

International Conference on

Challenges Faced by Technical and Scientific Support Organizations (TSOs) in Enhancing Nuclear Safety and Security

Ensuring Effective and Sustainable Expertise

PROGRAMME

15–18 October 2018
Brussels, Belgium



Organized by the



IAEA

International Atomic Energy Agency

Hosted by the Government of Belgium
through

BEL ✓

President of the Conference:

N. Masriera Argentina

Co-Presidents:

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B. Thomas USA

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K. Ben Ouaghrem

Conference Organizers: M. Neuhold
J. Dusimatov

Rapporteur/Editor: J. E. Heinz

Administrative Support: I. Kridtner

Location of the Conference:

THE HOTEL, Brussels
Boulevard de Waterloo 38
1000 Brussels, Belgium

Working Language: English

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

MOBILE CONFERENCE APPLICATION

(for smart phones and tablets)

Android**iPhone**

Participants are encouraged to download the conference application (App) **IAEA Conferences and Meetings** available at Google Play and the iTunes Store. The QR codes above will take you there.

Once you have installed the App simply select this conference.

The App allows you to:

- ✓ message comments or questions during discussion time;
- ✓ message other participants;
- ✓ access PowerPoint presentations which have been released by their authors, and abstracts of posters;
- ✓ view an up-to-date programme;
- ✓ receive announcements via push notifications.

If you wish to do so, toward the end of the conference, please provide us with your feedback using the evaluation form available on the App.

If you have questions or require assistance on the App please contact the Conference Registration Desk.

TIMETABLE

SUNDAY, 14 October 2018

- 15:00-19:00 Registration
18:00-20:00 Welcome Reception
(at THE HOTEL, 27th floor)

MONDAY, 15 October 2018

- 09:30-11:00 **Opening Session**
11:00-12:00 **Session 1- Roles of the TSOs supporting Regulatory Functions**
12:00-13:45 TSO Café
13:45-15:45 **Session 1 - Roles of the TSOs supporting Regulatory Functions (cont'd)**
15:45-16:15 Coffee Break
16:15-18:15 **ETSON side event & ETSON award**

TUESDAY, 16 October 2018

- 09:00-10:20 **Session 2.1 - Safety Assessment**
10:20-10:50 Coffee Break and Poster Viewing Session
10:50-12:30 **Session 2.1 - Safety Assessment (cont'd)**
12:30-13:30 Lunch Break
13:30-15:00 **Session 2.2 - Radiation and Waste Management Safety**
15:00-15:30 Coffee Break and Poster Viewing Session
15:30-17:30 **Session 2.3 - International Cooperation**
19:15 **Dinner at the restaurant "Chez Léon"**

WEDNESDAY, 17 October 2018

- 09:00-10:20 **Session 3 - Role of the TSOs in Emergency Preparedness and Response**
10:20-10:50 Coffee Break and Poster Viewing Session
10:50-12:30 **Session 3 - Role of the TSOs in Emergency Preparedness and Response (cont'd)**
12:30-14:00 Lunch Break
14:00-15:00 **Session 4 - Other Challenges of TSOs**
15:00-15:20 Coffee Break and Poster Viewing Session
15:20-17:30 **Session 4 - Other Challenges of TSOs (cont'd)**

THURSDAY, 18 October 2018

- 09:00-10:00 **Session 5 - Key components to develop and maintain the technical and scientific expertise**
10:00-10:30 Coffee Break and Poster Viewing Session
10:30-12:30 **Session 6 - How to build your technical and scientific capability?**
12:30-14:00 Lunch Break
14:00-16:00 **Conclusion of the Conference**

MONDAY, 15 OCTOBER 2018

09:30-11:00 OPENING SESSION

Moderator: **L. Guo, IAEA**
Head of the Networks Management and
Partnership Section

Welcome Addresses:

M. Van haesendonck, Belgium
Director General
Bel V

J. Jambon, Belgium
Minister of the Interior of the Belgian Federal
Government

Opening Addresses:

J.-C. Lentijo, IAEA
Deputy Director General
Head of the Department of Nuclear Safety
and Security

M. Garribba, European Union
Director of Direction of Nuclear Energy, Safety and
ITER (DG ENER)

N. Masriera, Argentina
President of the ARN

Keynote Addresses:

B. De Boeck, Belgium
President of the TSO Conference 2014
Conclusions of the TSO Conference 2014

G. Caruso, IAEA
Director of the Office of Safety and Security
Coordination
Overview on IAEA activities related to TSOs

MONDAY, 15 OCTOBER 2018

11:00-13:00 **SESSION 1** **ROLES OF THE TSOs SUPPORTING** **REGULATORY FUNCTIONS**

Chairperson: **U. Stoll, Germany**
Co-chairperson: **N. Masriera, Argentina**

| <i>Time</i> | <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Paper</i> |
|-------------|------------------|---------------|--|--|
| 11:00-11:15 | 90 | N. Masriera | Argentina | The experience of the Argentina Nuclear Regulatory Body using external TSOs for licensing nuclear power plants |
| 11:15-11:30 | 34 | B. Poubeau | France | Leading nuclear safety and radiation protection expert assessment in France |
| 11:30-11:45 | 45 | B. Thomas | United States of America | The Mission of a Technical Support Organization: Perspectives of the U.S. Nuclear Regulatory Commission |
| 11:45-12:00 | 94 | Z. Trafimchik | Belarus | TSO system development in Republic of Belarus |

12:00-13:45 *TSO Café*

13:45-15:45 **SESSION 1 (cont'd)**

| | | | | |
|-------------|-----|-----------|--------------|--|
| 13:45-14:00 | 15 | A. Kubiak | Poland | Technical Support Organisations in the Polish Nuclear Power Programme |
| 14:00-14:15 | 3 | S. Prasad | India | Challenges for Regulatory Body and Technical Support Organisations during the expansion of Nuclear Power Programme in India |
| 14:15-14:30 | 79 | M. Kund | Germany | Support to European Nuclear Regulatory Authorities in the Field of Nuclear Safety |
| 14:30-14:45 | 107 | P. Bester | South Africa | Diversification of Services offers by Nuclear Regulatory Organizations through the use of Technical Support Organization; Lessons learnt from South Africa |

14:45-15:45 *Panel discussion (Session 1)*

15:45-16:15 *Coffee Break*

| | | | |
|-------------|---|---------|--|
| 16:15-18:15 | Side event of the European Technical Safety Organisations Network (ETSON) | | |
| 16:15-16:40 | Presentation by ETSON B. De Boeck, President of ETSON | | |
| 16:40-17:15 | ETSON Award 2018 | | |
| 17:15-18:00 | Technical presentations by ETSON: | | |
| | K. Herviou | France | Technical Board on Reactors Safety (TBRS) |
| | M. Adorni | Belgium | ETSON Research Group (ERG) |
| | B. Autrusson | France | Institut de Radiation et de la Sécurité Nucléaire (IRSN) |
| | F. Russo | Belgium | Bel V |
| | J.-C. Niel | France | Support Activities to the IAEA through the TSO Forum |
| 18:00-18:15 | ETSON - JRC Collaboration | | |

TUESDAY, 16 OCTOBER 2018

09:00-10:20 **SESSION 2.1** **SAFETY ASSESSMENT**

Chairperson: **B. Thomas, United States of America**

Co-chairperson: **K. Tomita, Japan**

| <i>Time</i> | <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Paper</i> |
|--------------------|--|---------------|--|---|
| 09:00-09:20 | | C. Spitzer | IAEA | IAEA Int'l Conference on Topical Issues in Nuclear Installation Safety, June 2017 - Key Insights and Recommendations |
| 09:20-09:40 | 46 | P. Mach | Czech Republic | Systematic Approach to Regulatory Review and Assessment of Safety Documentation for Imported Nuclear Technology |
| 09:40-10:00 | 109 | M. Roewekamp | Germany | PSA Lessons Learned from Viewpoint of the ETSON TSOs |
| 10:00-10:20 | 83 | G. Repetto | France | R&D project investigating the filtering system in the sump of a PWR NPP during a Loss of Coolant Accident: VIKTORIA experiments |
| <hr/> | | | | |
| 10:20-10:50 | <i>Coffee Break and Poster Viewing Session</i> | | | |
| <hr/> | | | | |
| 10:50-12:30 | SESSION 2.1 (cont'd) | | | |
| 10:50-11:10 | 82 | M. Sonnenkalb | Germany | Current challenges in nuclear safety R&D especially code development |
| 11:10-11:30 | 93 | H. Kabashima | Japan | Fire Safety Regulation on High Energy Arcing Faults (HEAF) |
| 11:30-11:50 | 20 | L. Ovdienko | Ukraine | Support of Ukrainian Regulatory Authority in Licensing Process of Nuclear Fuel Supplier Diversification |
| 11:50-12:30 | <i>Panel discussion (Session 2.1)</i> | | | |
| <hr/> | | | | |
| 12:30-13:30 | <i>Lunch break</i> | | | |
| <hr/> | | | | |

TUESDAY, 16 OCTOBER 2018

13:30-15:00 **SESSION 2.2**
RADIATION AND WASTE MANAGEMENT
SAFETY

Chairperson: **P. Elder, Canada**
Co-chairperson: **A. Koteng, Kenya**

| <i>Time</i> | <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Paper</i> |
|-------------|---------------------------------------|-------------|--|--|
| 13:30-13:50 | 113 | G. H. Chai | China | Nuclear and Radiation Safety as higher as reasonably achievable |
| 13:50-14:10 | 51 | V. Dettleux | Belgium | SITEX_Network for the development of Sustainable and Independent Technical Expertise on radioactive waste management |
| 14:10-14:30 | 87 | C. Debayle | France | Modernization of the IRSN's remote sensing network |
| 14:30-15:00 | <i>Panel discussion (Session 2.2)</i> | | | |

15:00-15:30 *Coffee Break and Poster Viewing Session*

15:30-17:30 **SESSION 2.3**
International Cooperation

Chairperson: **P. Daures, European Commission**
 DG/DEVCO
Co-chairperson: **C. Eibl-Schwaeger, Germany**

| <i>Time</i> | <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Paper</i> |
|-------------|------------------|-------------|--|--|
| 15:30-15:50 | 111 | P. Daures | DG/DEVCO | DG/DEVCO activities |
| 15:50-16:10 | 112 | M. Beilmann | OECD/NEA | OECD/NEA's activities |
| 16:10-16:30 | 86 | M. Adorni | Belgium | Overview of ETSON modelling and experimental capabilities for R&D on nuclear safety |
| 16:30-16:50 | 17 | S. Bogdan | Russian Federation | Scientific and Technical Support to the Regulatory Body within the Framework of MDEP VVERWG Activity |

19:15

Dinner at the restaurant "Chez Léon"

(self-paying basis)

Address:

*18 Rue des Bouchers,
1000, Brussels*

WEDNESDAY, 17 OCTOBER 2018

09:00-10:20 **SESSION 3**

ROLE OF THE TSOS IN EMERGENCY PREPAREDNESS AND RESPONSE

Chairperson: J.-L. Lachaume, France

Co-chairperson: A. Kuryndin, Russian Federation

| <i>Time</i> | <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Paper</i> |
|--------------------|--|-----------------|--|--|
| 09:00-09:20 | 84 | J.-L. Lachaume | France | Emergency, Preparedness and Response, an important stake for IRSN |
| 09:20-09:40 | 80 | S. Kus | Germany | Enhancing Emergency Preparedness and Response in Germany |
| 09:40-10:00 | 36 | A. Toma | Romania | The role and responsibilities of RATEN ICN as TSO for the Romanian Nuclear Regulatory Authority |
| 10:00-10:20 | 18 | A. Shapovalov | Russian Federation | SEC NRS activities in Support to Rostekhnadzor's Information and Analytical Centre |
| 10:20-10:50 | <i>Coffee Break and Poster Viewing Session</i> | | | |
| 10:50-12:30 | SESSION 3 (cont'd) | | | |
| 10:50-11:10 | 7 | K. Silva | Thailand | R&D Activities to be conducted by TSO in embarking countries: R&D to support understanding of severe accident and planning of emergency response |
| 11:10-11:30 | 89 | N. Puerta Yepes | Argentina | Special monitoring response capacities developed at the internal dosimetry laboratory of the Argentine Nuclear Regulatory Authority |
| 11:30-12:30 | <i>Panel discussion (Session 3)</i> | | | |
| 12:30-14:00 | <i>Lunch break</i> | | | |

WEDNESDAY, 17 OCTOBER 2018

14:00-17:30 **SESSION 4** **OTHER CHALLENGES OF TSOs**

Chairperson: Y. Lee, Republic of Korea

Co-chairperson: M. Skrzypek, Poland

| <i>Time</i> | <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Paper</i> |
|-------------|------------------|--------------|--|--|
| 14:00-14:20 | | K. Mrabit | Morocco | Synergies between safety and security |
| 14:20-14:40 | 56 | O. Elhefnawy | Egypt | Scientific and technical support in enhancement nuclear security: roles, capabilities and challenges |
| 14:40-15:00 | 47 | Z. Zhao | China | The Challenges Faced by TSOs in the field of Nuclear Facility Physical Protection |

15:00-15:20 *Coffee Break and Poster Viewing Session*

15:20- 17:30 **SESSION 4 (cont'd)**

| | | | | |
|-------------|-----|-------------------------------|------------|---|
| 15:20-15:40 | 85 | V. Leroyer and Y. Lheureux | France | Openness to civil society: which challenges for a TSO? |
| 15:40-16:00 | 28 | A. Imtiaz | Bangladesh | Impact of External Influences to the Development of Culture for Safety in Nuclear Organizations of Bangladesh |
| 16:00-16:20 | 110 | M. Naseer | Pakistan | Role of Technical Support Organization in Decommissioning of a Nuclear Power Plant |

16:20-17:30 *Panel discussion (Session 4)*

THURSDAY, 18 OCTOBER 2018

09:00-10:00 SESSION 5

KEY COMPONENTS TO DEVELOP AND MAINTAIN THE TECHNICAL AND SCIENTIFIC EXPERTISE

Chairperson: L. Cizelj, Slovenia

Co-chairperson: G. H. Chai, China

| <i>Time</i> | <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Paper</i> |
|-------------|------------------|-------------|--|--|
| 09:00-09:20 | 48 | M. Demeshko | Russian Federation | JSC VO Safety support to Rostechnadzor in assisting embarking countries on their technical and scientific capability development |
| 09:20-09:40 | 73 | D. Louvat | ENSTTI | The experience of the ENSTTI initiative in meeting challenges of professional development of Technical Safety Organisations experts |
| 09:40-10:00 | 44 | B. Thomas | United States of America | Maintaining Capabilities of Technical Support Organizations in a Dynamic Environment: Perspectives of the U.S. Nuclear Regulatory Commission |

10:00-10:30 *Coffee Break and Poster Viewing Session*

10:30-12:30 SESSION 6

HOW TO BUILD YOUR TECHNICAL AND SCIENTIFIC CAPABILITY?

Chairperson: M. Mkhosi, South Africa

Co-chairperson: M. Betti, European Commission

| <i>Time</i> | <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Paper</i> |
|-------------|------------------|-----------------|--|--|
| 10:30-10:50 | 92 | J. Repussard | France | Keynote speech on TSO challenges and cultures |
| 10:50-11:10 | | K. Ben Ouaghrem | IAEA | Presentation of the IAEA TSO initiative to support Member States in developing and strengthening Technical and Scientific Support Capacity |
| 11:10-11:30 | 68 | S. Yao | Canada | An Effective Approach to Assessing the Needs and Availabilities of Capability for Nuclear Safety at the CNSC |

11:30-12:30 *Panel discussion (Sessions 5 and 6)*

12:30-14:00 *Lunch break*

14:00-16:00 *Conclusion of the Conference*

INTERACTIVE PRESENTATIONS

SESSION 1 - ROLES OF THE TSOs SUPPORTING REGULATORY FUNCTIONS

| <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Poster</i> |
|------------------|----------------------|--|---|
| 8 | H. F. Randrianseheno | Madagascar | The technical body in radiation protection in Madagascar |
| 9 | M. Kandil | Egypt | The Role of Technical and Scientific Support Organizations in Enhancing Nuclear Safety |
| 10 | E. Eisawy | Egypt | The Increasing Role of TSO in Supporting the Safe and Secure Application for New Nuclear Power Countries |
| 14 | R. E. Hariento | Indonesia | Indonesia Nuclear Energy Regulatory Agency experience in utilize TSOs supports for nuclear reactor Licensing process activity |
| 35 | D. H. Nugroho | Indonesia | Challenge of P2STPIBN to transform into a world-class internal TSO in the Indonesian Nuclear Energy Regulatory Agency |
| 55 | I. Mirsaidov | Tajikistan | Experience of Tajikistan regulatory body on receiving support from its TSO |
| 62 | D. Taufiq | Indonesia | A strong technical support organization to enhance the nuclear regulatory; from Indonesia perspective |
| 67 | C. Matteoli | Netherlands | The Collaboration of the Dutch nuclear regulatory body with its TSO |
| 95 | N. Choudhury | Bangladesh | Interaction with TSO for developing Technical Support Structure in the field of Nuclear Safety and Security: Bangladesh Perspective |
| 98 | P. Stefania | Romania | Areas in which regulatory bodies require assistance |
| 102 | M. Surur Kediri | Ethiopia | The experience of TSOs and regulatory bodies in working together |
| 106 | N. Zeleznik | Slovenia | Experiences of EIMV as one of the Slovene TSO |

| <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Poster</i> |
|------------------|-------------|--|--|
| | T. Li | China | Discussion on the role, challenge and Improvement of TSOs in Enhancing Nuclear Safety |
| | F. Wastin | European Commission | The JRC's Technical and Scientific support to the European Commission, Member States and external partners |

SESSION 2.1 - SAFETY ASSESSMENT

| <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Poster</i> |
|------------------|-------------------|--|---|
| 23 | N. Helal | Egypt | Support required for safety management of decommissioning of research reactors. |
| 25 | O. Dybach | Ukraine | Scientific and Technical Support to the Licensing Process for the Construction of New Spent Fuel Storage Facilities in Ukraine: Achievements, Challenges and R&D Need |
| 26 | P. Ampornrat | Thailand | Development of research program for aging management for Thai research reactor TRR-1/M1 |
| 31 | O. Balashevskyi | Ukraine | Scientific and Technical Support to the Ukrainian State Enterprise National Nuclear Energy Generating Company Energoatom |
| 33 | P. Ampornrat | Thailand | Development of strategy of research and development to support nuclear safety regulation |
| 77 | M. K. Abdul Karim | Malaysia | Evaluating the requirement for Nuclear Security Control of Radioactive Sources at medical Facilities in Malaysia |
| 88 | E. Negrenti | Italy | Advanced Multi-Purpose Engineering Simulators |
| 100 | M. Maskin | Malaysia | COMPASS-M: Probabilistic Safety Assessment of Existing Facility to Develop Skills for Evaluation of Nuclear Power Plant Safety |
| 101 | Z. Y. Yang | China | Current Challenges in Nuclear Safety Review on Hydrogen Management in Severe Accident |

| <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Poster</i> |
|------------------|-------------|--|---|
| 103 | S. Mohamed | Egypt | Designing ageing Management System for Safety Related SSC's in Hypothetical Nuclear fuel cycle Facility |
| 114 | H. F. Yang | China | The current status and planning of Nuclear Radiation Safety Regulatory Capacity in China |
| | Y. Wei | China | Core Damage Assessment System for NSSA of the PRC |

SESSION 2.2 - RADIATION AND WASTE MANAGEMENT SAFETY

| <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Poster</i> |
|------------------|--------------------|--|--|
| 4 | M. A. Addo | Ghana | GHARR-1 Core Conversion Project: Environmental Radiation Dose Monitoring Aspect for Irradiated Fuel Transfer from Temporal to Final Storage at NRRC |
| 6 | N. Autsavapromporn | Thailand | A correlation study of indoor radon environment caused by climate change and air pollution in Chiang Mai: a pilot study |
| 16 | I. Ali | Bangladesh | Development of Countrywide Baseline Gamma Radiation Mapping Database for the Nuclear Power Program in Bangladesh |
| 19 | A. Madonna | Italy | EC cooperation to enhance regulatory and TSO capabilities for regulation and safety review of radioactive waste management facilities and activities at Armenian NPP |
| 21 | Q. Chu | China | Quality management system for radiation measurement in China |
| 22 | I. Nikolaiev | Ukraine | Safety Review of Legacy Sites: National Experience, Guidelines and Methods Applied by the Technical Safety Organization |
| 24 | N. Helal | Egypt | Study of Gamma Ray and Fast Neutron Shielding Properties of some Concrete Materials |

| <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Poster</i> |
|------------------|---------------|--|---|
| 49 | M. El Ashmawy | Egypt | Constraints on using NaCl salt for precise retrospective dose construction in radiation accidents |
| 52 | N. Mohlala | South Africa | Development of Radio-analytical Services in Support of Independent Verification for Regulatory Environmental Monitoring Programme Challenges and Lessons Learnt |
| 65 | M. Atogo | Kenya | Impact of Inadequate Technical Capabilities on TSOs in Provision of Effective Radiological Services in Kenya |
| 74 | A. Niane | Senegal | Compensate the gap of Technical Support Organization by the regulatory authority for the diagnostic reference levels in medical radiology |
| 78 | J. Fluegge | Germany | Challenges on the way to Final Disposal of High Level Radioactive Waste |
| 105 | K. Issa | Niger | Radiation Protection Activities in Niger and its challenges with the embarking of the Country in Nuclear Power Program (NPP) |

SESSION 2.3 - INTERNATIONAL COOPERATION

| <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Poster</i> |
|------------------|-------------|--|--|
| 32 | C. D. Le | Vietnam | Lessons learned from the Ninh Thuan Nuclear Power Project in Vietnam and Proposals for the use of research for developing national regulations |

SESSION 3 - ROLE OF THE TSOS IN EMERGENCY PREPAREDNESS AND RESPONSE

| <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Poster</i> |
|------------------|-------------|--|--|
| 1 | J. Zhang | China | Experiences and Challenges in the Development of Emergency Assessment tools in China |

SESSION 3 - ROLE OF THE TSOS IN EMERGENCY PREPAREDNESS AND RESPONSE

| <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Poster</i> |
|------------------|-------------|--|---|
| 42 | F. Rocchi | Italy | A Statistical Method to Compare Severe Accident Off-site Consequences on a given Country from different NPP Sites |
| 76 | M. Wafaa | Egypt | Safety Culture Development in Radiation Accidents - Arrangements for Communication with the Public |
| 91 | S. Gossio | Argentina | Regional Multiparametric Intercomparison Exercise on Physical, Biological and Computational Dosimetry in a gammagraphy scenario |

SESSION 4 - OTHER CHALLENGES OF THE TSOS

| <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Poster</i> |
|------------------|---------------|--|--|
| 43 | D. Branco | Portugal | Translation and Interpretation |
| 96 | M. H. Mogahed | Sudan | Sudanese Nuclear & Radiological Regulatory Authority to enhancing TSOs for Nuclear Security |
| 97 | E. Dagorn | France | Supporting regulators with construction inspections: the inspection organization's perspective |

SESSION 5 - KEY COMPONENTS TO DEVELOP AND MAINTAIN THE TECHNICAL AND SCIENTIFIC EXPERTISE

| <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Poster</i> |
|------------------|--------------|--|---|
| 29 | A. Madonna | Italy | Training and Tutoring for experts of NRA and their TSOs to strengthen regulatory and technical capabilities |
| 30 | A. Elmessiry | Egypt | Technical Support and Regulatory Activity: Challenges faced by ENRRA |
| 58 | D. O. Kpeglo | Ghana | Over A Decade of Post-Graduate Education and Training in Radiation Protection in Ghana |

| | | | |
|-----|-----------|----------|--|
| 63 | A. Rizea | Romania | Enhancing Technical and Scientific Capabilities of TSOs in Romania to Support Regulator and Nuclear Industry |
| 116 | L. Cizelj | Slovenia | Jožef Stefan Institute as a scientific and technical support organization to the nuclear regulatory body in Slovenia |

SESSION 6 - HOW TO BUILD YOUR TECHNICAL AND SCIENTIFIC CAPABILITY?

| <i>INDICO ID</i> | <i>Name</i> | <i>Designating Member State/Organization</i> | <i>Title of Poster</i> |
|------------------|-------------|--|---|
| 40 | S. Sommer | Poland | Technical Support Organization (TSO) for Nuclear Power Plant in Poland: the view of Research Institute |
| 59 | C. M. Papp | Argentina | Actions and challenges in Latin America and the Caribbean to improve and strengthen TSOs in overexposure situations |
| 64 | Y. Pramono | Indonesia | Concept of Indonesian national policy and strategy concerning Nuclear Safety |
| 117 | L. Cizelj | Slovenia | The European Nuclear Education Network ENEN: 15 years |

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PUBLICATIONS

Proceedings

The proceedings of the conference will be published by the IAEA as soon as possible after the conference.

Orders

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The IAEA has created an interactive e-learning series explaining the IAEA's Milestones Approach to introducing a nuclear power programme. This approach is based on three phases and covers the 19 infrastructure issues that need to be addressed, and brings decades of expertise to life. Both newcomers and those expanding their nuclear power programmes may benefit from the e-learning series.

More information and the modules are available on:

<http://www.iaea.org/NuclearPower/Infrastructure/elearning/index.html>

E-learning for Nuclear Security

The IAEA offers 16 free online learning modules in nuclear security in four topical categories: Crosscutting Topics, Nuclear Security of Materials and Facilities, Nuclear Security of Materials Outside of Regulatory Control, and Information and Computer Security. Each module is based on the IAEA Nuclear Security Series and other guidance documents and is estimated to take one to four hours to complete. The modules target a wide range of professionals with nuclear security responsibilities and others interested.

More information and the modules are available on:

<http://elearning.iaea.org/m2/course/index.php?categoryid=48>

IAEA PUBLICATIONS RELATED TO THE SUBJECT OF THE CONFERENCE

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| STI/PUB/1708 | IAEA Safety Standards Series No. GSR Part 7: Preparedness and Response for a Nuclear or Radiological Emergency |
| STI/PUB/1467 | IAEA Safety Standards Series No. GSG-2: Criteria for Use in Preparedness and Response for a Nuclear or Radiological Emergency |
| STI/PUB/1265 | IAEA Safety Standards Series No. GS-G-2.1: Arrangements for Preparedness for a Nuclear or Radiological Emergency |
| STI/PUB/1796 | IAEA Safety Standards Series No. GS-G-11: Arrangements for the Termination of a Nuclear or Radiological Emergency |
| EPR-Public Communications 2012 | Communication with the Public in a Nuclear or Radiological Emergency |
| EPR-Public Communication Plan 2015 | Method for Developing a Communication Strategy and Plan for a Nuclear or Radiological Emergency |
| STI/PUB/1713 | IAEA Safety Standards Series No. GSR Part 1 (Rev. 1): Governmental, Legal and Regulatory Framework for Safety |
| STI/PUB/1710 | Non-serial Publications: The Fukushima Daiichi Accident |
| STI/PUB/1676 | IAEA Nuclear Energy Series No. NP-T-3.16: Accident Monitoring Systems for Nuclear Power Plants |
| STI/PUB/1644 | IAEA Nuclear Energy Series No. NW-T-2.7: Experiences and Lessons Learned Worldwide in the Cleanup and Decommissioning of Nuclear Facilities in the Aftermath of Accidents |
| STI/PUB/1730 | IAEA Nuclear Energy Series No. NG-T-6.8: Nuclear Accident Knowledge Taxonomy |
| STI/PUB/1273 | IAEA Safety Standards Series No. SF-1: Fundamental Safety Principals |

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| STI/PUB/1578 | IAEA Safety Standards Series No. GSR Part 3: Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards |
| STI/PUB/1776 | Non-serial Publications: The Radiological Accident in Chilca |
| STI/PUB/1660 | Non-Serial Publications: The Radiological Accident in Lia, Georgia |
| STI/PUB/1389 | Non-serial Publications: The Radiological Accident in Nueva Aldea |
| STI/PUB/1199 | Non-Serial Publications: The Radiological Accident in Cochabamba |
| STI/PUB/1123 | Non-Serial Publications: The Radiological Accident in Gilan |
| STI/PUB/1124 | Non-serial Publications: The Radiological Accident in Samut Prakarn |

IAEA safety standards on emergency preparedness and response can be found at <https://www.iaea.org/topics/emergency-preparedness-and-response/safety-standards-technical-guidance>

IAEA Emergency Response and Preparedness Series Publications can be found at www.iaea.org/publications/epr-series

IAEA Accident Reports can be found at https://www-pub.iaea.org/books/IAEABooks/Publications_on_Accident_Response

FORTHCOMING SCIENTIFIC MEETINGS SCHEDULED BY THE IAEA

2018

27th IAEA Fusion Energy Conference (FEC 2018) (CN-258), 22-27 October; Ahmedabad, India

Symposium on International Safeguards (CN-267), 5-9 November; Vienna, Austria

Ministerial Conference on Nuclear Science and Technology: Addressing Current and Emerging Development Challenges (CN-262), 28-30 November; Vienna, Austria

International Conference on the Security of Radioactive Material: The Way Forward for Prevention and Detection (CN-269), 3-7 December, Vienna, Austria

International Symposium on Understanding the Double Burden of Malnutrition for Effective Interventions (CN-268), 10-13 December, Vienna, Austria

2019

International Symposium on Isotope Hydrology (CN-271), 20-24 May; Vienna Austria

International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry (IDOS 2019) (CN-273), 18 -21 June; Vienna, Austria

International Conference on the Management of Spent Fuel from Nuclear Power Reactors: Learning from the Past, Enabling the Future, (CN-272), 24-28 June, Vienna, Austria

Scientific Forum, (CN-274), September; Vienna, Austria

International Conference on Climate Change and the Role of Nuclear Power (CN-275), 7-11 October; Vienna, Austria

International Symposium on Trends in Radiopharmaceuticals (ISTR-2019) (CN-276), 28 October-1 November; Vienna, Austria

International Conference on Effective Regulatory Systems for Nuclear and Radiation Safety (CN-270), November, TBD

International Conference on Research Reactors: Addressing Challenges and Opportunities to Ensure Effectiveness and Sustainability: (CN-277), 25-29 November, Buenos Aires, Argentina

For information on forthcoming scientific meetings, please consult the IAEA web site: <http://www.iaea.org/events>

