

Programme Committee (IAEA):

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(INMM):

J. Larrimore

(ESARDA):

L.-V. Brill

IAEA Secretariat:

Scientific Secretary: W. Park

Symposium Coordination: K. Morrison/T. Niedermayr

Administrative Support: L. Kruzic

Location of the Symposium:

International Atomic Energy Agency
Vienna International Centre (VIC)
Building C
– IAEA Boardroom, 4th floor
– Meeting Room I, 2nd floor (C02 I)
– Meeting Room IV, 7th floor (C07 IV)
Wagramer Strasse 5
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Working Language: English

Resolutions: No resolutions may be submitted for consideration on any subject; no votes will be taken.

TIMETABLE

Sunday, 15 October 2006

16:00–18:00 Registration Gate 1
Welcome Rotunda, ground
Reception floor, Building C

Monday, 16 October 2006

08:00 Registration Gate 1
09:30–12:30 Session 1 Opening Plenary
IAEA Boardroom
Meeting Room I (via CCTV)
Meeting Room IV (via CCTV)

10:30–11:00 *Coffee/Tea Break* *Rotunda*
(hosted)

12:30–14:30 *Lunch Break*

14:30–18:00 Session 2 Technical Plenary
IAEA Boardroom
Meeting Room I (via CCTV)
Meeting Room IV (via CCTV)

16:00–16:30 *Coffee/Tea Break* *Rotunda*
(hosted)

Tuesday, 17 October 2006

09:30–13:00 Session 3 Current Challenges to the
Safeguards System
IAEA Boardroom
Session 4 Improving Collection &
Analysis of Safeguards
Information 1
Meeting Room I
Session 5 Advances in Safeguards
Techniques and Technology
1 – Future Technology
Meeting Room IV

11:00–11:30 *Coffee/Tea Break*
13:00–14:30 *Lunch Break*

14:30–18:00 Session 6 Further Strengthening
Safeguards Practices &
Approaches 1 – Safeguards
Approaches
IAEA Boardroom
Session 7 Improving Collection &
Analysis of Safeguards
Information 2
Meeting Room I
Session 8 Advances in Safeguards
Techniques and Technology
2 – Neutron Techniques
Meeting Room IV

16:00–16:30 *Coffee/Tea Break*

18:30–20:00 **Opening of Poster** Rotunda
Session
IAEA/INMM
Reception

Wednesday, 18 October 2006

09:30–13:00 Session 9 Further Strengthening
Safeguards Practices &
Approaches 2 – Safeguards
Approaches and Integrated
Safeguards
IAEA Boardroom
Session 10 Improving Collection &
Analysis of Safeguards
Information 3
Meeting Room I
Session 11 Advances in Safeguards
Techniques and Technology
3 – Spent Fuel Verification
Meeting Room IV

11:00–11:30 *Coffee/Tea Break*
13:00–14:30 *Lunch Break*

14:30–18:00 Session 12 Further Strengthening
Safeguards Practices &
Approaches 3 – R/SSAC
IAEA Boardroom
Session 13 Advances in Safeguards
Techniques and Technology
4 – NDA General
Meeting Room I
Session 14 Advances in Safeguards
Techniques and Technology
5 – DA
Meeting Room IV

16:00–16:30 *Coffee/Tea Break*

Thursday, 19 October 2006

09:30–13:00 Session 15 Future Challenges
IAEA Boardroom
Session 16 Further Strengthening
Safeguards Practices &
Approaches 4 – Enrichment
Meeting Room I
Session 17 Advances in Safeguards
Techniques and Technology
6 – Reprocessing
Meeting Room IV

11:00–11:30 **Poster
Announcement/
Award** *Rotunda*
*Coffee/Tea Break
(hosted)*

13:00–14:30 *Lunch Break*

14:30–18:00 Session 18 Further Strengthening
Safeguards Practices &
Approaches 5 –
Reprocessing, Spent Fuel
Transfer
IAEA Boardroom
Session 19 Advances in Safeguards
Techniques and Technology
7 – Environmental Sampling
Meeting Room I
Session 20 Advances in Safeguards
Techniques and Technology
8 – Containment and
Surveillance
Meeting Room IV

16:00–16:30 *Coffee/Tea Break*

Friday, 20 October 2006

09:30–12:00 Session 21 Closing Plenary
IAEA Boardroom
Meeting Room I (via CCTV)
Meeting Room IV (via CCTV)

Display of Posters:

Posters will be displayed in the rotunda, ground floor, Building C throughout the symposium.

Display of Commercial Exhibits:

Commercial exhibits will be located in the rotunda, ground floor, Building C throughout the symposium.

SUNDAY, 15 OCTOBER 2006

16:00–18:00 Registration and distribution of
symposium material
16:30–18:00 Welcome Reception

MONDAY, 16 OCTOBER 2006

08:00 Registration and distribution of
symposium material

09:30–12:30 **SESSION 1:**
Opening Plenary
IAEA Boardroom
Meeting Room I (via CCTV)
Meeting Room IV (via CCTV)

Session Chair: O. Heinonen, IAEA
Tech. Secretary: J. Hillerman, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Opening Statements and Presentations</i>
1	M. ElBaradei	IAEA	Opening Statement
2	O. Heinonen	IAEA	Opening Statement
3	N-J. Nicholas	INMM	Opening Statement
4	J. Joly	ESARDA	Opening Statement

10:30–11:00 *Coffee/Tea Break (hosted)* *Rotunda*

5	A. Minty	South Africa	Strengthened safeguards: A developing country perspective
8	A. Piebalgs	EC	The European Commission and the global verification challenge
6	S. Kislyak	Russian Federation	The issue of further strengthening IAEA safeguards activities
7	R. Ekéus	Sweden	Multilateral verification: A working remedy for proliferation?
14	T. Ito	Japan	(Title of presentation to be advised)
23	Representative	USA	(Title of presentation to be advised)

12:30–14:30 *Lunch Break*

MONDAY, 16 OCTOBER 2006 (cont.)

14:30–18:00 **SESSION 2:**
Technical Plenary
IAEA Boardroom
Meeting Room I (via CCTV)
Meeting Room IV (via CCTV)

Session Chair: J. Cooley, IAEA
Tech. Secretary: A. Hadfield, IAEA

<i>No. of Paper</i> <i>IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member</i> <i>State/Organization</i>	<i>Title of Paper</i>
9	L. Keen	Canada	Principles in safeguards: A Canadian perspective
10	J. Carlson	Australia	Defining the safeguards mission
11	L. Vinhas	Brazil	The strengthening of the safeguards system: Side effects of the safeguards measures

16:00–16:30 *Coffee/Tea Break (hosted)* *Rotunda*

12	A. Djaloeis	Indonesia	Nuclear safeguards challenges from the point of view of a developing nation
13	K. Murakami	IAEA	Additional protocol and integrated safeguards: Implementation in the European Union – the experiences of the IAEA

TUESDAY, 17 OCTOBER 2006

09:30–13:00 **SESSION 3:
Current Challenges to the Safeguards
System
IAEA Boardroom
(Parallel Session)**

Session Chair: J. Casterton, Canada
Tech. Secretary: T. Killeen, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
19	M. Richard	France	Beyond Iraq: The new challenges to the nuclear non-proliferation regime
20	J. Lodding	IAEA	Towards wider adherence to the strengthened safeguards system – additional protocols and small quantities protocols
21	N. Kyriakopoulos	USA	A formal approach to verifying treaty compliance
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11:00–11:30	<i>Coffee/Tea Break</i>		
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22	M. Milazzo (main author: T. Wood)	USA	Identification of high risk intermediaries in global networks transferring sensitive technology and information
24	T. Jonter	Sweden	Development of an academic course in safeguards and nuclear non-proliferation at Swedish universities
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13:00–14:30	<i>Lunch Break</i>		
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TUESDAY, 17 OCTOBER 2006 (cont.)

09:30–13:00 **SESSION 4:
Improving Collection & Analysis of
Safeguards Information 1
Meeting Room I
(Parallel Session)**

Session Chair: M.-G. Albert, France

Tech. Secretary: C. De Wit, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
25	J. Baute	IAEA	Safeguards information challenges
26	L. Bevaart	IAEA	Safeguards information analysis: Progress, challenges and solutions
27	W. Bowen	UK	Open source research and nuclear safeguards
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11:00–11:30	<i>Coffee/Tea Break</i>		
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28	M. Nicholas	IAEA	Advanced information analysis technologies for safeguards
29	L. Gerard	France	Indicators and signatures
30	I. Maschio	Italy	A fuzzy logic decision support system for open source information analysis in a non-proliferation framework
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13:00–14:30	<i>Lunch Break</i>		
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TUESDAY, 17 OCTOBER 2006 (cont.)

09:30–13:00 **SESSION 5:
Advances in Safeguards Techniques
and Technology 1 – Future Technology
Meeting Room IV
(Parallel Session)**

Session Chair: K. Naito, Japan
Tech. Secretary: L.P. Melo Moitta, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
31	M. Zendel	IAEA	Future safeguards verification tools
32	J. Whichello	IAEA	Novel technologies for the detection of undeclared nuclear activities
33	N. Anheier	USA	Uranium isotopic assay instrument
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11:00–11:30	<i>Coffee/Tea Break</i>		
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34	F. Pointurier	France	Development of an equipment for atmospheric krypton sampling, purification, concentration, and ⁸⁵ Kr measurement
35	C. Antoine	France	Shallow geophysics methods for DIV safeguards inspections
36	P. Saksa	Finland	Ground penetrating radar method for safeguards: Examples at Olkiluoto spent fuel disposal site in Finland
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13:00–14:30	<i>Lunch Break</i>		
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WEDNESDAY, 18 OCTOBER 2006

09:30–13:00 **SESSION 9:**
Further Strengthening Safeguards
Practices and Approaches 2 – Safeguards
Approaches and Integrated Safeguards
IAEA Boardroom
(Parallel Session)

Session Chair: S. Fernandez Moreno, Argentina
Tech. Secretary: A. Broodryk, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
55	Y. Abushady	IAEA	Short Notice Random Inspection (SNRI) regime at a low enriched uranium fuel fabrication plant in Spain
56	T. Ishikawa	Japan	Implementation of SNRI and borrowing inspections at LEU FFPs in Japan
57	J. Casterton	Canada	The transition to integrated safeguards – the Canadian experience

11:00–11:30 *Coffee/Tea Break*

58	A. Rezniczek	Germany	Activities of the ESARDA Working Group on Integrated Safeguards
59	S. Iso	Japan	The development and the implementation of integrated safeguards approaches for LWRs in Japan
60	M. Hosoya	IAEA	Implementing an integrated safeguards approach at multi-unit CANDU stations: Potential savings

13:00–14:30 *Lunch Break*

WEDNESDAY, 18 OCTOBER 2006 (cont.)

09:30–13:00 **SESSION 10:**
Improving Collection & Analysis of
Safeguards Information 3
Meeting Room I
(Parallel Session)

Session Chair: B. Jasani, UK
Tech. Secretary: A. El Gebaly, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
61	Ph. Loreaux	France	SAR satellite imagery applications
62	I. Niemeier	Germany	Object-based analysis of hyperspectral and thermal infrared satellite imagery
63	B. Jasani	UK	Key features and computer-based analysis of satellite imageries of nuclear reactors as an aid for interpretation

11:00–11:30 *Coffee/Tea Break*

64	S.-Y. Jo	Korea, Rep. of	Remote sensing technologies for nuclear verification
65	J. Baute (main author: G. Whitaker)	IAEA	The IAEA Safeguards Information System Re-Engineering Project (IRP)
66	A. Capel	Canada	A common key management infrastructure for safeguards data

13:00–14:30 *Lunch Break*

WEDNESDAY, 18 OCTOBER 2006 (cont.)

09:30–13:00 **SESSION 11:**
Advances in Safeguards Techniques and
Technology 3 – Spent Fuel Verification
Meeting Room IV
(Parallel Session)

Session Chair: R. Howsley, UK

Tech. Secretary: S. Jung, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
67	Y. Ham	USA	Development of a safeguards verification method and instrument to detect pin diversion from Pressurized Water Reactor (PWR) spent fuel assemblies
68	K. van der Meer	Belgium	Is the FORK detector a partial defect tester?
69	J. Chen (main author with K. Axell)	Canada Sweden	Partial defect detection using a digital Cerenkov viewing device and image processing
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11:00–11:30	<i>Coffee/Tea Break</i>		
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70	B. Lindberg	Sweden	Modelling of Cerenkov light emission from spent BWR nuclear fuel with missing or substituted rods
72	J.-S. Kim	Korea, Rep. of	Development of CANDU spent fuel verification system using optical fiber scintillator
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13:00–14:30	<i>Lunch Break</i>		

WEDNESDAY, 18 OCTOBER 2006 (cont.)

14:30–18:00 **SESSION 12:**
Further Strengthening Safeguards
Practices and Approaches 3 – R/SSAC
IAEA Boardroom
(Parallel Session)

Session Chair: T. Varjoranta, Finland
Tech. Secretary: M. Mahmoud, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
73	A. Asikainen	EC	Experience of implementing the additional protocol in the EU – the first years
74	J. Václav	Slovakia	Implementation of INFCIRC/193 and its additional protocol in the Slovak Republic
75	V. Grama	Romania	Additional protocol experience in Romania

16:00–16:30 *Coffee/Tea Break*

76	M. Haque	Bangladesh	Experience and challenges on safeguards practices and approaches for BAEC 3 MW TRIGA Mk-II research reactor and other establishment of Bangladesh
77	J. Paredes Gilisman	Cuba	Implementation of safeguards commitments – a Cuban experience
193	O. Peixoto	Brazil	Coordination improvement on safeguards application between ABACC and IAEA

WEDNESDAY, 18 OCTOBER 2006 (cont.)

14:30–18:00 **SESSION 13:**
Advances in Safeguards Techniques and
Technology 4 – NDA General
Meeting Room I
(Parallel Session)

Session Chair: H. Boeck, Austria

Tech. Secretary: J. Injuk, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
79	M. Stein	USA	Migration of safeguards instrumentation: Challenges and opportunities
80	A.-L. Weber (main author: P. Peerani)	France EC	Activities of the ESARDA Working Group for Techniques and Standards for Non-Destructive Analysis
81	J. Regula	IAEA	Secure data communication for safeguards implementation

16:00–16:30 *Coffee/Tea Break*

82	K. Tolk	USA	Design of safeguards systems for authentication
83	V. Maiorov	IAEA	Verification of irradiated uranium targets by NDA and DA techniques
84	S. Abousahl	EC	A combined calorimetry, neutron coincidence counting and gamma spectrometry system (CANEGA) for enhanced plutonium mass and isotopic assay

WEDNESDAY, 18 OCTOBER 2006 (cont.)

14:30–18:00 **SESSION 14:**
Advances in Safeguards Techniques and
Technology 5 – DA
Meeting Room IV
(Parallel Session)

Session Chair: K. Mayer, EC
Tech. Secretary: K. Maunula, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
85	K. Mayer	EC	Towards more investigative analytical methods for nuclear safeguards and nuclear security applications
86	R. Wellum (main author: K. Mayer)	EC	Building knowledge by destructive analysis – the ESARDA Working Group on Destructive Analysis
87	T. Shinonaga	IAEA	Particle-chemical analysis of uranium and plutonium

16:00–16:30 *Coffee/Tea Break*

88	J. Svedkauskaitė- Le Gore	EC	Importance of the impurity spectrum in nuclear materials for nuclear safeguards
89	K. Raptis	IAEA	Validation of uranium determination by SF-ICP-MS from QC samples from the IAEA Safeguards Analytical Laboratory
90	R. Kips	EC	Optimisation of the preparation of certified uranium particles by controlled hydrolysis of UF ₆ for nuclear safeguards

THURSDAY, 19 OCTOBER 2006

09:30–13:00 **SESSION 15:**
Future Challenges
IAEA Boardroom
(Parallel Session)

Session Chair: T. Shea, USA
Tech. Secretary: T. Newton, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
91	J. Pilat	USA	Non-proliferation and the Global Nuclear Energy Partnership LA-UR-06-1925
92	N. Inoue	Japan	A demonstration of advanced nuclear fuel cycle transparency concepts
93	D. Kovacic	USA	Integrating proliferation resistance into the design of nuclear facilities

11:00–11:30 **Poster Announcement/Award** **Rotunda**
Coffee/Tea Break (hosted)

95	V. Gorgues	France	Future interactions between IAEA safeguards and trade in sensitive nuclear technologies
96	M. Tarvainen	IAEA	Analysis of proliferation networks
78	T Jeffrey	IAEA	The role of quality management in delivering safeguards conclusions

13:00–14:30 *Lunch Break*

THURSDAY 19 OCTOBER 2006 (cont.)

09:30–13:00 **SESSION 16:
Further Strengthening Safeguards
Practices and Approaches 4 – Enrichment
Meeting Room I
(Parallel Session)**

Session Chair: M. Marzo, Brazil
Tech. Secretary: W. Bush, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
97	K. Naito	Japan	Hexapartite Safeguards Project – a retrospective
98	W. Bush	IAEA	Model safeguards approach for gas centrifuge enrichment plants
99	E. Dixon	USA	Evaluating new MC&A concepts for gas centrifuge enrichment plants

11:00–11:30 **Poster Announcement/Award**
Coffee/Tea Break (hosted)

100	M. Marzo	Brazil	Considerations on enhanced safeguards approach for centrifuge enrichment facilities
194	H. Vicens	Brazil	Applying enhanced safeguards approaches at centrifuge enrichment facilities
102	M. Kikuchi	Japan	Confirmation of the decommissioned status of a centrifuge uranium enrichment plant

13:00–14:30 *Lunch Break*

THURSDAY 19 OCTOBER 2006 (cont.)

09:30–13:00 **SESSION 17:
Advances in Safeguards Techniques and
Technology 6 – Reprocessing
Meeting Room IV
(Parallel Session)**

Session Chair: S. Tsalas, EC
Tech. Secretary: G. Morris, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
103	M. Midorikawa	Japan	The on-site laboratory for the Rokkasho Reprocessing Plant in Japan
104	N. Surugaya	Japan	Improvement of analytical activities with DA and NDA measurements in the Tokai Reprocessing Plant
105	P. Zahradnik-Gueizelar	IAEA	Authentication and sample chemistry: A new approach at the Rokkasho Reprocessing Plant on-site laboratory
11:00–11:30	Poster Announcement/Award Coffee/Tea Break (hosted)		Rotunda
106	K. Asakawa	Japan	Improvement of evaluation setting for behaviour of solution transfer between vessels in a reprocessing process using TETRA
107	Y. Mukai (main author: T. Hosoma)	Japan	Reduction of fluctuation and small bias observed in continuous volume monitoring taken in an annular tank for plutonium nitrate
108	S. Tobin	USA	Non-proliferation technology development study for UREX
198	V. Janin	IAEA	Rokkasho Reprocessing Plant: Calibration check in accountancy tank
200	E. Agboraw	IAEA	IAEA experience using the 3-dimensional laser range finder (3DLRF) for design information verification (DIV) at the Rokkasho Reprocessing Plant
13:00–14:30	<i>Lunch Break</i>		

THURSDAY 19 OCTOBER 2006 (cont.)

14:30–18:00 **SESSION 18:
Further Strengthening Safeguards
Practices and Approaches 5 –
Reprocessing, Spent Fuel Transfer
IAEA Boardroom
(Parallel Session)**

Session Chair: R. Weh, Germany
Tech. Secretary: M. Ingegneri, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
109	T. Ebata (main author: T. Iwamoto)	Japan	Extensive cooperation in establishment and installation of safeguards system at Rokkasho Reprocessing Plant (RRP)
110	T. Onizawa	Japan	Safeguards improvement for the Tokai Reprocessing Plant (TRP)
111	J. Lausch	Germany	Progress in dismantling of the WAK Pilot Reprocessing Plant: Vitrification of the HLLW
199	T. Killeen	IAEA	Rokkasho Reprocessing Plant: Moving from safeguards project to safeguards operations

16:00–16:30 *Coffee/Tea Break*

112	J. Doo	IAEA	Safeguards approach for spent fuel transfers to dry storage
113	R. Benjamin	Canada	Implementation of an integrated safeguards approach for transfers of spent fuel to dry storage at multi-unit CANDU generating stations in Canada
114	B. Richter	Germany	Safeguards for spent nuclear fuel in transfer from wet storage to dry storage in on-site interim storage facilities

THURSDAY 19 OCTOBER 2006 (cont.)

14:30–18:00 **SESSION 19:**
Advances in Safeguards Techniques and
Technology 7 – Environmental Sampling
Meeting Room I
(Parallel Session)

Session Chair: **E. Kuhn, Germany**

Tech. Secretary: **T. Ayers, IAEA**

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
115	A. Pidduck	UK	A multi-technique approach to environmental particle analysis for nuclear safeguards
116	S. Sakurai	Japan	Development of safeguards environmental sample analysis techniques at JAEA as a Network Laboratory of IAEA
117	V. Maiorov	IAEA	Detection and characterization of neutron activation activities using gamma spectrometric analysis

16:00–16:30 *Coffee/Tea Break*

118	M. Nikkinen	IAEA	Cluster analysis for TIMS particle data analysis
119	L. Sangély	France	Particle analysis for uranium isotopes on swipe samples using new generation Cameca IMS 7f SIMS supported by SEM automated uranium detection
120	R. Chiappini	France	New developments and methodology for actinide measurements at ultra trace levels

THURSDAY 19 OCTOBER 2006 (cont.)

14:30–18:00 **SESSION 20:**
Advances in Safeguards Techniques and
Technology 8 – Containment and
Surveillance
Meeting Room IV
(Parallel Session)

Session Chair: J. Matter, USA
Tech. Secretary: M. Doyle, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
121	B. Richter	Germany	The ESARDA Working Group on Containment and Surveillance: Activities and achievements
122	B. Richter	Germany	The IAEA's Next Generation Surveillance System (NGSS) – considerations on the hardware design concept
123	M. McGlade	UK	Laser surface authentication for containment and surveillance

16:00–16:30 *Coffee/Tea Break*

124	G. Weeks	IAEA	Remote monitoring of radio frequency tamper indicating devices in international safeguards applications
125	V. Sequeira	EC	3D technologies in safeguards applications
126	D. Kovacic	USA	UF ₆ cylinder tracking system for a gaseous centrifuge enrichment plant

**16 October to
19 October**
Location: Rotunda, ground floor, Building C

Session Chair: M. Tarvainen, IAEA
Tech. Secretary: R. Abdur, IAEA

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Poster</i>
127P	D. York	USA	Illicit trafficking of radiological & nuclear materials: Modelling and analysis of trafficking trends and risks
128P	Y. Abushady	IAEA	Resolution of open core anomalies at LWRs
129P	I. Perez Herrera	IAEA	IAEA safeguards implementation to a dry spent fuel storage at Zaporozhe nuclear power plant
130P	D. Hanks	IAEA	Successful implementation of an unattended safeguards approach to the transfer of spent fuel into interim dry storage
131P	M. Imron	Indonesia	Strengthened safeguards system implementation at Serpong Nuclear Research Center – Batan
132P	B. Massendari	France	To achieve a nuclear material inventory in case of emergency
133P	B. Boyer	USA	A field exercise course to train IAEA safeguards inspectors in implementing the additional protocol and performing complementary access activities (LA-UR-06-5798)
134P	K. Desson R. Keeffe (main author: K. Desson)	Canada	The road to safeguards quality: An e-learning tutorial
135P	J.-M. Crete (main author: G. Janssens- Maenhout)	IAEA EC	Education on nuclear safeguards for European nuclear engineering students
136P	H. Remagen	Germany	Experiences in Germany with the implementation of the additional protocol
137P	U. Mirsaidov	Tajikistan	Preparation for implementation of the safeguards system in the Republic of Tajikistan

<i>No. of Paper IAEA-CN-148/</i>	<i>Name</i>	<i>Designating Member State/Organization</i>	<i>Title of Poster</i>
138P	G. Yeligbayeva	Kazakhstan	Experience of the preparations for implementing integrated safeguards in Kazakhstan
139P	D. Langlands	IAEA Japan	Experience of safeguards implementation at Rokkasho Enrichment Plant (REP) and an innovative safeguards approach for new plant
140P	K. Hiruta	Japan	JNFL MOX fuel fabrication plant (J-MOX): Plant overview and safeguards considerations
141P	N. Herber D. Martin (main author: N. Herber)	Canada	Tools and techniques for safeguards training and knowledge management
142P	O. Gurko	Belarus	Safeguards system in the Republic of Belarus
143P	S. Biramontri	Thailand	Experience of Thailand on conclusion of additional protocol
144P	M.S. Mulla	Pakistan	Development of a safeguards database
145P	I. Badawy	Egypt	A real-time system of accounting and control of nuclear materials and radioactive sources
146P	D. Shao	Tanzania, United Rep. of	Proposed national actions for safeguards improvements in the United Republic of Tanzania
147P	T. Tadono	Japan	ALOS satellite imagery utilizations for safeguards
148P	Q.S. (Bob) Truong (main author: R. Saper)	Canada	Potential applications of synthetic aperture radar (SAR) satellite imagery to nuclear safeguards
149P	Z. Jacobson	Canada	VITA 6.2: Advanced visual tool for information management
150P	Q.S. (Bob) Truong (main author: G. Borstad)	Canada	An analysis strategy for safeguards use of optical satellite imagery
151P	W. Hammond (main author: V. Turkin)	IAEA	The IAEA illicit trafficking database programme: Trends and patterns in confirmed incidents involving nuclear material

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153P	C. Norman	IAEA	An integrated approach of material balance evaluation
154P	J. Barton	IAEA	Advances in safeguards IT security: Matching protection and actions to risks
155P	C. Hobbs	UK	Creating an XML schema for enhancing nuclear safeguards information
156P	E. Wolfart	EC	A geo-portal for data management and integration in the context of the additional protocol
157P	G. Whitaker	IAEA	The IAEA Safeguards Information System Re-Engineering Project (IRP)
158P	I. Lovjagina	Latvia	Accounting and verification of data from the operators
159P	L. Shayi	South Africa	Measurements and verification challenges of drums containing HEU/LEU nuclear waste under safeguards using IQ3 in South Africa
160P	L. Lakosi	Hungary	Advances in NDA of Pu in Pu-Be neutron sources: Developing innovative safeguards technologies for difficult nuclear material measurements
161P	J. Zsigrai	Hungary	Determination of the age of uranium-bearing items of arbitrary shape
162P	A. Enqvist	Sweden	Statistics of the detected neutrons and gammas emitted from a fissile sample with absorption
163P	C. Nguyen	Hungary	Gamma-spectrometry for characterization of PuBe neutron sources
164P	D. Donohue	IAEA	Development of XRF analyser with preliminary energy selection filter for screening environmental samples
165P	S. Abousahl	EC	Performance and validation of COMPUCEA 2nd generation for uranium measurements in physical inventory verifications

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167P	T. Wang	USA	Safeguards and environmental measurements using Compton suppressed Ge detectors
168P	S. Friedrich	USA	Superconducting ultra-high energy resolution gamma spectrometers
169P	S. Miller	USA	Autoradiography using optically stimulated luminescence for verification and safeguards applications
170P	S. Al-Rashdi	United Arab Emirates	Simulation smuggling study for shielded sources of ^{235}U , ^{238}U , ^{232}Th , ^{137}Cs and ^{60}Co by using gamma detection
171P	T. Honkamaa	Finland	Prototype tomographic partial defect tester
172P	R. Zilliacus	Finland	Analysis of U-particles by fission track-etch method and quadrupole ICP-MS
173P	S. Gutierrez (main author: L. Guillot)	France	Application of airborne gamma spectrometry to the detection of nuclear materials: Example of Helinuc system
174P	K. Mayer (main author: M. Wallenius)	EC	Investigating the applicability of anions as indicators for verification of consistency of declarations
175P	L. Meskhi	Georgia	Improvement of a design of a radioisotope switchable neutron source and new portable detector of smuggling
176P	L. Souza Dunley (main author: P. Barros)	Brazil	Determination of uranium by the Brazilian Safeguards Laboratory - LASAL using "Davies & Gray/NBL" potentiometric method
177P	I.-J. Park	Korea, Rep. of	Simulation and test of spent fuel verification system for CANDU dry storage canister
178P	J. Howell	UK	Towards the re-verification of in-process tank calibrations

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180P	C. Mathews (main author: D. Peterson)	USA	Frameworks for assurance of reactor fuel supply and spent nuclear fuel take-back
181P	T. Shea	USA	The atoms for peace reactor concept
182P	J.-H. Park	Korea, Rep. of	Enhancement of proliferation resistance of fuel cycle by applying the INPRO methodology
183P	M. Hori	Japan	Expected new role of IAEA in the area of transparency and proliferation resistance in advanced nuclear fuel cycle
184P	V. Cleary (main author: C. Mendez)	USA	Giving transparency concepts a face-lift: Bridging the gap between old and new
185P	G. Rochau	USA	Nuclear fuel cycle transparency: An approach to support the global deployment of nuclear power
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189P	D. Guo	China, People's Republic of	Determination of uranium contents and isotopic compositions in estuarine sediment standard reference material candidates by isotope dilution thermal ionization mass spectrometry
190P	Q. Yang	China, People's Republic of	Approaches to strengthen China nuclear material control system
191P	Z. Chang	China, People's Republic of	Study on plutonium isotopic analysis in environmental samples

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195P	P. Schwalbach	EC	RADAR and CRISP – Standard tools of the European Commission for remote and unattended data acquisition and analysis for nuclear safeguards
196P	N. Peter	USA	Tunable diode laser spectroscopy for gas signature detection of undeclared activities
197P	N. Peter	USA	Tunable diode laser spectroscopy as UF ₆ monitoring technique

EXHIBITORS

Session Chair: M. Zendel, IAEA
Tech. Secretaries: M. Obauer and M. Owen, IAEA

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IAEA/NVS/3 (CD-ROM)	IAEA Safeguards Glossary	2003
IAEA/NVS/2	The Evolution of IAEA Safeguards	1998
IAEA/NVS/1 (Revised)	Safeguards Techniques and Equipment (2003 Edition)	2003
IAEA-SM-367 (CD-ROM)	Proceedings of the Symposium on International Safeguards Verification and Nuclear Material Security, Vienna, Austria, 29 October – 2 November 2001	2001
STI/DAT/3 (CD-ROM)	Proceedings of the IAEA Symposium on International Safeguards, Vienna, Austria, 13 – 17 October 1997	1999
STI/PUB/945	Proceedings of the Conference on International Nuclear Safeguards 1994: Vision for the Future, Vienna, Austria, 14 – 18 March 1994	1995
INF/CIRC/540 (Corrected)	Model Protocol Additional to the Agreement(s) between State(s) and the International Atomic Energy Agency for the Application of Safeguards	1997
INF/CIRC/153 (Corrected)	The Structure and Content of Agreements between the Agency and States Required in Connection with the Treaty on the Non- Proliferation of Nuclear Weapons	1972
INF/CIRC/66/Rev.2	The Agency's Safeguards System (1965, as Provisionally Extended in 1966 and 1968)	1968
INF/CIRC/225/Rev.4 (Corrected)	The Physical Protection of Nuclear Material and Nuclear Facilities	1999
INF/CIRC/274/Rev.1	The Convention on the Physical Protection of Nuclear Material	1980

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13–15 November, Vienna, Austria

International Conference on Lessons Learned from
Decommissioning of Nuclear Facilities and the Safe Termination
of Nuclear Activities
11–15 December, Athens, Greece

2007

International Conference on Nuclear Power Process Heat
Applications
16–19 April, Oarai, Japan

International Conference on the Challenges faced by Technical
and Scientific Support Organizations in Enhancing Nuclear
Safety
23–27 April, Aix-en-Provence, France

International Conference on Environmental Radioactivity: From
Measurement and Assessment to Regulation
23–27 April, Vienna, Austria

International Symposium on Advances in Isotope Hydrology and
its Role in Sustainable Water Resources Management
21–25 May, Vienna, Austria

International Conference on Knowledge Management in Nuclear
Facilities
18–22 June, Vienna, Austria

Second International Symposium on Nuclear Power Plant Life
Management
15–18 October, Shanghai, China

International Conference on Research Reactors: Management
and Effective Utilization
5–9 November, Sydney, Australia

International Symposium on Clinical PET and Molecular Medicine
10–14 November, Bangkok, Thailand

International Conference on Illicit Trafficking
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