cell, overhead crane, and under floor storage)

The BNL team was put together by Brian Boyer, then of BNL now of LANL, who had experience in AP implementation at the IAEA as a safeguards inspector in SGOC (Poland country officer). Complimenting Boyer's Agency experience, BNL had Christopher Gazze who had been a safeguards inspector in SGOB and SGOA and had been a country officer for Congo, Algeria, South Africa, and South Korea. John Valente of BNL brought his experience in creating the AP declaration for BNL for DOE to the team. BNL also reached out to SAIC where John Gilbert and Brian George provided expertise in managed access and controlling access. Their collective experience covered various weapons control treaty regimes and building challenging and realistic scenarios in the three facility groups slated for CAs at BNL. The BNL and SAIC team trained the BNL operators how to respond to the IAEA inspectors during the field exercise. The BNL and SAIC team also acted as the Freedonia State System for Accountancy and Control (SSAC) personnel, shepherding the inspectors during the CAs.

The week of June 19-23 at BNL was a busy week for both the IAEA inspectors and instructors and the BNL "Freedonian" SSAC and operators. The inspectors spent Monday touring the BMRR and SNPS. This included discussions of the tools an inspector uses to evaluate the status of a shut down reactor and how easily the BMRR and SNPS could be resurrected and used as reactors again. The next two days the inspectors worked hard doing their three CAs. Thursday was their report preparation day. On Friday the inspectors presented their findings to the group of fellow student inspectors and instructors as well as the BNL/SAIC team, who then gave feedback on their efforts. John Gilbert specifically showed the techniques he employed to control and manage access in the facilities. The rest of the instruction staff, both from BNL and IAEA, focused on fine points of the Freedonian nuclear capabilities that the inspectors captured. or missed. in the two weeks activities.



Jorge Vallejo-Luna and team question Chris Gazze on correctness and completeness of Freedonia's declaration.

The verdict from the Agency team of both instructors and students was that the course was a success. Jorge Vallejo-Luna of the IAEA's SGOC and one of the student inspectors noted that in 16 years at the IAEA, "this was the toughest State authority and toughest operator I have ever seen". The BNL/SAIC team gave them a real workout to test their mettle and provide learning opportunities. The inspectors should be better prepared for the 21st Century challenges and paradigm shifts of the Strengthened Safeguards System. BNL and the USSP are looking forward to the IAEA adding

the APCA course at BNL to the regular rotation of Agency courses.



Dr. Joe Murature of BNL's magnet facility tells inspectors how magnets are built)

New Junior Professional Officer Positions

Susan Pepper

As frequently reported in Liaisons, the USSP has been actively involved in recruiting students and recent graduates for entry level positions with the IAEA Department of Safeguards. The USSP has proudly sponsored 40 interns in one-year, paid assignments, and two Junior Professional Officer (JPO) positions were created in 2005. Recently the IAEA decided that interns were not appropriate for the Department of Safeguards for information security reasons. The USSP regrets that the successful internship program will be discontinued.

The Department of Safeguards recognized the important contributions made by the young professionals in the internships and JPO positions. Since interns are no longer an option, the IAEA has decided to request an increased number of JPO assignments starting in 2006. The USSP has recently received requests for ten JPOs in open source information collection and analysis, satellite imagery, nondestructive assay (NDA) research, NDA and seals, unattended monitoring systems, and software and database development. The Subgroup on Safeguards Technical Support will be reviewing these requests in August to determine how many of the assignments can be supported. Since JPOs receive all the benefits of a professional staff member, the cost of a JPO is about 50% higher than the cost of an intern.

The USSP supported 14 interns and two JPOs for 2005-2006 and therefore, we expect to sponsor between six and ten JPOs for 2006-2007.

ISPO is now recruiting candidates for these positions. The job descriptions can be viewed at www.bnl.gov/ispo. Candidates should be college graduates by December 2006 and have up to two years working experience. The assignments will be for an initial period of one year. There is a possibility but no guarantee of extension for a second year. Benefits include health insurance, travel expenses, pension contribution, and repatriation grant. Interested candidates should provide a resume and personal history form to ISPO at pepper@bnl.gov by August 31, 2006. Positions will be filled as suitable candidates are identified, and successful candidates will be expected to begin their assignments between September 2006 and January 2007.

My First Trip to Vienna, Austria

Debra Pettit

Let me preface this by saying that I had the pleasure and privilege of representing BNL, specifically ISPO, in Vienna this past month. This was my first trip to Austria as well as my first trip to Europe. I made some discoveries that may seem minor or insignificant to the seasoned traveler; however, for the first-timer, perhaps my observations may help you in the future.

1. Make friends with the Ubahn (pronounced ooh-bon). Get yourself a decent map of the city with the Ubahn lines clearly defined. This will become your trusted guide. After a couple of days I was getting around in Vienna better than I do in New York City, and I'm a native New Yorker.
2. Enough cannot be said about the importance of comfortable shoes. As convenient as the Ubahn is, the amount of walking that's done throughout the city in the course of one day is of marathon magnitude. I kept changing my shoes to try to divert the pain.

3. It's not necessary to speak German. When the locals approached me and I responded with a cheery "Hello," they immediately reverted to English. This occurred throughout Vienna from the wait staff to the dignitaries.

4. Money – be aware that Euro denominations come in paper and coin form. It is a bit confusing when receiving change from a purchase and it's all in coins. Shopkeepers are not very patient about letting you count your money and putting your wallet away before helping the next customer in line. It is said that New Yorkers have no patience, but just try shopping at the Merkur on Friday evening at 5:45 pm and see how much tolerance you receive from a tired, overworked cashier who doesn't care if you understand German or not while you try to count your change.

5. Television in Vienna – bring plenty of books to read. My hotel had about six channels (three of which were the same) and they were all in German. There were a couple of channels that had old shows from the U.S. I must admit that watching little Mary Kate and Ashley Olsen on Full House, dubbed in German, almost brought tears to my eyes.

6. Tipping confused me until Barbara Hoffheins explained that the wait staff earn a living wage and don't actually depend on tips to live. Therefore, rounding the bill off to the nearest euro, and adding a couple of euros is enough. No twenty percent tip here!

7. Remember the six-hour time difference when trying to make contact with folks back in the U.S. A moment of insomnia at 2:00 a.m. one morning actually served quite well to make a much needed phone call. You must dial 001 to get the U.S. and whatever other feature the hotel requires to get an outside line, (i.e., 9 at the mission, 0 at my hotel). Just beware that it is extremely expensive to call the U.S. or to have them call you. Even with an international calling card my telephone bill was exceedingly costly.

8. Toilets or Water Closets (WC) (always a necessity to know)

- a. "Herr" does not stand for "Her", and "Damen" does not mean "da men." Sometimes the icons on the doors are confusing because they are not like the ones used in the U.S. Enter the WC with caution.
- b. Speaking of toilets, there's usually a square on the wall above it which shows how it flushes. I have to confess that one took me a bit of time to figure out. All of them were very clean and sanitary, but sometimes there is a charge for the public toilet. I used one in the U-bahn station for half a Euro, and it was worth every cent.
- c. The washcloth is another issue. They were not provided in my hotel room so I was using a towel to wash my face. Other travelers remarked that they were provided with washcloths at their hotels. I suppose it's something that varies from hotel to hotel. [Editor's note: American style hotels often provide wash cloths, but European style hotels do not.]

9. It was a good idea to have a plastic poncho, which I used quite often. But the dollar store umbrella broke the first time I opened it outside the Mission. In its defense, the same wind almost catapulted Barbara Hoffheins clear across the street.

10. Nonsmokers beware that smoking is still allowed in many public places and restaurants. I won't get on the soapbox over that one.

11. Another facet of Austrian life is that they are dog friendly. I thought there were a lot of blind people here because of the dogs in the restaurant, stores, etc., but later found out that dogs are welcome in most places. As a matter of fact, they are served first in restaurants, even before women and children.

12. The U.S. Mission – everyone there was friendly and helpful.

13. The IAEA – ever the consummate host, providing everything to make visitors feel welcome and as comfortable as protocol allows.

In closing, I would be remiss if I did not mention (and thank) George Copeland for his patience in taking me around on the U Bahn so that I would be able to find my way to the Mission. Both George and Barbara (Hoffheins) were remarkably hospitable, which made all the difference to a lone, first-time traveler to a far off and unfamiliar place.

USSP Annual Review Meeting

Susan Pepper

The U.S. Support Program Annual Review meeting was held in Vienna at IAEA Headquarters June 6-9, 2006. Representatives from ISPO, the Subgroup on Safeguards Technical Support, the Department of Energy national laboratories, the private sector and the IAEA participated in the meeting.

SSTS and ISPO representatives made presentations on the USSP's plans for responding to the IAEA's request for assistance in identifying novel technologies for safeguards, the USSP's priorities for 2006-2007, and the new basic ordering agreements placed by ISPO with U.S. companies to provide technical support to the IAEA. In addition, several of the companies that have BOAs with ISPO and are new to the USSP were invited to give presentations on their companies and capabilities as a way of introducing themselves to the IAEA.

The IAEA presented status reports on a wide variety of safeguards initiatives to which the USSP is contributing. Of particular interest was a report on the feasibility study for the upgrade of the Safeguards Analytical Laboratory at Seibersdorf. The USSP is sponsoring a consultant from Sonalysts to work with the IAEA in developing requirements for SAL. The requirements will be reviewed at a meeting of experts who will then develop options for the feasibility study. The ultimate goal of the project is to have the member states come to

consensus on whether and to what degree SAL should be upgraded.

Two USSP-funded interns, Lauren Ginsberg and James Garner, made presentations on their intern assignments. Ms. Ginsberg spoke about unattended monitoring systems and Mr. Garner spoke about the system level testing of the data collection and evaluation system at the Rokkasho Reprocessing Plant. Both Ms. Ginsberg and Mr. Garner were sponsored by the USSP to attend the INMM Annual Meeting in Nashville, TN, in July, to present their papers.

The USSP representatives found the meeting to be very useful in understanding the current status of Agency efforts to meet their mission goals and improve safeguards and to learn about new Agency initiatives.