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**April 1, 2007**

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### **Recruitment for the Department of Safeguards**

#### **Donna Occhiogrosso**

The following positions are being advertised by the IAEA Department of Safeguards:

#### **Senior Inspector (P-5)**

Resource and Quality Management  
Division of Operations C  
Vacancy Notice No. 2007/022  
Deadline: May 23, 2007  
Published Salary: \$114,000

#### **Systems Analyst/Programmer**

**(6 Posts) (P-3)** Information  
Architecture and Projects Section  
Division of Information Management  
Vacancy Notice No. 2007/901  
Deadline: May 16, 2007  
Published Salary: \$79,000

#### **Junior Professional Officer Positions**

ISPO is still recruiting candidates for a number of unfilled Junior Professional Officer (JPO) positions that the IAEA requested in the summer of 2006. JPO positions are offered for a one-year period and come with benefits similar to those of cost free expert positions (round trip travel to Vienna, installment grant, pension contribution, housing subsidy, and repatriation). Candidates should

be college graduates, have 0-2 years work experience, and be 32 years of age or younger. The positions are offered at the P1 or P2 level depending on the candidate's experience. These positions are posted on ISPO's website: [www.bnl.gov/ispo](http://www.bnl.gov/ispo). Candidates should send their resume to [pepper@bnl.gov](mailto:pepper@bnl.gov). The starting date will depend on selection process and will take into account the successful candidate's schedule.

#### 06/TIE-002

Engineers Support to the Unattended Monitoring Systems Unit  
Unattended Monitoring Systems Unit  
Section for Attended and Unattended Nondestructive Analysis  
Division of Safeguards Technical Support

#### 06/IIS-005

Satellite Imagery  
Satellite Imagery Analysis Unit  
Section for Information Collection and Analysis  
Division of Safeguards Information Management

#### 06/IIS-008

Enhanced Information Analysis  
Architecture  
Trade and Technology Analysis Unit  
Section for Information Collection and Analysis  
Division of Safeguards Information Management

## **USSP Annual Review Meeting Susan Pepper**

The USSP Annual Review Meeting will be held from June 4 to 7, 2007, at the Vienna International Center. The meeting will cover a range of topics related to IAEA and USSP initiatives. The agenda is currently under development but will include a presentation by ISPO on the Thirtieth Anniversary of the USSP, the final report on the Workshop on Advanced Sensors for Safeguards, and an initiative to improve USSP product quality. The IAEA will report on the recent reorganization in the Department of Safeguards, the ISIS Re-engineering Project, the Rokkasho and JMOX projects, and Safeguards R&D projects.

The U.S. will be represented at the meeting by the Subgroup on Safeguards Technical Support and by ISPO. USSP contractors are welcome to attend the meeting at their own cost.

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## **2007 Sealing and Containment Verification Workshop Raymond Diaz**

I attended the five day Sealing and Containment Workshop at the IAEA headquarters in Vienna during the week of February 12, 2007. The workshop participants were tasked with evaluating existing and emerging sealing and containment verifications technologies and with recommending a path forward to assist the IAEA in its quest for the most cost effective and secure sealing and containment systems. Colin Carroll and Don Estes (Sonalysts) facilitated this workshop. Numerous member state support programs participated in this workshop. The workshop was comprised of member state technical experts from academia, private industry, and government. The IAEA made presentations at the beginning of the workshop with the objective of informing all participants of how the IAEA Department of Safeguards functions, since some participants had no prior IAEA safeguards experience. Mr. Kevin Soo Hoo (PacketMotion Inc.) delivered the keynote speech addressing: "Managing Information Security Risk," and how it can be applied to IAEA safeguards. Participants made technical presentations on numerous existing and emerging technologies which could be applied to IAEA sealing and containment verification.

Sonalysts is working with the IAEA to complete the "Technical Meeting on Sealing Systems and Containment Verification Methods Summary Report," including a plan of action for the IAEA in implementing report recommendations.

The workshop participants made the following recommendations to the IAEA:

- Develop detailed containment verification user requirements that specify the Agency's needs, system capabilities, and the conditions and constraints under which equipment must operate. These user requirements should be communicated to the technical community
- Request that Member State Support Programs (MSSPs) identify government and private organizations that are conducting research in areas of interest to the Agency and then, acting as the Agency's advocates, communicate Agency requirements to these organizations
- Establish a knowledge management database that SGTS staff can use to develop detailed user requirements
- Review and update the technology roadmap based on the results of the 2007 workshop
- Establish an effective and sustainable communications mechanism to facilitate the exchange of information between the Agency, MSSPs, and the technical community.

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## **Reorganization of Safeguards Department Support Divisions Barbara Hoffheins**

The Department of Safeguards restructured its three support divisions, Safeguards Concepts and Planning (SGCP), Safeguards Information Management (SGIM), and Safeguards Technical Support (SGTS), as of January 1, 2007. Deputy Director General of Safeguards (DDG) Olli Heinonen asked for this restructuring to better serve the Department's current and future needs. Although the support divisions have been more or less preserved, they have undergone functional and personnel modifications in an effort to fit the DDG's vision. There are many

name changes, which reflect the organizations' changes in focus or realignment. Main elements of the restructuring have been established, but some fine-tuning is still taking place.

DDG Heinonen wanted to emphasize and strengthen planning for the Department, and transferred two sections into Jill Cooley's Division of Safeguards Concepts and Planning (SGCP) to concentrate departmental operations for this purpose. The first was Section Head Alicia Reynaud's Section for Safeguards Programme and Resources (CPR), which manages human and financial resources. Formerly, this section reported directly to the DDG. The second was the Safeguards Training Section (CTR), under Jean Maurice Cr  t  , formerly in Safeguards Technical Support. The Section for Systems Studies led by Acting Section Head Robert Fagerholm has been renamed Concepts and Approaches (CCA). It is responsible for developing new safeguards concepts and approaches. It will also have the main responsibility, transferred from the Division of Safeguards Technical Support, of preparing and coordinating the Safeguards R&D Programme, which will be expanded to include longer range planning. The Section for Standardization under John Patten was renamed Process Design (CPD). Its function is to design departmental processes and procedures.

The broader responsibility to analyze, manage, support, and protect Safeguards information is demonstrated by replacing "Technology" with "Management" in the renamed Division of Safeguards Information Management (formerly Safeguards Information Technology), led by Jacques Baute. To satisfy the DDG's goal of co-locating all Safeguards analytical functions, SGIM gained the Section for Declared and Statistical Information Analysis (IDA), formerly the Section for Statistical Analysis, under Leendert Brevart in SGCP, and a unit from the DDG's office, the Trade and Technology Analysis Unit (TTA), led by Matti Tarvainen. Formerly, this unit was called the Nuclear Trade Analysis Unit or NUTRAN. TTA, Satellite Imagery Analysis (SIA), and Information Analysis (IAU) comprise the three units in the Section for Information Collection and Analysis (ICA), formerly the Section for Information Support Services. The section manager Malcolm Nicholas joined Safeguards Operation A recently, so the three unit heads will be rotating section head responsibility until a new Section Head is selected. DDG

Heinonen wanted to expand the philosophy of the "one-stop-shop" for more of the Safeguards services. In SGIM, this will mean the continuation of customer-based hardware, software, and Safeguards applications services, as well as the addition of ICA's "front desk" service to the Operations divisions for some of its information products. The Section for System Infrastructure Support led by Jerry Barton is now called Customer Service and Operations (ICO) for computer hardware platforms and network services. Roberto Gaetano's section was called Software and Hardware Services. It is now Information Architecture and Projects (IAP). This section includes the project management team for the IAEA Safeguards Information System Reengineering Project (IRP). The IRP management team will oversee all new and updated Safeguards applications, which are to be incorporated into the IAEA Safeguards Information System.

Nikolai Khlebnikov's Division of Safeguards Technical Support has undergone significant internal reorganization. There is one completely new section and three revamped ones. Manfred Zedel heads the Section for Seals, Surveillance, and Remote Monitoring (TSR), which consists of the units corresponding to the section name. Remote Monitoring is a new unit and reflects the Department's increasing reliance on remote access to safeguards information from facilities in Member States. Mark Pickrell came on board recently (April 30), as the head of the Section for Attended and Unattended NDA (TAU), which houses the Portable and Resident NDA units, Unattended Monitoring Systems, the JMOX/RRP unit for large-scale, safeguards equipment development projects, and Nuclear Security, a shared unit with the Department of Nuclear Safety and Security. The JMOX/RRP unit recognizes the need for strong project management for the development and implementation of new, large, and complex Safeguards systems for Japan and possibly other States in the future. The former Section for Common Technical Support is called Section for Inspection Logistics (TIL), led by Ibrahim Cherradi. It has been rearranged with two units, the Front Desk and Equipment Management, and the Equipment Performance Monitoring. This section is where the "one-stop-shop" is established as a single focal point for all SG equipment and technical support requests. A completely new section is the Section for Technical Support (TTS), headed by Andy Hamilton as Acting Sec-

tion Head, and includes the units Novel Technologies Project Office, Support Programme Coordination (formerly Support Program Administration), Planning and Coordination, and Analytical Services Coordination, which interfaces to the Safeguards Analytical Laboratory in the Department of Nuclear Applications. Vera Firbasova is now the Acting Unit Head for Support Programme Coordination (SPC) and the main interface for the U.S. Support Program to IAEA Safeguards.

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**Workshop on Advanced Sensors for Safeguards  
Susan Pepper**

The USSP and IAEA conducted a Workshop on Advanced Sensors for Safeguards at The Lodge at Santa Fe, New Mexico, from April 23 to 27, 2007. The goal of the workshop was to help the IAEA identify and plan for new sensors to help in its safeguards mission of verifying the peaceful use of nuclear material and technology. The USSP invited representatives of companies, national laboratories, and colleges and universities to take part in the meeting and to present information on technologies that are not yet utilized by the IAEA. About sixty people attended the workshop. The USSP was assisted in the program development and facilitation of the meeting by Jan Griebe, Roger Griebe, and Don Mausshardt (Organizational Analysis Corporation).

The workshop began on April 23 with a keynote speech by Dr. Leonard Weiss, Senior Science Fellow at the Center for International Security and Cooperation at Stanford University. Dr. Weiss was followed by presentations from the IAEA describing their work and the tools they use currently for Safeguards inspections. The invited technology experts delivered presentations on their ideas for new safeguards technologies on Tuesday and Wednesday morning.

The attendees participated in the first of two breakout sessions on Wednesday afternoon. The attendees were divided into three groups during the breakout sessions for discussion of a Safeguards scenario designed to elicit ideas and recommendations for the application of new technologies to current safeguards needs and challenges. The first scenario addressed inspections at enrichment plants. The second scenario was held on Thursday morning. It

addressed inspections of research reactors. The attendees were asked to consider tools for complementary access in both situations. Each group came up with a list of technologies to be considered by the IAEA. The three facilitators from OAC presented a compilation of the three groups' ideas on Friday morning.

OAC will prepare a final report for presentation to the IAEA in June. Copies of the presentations and final report are available upon request.

**Staff Changes**

Shirley Johnson retired from the IAEA Department of Safeguards on March 30, 2007. Ms. Johnson joined the IAEA in 1982 as the second female safeguards inspector. She had experience in reprocessing from work at Hanford and the Idaho National Engineering Laboratory. She began as an inspector in Europe. She eventually moved to the Division of Operations A where she conducted inspections in Japan and became a Unit Head. Ms. Johnson was the Head of the JNFL Project until mid-2006 when the project was considered complete. She managed the project at its most critical stage, when safeguards instrumentation and software were being designed and installed to monitor operations, and hot and cold testing were being conducted. Following the completion of the JNFL Project, Ms. Johnson became a Section Head in the Division of Operations B with responsibilities including India. ISPO wishes Shirley lots of happiness in her retirement.

Adam Shepard began a JPO assignment in the Division of Safeguards Technical Support Unit for Resident NDA in January. Mr. Shepard is a graduate of Texas A&M.

Mikhail Fayer started a JPO assignment in the Division of Information Technology Section for Information Architecture and Projects. Mr. Fayer is a former USSP intern and will be working on the mobile version of the Computerized Inspection Report (CIR-Mobile).

Cyndee Annese completed a one-year Special Services Assignment in the Division of Safeguards Information Management in February and began a new assignment as a cost free expert in the Division of Safeguards Technical Services Novel Technology Unit.

Kenneth Baird began a cost free expert position in the Division of Safeguards Technical Services' Unattended Monitoring Unit. Dr. Baird worked formerly in the SGTS in the Nuclear Security Equipment Laboratory. Dr. Baird will assist with the implementation and maintenance of unattended monitoring systems.

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### **Upcoming Meetings Susan Pepper**

The following meetings and events will take place during 2007:

**USSP Annual Task Review**, Vienna, June, 2007 – In preparation for the USSP Annual Meeting, ISPO and the IAEA will meet in Vienna to review active tasks and outstanding requests.

**USSP Annual Review Meeting**, Vienna, June 4-7, 2007 – ISPO and the SSTS will meet with the IAEA to discuss ongoing safeguards projects and discuss future needs. Plans are also being made for a short workshop on equipment development as part of the review meeting. USSP Contractors are invited to participate in the meeting at their own cost.

**INMM Annual Meeting**, Tucson, AZ, July 8-12, 2007.

**JAEA-IAEA Workshop on Advanced Safeguards Technology for the Future Nuclear Fuel Cycle**, November 13-16, 2007, Techno Community Square Ricotti, tokai-mura, Ibaraki, Japan. Information available via the workshop website: [www-pub.iaea.org/MTCD/-Meetings/-Meetings.asp](http://www-pub.iaea.org/MTCD/-Meetings/-Meetings.asp).