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Activities

TG / area / State	Name of activity	Country, venue	Start	End date	
ETT	Consultancy Meeting to Finalize the Guidelines for the ANSN's Education and Training Self-Assessment and Peer Review Services	Austria, Vienna	27-Feb	02-Mar	4
RWMTG	Regional Workshop on Waste Safety Practices and Establishing Regulations for Near Surface Disposal (Part 2)	Indonesia, Jakarta BAPETEN	05-Mar	09-Mar	6
LMSTG	Consultancy Meeting to Develop Terms of Reference for the Newly Established Topical Group on Leadership and Management for Safety of the Regulatory Bodies (LMSTG)	Austria, Vienna	08-Mar	09-Mar	7
CTG	Consultancy Meeting to Develop Terms of Reference for the Newly Established Topical Group on Communication and Consultation with Interested Parties	Austria, Vienna	12-Mar	13-Mar	9
Malaysia	Expert Review on the Final Draft of Malaysia's Nuclear Installation Licensing Regulations	Malaysia, Dengkil, AELB	19-Mar	23-Mar	11
Indonesia	National Workshop on the Licensing Process for Nuclear Fuel Cycle Facilities	Indonesia, Jakarta, BAPETEN	26-Mar	29-Mar	12
Indonesia	Pilot Peer Review Mission on Self-Assessment of the Education and Training System for Nuclear Safety Human Resources Development	Indonesia, Jakarta	09-Apr	13-Apr	13
SATG	Regional Workshop on Safety Analysis Practices and Exercise Using Computer Codes: In-Depth Understanding of Loss of Coolant Accidents (LOCAs) and Modelling of LOCA Test	Korea, Daejeon KAERI	09-Apr	13-Apr	14
Management	15th ANSN Steering Committee meeting	Austria, Vienna	11-Apr	13-Apr	15
CBCG	IAEA Technical Meeting on Establishing, Developing and Maintaining Capacity Building in Member States	Vienna, Austria	17-Apr	20-Apr	19
SMRRTG	Regional Workshop on the Periodic Safety Review of Research Reactors	Thailand, Bangkok TINT	30-Apr	04-May	22
ETT	Regional Workshop on Regulatory Control of Nuclear Power Plants	Korea, Daejeon KINS	21-May	25-May	23
EPRTG	Regional Workshop on Emergency Preparedness and Response Dose Assessments and Annual Meeting of the Topical Group on Emergency Preparedness and Response	Indonesia, Jakarta	21-May	25-May	24

RWMTG	Regional Workshop on the Safety Case and Safety Assessment for Predisposal Facilities	Vietnam, Hanoi	28-May	01-Jun	25
China	Expert Mission on Setting Up a Master Materials Catalogue for Inventory Management at Nuclear Power Plants	China, Wuhan RINPO	04-Jun	06-Jun	27
Management	Ninth Information Technology Support Group meeting	Indonesia, Jakarta	11-Jun	13-Jun	28
STG/ Fukushima	Regional Workshop on Site Evaluation and Safety Improvements Focusing on the Actions after the Fukushima Daiichi Nuclear Accident and Annual Meeting of the Topical Group on Siting	Korea, Daejeon KINS	11-Jun	15-Jun	29
Indonesia	Consultancy Meeting to Revise the Results of the Education and Training Review Service Self-Assessment by Indonesia	Indonesia, Jakarta	12-Jun	15-Jun	30
ETTg	Regional Workshop on Special On-the-Job Training for Nuclear Power Newcomers	Korea, Daejeon KINS	21-Jun	29-Jun	31
Indonesia	First ANSN Pilot Peer Review Mission for Self-Assessment on the Education and Training System for Nuclear Safety Human Resources Development	Indonesia, Jakarta	26-Jun	29-Jun	32
ETTg	Regional Train the Trainers Workshop on the Systematic Approach to Training in Nuclear Safety	Korea, Daejeon KINS	09-Jul	13-Jul	34
SATG	Regional Workshop on the Practices and Experience of Safety Analysis Licensing Review and Exercise Using Computer Codes and Annual Meeting of the Topical Group on Safety Analysis	Thailand, Bangkok OAP, MOST	09-Jul	13-Jul	35
CBMG	Consultancy Meeting to Develop Terms of Reference for the Capacity Building Management Group	Austria, Vienna	03-Sep	04-Sep	36
ETTg	Regional Workshop on Nuclear Safety Tailored for Regulators	Korea, Daejeon KINS	03-Sep	14-Sep	37
SATG	Consultancy Meeting on the Development of Standards Exercise Cases for Offline Workshops	Korea, Daejeon KINS	10-Sep	12-Sep	38
Management	First Meeting of the Asian Nuclear Safety Network Plenary	Austria, Vienna	19-Sep	19-Sep	39
OSTG	Regional Workshop on Occupational Health and Psychological Tests and Evaluation of Nuclear Power Plant Staff and Annual Meeting of the Topical Group on Operational Safety	China, Haiyan RINPO	03-Oct	07-Oct	41

ETTg	Regional Workshop on the Development of National Policies on Human Resource Development for Countries Embarking on a Nuclear Power Programme and Annual Meeting of the Topical Group on Education and Training	Austria, Vienna	08-Oct	12-Oct	42
GRITG	Regional Workshop on Continuous Improvement of Governmental and Regulatory Infrastructure through Self-Assessment and Fourth Annual Meeting of the Topical Group on Governmental and Regulatory Infrastructure	Philippines Manila	15-Oct	19-Oct	44
CBCG	Regional Workshop on Practical Nuclear Power Plant Construction Experience	China, Beijing	17-Oct	23-Oct	45
Management	Consultancy Meeting on National Centre Websites and on the Implementation of Capacity Building IT Modules	Japan, Tokyo JNES	01-Nov	02-Nov	47
CTG	Regional Workshop on Communication and Consultation with Interested Parties and First Annual Meeting of the Topical Group on Communication and Consultation with Interested Parties	Korea, Daejeon KINS	05-Nov	09-Nov	48
LMSTG	Regional Workshop on Leadership and Management for Safety for Regulatory Bodies and First Annual Meeting of the Topical Group on Leadership and Management for Safety of the Regulatory Bodies	Korea, Daejeon KINS	05-Nov	09-Nov	50
RWMTG	Annual Meeting and Regional Workshop on the Clearance of Decommissioning Waste	Thailand, Bangkok	05-Nov	09-Nov	52
Management	16th ANSN Steering Committee Meeting	Philippines Manila	13-Nov	16-Nov	53
Management	Regional Workshop on Capacity Building IT Modules	Korea, Daejeon KINS	28-Nov	30-Nov	56
SMRRTG	Regional Workshop on the Use of a Graded Approach for the Application of Safety Requirements for Research Reactors	Vietnam, Hanoi VARANS	10-Dec	14-Dec	57

Asian Nuclear Safety Network

IAEA Extrabudgetary Programme on the Safety of Nuclear Installations in the South East Asia, Pacific and Far East Countries

2012 PROGRESS REPORT

EXECUTIVE SUMMARY

This report describes the activities implemented by the Asian Nuclear Safety Network (ANSN) from January 2012 to December 2012.

More details about the results of activities described in this report are available on the ANSN's website at the following address: www.ansn.org.

In 2012, the ANSN made significant progress in developing the regional capacity building system in Asia for nuclear safety infrastructure, by enhancing both human and computer-based networks, with high level commitment and support from the ANSN stakeholders.

Significantly, the first meeting of the ANSN Plenary was held in Vienna, Austria, on 19 September 2012, during the 56th regular session of the International Atomic Energy Agency (IAEA) General Conference. The ANSN Plenary was established as a result of the reorganization of the former Nuclear Safety Strategy Dialogue (NSSD) in order to continuously promote cooperation among senior level officials from ANSN member countries. At this first meeting the terms of reference of the ANSN Plenary were approved and it was decided to revise the ANSN Vision 2020 (originally drawn up in 2009) in the light of the heightened global attention given to nuclear safety issues following the severe accident at the Fukushima Daiichi nuclear power plant in March 2011.

Another remarkable milestone in 2012 is that the first meetings of the Topical Group on Communication and Consultation with Interested Parties (CTG) and the Topical Group on Leadership and Management for Safety of the Regulatory Bodies (LMSTG) were held in October. The creation of both these Topical Groups was approved during the 15th ANSN Steering Committee meeting, held in Vienna in April 2012, based on the idea that communication on, and management of, nuclear safety were becoming more important and deserved to receive more attention.

In addition, the Capacity Building Coordination Group (CBCG) was reorganized as the Capacity Building Management Group (CBMG) in October 2012, to take into account recent IAEA initiatives that impinge on this group's activities, including:

- Action 8 in the IAEA Action Plan on Nuclear Safety (which was approved by the General Conference at its 55th regular session in September 2011) — “Facilitate the development

of the infrastructure necessary for Member States embarking on a nuclear power programme”;

- Action 9 in the IAEA Action Plan on Nuclear Safety — “Strengthen and maintain capacity building”; and
- The publication of *Establishing the Safety Infrastructure for a Nuclear Power Programme* (IAEA Safety Standards Series No. SSG-16), which aims to promote self-assessment in this area by the IAEA Member States.

Finally, the Topical Groups are still seen as the principal mechanism for implementation of the ANSN’s activities. Table 1 below provides an overview of these activities, including workshops, training courses and review missions conducted in various countries. As a result, nuclear safety experts in the Asia and the Pacific region are able to work together more closely and nuclear safety capacity building and infrastructure development in the region have thereby improved continuously.

Table 1: Number of activities implemented in 2012

ANSN Management	9
Plenary	1
SC	2
CBCG/CBMG	0
ITSG	3
Other activities	3
Regional	29
CBCG/CBMG	5
ETTG	7
EPRTG	1
GRITG	1
OSTG	1
RWMTG	3
SATG	6
SMRRTG	2
STG	1
LMSTG	1
CTG	1
National	10
Bangladesh	1
China	1
Indonesia	5
Malaysia	2
Philippines	1
Thailand	0
Vietnam	0
Total number of activities	48

Table 2: Contributions in 2012

Country/Entity	Contributions
European Commission	€483 105
Indonesia	Hosted activities
Japan	€751 158, two cost-free experts and hosted activities
Republic of Korea	€75 300, two cost-free experts and hosted activities
Malaysia	Hosted activities
Philippines	Hosted activities
Thailand	Hosted activities
United States of America	€247 040 for all the regional nuclear safety networks
Vietnam	Hosted activities

List of abbreviations used in Table 1

CBCG	Capacity Building Coordination Group
CBMG	Capacity Building Management Group
CTG	Topical Group on Communication and Consultation with Interested Parties
EPRTG	Topical Group on Emergency Preparedness and Response
ETTg	Topical Group on Education and Training
GRITG	Topical Group on Governmental and Regulatory Infrastructure
ITSG	Information Technology Support Group
LMSTG	Topical Group on Leadership and Management for Safety of the Regulatory Bodies
OSTG	Topical Group on Operational Safety
RWMTG	Topical Group on Radioactive Waste Management
SATG	Topical Group on Safety Analysis
SC	Steering Committee
SMRRTG	Topical Group on Safety Management of Research Reactors
STG	Topical Group on Siting

Consultancy Meeting to Finalize the Guidelines for the ANSN's Education and Training Self-Assessment and Peer Review Services

Vienna, Austria, 27 February–2 March 2012

Mr Ramón Revuelta, an expert in the area of nuclear power plants and former Deputy Director of the Paris Centre of the World Association of Nuclear Operators (WANO), and Mr Csaba Sükösd, an expert in the area of university-level education and training in the nuclear field, met with representatives of the IAEA Secretariat in order to revise the guidelines for the ANSN's education and training self-assessment and peer review services.

These guidelines are now in line with Action 9 (“Strengthen and maintain capacity building”) of the IAEA Action Plan on Nuclear Safety, which was approved in September 2011 by all IAEA Member States as a blueprint for systematically strengthening the global nuclear safety framework at the national, regional and international level. The guidelines include a methodology and comprehensive questionnaires for self-assessment at various levels, including at the governmental level and within all relevant organizations, such as technical and scientific support organizations (TSOs), universities, and regulatory bodies. Based on these guidelines, a self-assessment in this area was conducted by Indonesia in April 2012, and a first pilot mission of the new Education and Training Review Service (ETReS) took place in June 2012.

Restructuring of the ANSN Website

In 2012, the centralized ANSN website underwent a restructuring process, whereby the existing content of the website was re-arranged to avoid duplications as well as to facilitate ease of navigation for users.

In the new structure, the ANSN website can be easily accessed. All details on all the Topical Groups (left column) and their activities can be accessed with a single click.



The content is structured consistently across all the Topical Group pages and includes sections for past activities, upcoming events and reference materials. The ANSN has also introduced more collaborative elements, such as videoconferencing and discussion forums, for all the Topical Groups.

Progress in Information Technology Support for Capacity Building

Already in 2011, the ANSN successfully launched and used an online nomination system for its events. This online system has continued to be used throughout 2012, and further improvements have been made.

With the new structure of the ANSN website, a further collaborative feature, namely online meetings (via videoconferencing), became available to ANSN users. It is expected that online meetings will serve as an effective communication channel for smoother and faster collaboration and coordination among the geographically dispersed ANSN community.

The ANSN has also established a database of experts, which was released for access by all ANSN users at the end of April 2012. This database is meant to allow ANSN users to interact with experts from the various Topical Groups. It also enables the ANSN management to nominate suitable experts as lecturers and trainers for the various ANSN training courses and workshops. The ANSN encourages potential experts to register themselves in the database.

Regional Workshop on Waste Safety Practices and Establishing Regulations for Near Surface Disposal (Part 2)

Jakarta, Indonesia, 5–9 March 2012

The workshop was hosted by Indonesia's Nuclear Energy Regulatory Agency (BAPETEN) and was attended by 28 participants from 6 ANSN member countries. Two experts from, respectively, the Netherlands and the United Kingdom and one IAEA staff member delivered the lectures and led the exercises. The workshop was a follow-up event to the workshop organized in September 2011 in the Philippines which dealt with the same overall topic but focused on the basic elements and principles for the demonstration of safety for near surface disposal facilities (see ANSN Newsletter No. 140).

The workshop aimed at building and strengthening capacities in the development and demonstration of safety of near surface disposal facilities for low level radioactive waste, with a focus on the development of the safety case and safety assessment by the operator and its review by the regulator.



Participants at the workshop together with the IAEA Technical Officer and invited experts

A series of detailed lectures on the different aspects of the safety case and safety assessment for near surface disposal facilities as well as case-study based lectures on the development of such facilities were delivered at the workshop.

Furthermore, half of the workshop was dedicated to performing applied exercises on the development of scenarios for the demonstration of safety of near surface disposal and on the development and review of a safety case.

Consultancy Meeting to Develop Terms of Reference for the Newly Established Topical Group on Leadership and Management for Safety of the Regulatory Bodies

Vienna, Austria, 8–9 March 2012

A consultancy meeting was organized at the IAEA's Headquarters in Vienna from 8 to 9 March 2012, to prepare the terms of reference for the new Topical Group on Leadership and Management for Safety of the Regulatory Bodies (LMSTG). Three internationally recognized experts from the Republic of Korea, the Philippines and the United Kingdom participated in the meeting along with several IAEA staff members.



Participants and experts at the consultancy meeting

The establishment of a new Topical Group dealing with the management system of regulatory bodies was discussed and approved at the 14th ANSN Steering Committee meeting in November 2011 (see ANSN Newsletter No. 142). In accordance with Safety Principle 3, “Leadership and management for safety”, as set forth in *Fundamental Safety Principles* (IAEA Safety Standards Series No. SF-1); and General Safety Requirement 19, “The management system of the regulatory body”, in *Governmental, Legal and Regulatory Framework for Safety* (IAEA Safety Standards Series No. GSR Part 1), at this consultancy meeting it was proposed to adopt the following name for the new group: Topical Group on Leadership and Management for Safety.

The necessity of the regulatory body's compliance with Safety Principle 3 and General Safety Requirement 19 for the performance of its regulatory functions and, in particular, for its oversight of the implementation of management system requirements in the regulated facilities and activities and other organizations, has been accentuated by the growing number of countries embarking on nuclear power programmes.

During the meeting, draft terms of reference were prepared and the LMSTG's mandate was defined as being to support the ANSN member countries in implementing management system requirements in accordance with international safety standards. The target audience of the LMSTG includes regulatory bodies, authorized parties and other relevant governmental organizations. To achieve the overall goal of the LMSTG, which is to assist ANSN member countries in establishing and sustaining an effective management system, the following objectives were identified during the meeting:

1. To enhance understanding of the concept of leadership and management for safety as well as the implementation of effective management systems in the embarking countries in the region, in accordance with international safety standards;
2. To identify the needs of ANSN member countries for assistance in the area of leadership and management for safety and in the implementation of effective management systems, as well as the means to provide such assistance;
3. To promote the implementation of management for safety through effective leadership and ensuring a strong safety culture within regulatory bodies;
4. To enhance cooperation, share the best practices and lessons learned in the area of leadership and management for safety as well as in the implementation of effective management systems; and
5. To provide assistance for continuous improvement and sustainability in leadership and management for safety in ANSN member countries.

In addition to the draft terms of reference, the meeting developed a number of recommendations for future activities of the LMSTG. The draft terms of reference and the recommendations were submitted to the ANSN Steering Committee for consideration and approval at its 15th meeting in April 2012.

Consultancy Meeting to Develop Terms of Reference for the Newly Established Topical Group on Communication and Consultation with Interested Parties

Vienna, Austria, 12–13 March 2012

A consultancy meeting was organized at the IAEA's Headquarters in Vienna from 12 to 13 March 2012, to prepare the terms of reference for the new Topical Group on Communication and Consultation with Interested Parties (CTG). Two internationally recognized experts from Hungary and the Philippines participated in the meeting along with several IAEA staff members.



Participants at the consultancy meeting

Over the past decades, there has been a growing societal awareness about the necessity for communication and consultation with interested parties on safety in a transparent and open manner. Beyond the legitimate interest of the public and other interested parties in radiation and nuclear safety matters, it is recognized that safety issues are best handled with the participation of all concerned citizens, at the relevant level, as addressed in General Safety Requirement 36, "Communication and consultation with interested parties", in *Governmental, Legal and Regulatory Framework for Safety* (IAEA Safety Standards Series No. GSR Part 1). The importance of communication and information dissemination has been highlighted in the IAEA Action Plan on Nuclear Safety (specifically in Action 11, which is headed "Communication and information dissemination").

Recognizing the importance of this topic, at the 14th ANSN Steering Committee meeting in November 2011, it was agreed to establish a new Topical Group dealing with public communication (see ANSN Newsletter No. 142). The participants at the consultancy meeting proposed the following name: Topical Group on Communication and Consultation with Interested Parties, reflecting General Safety Requirement 36 in GSR Part 1.

Draft terms of reference for the CTG were discussed and prepared. It was agreed that the CTG's mandate would be to support the ANSN member countries to communicate and consult with interested parties, including the public, on safety and security related matters in normal as well as crisis situations. The target audience of the CTG includes regulatory bodies, authorized parties and other relevant governmental organizations. To achieve the overall goal of the CTG, which is to

assist ANSN member countries in establishing and sustaining effective mechanisms for communication and consultation with interested parties, the following objectives were identified during the meeting:

1. To enhance understanding of the importance and the concept of effective communication and consultation with interested parties in the ANSN member countries, in accordance with international safety standards;
2. To clarify the role and responsibilities of each relevant organization when communicating on safety and security related matters;
3. To establish a platform for communication and consultation with interested parties to support networking among the ANSN member countries;
4. To identify the needs of ANSN member countries for assistance in the area of communication and consultation with interested parties, as well as the means to provide such assistance;
5. To promote the development and implementation of strategies and plans for communication and consultation with interested parties for each relevant organization;
6. To enhance cooperation and share regional and international good practices, lessons learned and any relevant information in the area of communication and consultation with interested parties among the ANSN member countries;
7. To provide assistance for continuous improvement and sustainability in communication and consultation with interested parties in ANSN member countries, through appropriate means, including meetings, training courses and expert missions; and
8. To coordinate communication and consultation issues with the other ANSN Topical Groups in order to avoid any duplications and to take advantage of relevant expertise.

The draft terms of reference were prepared in accordance with Safety Principle 2, “Role of government”, as set forth in *Fundamental Safety Principles* (IAEA Safety Standards Series No. SF-1) and General Safety Requirement 36 in GSR Part 1, and were subsequently submitted to the ANSN Steering Committee for consideration and approval at its 15th meeting in April 2012. In addition to the draft terms of reference, a preliminary draft midterm plan for the CTG was developed at the consultancy meeting and this was also submitted for consideration by the ANSN Steering Committee.

Expert Review of the Final Draft of Malaysia's Nuclear Installation Licensing Regulations

Dengkil, Malaysia, 19–23 March 2012

The expert review was organized by the IAEA in cooperation with Malaysia's Atomic Energy Licensing Board (AELB) on behalf of the Malaysian Government. Nine experts from the AELB and two experts from, respectively, Finland's Radiation and Nuclear Safety Authority and the Pakistan Nuclear Regulatory Authority took part in the review mission along with an IAEA Technical Officer.

The objectives of the mission were to assist the AELB in familiarizing itself with existing licensing practices and to exchange experience on the approaches to licensing through the presentations given by the experts, the jointly conducted expert review of the final draft of Malaysia's Nuclear Installation Licensing Regulations and subsequent discussions among the participants.



Participants in the expert review mission

A number of recommendations were provided for improvements in the development of Malaysia's regulatory framework for licensing and in the regulation of the safety of nuclear installations, including further review of the existing regulations and the elaboration of separate new regulations for particular items, as well as the expansion of human resources to undertake the necessary additional regulatory safety functions.

National Workshop on the Licensing Process for Nuclear Fuel Cycle Facilities

Jakarta, Indonesia, 26–29 March 2012

The workshop was hosted by Indonesia's Nuclear Energy Regulatory Agency (BAPETEN) in Jakarta. Participants in the workshop included an IAEA Technical Officer, two regulatory experts from, respectively, France's Institute for Radiological Protection and Nuclear Safety (IRSN) and Germany's Installation and Reactor Safety Company (GRS), and 37 national attendees.

The purpose of this workshop was to address the licensing process used for nuclear fuel cycle facilities and to provide examples of its application, specifically with regard to review and assessment, to nuclear fuel fabrication facilities and spent fuel storage facilities.



Participants at the workshop

At the request of BAPETEN, the experts from the IRSN and GRS and the IAEA Technical Officer delivered lectures on the licensing process (including regulatory review and assessment), illustrated by examples relating to spent fuel storage, and facilitated the conduct of working group sessions and plenary discussions. The national attendees gave presentations on the national regulatory framework and licensing practices for fuel cycle facilities in their respective countries and actively participated in the general, working group and plenary discussions.

The lectures and presentations delivered during the workshop helped to raise BAPETEN's awareness of the licensing process, including regulatory review and assessment, as well as of the requirements in the relevant IAEA safety standards. The results and recommendations from each working group discussion were reviewed during plenary sessions to establish a common position that could be endorsed by the workshop as a whole. The IAEA Technical Officer recommended that BAPETEN's management should review these recommendations and formulate an action plan to address them.

Pilot Peer Review Mission on Self-Assessment of the Education and Training System for Nuclear Safety Human Resource Development

Jakarta, Indonesia, 9–13 April 2012

The mission was hosted by the Centre for Education and Training of the National Nuclear Energy Agency (BATAN) in Jakarta, Indonesia. 16 participants from BATAN, the Nuclear Energy Regulatory Agency (BAPETEN), Gadjah Mada University, and the University of Indonesia, as well as one expert from Spain participated in the mission.

The objectives of this mission were to present the Education and Training Review Service (ETReS) guidelines; to assist in preparing and carrying out the self-assessment; and to decide the scope for the ETReS pilot mission which was subsequently conducted in June 2012. ETReS was set up by the ANSN's Topical Group on Education and Training Topical Group (ETTG). Its guidelines were drafted by the IAEA, ETTG members and external experts. The ETReS guidelines include a methodology and questionnaires for self-assessment of the education and training programmes in ANSN member countries.



During the meeting

The external expert presented the ETReS guidelines and intensive discussions followed with Indonesian participants to facilitate a better understanding of the adaptation of the questionnaires for the Indonesian self-assessment. As a result of the discussions, a number of follow-up actions were identified for the Indonesian counterparts and the IAEA. All of the Indonesian participants were confident that they could perform their self-assessment and agreed to receive the ETReS pilot mission in June 2012.

Regional Workshop on Safety Analysis Practices and Exercise Using Computer Codes: In-Depth Understanding of Loss of Coolant Accidents (LOCAs) and Modelling of LOCA Test
Daejeon, Republic of Korea, 9–13 April 2012

The workshop was organized by the International Nuclear Training and Education Centre of the Korea Atomic Energy Research Institute (KAERI) together with the IAEA in Daejeon, Republic of Korea. Fifteen participants from seven ANSN member countries, six lecturers from KAERI and the Korea Institute for Nuclear Safety, and one IAEA Technical Officer attended the workshop. The objective of the workshop was to share safety analysis practices and experiences among participants. The workshop enabled an exchange of experiences in the area of safety analysis and also discussed how to maintain and improve knowledge of safety analysis methods and use of computer codes. The workshop covered several topics such as national presentations on safety assessment assignments, analysis and results for simulating LOCA experiments using the Visual System Analysis/Reactor Excursion and Leak Analysis Program (ViSA/RELAP) code, and discussions on future activities related to safety analysis.



Group photo of the IAEA Technical Officer, lecturers and participants during the workshop

The Technical Officer from the IAEA presented the IAEA safety documents on safety analysis and introduced *Deterministic Safety Analysis for Nuclear Power Plants* (IAEA Safety Standards Series No. SSG-2). Four experts from KAERI gave lectures introducing overall LOCA phenomena, analysis methodologies for modelling wall and interface heat transfer and verification and validation methods for LOCA analysis, interface and wall drag, and experiments. Participants also presented their country status and discussed relevant safety analysis topics. In the exercise and practice session, all participants' gained experience of LOCA simulation using the IAEA ViSA/RELAP code for separate effect tests and integrated effect tests. In addition to classroom lectures, a technical tour was conducted to the experimental facilities at KAERI. The workshop successfully provided the participants with valuable information and knowledge, and practical experience of safety analysis for an in-depth understanding of LOCA and modelling of LOCA integrated effect tests.

15th ANSN Steering Committee Meeting

Vienna, Austria, 11–13 April 2012

The 15th ANSN Steering Committee meeting convened from 11 to 13 April 2012 at the IAEA's Headquarters in Vienna and was attended by Steering Committee members from China, Indonesia, Japan, Republic of Korea, Malaysia, Philippines, Singapore, Thailand, Vietnam, Australia, France, Germany, United States of America, and newly-welcomed full members Bangladesh and Kazakhstan, together with IAEA staff including the ANSN Programme Manager and four Programme Management Officers.



Participants at the 15th ANSN Steering Committee meeting

Opening session

Mr Paul Woodhouse, Head of the IAEA Safety and Security Coordination Section and the ANSN Programme Manager, warmly welcomed the meeting participants on behalf of the IAEA. He expressed appreciation for the commitment and progress made by the ANSN for the development and improvement of nuclear safety infrastructure and capacity building in ANSN member countries, thereby making the ANSN a role model among regional networks. He stressed the significance of the IAEA Action Plan on Nuclear Safety which was unanimously approved by IAEA Member States in September 2011 under the post-Fukushima global nuclear safety framework. He hoped that the ANSN could work more closely with the IAEA to meet challenges in Asia for States embarking on a nuclear power programme for the first time as well as for States expanding existing nuclear power programmes, in line with the IAEA Action Plan on Nuclear Safety.

Mr Khoirul Huda, the Vice-Chair of the ANSN Steering Committee, chaired this meeting. He expressed his appreciation for the IAEA's continuous support to the ANSN's activities and emphasized that ANSN member countries should ensure they have sufficient and competent human resources to assume their responsibility for the safe and sustainable use of nuclear technologies, in line with the IAEA Action Plan on Nuclear Safety.

A moment of silence was observed in memory of Mr Guritno Lokollo, former Coordinator of the Topical Group on Education and Training (ETTG), who passed away in February 2012.

Furthering capacity building within the ANSN

The Steering Committee took note of a report from the IAEA on ANSN activities since the last Steering Committee meeting in November 2011. The Steering Committee acknowledged changes in the ANSN management and appreciated efforts made to develop the regional capacity building system in Asia, in line with the “Vision for the ANSN by the Year 2020” (ANSN Vision 2020).

The IAEA Nuclear Safety Action Team presented the IAEA Action Plan on Nuclear Safety and the status of its implementation, highlighting the 12 main areas of the Action Plan, including facilitating the development of the infrastructure necessary for Member States embarking on a nuclear power programme (Action 8), strengthening and maintaining capacity building for Member States embarking on a nuclear power programme as well as expanding and/or introducing nuclear power programmes (Action 9), and enhancing the transparency and effectiveness of communication and improving dissemination of information (Action 11).

Mr Shahid Mallick, Head of the Programme and Policy Unit of the IAEA Safety and Security Coordination Section, gave a briefing on the concept and definition of capacity building as well as on the methodology and tools for self-assessment to facilitate the implementation of capacity building programmes of IAEA Member States (see ANSN Newsletters Nos. 145 and 149), described in a guidance document on capacity building which is under development. He stressed the importance of the commitment of Member States to strengthen, develop, maintain and implement national capacity building, the major elements of which are education and training, knowledge networks, human resource development and knowledge management. The Steering Committee welcomed the IAEA’s concept and definition of capacity building and the guidance document, and positively considered integrating them into the future ANSN work programme to develop capacity in ANSN member countries.

Ms María Moracho, IAEA Technical Officer for the ETTG, gave a presentation on the progress of the Education and Training Review Service (ETReS), which is the ANSN’s regional initiative to develop and implement guidance for self-assessment and review of the education and training system. The Steering Committee commended Indonesia for its request to host the first pilot ETReS mission in June 2012.

Mr Kazuhide Tomita, Coordinator of the ANSN Capacity Building Coordination Group (CBCG), proposed a discussion to explore the best way to coordinate the ANSN capacity building activities, as a follow-up to the last Steering Committee meeting in November 2011. He highlighted that the ANSN member countries should be the core players in the discussion to coordinate the capacity building initiative within the ANSN, because the fundamental and primary responsibility for capacity building rests on each ANSN member country. Thus he proposed to initiate a discussion on this issue with representatives from the ANSN member countries who would be nominated by the Steering Committee members, in cooperation with the current members of the CBCG. The

Steering Committee agreed that this expanded group would revisit the ANSN Vision 2020 from the post-Fukushima perspective and explore the best way of managing ANSN capacity building activities in collaboration with the IAEA. In addition, the CBCG would continue to coordinate the activities of ANSN Topical Groups as had been handled in the past.

Establishing new Topical Groups on Communication and Consultation with Interested Parties, and Leadership and Management for Nuclear Safety of the Regulatory Bodies

The Steering Committee reviewed and discussed the draft terms of reference of two new Topical Groups, namely the Topical Group on Communication and Consultation with Interested Parties (CTG) and the Topical Group on Leadership and Management for Safety of the Regulatory Bodies (LMSTG), in line with the IAEA Action Plan on Nuclear Safety and based on the relevant IAEA safety standards, in particular *Governmental, Legal and Regulatory Framework for Safety* (IAEA Safety Standards Series No. GSR Part 1). The Steering Committee approved the draft terms of reference with necessary modifications recommended by the participants of the meeting, and agreed to move forward to the next step, including the nomination of the new Topical Group members and their participation in the first annual meetings.

National presentations

The national presentations were made by the Steering Committee members on the current status of their national plan and on-going actions for capacity building and developing infrastructure under the Post-Fukushima global nuclear safety framework. The Steering Committee members expressed their expectations and commitments regarding future ANSN activities for achieving a high level of regional nuclear safety.

Strengthening cooperation with other networks and forums

The ANSN attaches strategic importance to strengthening cooperation among global and other regional networks and forums. The IAEA gave a presentation to the Steering Committee on the progress and future of the Regulatory Cooperation Forum (RCF), emphasizing the role of the RCF in improving the coordination of regulatory support for countries embarking on nuclear power programmes, through bilateral or multilateral arrangements, and encouraging the ANSN member countries embarking on nuclear power programmes to participate in the RCF. A presentation was also given on the European Nuclear Safety Training and Tutoring Institute (ENSTTI) by Mr Didier Louvat, Managing Director of ENSTTI. The Steering Committee agreed to initiate a process to identify ways and establish a mechanism for future cooperation between the ANSN and the ENSTTI.

Closing session

The IAEA expressed its commitment to continue providing sustained necessary support to the ANSN, based on the needs of the ANSN member countries. Mr Khoirul Huda, Chairperson of the meeting, thanked all the meeting participants for their strong support and active participation in the meeting. He appreciated the progress made in ANSN activities and was confident that the member countries could face and overcome the challenges after the Fukushima Daiichi nuclear accident by marching ahead together.

IAEA Technical Meeting on Establishing, Developing and Maintaining Capacity Building in Member States

Vienna, Austria, 17–20 April 2012

The meeting was held from 17 to 20 April 2012, in connection with the implementation of the IAEA Action Plan on Nuclear Safety, particularly Action 9, “Strengthen and maintain capacity building”. The objectives of this meeting were:

- To provide IAEA Member States with a methodology and self-assessment questionnaire that would enable them to conduct self-assessments of their capacity building activities;
- To provide an opportunity for Member States to test the methodology in practice; and
- To finalize a guidance document on capacity building in Member States.



Participants at the meeting

Thirty-five participants from 23 Member States, including 11 experts from ANSN member countries China, Indonesia, Japan, Malaysia, Thailand and Vietnam participated in this meeting.

IAEA Deputy Director General (DDG) and Head of the Department of Nuclear Safety and Security, Mr Denis Flory, and IAEA DDG and Head of the Department of Nuclear Energy, M Alexander Bychkov, jointly opened the meeting. Mr Flory highlighted that the capacity building action is a unique action in the sense that capacity building needs to be maintained continuously without complacency. Mr Bychkov emphasized the responsibility of Member States, at the government-level, to ensure the maintenance and enhancement of an appropriate national capacity building infrastructure.

The progress of implementation of the IAEA Action Plan on Nuclear Safety, the concept of capacity building and a methodology of self-assessment for capacity building were introduced by the IAEA.



Illustration of a concept of capacity building:

'Capacity building umbrella'

Activities related to four essential elements of capacity building, namely human resource development, knowledge management, education and training, and knowledge networks were also presented by the IAEA.

The draft document *Guidance and Methodology for Assessment of Capacity Building in Member States with a Nuclear Power Programme and Those Planning to Embark on Such a Programme* was well received by the meeting participants. The self-assessment methodology was tested at breakout sessions during which case studies prepared by the IAEA were analysed on the basis of this methodology. Meeting participants highly appreciated the opportunity to discuss the case studies and shared actual experiences with other participants, while applying the self-assessment questions in the draft document.

The participants committed to consider applying the self-assessment methodology and questionnaires for conducting self-assessments in their countries and sharing their experiences. The participants requested the IAEA to issue the guidance document as soon as possible, after necessary modifications identified during this meeting, and make it available to all Member States for their use.



Breakout session at the meeting

The ANSN representatives also appreciated the guidance document and indicated that the ANSN member countries would conduct self-evaluations of their capacity building, based on this guidance document. Some ANSN member countries also requested the IAEA to provide assistance with their self-evaluations.

Finland's self-evaluation of capacity building was presented along with the draft Finnish report that is the first submittal of a capacity building self-evaluation by a Member State as part of the implementation of the IAEA Action Plan on Nuclear Safety. The sharing of the Spanish report on capacity building experience was also appreciated and considered as a good practice. A Japanese presentation about lessons learned from the Fukushima Daiichi nuclear accident and the significance of strengthening and maintaining capacity building post-Fukushima was informative and well received.

The IAEA is planning to conduct follow-up workshops to disseminate experiences. A Technical Meeting on one of the essential elements of capacity building, which is human resource development, was also organized in October 2012.

Regional Workshop on the Periodic Safety Review of Research Reactors

Bangkok, Thailand, 30 April–4 May 2012

The workshop was hosted by the Thailand Institute of Nuclear Technology in Bangkok, Thailand. Twenty participants representing regulatory bodies and operating organizations from eight ANSN member countries attended the workshop. Lectures were delivered by IAEA Technical Officers and two external experts from the US Nuclear Regulatory Commission and the Australian Nuclear Science and Technology Organization.

The objective of the workshop was to provide practical information and guidance to research reactor specialists from Asian countries on the scope, contents and methodology of periodic safety reviews (PSRs), and to serve as a forum for the participants to present and discuss their national practices and exchange experience on these topics.



Group photo of the IAEA Technical Officer, experts and participants during the workshop

The programme of the workshop included 17 presentations, covering different topics related to the PSRs of research reactors. The IAEA presentations covered the contents and methodologies of PSRs, the IAEA programme on the safety of research reactors and feedback from recent activities, IAEA safety standards and safety documents for research reactors. Following the presentations, discussions were held on the benefit of PSRs for enhancing safety, taking into account the ageing of facilities, their major modifications and changes in their environment.

A large part of the workshop was dedicated to a PSR exercise. The participants were divided into two working groups (participants from regulatory bodies and participants from operating organizations).

A technical visit to the Thai Research Reactor was organized on the third day and the participants discussed safety issues related to the facility with their Thai counterparts during the visit.

The workshop provided the participants with useful information on the topics to be covered in a PSR, and facilitated the exchange of good practices among the participants. The diversity of experience and technical background of the participants added to the effectiveness of the discussions during the workshop.

Regional Workshop on Regulatory Control of Nuclear Power Plants

Daejeon, Republic of Korea, 21–25 May 2012

The workshop was organized by the International Nuclear Safety School (INSS) of the Korea Institute of Nuclear Safety (KINS) in Daejeon, Republic of Korea. A total of 38 participants attended the workshop: ten participants from ANSN member countries; twelve new KINS entrants; one IAEA Technical Officer, nine KINS senior experts; and six INSS staff.

The objective of the workshop was to present general practices recommended by the IAEA in its safety guidance, as well as country-specific examples of how these general principles and requirements have been implemented in various countries.



Group photo of participants and KINS lecturers during the workshop

Throughout the workshop, the IAEA Technical Officer and the KINS senior experts shared their knowledge and information on the relevant topics. During the presentation on *Governmental, Legal and Regulatory Framework for Safety* (IAEA Safety Standards Series No. GSR Part 1), the IAEA Technical Officer further emphasized those safety requirements that are important for capacity building, in line with the IAEA Action Plan on Nuclear Safety. During the workshop, the participants from ANSN member countries shared their country profiles.

In addition to the technical presentation, the participants visited the HANARO research reactor of the Korea Atomic Energy Research Institute, and the KEPCO Nuclear Fuel Co.

The workshop provided broad knowledge and experience which will contribute to regulatory control for nuclear power plants, especially for newcomer countries.

Regional Workshop on Emergency Preparedness and Response Dose Assessments and Annual Meeting of the Topical Group on Emergency Preparedness and Response

Jakarta, Indonesia, 21–25 May 2012

The workshop and annual meeting were hosted by the Nuclear Energy Regulatory Agency (BAPETEN) and 14 participants from ANSN member countries as well as one participant from a supporting country, Australia, one expert from Hungary and one IAEA Technical Officer attended the workshop.

While urgent protective actions after a major nuclear or radiological accident are thoroughly discussed and regulated at the national and international level, the issue of dose assessment in an accident has received less attention in the emergency preparedness and response standardization process. The purpose of the workshop, therefore, was to share the experience and national legislative approaches of the ANSN member countries within the forum of the Topical Group on Emergency Preparedness and Response (EPRTG).



Group photo of the IAEA Technical Officer, experts and participants during the workshop

Regional Workshop on the Safety Case and Safety Assessment for Predisposal Facilities

Hanoi, Vietnam, 28 May–1 June 2012

The workshop was hosted by the Vietnam Atomic Energy Institute. A total of 13 participants from Indonesia, Malaysia, Philippines, Thailand and Vietnam attended the workshop. An IAEA Technical Officer and three experts from Croatia, the Institute for Radiological Protection and Nuclear Safety in France and the Swedish company Facilia delivered lectures during the workshop.

The purpose of the workshop was to provide an introduction to up to date approaches in demonstrating the safety of radioactive waste management (RWM) facilities and activities, as well as requirements, methodology and tools for the safety case and safety assessment for RWM facilities and activities. The workshop also provided participants with an opportunity to discuss and share experiences and problems in licensing and safety demonstrations in their own countries.

The workshop opened with a series of presentations on IAEA safety standards and activities related to the safety case and safety assessment, IAEA methodologies and tools for developing such safety cases and safety assessments, and the results of the test case of the Thailand Institute of Nuclear Technology. Emphasis was placed on the draft Safety Guide DS284 on the safety case and safety assessment for RWM facilities, the methodology report of the International Project on Safety Assessment Driving Radioactive Waste Management Solutions (SADRWMS) and the Safety Assessment Framework (SAFRAN) tool.

Exercises were performed in small groups to develop proposals for national test cases to apply the methodology and tools, work through the SAFRAN tool tutorials and agree on a work plan for developing the safety case and safety assessment at the participants' facilities using the above-mentioned draft Safety Guide, the SADRWMS methodology and the SAFRAN tool.

All of the participants agreed that the workshop met the stated objectives. The SADRWMS methodology and SAFRAN tool were useful for demonstrating safety in compliance with IAEA safety standards and international best practices.



Group photo of the IAEA Technical Officer, experts and participants during the workshop

Introduction of the Education and Training Review Service (ETReS)

The main objective of ETReS is to assist ANSN member countries to develop and to maintain a sustainable and adequate nuclear safety education and training programme that is consistent with IAEA safety standards and international good practices, and that also takes into account national conditions. This objective is expected to be met by a self-assessment, followed by an international peer review of the results and implementation of an action plan to fulfil the identified needs with the support of the ANSN and the IAEA as appropriate.

The scope of ETReS can be adapted to the needs and wishes of the recipient country. It is intended to address the main areas of education and training infrastructure as part of a country's national capacity building system. The ETReS guidelines include a methodology and comprehensive questionnaires for self-assessment of the education and training infrastructure at the national and organizational level (government, regulator, operators, educational institutions, technical support organization). The ETReS guidelines are based on the capacity building self-assessment methodology and questionnaires that were developed in connection with the IAEA Action Plan on Nuclear Safety (see: <http://gnssn.iaea.org/sites/auth/gnssn/NSAP/default.aspx>).

The process suggested in the ETReS guidelines consists of a preliminary self-assessment followed by an evaluation of the results of that self-assessment by the country in question before an ETReS mission is conducted by the ANSN and foreign experts.

Expert Mission on Setting Up a Master Materials Catalogue for Inventory Management at Nuclear Power Plants

Wuhan, China, 4–6 June 2012

The mission was conducted at the request of the Research Institute of Nuclear Power Operation (RINPO) in Wuhan, China. 27 participants from various Chinese nuclear power plants (NPPs) and construction projects attended the mission with an IAEA Technical Officer and two external experts from Électricité de France and Duke Energy, United States of America. In addition, representatives from the China National Nuclear Corporation (CNNC) Business Centre, RINPO and VENTYX, a supplier of enterprise asset management (EAM) systems, participated in the mission.

The EAM system was developed by the CNNC for the production management of the Fuqing and Fangjiashan NPPs. One module of this relates to Inventory management and the main purpose of the mission was to set up a master materials catalogue.



Group photo of the IAEA Technical Officer, experts and participants during the mission

The IAEA Technical Officer gave an opening presentation concerning the IAEA generally, the structure of the ANSN and the IAEA safety standards in particular. The experts gave a number of excellent presentations on setting up the materials management catalogue, the unique coding system used, and advice on the use of the catalogue in the construction and operational phases.

The workshop was very successful. In particular, the presentation sessions were very interactive with many questions being asked and the experiences of the external and Chinese experts being shared. It was also an excellent opportunity for nuclear engineers with similar interests to network and share best practices in relation to materials management. The workshop was very valuable in supporting Chinese nuclear organizations and NPPs to further develop their materials management programmes in a safe and effective manner.

Ninth Information Technology Support Group Meeting

Bali, Indonesia, 11–13 June 2012

The meeting was hosted by the Nuclear Energy Regulatory Agency in Bali, Indonesia, and was attended by 15 participants from Bangladesh, China, Indonesia, Japan, Republic of Korea, Malaysia, Philippines, Thailand and Vietnam as well as two IAEA representatives.

The objectives of the meeting were to review the progress of the capacity building IT modules for the centralized ANSN website; enhance collaboration with the ANSN national centre websites by facilitating information exchanges; brainstorm on future technical enhancements in the existing IT modules to provide the ANSN user community with easy and smooth access to information via the website; and collect and analyse future requirements of new entrant ANSN member countries.



Group photo of the IAEA representatives and participants during the meeting

Several enhancements to the capacity building IT modules were discussed and proposed. Information Technology Support Group (ITSG) members also discussed the roadmap for implementation of a new national centre website for Bangladesh. During the meeting, ITSG members discussed approaches for further collaboration and the incorporation of capacity building IT modules in national centre websites. ITSG members discussed future activities, including the migration of country knowledge bases to the Global Nuclear Safety and Security Network, revision of the taxonomy for the e-Library and a feasibility study for the migration of the centralized ANSN website to SharePoint. It was also decided to conduct a consultancy meeting in 2012 for ITSG members to devise a mechanism for information exchange between the centralized ANSN website and national centre websites.

The meeting was successful in providing an update on the implementation of the capacity building IT modules to new ITSG members.

**Regional Workshop on Site Evaluations and Safety Improvements Focusing on the
Actions after the Fukushima Daiichi Nuclear Accident and Annual Meeting of the
Topical Group on Siting**
Daejeon, Republic of Korea, 11–15 June 2012

The workshop was organized by the IAEA in cooperation with the Korea Institute of Nuclear Safety (KINS) International Nuclear Safety School and was attended by 45 participants from ten ANSN member countries. Experts from Italy, Spain, and Turkey, as well as from the Tokyo Electric Power Company and the Japan Nuclear Energy Safety Organization (Japan), the Institute for Radiological Protection and Nuclear Safety (France), KINS and the Korea Hydro & Nuclear Power Company (Republic of Korea) and the IAEA provided lectures during the workshop.

The workshop aimed at presenting to embarking countries the safety requirements, methodologies and criteria as established and recommended in the IAEA safety standards, as well as the national regulations, licensing practices, criteria and methodologies available at hub/supporting countries, including experiences after the Fukushima Daiichi nuclear accident. The workshop also provided a forum for the discussion of specific issues in embarking countries and for sharing lessons learned from site selection and evaluation processes.



Participants at the workshop

A series of detailed lectures on the different aspects of site selection, safety reviews, safety confirmation and monitoring, overall regulatory frameworks and IAEA technical standards applied for site selection and site evaluation were delivered by IAEA staff and other experts. The programme included a visit to the KINS Nuclear Site Monitoring Centre.

It was concluded that the IAEA had a complete set of safety standards covering external hazard and safety assessments against external hazards. The participants also acknowledged that during siting and site assessment, careful attention must be paid from the very beginning, by considering low probability/high consequence events. Validated methodologies for safety assessment against external hazards should be used to assess and maintain adequate safety. It was agreed that there is a need for the nuclear community to increase its efforts to develop integrated external event probabilistic safety assessments.

**Consultancy Meeting to Revise the Results of the Education and Training Review
Service Self-Assessment by Indonesia**
Jakarta, Indonesia, 12–15 June 2012

The main objective of the peer review under the ANSN Education and Training Review Service (ETReS) is to assist Member States to develop and maintain a sustainable and adequate education and training programme in nuclear safety consistent with IAEA safety standards and international good practices. This objective is expected to be met by a self-assessment of needs, followed by an international peer review of the results and implementation of an action plan to fulfil the identified needs.

It is intended that the entire review service should address three key areas relative to the education and training safety programme of an ANSN member country:

- The basis and framework for nuclear safety education and training;
- Competencies and training in nuclear safety; and
- Maintenance (sustainability) and improvement of the competencies and training.

The first ETReS pilot mission was held in Indonesia from 26 to 29 June 2012. Prior to the mission, the Indonesian counterparts prepared the advance reference material that included the self-assessment, and sent it to the IAEA to distribute it to the peers before the mission for information and initial evaluation in preparing the review. The purpose of the initial evaluation was to evaluate the data and information provided by the Indonesian counterparts in the advance reference material and to prepare additional input for the ETReS field mission to Indonesia.

The scope of evaluation included reviewing and evaluating material provided by the Indonesian counterparts, providing observations and suggestions/recommendations and planning the field review mission.

Regional Workshop on Special On-the-Job Training for Nuclear Power Newcomers

Daejeon, Republic of Korea, 21–29 June 2012

The workshop was organized by the IAEA in coordination with the Korea Institute of Nuclear Safety (KINS) and was attended by 15 participants from Bangladesh, Indonesia, Malaysia, Philippines and Vietnam.

The purpose of this workshop was to present special practices for quality assurance (QA) activities at nuclear power plants (NPPs) in accordance with the IAEA safety standards as well as country-specific practices. This workshop also provided an overview of quality verification and audit, application of vendor QA programmes, QA programme audits and practices, and vendor inspection technology.



Participants at the workshop

A series of lectures were given by KINS experts related to nuclear laws and regulatory frameworks, as well as experiences of nuclear energy development and safety regulation in the Republic of Korea. The participants contributed by delivering short presentations on their national regulatory frameworks, practices and national nuclear power plans/programmes. A technical visit to Doosan Heavy Industries & Construction and the Shin-Kori NPP site was also organized during the workshop. During the workshop, a preliminary examination was held for all participants to understand the level of their knowledge on the subjects of the training workshop. A final examination was also held to measure how much the workshop had contributed to the participants' knowledge.

All the participants were actively engaged in classroom discussions and exercises. The participants found the subjects of the workshop very useful for them. Participants who were specialists in some of the training subjects benefited greatly from the workshop to enhance their knowledge and experience. In particular, the technical visit was very worthwhile for all of the participants.

First ANSN Pilot Peer Review Mission for Self-Assessment on the Education and Training System for Nuclear Safety Human Resource Development

Jakarta, Indonesia, 26–29 June 2012

The mission was hosted by the National Nuclear Energy Agency (BATAN) at the facilities of BATAN in Jakarta and at the research reactor GA Siwabessy, at Serpong, Indonesia.

Six peer reviewers from Austria, Republic of Korea, Malaysia, Spain, Vietnam and the IAEA participated in the review mission together with 15 local participants from the Ministry of Energy and Mineral Resources, the Nuclear Energy Regulatory Agency, universities, research reactors and BATAN.

The purpose of the mission was to conduct the pilot peer review mission on education and training following the Education and Training Review Service (ETReS) guidelines and taking into account the results of the self-assessment performed by the Indonesian counterpart at the self-assessment mission held from 9 to 13 April 2012 (see ANSN Newsletter No. 155).

Prior to the mission, the Indonesian counterpart submitted the advance reference material to the IAEA in May 2012. The material was evaluated in the IAEA through an international expert consultants' meeting and a preliminary evaluation report was produced and disseminated to the review team and to the Indonesian counterpart.



Group photo of participants, experts and the IAEA Technical Officer during the mission

During the mission, around 100 issues were discussed with the Indonesian counterpart. These issues were divided into 4 sections and addressed education and training matters for the government, the regulator, universities, research reactors and preparation for nuclear power plant operations (further information is available on the ANSN website).

After the mission, a report was produced to present the results and recommendations of the ETReS mission based on the conclusions agreed by the ETReS team and the Indonesian representatives. The conclusions are supported by discussions on a preliminary evaluation of the advance reference material provided by the Indonesian counterpart. Furthermore, it was agreed to share the report with other ANSN member countries participating in the Topical Group on

Education and Training (ETTG) during the ETTG's annual meeting in October, to promote mutual learning and identify training priorities for the next annual plan.

Regional Train the Trainers Workshop on the Systematic Approach to Training in Nuclear Safety

Daejeon, Republic of Korea, 9–13 July 2012

The workshop was organized by the IAEA in coordination with the Korea Institute of Nuclear Safety (KINS) and was attended by ten participants from Bangladesh, Indonesia, Malaysia and Vietnam as well as an expert from Belgium.

The purpose of this workshop was to train the trainers in understating the concepts and preparing courses in accordance with the systematic approach to training (SAT) principles and practices. The target group was professional staff members of nuclear safety regulatory bodies, technical support organizations (TSOs), utilities and nuclear power plants.



Participants at the workshop

A series of lectures from KINS experts related to general principles and provisions of emergency preparedness and response, decision support systems, and an overview of the IAEA safety standards related to organization and staffing of regulatory bodies were presented. The expert from Belgium presented an example of the human resources regulatory functions at the Belgian TSO BEL V, including the ISO 9001 quality management system (QMS) and the application of the QMS in Bel V project management processes. The participants contributed by delivering short presentations on their national regulatory framework, practices, and nuclear power plans/programmes. A technical tour to the HANARO research reactor and the KEPCO Nuclear Fuel Co. fuel fabrication plant was also organized. A final examination was also held to measure how much the training workshop had contributed to the participants' knowledge.

The participants were actively engaged in classroom discussions and exercises. The participants found the subjects of the training workshop very useful for them. Participants who were specialists in only some of the training subjects benefited greatly from the workshop to enhance their knowledge and experience. In particular, the technical tour was very worthwhile for all of the participants.

**Regional Workshop on the Practices and Experiences of Safety Analysis
Licensing Review and Exercise Using Computer Codes and Annual Meeting
of the Topical Group on Safety Analysis
Bangkok, Thailand, 9–13 July 2012**

The workshop was organized by the IAEA in coordination with Thailand's Office of Atoms for Peace and Ministry of Science and Technology (MOST), and was attended by 10 participants from Bangladesh, China, Indonesia, Malaysia, Philippines, Thailand and Vietnam; IAEA staff members as well as experts from Croatia, Japan and the Republic of Korea also participated.

The purpose of this workshop was to share safety analysis practices and experiences using computer codes. The objective of the annual meeting of the Topical Group on Safety Analysis (SATG) was to share and enhance the knowledge of safety analysis, specifically of the design and licensing of nuclear power plants, among ANSN member countries.



Participants at the workshop

During the workshop, the participants were provided with comprehensive information on several topics related to licensing review methods and tools for the safety analysis of pressurized water reactors (PWRs); licensing review methods and tools for the safety analysis of boiling water reactors (BWRs); and regulatory aspects of independent engineering evaluations. In addition, a review exercise on the loss of coolant accident section of safety analysis reports for PWRs and BWRs, and a review exercise on loss of external load and containment analysis were also included.

The participants of the SATG annual meeting shared their common understanding of the goal of the SATG and also committed to follow the SATG roadmap in order to support education and training programmes for enhancing capacity building of safety analysis in a holistic manner. The participants of the regional workshop recognized the necessity of the workshop, since it covered several important topics related to fundamental and practical exercises.

Consultancy Meeting to Develop Terms of Reference for the Capacity Building Management Group

Vienna, Austria, 3–4 September 2012

The consultancy meeting was held at the IAEA's Headquarters in Vienna and was attended by five experts: Mr Khoirul Huda (Chairperson of the ANSN Steering Committee), Ms Marie-Line de Heaulme (European Nuclear Safety Training and Tutoring Institute, France), Mr Kyusik Do (Coordinator of the ANSN Topical Group on Governmental and Regulatory Infrastructure), Mr Kazuhide Tomita (Coordinator of the ANSN Capacity Building Coordination Group (CBCG)), and Mr Yoshinori Ueda (Coordinator of the ANSN Peer Review and Support Arrangement).

The primary objective of this meeting was to draft the terms of reference for the Capacity Building Management Group (CBMG). The CBMG was established as a result of the reorganization of the CBCG. This reorganization aims to strengthen the Topical Group's function to promote self-assessments by ANSN member countries and to conduct activities to support and promote the capacity building of the ANSN member countries more effectively and efficiently.

The meeting was successful and constructive, and experts succeeded in drafting the CBMG terms of reference for approval by the Steering Committee in November 2012.



Participants at the consultancy meeting

Regional Workshop on Nuclear Safety Tailored for Regulators

Daejeon, Republic of Korea, 3–14 September 2012



Group photo of the IAEA Technical Officer, experts and participants during the workshop

The main objective of this workshop was to impart useful knowledge on regulatory practices for safety assessments in topical areas of mechanical integrity of a nuclear power plant (NPP).

The workshop was organized by the IAEA in cooperation with the Korea Institute of Nuclear Safety's International Nuclear Safety School. The workshop was attended by nine participants from six ANSN member countries representing professional staff of nuclear safety regulatory bodies and their technical support organizations and was moderated by an IAEA representative and Korean experts.

At the workshop the participants presented their national regulatory frameworks, practices and nuclear power plans. At the end of the first week, a technical visit to the Yonggwang NPP site and KEPCO Nuclear Fuel Co. was organized.

Representatives of Bangladesh, Indonesia, Malaysia, Philippines, Thailand and Vietnam found the subjects of the workshop very useful. They highly appreciated the technical visit to the Yonggwang NPP site and KEPCO Nuclear Fuel Co. as a good opportunity to see an NPP and the various stages of nuclear fuel manufacturing.

Consultancy Meeting on the Development of Standards Exercise Cases for Offline Workshops

Daejeon, Republic of Korea, 10–12 September 2012



Group photo of the IAEA Technical Officer and experts during the meeting

The objective of this consultancy meeting was to explore and identify the essential elements for enhancing safety analysis capabilities so as to finalize the roadmap of the ANSN Topical Group on Safety Analysis (SATG).

During the meeting, three experts from Vietnam, Indonesia and the Republic of Korea, and an IAEA Technical Officer reviewed and discussed the roadmap to maintain and improve knowledge on safety analysis methods, identified new technical needs for future activities and prioritized the technical elements of the roadmap in accordance with their significance and the timescale for their completion.

As a result of the meeting, the SATG roadmap for safety analysis capacity building and its terms of reference were produced. This roadmap will be used to evaluate the level of competence in safety analysis of ANSN member countries.

In addition, the SATG activities for 2013 were outlined. It is expected that this roadmap and the terms of reference of SATG can be used as guidance to prepare the annual SATG programme for the near- and mid-term.

First Meeting of the Asian Nuclear Safety Network Plenary

Vienna, Austria, 19 September 2012

The objective of the first ANSN Plenary meeting was to discuss the expectations for the future of the ANSN of ANSN member countries, supporting countries and organizations, as well as other regional networks and associations.

The meeting was attended by senior officials responsible for nuclear safety from Australia, Bangladesh, China, France, Germany, Japan, Republic of Korea, Malaysia, Philippines, the United States of America and Vietnam, regional networks and associations as well as the IAEA Nuclear Safety Action Team.

At the meeting Mr Denis Flory, IAEA Deputy Director General and Head of the Department of Nuclear Safety and Security, stressed the importance of implementing ANSN activities in line with the IAEA Action Plan on Nuclear Safety to address lessons learned from the Fukushima Daiichi nuclear accident. Mr Flory also emphasized that capacity building is pivotal for Member States embarking on nuclear power programmes and that further cooperation is needed among global and regional networks to provide an integrated approach to capacity building.

IAEA staff briefed officials from ANSN member countries on the progress and current status of the IAEA Action Plan on Nuclear Safety, as well as on the definition, approach and methodology for capacity building. During the briefing, it was emphasized that, in addition to regional cooperation, good interaction between regional networks is needed within the framework of the GNSSN. In this regard, the ANSN can effectively cooperate and coordinate with other networks through information, knowledge and experience sharing.

The Ibero-American Forum of Radiological and Nuclear Regulatory Agencies and the Arab Network of Nuclear Regulators briefed participants on the history of their establishment, participating countries and relevant thematic areas. Both networks mentioned their collaboration with the ANSN and expressed interest in exchanging information as well as outlining their expectations for support and assistance from other networks and relevant international organizations.

Participants strongly acknowledged ANSN efforts and expressed their full support and commitment to future ANSN activities. Member countries made several important recommendations for the future of the ANSN.

It was recommended that the ANSN should expand the scope of its activities to include activities outlined in the IAEA Action Plan on Nuclear Safety as well as incorporate advisory services and peer review services into the ANSN work plan.

Participants expressed their support for the Technical and Scientific Support Organization Forum to enhance cooperation among regional networks. It was recommended that Asian countries should develop and maintain nuclear regulatory profiles in line with the framework of the International Regulatory Network.

Several member countries encouraged the ANSN to develop and strengthen capacity building especially in countries embarking on nuclear power. Specifically, regulatory bodies involving safety, security and safeguards was mentioned as one area that needs further development.

Participants recommended that the ANSN ensure quality over speed during planning and implementation and suggested that the ANSN focus on nuclear safety fundamentals.

During discussions it was suggested that the activities of the Association of Southeast Asian Nations and the ANSN should be analysed to ensure that they complement each other and to avoid overlaps. It was proposed to delegate the mandate to review the ANSN Vision 2020 to the Capacity Building Management Group (CBMG) in cooperation with all ANSN Topical Groups and the IAEA.

In addition, the terms of reference of the ANSN Plenary were reviewed and endorsed. The Plenary decided that the next Plenary meeting would focus on more specific elements, such as CBMG activities and the ANSN Vision 2020.

**Regional Workshop on Occupational Health and Psychological Tests and
Evaluation of Nuclear Power Plant Staff and Annual Meeting of the Topical Group on
Operational Safety**
Haiyan, China, 3–7 October 2012

The workshop was organized by the IAEA in coordination with the Research Institute of Nuclear Power Operation, and was attended by ten participants from Bangladesh, Indonesia, Malaysia and Vietnam; IAEA staff members as well as experts from the Netherlands and the Russian Federation also participated.

The purpose of this workshop was to exchange best international practices and provide training, including practical exercises, on the following topics: establishment of nuclear power plant (NPP) occupational health and psychological assessment systems; research and application of psychological selection and evaluation methods for NPP personnel; evaluation of occupational health management systems of NPPs; psychological selection or screening of NPP personnel, especially for new employees and staff in key positions.



Participants at the workshop

During the workshop, the participants were provided with comprehensive information on several topics related to the scope of psychological assessments, development of an operator as a licensed professional, fitness for duty, and evaluation of operators based on simulator/communication in the control room.

The participants took active part in training and consequent discussions. Due to the large number of participants, these were organized into 6 sub-groups that performed assessments of NPP operators, based on real personal profiles, which enabled participants to apply the training received.

Regional Workshop on the Development of National Policies on Human Resource Development for Countries Embarking on a Nuclear Power Programme and Annual Meeting of the Topical Group on Education and Training
Vienna, Austria, 8–12 October 2012

The workshop was held at the IAEA's Headquarters in Vienna and was attended by eleven participants from five ANSN member countries as well as several IAEA staff members.

The workshop covered policies on human resource development for safety infrastructure. The workshop was held in conjunction with the annual meeting of the Topical Group on Education and Training (ETTG).

During the annual meeting, ANSN member countries presented their views on education and training programmes and discussed the Education and Training Review Service (ETReS). A proposal of activities and a work programme for the ETTG in 2013 were produced and a revision of the activities from 2011 to 2013 was conducted. In addition, the final report and the results of the first pilot ETReS mission held in Indonesia from 26 to 29 June 2012 were presented to the group.



Participants at the workshop and annual ETTG meeting

During the workshop, a series of presentations on human resource management based on actions outlined in *Establishing the Safety Infrastructure for a Nuclear Power Programme* (IAEA Safety Standards Series No. SSG-16), human resource hiring strategies and human resource sustainability were given by IAEA staff. In addition, a case study for self-assessment on capacity building was carried out during the workshop. The IAEA also presented its approach to safety culture and its 'assistance packages' for establishing safety infrastructure.

It was concluded that further coordination and cooperation between the ETTG and other Topical Groups was necessary in order to provide specific training materials and support in filling the gaps identified by the ETTG through self-assessment, missions based on the Guidelines for Systematic Assessment of Regulatory Competence Needs (SARCoN) and ETReS missions. The participants also appreciated Indonesia's commendable work to conduct the self-assessment as well as the experience and results from the ETReS mission. It was recommended that the final draft of the

ETReS guidelines should be revised and uploaded on the ANSN website. The IAEA encouraged other ANSN member countries to welcome ETReS missions. Once the results from various ETReS missions are available, a strategic ETTG plan to fulfil common regional needs amongst the ANSN member countries can be designed.

Regional Workshop on Continuous Improvement of Governmental and Regulatory Infrastructure through Self-Assessment and Fourth Annual Meeting of the Topical Group on Governmental and Regulatory Infrastructure
Manila, Philippines, 15–19 October 2012

The objective of this meeting was to discuss and approve activities to be implemented in 2013 and suggest ways to integrate activities taking into account staffing resources both for members of the Topical Group on Governmental and Regulatory Infrastructure (GRITG) and the IAEA.

The workshop was attended by participants from Indonesia, Japan, Malaysia, Philippines, Thailand and Vietnam, who presented up to date information about the status and future activities associated with planning or developing their respective nuclear power programmes including post-Fukushima activities.

During the workshop the participants discussed the draft terms of reference of the Capacity Building Management Group with respect to self-assessment and the development of measurable performance indicators.

The participants also discussed the possible ways of integrating the GRITG action plan with the IAEA Action Plan on Nuclear Safety. It was noted that seven out of the twelve recommendations in the IAEA Action Plan on Nuclear Safety are relevant to the GRITG's scope of work.

In addition, the participants shared their thoughts and suggestions on improving the effectiveness of the GRITG in its capacity to address the specific needs of ANSN member countries in their pursuit to develop or strengthen safety infrastructure. Several ideas were circulated, including the need to introduce a management system to monitor progress and identify areas for improvement, and the need to think about specific deliverables such as a national policy and strategy for safety, a human resource development plan, a site evaluation capability, and an environment impact assessment review.

As a result of the meeting, two workshops were proposed to be held in 2013. The first workshop would focus on developing legal and regulatory frameworks. The second workshop would cover the establishment of national policies and strategies. In addition, a webinar on self-assessment was proposed to cover the first four elements of *Establishing the Safety Infrastructure for a Nuclear Power Programme* (IAEA Safety Standards Series No. SSG-16).

Regional Workshop on Practical Nuclear Power Plant Construction Experience

Beijing, China, 17–23 October 2012



Group photo of the IAEA Technical Officer and experts during the workshop

The objective of this workshop was to provide the participants with fundamental knowledge as well as practical experience of project management during the construction phase of a nuclear power plant (NPP).

The workshop was arranged under the framework of the ANSN and hosted by the Chinese Government through an agreement with the International Construction Training Centre (ICTC). It was the first activity organized at this Centre since its establishment in 2011.

The workshop was attended by IAEA Technical Officer Mr Lingquan Guo and participants from Bangladesh, Indonesia, Malaysia, Philippines, Thailand and Vietnam.

The workshop consisted of three sessions: a classroom course, a field visit to an NPP site, and a closing session.

The workshop was opened by Mr Dong Yuchuan, the Vice-Chairman of China Nuclear Engineering Cooperation (CNEC) and the Director of the ICTC, who welcomed the participants and highlighted the importance of safety and quality assurance during the construction phase of an NPP. He also briefed the participants on the history of the ICTC and pointed out that this Centre will provide necessary training for countries embarking on nuclear power with the support of the IAEA.

On behalf of the IAEA, Mr Lingquan Guo thanked the CNEC for hosting this first workshop since the establishment of the ICTC, gave an overview of ANSN activities and briefly introduced the IAEA safety standards.

Developments in countries that are actively building infrastructure to introduce nuclear power were presented by participants during the first session of the workshop. In the same session experts from the ICTC delivered presentations covering:

- nuclear islands in civil construction project management;

- project management of nuclear island installation;
- technical management of nuclear island installation;
- quality management of nuclear island installation; and
- engineering management of nuclear island installation.

After the classroom session, a technical visit to the Ningde NPP site in Fujian Province was organized for the participants. On site, a brief introduction to the NPP project and to construction management activities was given by the site manager. Participants were also invited to take a technical tour around units 1, 2, 3 and 4.

During the closing session, all the participants expressed their appreciation to both the IAEA and the ICTC for the organization of a valuable workshop where they received practical knowledge and experience about management activities during the construction phase of an NPP.

The meeting achieved its objectives and provided a forum for all the participants to exchange information as well as to present the current status and future activities related to the development of nuclear power in their respective countries. The ICTC successfully hosted the first workshop of this kind since its establishment allowing experts to share knowledge and practical experience of NPP construction management.

Consultancy Meeting on National Centre Websites and on the Implementation of Capacity Building IT Modules

Tokyo, Japan, 1–2 November 2012

The objectives for this consultancy meeting were to discuss the challenges for seamless collaboration between the national centre websites and the centralized ANSN website, to agree on an optimal network architecture for data exchange between the centralized ANSN website and national centre websites, to finalize an approach for the integration of capacity building IT modules in national centre websites, and to plan for future enhancements regarding the design of national centre websites.



Participants at the consultancy meeting

The IAEA briefed the Information Technology Support Group (ITSG) members on the background of the centralized ANSN website and the ITSG over the past few years. The briefing was followed by national presentations on the current status of content management system implementation, the server infrastructure as well as some technical issues. It was proposed by Japan that there could be an ANSN master server for national centre websites to be hosted in one of the ANSN member countries. The centralized ANSN website at the IAEA would push relevant information on capacity building IT modules to the ANSN master server. The IAEA then provided details on the necessary elements of the capacity building IT modules for interfaces with the national centre websites, and the taxonomy for the classification of documents in the e-Library.

A number of recommendations were provided for the future ANSN network architecture and all participants agreed upon an outline of future plans for enhancements of national centre websites.

Regional Workshop on Communication and Consultation with Interested Parties and First Annual Meeting of the Topical Group on Communication and Consultation with Interested Parties

Daejeon, Republic of Korea, 5–9 November 2012

The workshop and annual meeting of the Topical Group on Communication and Consultation with Interested Parties (CTG) were organized by the IAEA in coordination with the Korea Institute of Nuclear Safety, Republic of Korea, and was attended by 14 participants from Bangladesh, China, Indonesia, Kazakhstan, Republic of Korea, Malaysia, Philippines, Thailand and Vietnam; several IAEA staff members as well as experts from Austria and France also participated.

The purpose of the workshop was to exchange information on national contexts and strategies, as well as roles and responsibilities of key organizations for communication and consultation with interested parties on nuclear safety related issues, including the significant changes introduced following the accident at TEPCO's Fukushima Daiichi nuclear power plant. The workshop was also an opportunity to present the IAEA safety standards and other IAEA publications relevant for communication and consultation, as well as international experience.



Participants at the workshop and the CTG annual meeting

A series of presentations were given on topics such as IAEA safety standards; the approach and underlying principles for stakeholder involvement; and communication with the public in a nuclear or radiological emergency and the roles of the IAEA in such a case. International experiences and good practices regarding communication and consultation were also discussed by experts. In particular, the experts drew attention to the fact that it is of great importance not only to communicate but to involve the public and to develop a structure acting as an interface between the organizations and the general public in combination with a long term strategy for transparency.

The workshop served as an effective forum to share regional and international good practices, lessons learned and other relevant information, to enhance understanding of the importance and the concept of an effective communication and consultation culture in ANSN member countries

using IAEA safety standards, and to identify common issues and challenges for the future. The participants also developed a set of recommendations to increase the engagement with and the involvement of stakeholders in their respective countries, as well as among countries.

Regional Workshop on Leadership and Management for Safety for Regulatory Bodies and First Annual Meeting of the Topical Group on Leadership and Management for Safety of the Regulatory Bodies

Daejeon, Republic of Korea, 5–9 November 2012

The workshop and annual meeting of the Topical Group on Leadership and Management for Safety of the Regulatory Bodies (LMSTG) were organized by the IAEA in coordination with the Korea Institute of Nuclear Safety, Republic of Korea, and was attended by nine participants from Bangladesh, Indonesia, Republic of Korea, Malaysia, Philippines, Thailand and Vietnam; several IAEA staff members as well as experts from Spain and Switzerland also participated.

The purpose of the workshop was to enhance understanding on the concept of leadership and management for safety, provide guidance in the light of IAEA safety standards applicable to regulatory bodies, exchange information and experience of experts, and discuss current requirements and practices for the implementation of an integrated management system.



Participants at the workshop and LMSTG annual meeting

An IAEA Technical Officer presented the structure of the IAEA safety standards and focused on the relevant safety standards and other guidance documents. He also identified the main roles of the nuclear energy programme implementing organization, the owner/operator and the regulatory body. Additionally, he highlighted the need for embarking countries to implement IAEA safety standards during each phase of development of their nuclear power programme, as well as a roadmap, a training framework and self-assessment and safety reviews. Experts from Spain and Switzerland presented the main concepts of an integrated management system.

It was concluded that for a common understanding of the concept of leadership and management for safety, further regional workshops should be organized with the assistance of the IAEA. These workshops should focus on future needs such as creating general awareness on the development and implementation of integrated management systems among key stakeholders of the nuclear

power programme; understanding the revised Basic Safety Standards and General Safety Requirements Part 2 once it has been published; providing guidance on migration or transition from adherence to relevant ISO standards to *The Management System for Facilities and Activities* (IAEA Safety Standards Series No. GS-R-3); using indicators for process assessment; project management; stakeholder engagement and communication processes; and safety culture.

Annual Meeting and Regional Workshop on the Clearance of Decommissioning Waste

Bangkok, Thailand, 5–9 November 2012

The workshop was organized by the IAEA in coordination with the Office of Atoms for Peace, Thailand, and was attended by 13 participants from Bangladesh, Indonesia, Malaysia, Philippines, Thailand and Vietnam, as well as several IAEA staff members.

The purpose of this workshop was to enhance the participants' knowledge of the decommissioning process, the specifics of waste and materials coming from decommissioning, and the clearance process applied to reduce the amounts of radioactive waste.



Participants at the workshop

In particular, the workshop addressed the concept of clearance and its importance for the successful decommissioning and management of the generated waste; provided examples from real decommissioning projects, and trained participants through practical application exercises.

The workshop led to very positive outcomes both from the point of view of the organizers and experts and from that of the participants.

16th ANSN Steering Committee Meeting

Manila, Philippines, 13–16 November 2012

The 16th meeting of the ANSN Steering Committee was hosted by the Philippine Nuclear Research Institute (PNRI) and attended by the Steering Committee members of 13 countries, the Coordinator of the Capacity Building Management Group (CBMG), the Coordinator of the Peer Review and Support Arrangement (PRSA), the Coordinators or alternates of nine ANSN Topical Groups, the ANSN Programme Management Officer and the Scientific Secretary of the ANSN Steering Committee.



Participants at the 16th ANSN Steering Committee meeting

Dr Alumanda Dela Rosa, Director of the PNRI, welcomed the participants. She recalled the history of the ANSN and how it has evolved as a success story in regional and international cooperation. She cited the leading role that the ANSN can play in the implementation of the IAEA Action Plan on Nuclear Safety. She mentioned that nuclear power States are enhancing their nuclear programmes while newcomer States are seriously considering nuclear power as part of their energy mix. She also suggested that the capacity building plans of the ANSN could be carried out in close coordination with other IAEA activities as well as with other nuclear safety networks.

Mr Lingquan Guo, Scientific Secretary of the ANSN Steering Committee, delivered remarks on behalf of the IAEA and expressed thanks to the PNRI for hosting the meeting. He remarked that the ANSN has become a good model for other regional networks. The ANSN now has ten Topical

Groups and has created the ANSN Plenary to replace the Nuclear Safety Strategy Dialogue. The prospects and future of the ANSN were discussed, as well as the ANSN Vision 2020.

Mr Khoirul Huda, the Chairperson of the meeting, gave his address in which he expressed gratitude to the Government of the Philippines for hosting the meeting as well as to the IAEA. He mentioned the achievements of the ANSN in enhancing the safety level in the region and gave examples of the progress that has been made.

ANSN activities since the previous meeting and the progress of the Global Nuclear Safety and Security Network (GNSSN) and other regional networks

After the opening session, Mr Guo gave a presentation on the progress made since the last Steering Committee meeting:

- Progress of ANSN regional and national activities: 40 activities held, 3 under preparation, 2 cancelled and 12 postponed to 2013;
- Progress on the capacity building IT modules including enabling online nomination, finding a solution for videoconferencing (webinar), creating an experts database, and holding a consultancy meeting for the national centre websites; and
- Progress report on the GNSSN and other networks;

IAEA officers also provided a briefing on the current situation regarding the implementation of the IAEA Action Plan on Nuclear Safety, including the following areas:

- Progress in the assessment of safety vulnerabilities of nuclear power plants;
- Strengthening of IAEA peer review services; and
- Strengthening of emergency preparedness and response;

The participants agreed that significant progress had been made in several key safety areas.

Report of the first ANSN Plenary meeting

Mr Lingquan Guo reported that the first ANSN Plenary meeting was held on 19 September 2012, as a side event during the 56th regular session of the IAEA General Conference. It was attended by senior officials from 12 countries and the European Commission. Mr Khoirul Huda had given a briefing on the background of the ANSN as well as the progress of the ANSN Vision 2020, which had been followed by a briefing by Mr Kazuhide Tomita on the history of the Capacity Building Coordination Group (as the CBMG was formerly known). Mr Lingquan Guo had emphasized the interaction among regional networks. The Plenary had decided to focus on specific elements like CBMG activities and the ANSN Vision 2020 during the next meeting.

ANSN member countries' national presentations

National presentations were made by representatives of ANSN member countries on the current situation of nuclear power and safety issues in their respective countries, work progress in 2012 and work plans for 2013.

ANSN work programme for 2013

The discussion on the draft work programme was led by Mr Masakazu Takahashi. It was based on requests from ANSN member countries and Topical Groups and was divided into management, regional and national activities. It was suggested that all annual meetings of the Topical Groups be finished before the Steering Committee meeting in November 2013 to enable the whole work plan to be submitted to the Steering Committee meeting.

Report of the results of the consultancy meeting on drafting the CBMG terms of reference

Mr Yoshinori Ueda of the Japan Nuclear Energy Safety Organization (JNES) presented the report on the results of the consultancy meeting on drafting the CBMG terms of reference. The report covered the rationale for the establishment of the CBMG, namely actions 8 and 9 in the IAEA Action Plan on Nuclear Safety, and the guidance provided in *Establishing the Safety Infrastructure for a Nuclear Power Programme* (IAEA Safety Standards Series No. SSG-16). The objective of the CBMG is to support and promote capacity building in ANSN member countries. Steering Committee members approved the draft terms of reference of the CBMG, subject to further exploration of detailed working arrangements.

Plan for the revision of the ANSN Vision 2020

Mr Kazuhide Tomita of JNES presented the proposal to revise the ANSN Vision 2020. The Steering Committee members agreed to the proposed roadmap and time schedule for the revision of the ANSN Vision 2020.

Regional Workshop on Capacity Building IT Modules

Daejeon, Republic of Korea, 28–30 November 2012

The workshop was held for the ANSN Topical Group Coordinators at the Korea Institute of Nuclear Safety, Republic of Korea.

The objective for this workshop was to brief and train the ANSN Topical Group Coordinators on the various capacity building IT modules available on the centralized ANSN website; to discuss the full or partial integration of the capacity building IT modules into the national centre websites; to analyse future enhancements to the IT modules, based on the ANSN Topical Group Coordinators' requirements; and to discuss an approach to promoting the use of these modules among a wider audience within the ANSN member countries.

The workshop was opened by Mr Key Yong Sung, Director of the International Nuclear Safety School. Mr Sung acknowledged the progress achieved by the ANSN in the past decade and highlighted the significance of self-assessments as well as IT-based capacity building to attain the objectives of the ANSN efficiently and effectively.

During the workshop, the IAEA first briefed the Topical Group Coordinators on the background of the centralized ANSN website and the Information Technology Support Group and presented a demonstration of the centralized ANSN website. The IAEA also gave a briefing on the results of the evaluation survey conducted in 2010 and emphasized the recommendations provided by respondents from an IT perspective.

The Topical Group Coordinators then presented their viewpoints and expectations for the centralized ANSN website. Mr Park Jong Seuk emphasized his discontent regarding the overall layout of the newly restructured ANSN website. He suggested that the official IAEA website should be considered as a reference for setting the layout of the centralized ANSN website to create a user-friendly structure. Issues regarding the interaction between IT developers and the end-user community, as well as restructuring of the home page of the centralized ANSN website were also discussed. The discussions were followed by a series of exercises and demonstration on Webinar, an online registration and nomination tool.

Regional Workshop on the Use of a Graded Approach for the Application of Safety Requirements for Research Reactors

Hanoi, Vietnam, 10–14 December 2012

The workshop was organized by the IAEA in coordination with the Vietnam Agency for Radiation and Nuclear Safety and was attended by 18 participants from Bangladesh, China, Indonesia, Japan, Republic of Korea, Malaysia, Philippines, Thailand and Vietnam; several IAEA staff members as well as experts from Argentina and Australia also participated.

The purpose of this workshop was to consider the application of the recently published Safety Guide *Use of a Graded Approach in the Application of the Safety Requirements for Research Reactors* (IAEA Safety Standards Series No. SSG-22), which provides a structured methodology for a graded approach based on the hazard potential of the research reactor and its analysis.



Participants at the workshop

The workshop consisted of a series of lectures given by experts on various topics important to the safety of research reactors and the application of a graded approach as outlined in Specific Safety Guide No. SSG-22. The topics covered Safety Requirements and regulatory supervision, operational limits and conditions and operating procedures, operational radiation protection programmes and waste management, site evaluation and design, organizational provisions, training and qualifications, commissioning, decommissioning planning, safety analysis reports, inspections, testing and maintenance and ageing management, utilization and modification, emergency planning and fire protection. A presentation was also made on a methodology for the complementary safety assessment of research reactors following feedback from the Fukushima Daiichi nuclear accident.

Participants expressed their view that the workshop was very useful and provided practical training on the structured methodology for the application of Specific Safety Guide No. SSG-22, and also that the graded approach would help in optimizing resources. It was also agreed that

reactor power is a primary influencing factor, but that other characteristics of the reactor, such as redundancy and source term inventory, also play an important role in the use of the graded approach for the application of Safety Requirements for research reactors.

The participants recommended that the IAEA should conduct more training workshops on the use of the graded approach focusing on specific safety areas and topics.

Work Programme 2013

Activity Number	Topical Group / Area / State	Name of Activity	Country, venue	Technical Officer	Project Management Officer	Start Date	Completion Date	Preliminary Objective of Activity
M06	Mgt	Consultancy Meeting to Revise the ANSN Vision 2020	Japan, Tokyo, JNES	Guo	Takahashi	30-01-2013	31-01-2013	To revise the ANSN Vision 2020.
R25	GRITG	Webinar Meeting on the Scope of Self-Assessment for GRITG Members Based on SSG-16	Webinar	Gibbs	Guo	13-02-2013	13-02-2013	To decide the schedule to conduct self-assessment for GRITG members which would be conducted and peer-reviewed in 2013.
N17	OSTG	Workshop on the Preparation of Peer Reviews of Long Term Operation and Ageing Management of Nuclear Power Plants	China, Zhejiang Province, Haiyan County, Qinshan nuclear power plant (NPP)	Krivanek	Guo	05-03-2013	08-03-2013	Through analysing and comparing the practices for periodic safety review (PSR) and ageing management review (AMR) in different countries (in particular, Japan, Republic of Korea and France) help to develop a general and effective way of performing AMRs, including review of the ageing management programme (AMP). Introduce good international practices on AMR, help us determine how to perform the Qinshan 1 AMR during this PSR, discuss long term operation (LTO) peer review preparation activities with IAEA staff for Qinshan I life extension.
R40 (R25)	SMRRTG	Regional Workshop on Establishment of a Regional Advisory Safety Committee for Research Reactor Operating Organizations	Austria, Vienna, VIC F0814	Shokr / Abou Yehia	Katukhov	11-03-2013	15-03-2013	To provide the participants with detailed information on the role and responsibility of the regional safety committee in view of creating a committee for Asian research reactors. Such a committee will ensure the sharing of expertise and help research reactors in the region to solve important safety issues.
R10	ETTG	Regional Workshop on Special On the Job Training for Nuclear Power Newcomers	Republic of Korea, KINS	Moracho	Kim, Ho Kee	18-03-2013	22-03-2013	To present special practices related to quality assurance (QA) activities for NPPs based on IAEA safety standards as well as country specific practices. To provide an overview of quality verification and audit, application of QA programme of vendor, QA programme audit and practice and vendor inspection technology.
R08	ETTG	Regional Workshop on Basic Professional Training on Nuclear Safety	Republic of Korea, KINS	Moracho	Kim, Ho Kee	08-04-2013	19-04-2013	To develop professional training personnel for nuclear safety.
R33	SATG	Consultancy Meeting to Develop the Methodology and Terms of Reference for an SATG Expert Mission on Gap Finding Related to Safety Analysis Capability (ANSN SATG 'stress test')	Indonesia, Jakarta, BATAN	Kim, Manwoong	Lim	22-04-2013	26-04-2013	To develop peer reviewed guidelines on the methodology and tools, including terms of reference, for an expert mission on gap finding related to safety analysis capability.
M02	Management	17th ANSN Steering Committee Meeting	Austria, Vienna, VIC M6	Guo	Guo	24-04-2013	26-04-2013	To review the follow-up actions from the last Steering Committee meeting; to review the development progress of the capacity building IT modules; to discuss the draft agenda for the second ANSN Plenary meeting during the 57th regular session of the IAEA General Conference; and to discuss ANSN management issues.
N19	Indonesia	Consultancy Meeting to Finalize Details of Content Management System Implementation for National Centre Websites and Workshop on Capacity Building IT Modules for Indonesian ANSN Topical Group Members	Indonesia, Jakarta	Kunjeer	Guo	13-05-2013	17-05-2013	Regional Capacity Building System.
R46	LMSTG	Regional Workshop on Leadership and Management for Safety and Safety Culture	Thailand, Bangkok	Khatoon	Kim, Ho Kee	20-05-2013	23-05-2013	To highlight the importance of senior management and line managers commitment to implementation of a Management System and Safety Culture in the organization To provide awareness on the concept of Leadership, Management for Safety and Safety Culture for the Regulatory Body and other stakeholders for implementation of a nuclear power programme.
R09	ETTG	Regional Workshop on Regulatory Control of Nuclear Power Plants	Republic of Korea, KINS	Moracho	Kim, Ho Kee	27-05-2013	31-05-2013	To introduce the elements of a desirable nuclear regulatory infrastructure based on the IAEA safety standards and share the experiences of the countries.
R32	SATG	Regional Workshop on Best Estimation Plus Uncertainty (BEPU) Method Applicable to Safety Analysis	China, Beijing	Kim, Manwoong	Lim	27-05-2013	31-05-2013	(1.) Enhancing capacity building in safety analysis for nuclear installations (IAEA Action Plan on Nuclear Safety): to inform participants on the IAEA Safety Guide on safety analysis, SSG-2; to share experiences and practice on sensitivity and uncertainty methods as well as best estimate methods for LOCA analysis; to introduce the new IAEA safety analysis tool: ITASS (International Training of Analysis for System Simulation) (2.) Discussion on the SATG roadmap (3.) Keeping in touch meeting with IAEA NSN/SAS staff.
N18	Malaysia	Expert Mission to Upgrade the National Centre Website and Workshop on Capacity Building IT Modules for Malaysian ANSN Topical Group Members	Malaysia, Selangor, Dengkil	Kunjeer	Guo	27-05-2013	31-05-2013	To upgrade Malaysia's national centre website to the latest internet technologies.
R48	CTG	Regional Workshop on Communication Plans and IT Tools	Philippines, Manila	Jubin / Pagannone	Takahashi	28-05-2013	31-05-2013	To discuss and develop competence in the area of communications.
R26	GRITG	Webinar on the Results of Self-Assessment	Webinar	Gibbs	Guo	01-06-2013		to exchange information, among GRITG Members to share the results and best practices from Member countries.

R23	GRITG	Workshop on Developing a Legal and Regulatory Framework	Austria, Vienna, VIC	Okano	Takahashi	03-06-2013	07-06-2013	The workshop is the one already planned by Jubin as a technical cooperation project for countries in the Asia and the Pacific region. GRITG members expressed their need for a workshop on this topic during the fourth annual meeting, but there is the right workshop as mentioned above so that Gibbs encouraged the members to participate as part of GRITG activity.
R20	EPRTG	Annual Meeting and Regional Workshop on Optimization of Radiation Emergency Preparedness and Response in Line with the Revised Basic Safety Standards	Vietnam, Hanoi	Lafortune	Takahashi	17-06-2013	21-06-2013	To discuss the changes to the 1996 edition of the Basic Safety Standards (BSS) that have been incorporated into the 2011 edition (GSR Part 3), as well as to consider how the BSS will be implemented in Member States. The special focus is optimization of protection and safety that should be considered in emergency preparedness and response for nuclear or radiation incidents.
R29 (R18)	RWMTG	Regional Workshop on the Demonstration of Safety of Radioactive Waste Disposal Facilities	Malaysia, Kuala Lumpur, AELB	Kumano, Yumiko	Katukhov	17-06-2013	21-06-2013	To work towards the development of the safety case and safety assessment for radioactive waste disposal facilities.
R11	ETTG	Regional Workshop on Nuclear Safety Tailored for Regulators	Republic of Korea, KINS	Moracho / Bezdeguemeli, Ugur	Kim, Ho Kee	17-06-2013	21-06-2013	To provide useful knowledge on safety assessment regulatory practices in the areas of mechanical and structural integrity of NPPs.
R28	OSTG	Annual Meeting of the OSTG and Regional Workshop on the Development of an Information System for Experience Sharing and Feedback during Construction and Commissioning of a New Nuclear Power Plant	China, Shandong Province, Yantai City	Tanaka	Lim	24-06-2013	27-06-2013	The workshop will provide an opportunity to collect and share construction and commissioning experience as well as experience related to the development of information feedback systems for the purpose of reducing the risk and ensuring a high level of nuclear safety for the construction and commissioning of new NPPs.
N20	Thailand	Workshop on Capacity Building IT Modules for Thai ANSN Topical Group Members	Thailand, Bangkok	Kunjeer	Guo	25-06-2013	27-06-2013	To brief and train the ANSN topical group members, regarding the various Capacity Building IT modules in the centralised ANSN website, in order to foster more support for future ANSN activities from ANSN Vision 2020 perspective; to analyse future enhancements in the IT modules, based on the ANSN topical group members requirements; To discuss on full or partial integration of the Capacity Building IT modules in national centre websites.
R36	SATG	Second Consultancy Meeting on Development of Technical Guidelines for Engineering Evaluation Methods (GSR Part 4)	Austria, Vienna, VIC M0E59	Kim, Manwoong	Lim	08-07-2013	11-07-2013	To provide the technical guidelines for engineering evaluation on fluid structure interaction (FSI) issues taking place in NPPs. FSI has started to attract more attention after the Fukushima Daiichi accident.
R37	SATG	Regional Workshop on Integrated Deterministic Safety Analysis and Probabilistic Safety Analysis for Risk Management of Nuclear Power Plants and Annual Meeting and Workshop on Gap Finding Related to Safety Analysis Capability	Philippines, Manila, PNRI	Kim, Manwoong	Lim	22-07-2013	26-07-2013	The objective of the 2013 annual meeting will be to establish the work plan for 2014. The objective of this workshop will be to support deterministic and probabilistic safety analysis for risk management of nuclear installations, with a focus on risk informed decision making. The results of the integral effects test (IET) benchmarking exercise will also be presented and discussed at the workshop.
N15 (PN6)	Vietnam	Expert Mission to Assist Vietnam in Filling the Gaps in Emergency Preparedness and Response Identified by the EPREV Mission	Vietnam, Hanoi, VARANS	Krishnanachari	Lim	19-08-2013	23-08-2013	To help Vietnam to develop its National Radiological Emergency Plan. To help Vietnam to develop the computer codes for assessment of radioactive material dispersion in case of radiological or nuclear accidents.
N04	China	Meeting on Commissioning and Operation Management for the Digital Instrumentation and Control System of a Nuclear Power Plant	China, Shandong Province, Haiyang City	Duchac, Alexander	Guo	26-08-2013	30-08-2013	To provide an opportunity to collect and share good practices in the commissioning and operation management of digital instrumentation and control (I&C) systems for NPPs for the purpose of reducing the risk and ensuring a high level of nuclear safety for the commissioning and operation of digital I&C systems.
R44	STG	Regional Workshop on Essential Knowledge of Site Evaluation Reports for Nuclear Power Plants	Malaysia, Kuala Lumpur	Mahmood / Altinyollar	Lim	26-08-2013	30-08-2013	To share information and knowledge on the technique and skills for reviewing site evaluation reports.
M10 (PM2)	Management	Consultancy Meeting to Draft Questionnaires and Prepare for the Field Visits	Austria, Vienna, VIC M0E59	Kunjeer	Guo	28-08-2013	30-08-2013	ANSN evaluation.
R35	SATG	SATG Webinar on the Second RELAP5 Training and Exercise for VVER Reactors and Preparatory Work	Webinar	Kim, Manwoong	Lim	28-08-2013	30-08-2013	To enhance safety analysis capabilities for ANSN member countries, with a focus on passive safety system features (AP1000: WH, VVER-1200/1000). Pre-assignment for exercise proposed by annual meeting in 2012. Pre-assignment on IET benchmarking exercise as a follow-up to the regional workshop.
R15	ETTG	Regional Workshop on Management of Nuclear Knowledge and Safety Competence	China, Wuhan RINPO	Moracho / Pasztory, Zoltan (NE)	Kim, Ho Kee	02-09-2013	06-09-2013	To develop professional training personnel in nuclear safety.

N09	Indonesia	Workshop on Application of IAEA Methodology and Tools for the Safety Case and Safety Assessment for Radioactive Waste Management Facilities (Part 2)	Indonesia, Denpasar	Kinker	Lim	09-09-2013	13-09-2013	To exchange information, knowledge, and skills related to the assessment of radiological safety for radioactive waste management based on the computer software.
R12	ETTG	Regional Workshop on Safety Review and Assessment for Regulators	Republic of Korea, KINS	Bezdegumeli, Ugur	Kim, Ho Kee	09-09-2013	13-09-2013	The workshop is intended to provide guidance on how to conduct regulatory safety review and assessment, and will cover the key elements of this fundamental regulatory function and process.
N07	Indonesia	Workshop on Periodic Safety Review Programme Establishment and Implementation	Indonesia, Jakarta	Shokr	Lim	09-09-2013	13-09-2013	To help participants to improve their knowledge and skills in conducting safety reviews for research reactors.
N13 (PN5)	Malaysia	Workshop on Preparation and Assessment of Environmental Impact Assessment Reports, Including Radiological Impact Assessments, for Nuclear Power Plant Sites	Malaysia, AELB	Noguchi	Lim	Postponed to 2014		To understand the preparation and assessment of environmental impact assessment reports, including radiological impact assessment, for an NPP site with reference to the IAEA safety standards, as well as other internationally accepted practices.
M[1]01	Mgt	Second ANSN Plenary Meeting	Austria, Vienna, VIC M6	Guo	Takahashi	18-09-2013	18-09-2013	The Plenary meeting will take place on the margins of the 57th regular session of the IAEA General Conference in September 2013.
N12	Malaysia	National Workshop on Seismic, Geotechnical and Hydrological Hazards Faced by Nuclear Installations	Malaysia, Kuala Lumpur	Mahmood	Lim	Postponed to 2014		To share essential knowledge and guidance on evaluating seismic, geotechnical and hydrological hazards at a nuclear installation site
R41	SMRRTG	Regional Workshop on Application of the Code of Conduct on the Safety of Research Reactors for Core Management and Safety of Experiments	Yogyakarta, Indonesia	Shokr	Katukhov	23-09-2013	27-09-2013	To provide a forum for the exchange of information and experience between the participating Member States and the IAEA representatives on the effective application of the Code of Conduct on the Safety of Research Reactors, with a focus on safety of management of reactor core components and fuel handling, safety of utilization programme, beam tube experiments and experimental facilities.
N10	Indonesia	Consultancy Meeting to Develop Nuclear Emergency Exercises for BATAN Facilities	Indonesia, Bandung	Lafortune / Krishnamachari	Lim	23-09-2013	27-09-2013	To develop nuclear emergency exercise procedures for BATAN facilities based on international standards.
R49	CTG	Annual Meeting and Regional Workshop on Emergency Communication	Indonesia, Jakarta	Jubin	Takahashi	30-09-2013	04-10-2013	To discuss and develop competencies in the area of emergency communications, including interview issues.
M11 (PM3)	Management	Field Visit by External Experts	Republic of Korea / Vietnam / Indonesia / selected ANSN countries	Kunjeer	Guo	30-09-2013	03-10-2013	ANSN evaluation.
R21	EPRTG	Regional Workshop on Medical Response to a Radiological Emergency: Handling Complex Situations	Japan, Chiba	Lafortune	Takahashi	01-10-2013	04-10-2013	To provide health officials and medical professionals with the information necessary for building up and properly using the required capacity to respond to medical consequences of a radiation emergency. Knowledge on the symptoms and treatment of acute radiation syndrome and other deterministic health effects will be shared with the participants, who will be requested to give presentations of the medical capabilities in their countries.
R45	LMSTG	Second Annual Meeting of the LMSTG and Regional Workshop on Development of a Process for Regulatory Activities	Indonesia	Khatoon	Kim, Ho Kee	07-10-2013	11-10-2013	To provide a better understanding of the IAEA safety standards dealing with integrated management systems as well as of the regulatory core and support activities. The external experts will give presentations on current international practices applied by regulatory bodies and their TSOs for the development of regulatory processes within the framework of a management system. The workshop will also serve as a forum for the participants to present the current status of development of regulatory processes in their respective countries and their integration into an effective management system.
R22	EPRTG	Regional Workshop on Observing a Nuclear, Radiological Emergency Exercise	Japan, Hokkaido	Lafortune	Takahashi	07-10-2013	11-10-2013	The purpose of the workshop is to observe the nuclear emergency exercise, share observations, experience and knowledge so that they can be used to improve emergency preparedness and response plans in respective member states.
R14	ETTG	Annual Meeting and Regional Train the Trainers Workshop on the Basic Professional Training Course on Nuclear Safety	Austria, Vienna, VIC M0E79	Moracho	Kim, Ho Kee	07-10-2013	11-10-2013	To coordinate and synchronize ETTG activities. To develop professional training personnel in nuclear safety.
		Expert Review Mission on the Feasibility Report of the International Training Center on Nuclear and Radiation Safety	China, Beijing	Woodhouse	Guo	08-10-2013	11-10-2013	To review the proposals on international Nuclear Safety Training Center and the recommendations for further improvement.
R02	CBMG	Second Regional Workshop on Practical Nuclear Power Plant Construction Experience	China	Takahashi	Takahashi	23-10-2013	27-10-2013	To provide participants with the fundamentals and an introduction to project management for NPP construction projects.

R38	SATG	First SATG Expert Mission on Gap Finding Related to Safety Analysis Capability	Indonesia, Jakarta	Kim, Manwoong	Lim	28-10-2013	04-11-2013	To assist Indonesia in examining and evaluating its safety analysis capability aimed at identifying gaps related to the SATG stress test.
R43	STG	Annual Meeting and Regional Workshop on Tsunami Hazard Assessment and Hydrology Related to Nuclear Power Plant Siting Activities and Requirements	Thailand, Phuket	Coman	Lim	04-11-2013	08-11-2013	To ensure the safe operation of an NPP an appropriate site must be selected and evaluated. It is important that safety standards, assessment methods, and relevant criteria are well understood.
R30	RWMTG	Regional Workshop on the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management	Republic of Korea, KINS	Bruno	Katukhov	04-11-2013	08-11-2013	To provide information that is necessary for stakeholders in each ANSN member country (e.g. policymakers, reactor operators, regulators, administrative authorities and potential NPP operators) to make a decision on acceding to the Joint Convention.
R06	ETTG	Regional Workshop on Introduction to the Guidelines for Systematic Assessment of Regulatory Competence Needs (SARCoN), Including the Gap Analysis Tools	Indonesia	Moracho	Kim, Ho Kee	11-11-2013	15-11-2013	To improve the effectiveness of training management for nuclear safety human resource development.
R24	GRITG	Fifth Annual meeting and Regional Workshop on the Establishment of National Policy and Strategy	Indonesia	Gibbs	Takahashi	11-11-2013	15-11-2013	The workshop is intended to share knowledge related to the establishment of national policy and strategy. The annual meeting is intended to plan the activities for 2014 and also discuss the results and feedback from the peer review of self-assessments conducted by ANSN member countries.
M03	Management	18th ANSN Steering Committee meeting	Thailand, Chiang Mai	Guo	Guo	20-11-2013	22-11-2013	to review the progress of implementation of ANSN activities since the last SC meeting; to discuss and approve the national and regional ANSN activities and the priorities proposed for 2014. The meeting will also discuss the results of the second ANSN Plenary meeting, address the ANSN strategy paper on further coordination and cooperation with other safety networks and among members of the ANSN.
M04	CBMG	First Meeting of the CBMG	Thailand	Takahashi	Takahashi	25-11-2013	26-11-2013	The purpose of the 1st CBMG Meeting is discuss how to support and promote the establishment of capacity building in the Member States and to encourage the Members States to promote the self-assessment.
R42	SMRRTG	Regional Workshop on Complementary Safety Assessment of Research Reactors Based on the Lessons Learned from the Fukushima Daiichi Accident	Indonesia, Jakarta, BATAN	Shokr	Katukhov	02-12-2013	06-12-2013	To provide the participating Member States with practical knowledge and information for performing safety re-assessments of research reactors in the light of the feedback from the Fukushima Daiichi accident, with a focus on methods and approaches for performing analysis of extreme external events, combined and consequential events, and beyond design basis events for different reactor types.
R[3]1 (R01)	10 TGs and CBMG jointly	Regional Workshop on Continuous Improvement of Safety in the Light of Lessons Learned from the Fukushima Daiichi Accident	Japan, JNES	Okano / Jubin	Takahashi	10-12-2013	13-12-2013	To share information on the Fukushima Daiichi accident and to exchange experience and lessons learned so far; to discuss how to make use of this information within the ANSN framework in order to contribute towards improving the ANSN programme and to enhance the effectiveness of its activities; and to identify recommendations for strengthening the regional and global nuclear safety framework and raising the level of nuclear safety in the region.
N05	Indonesia	National/Regional Workshop on Performance Indicators for Regulatory Bodies	Indonesia, Jakarta	Bezdeguemeli, Ugur	Lim	Q1 2013	Q2 2013	To provide a general understanding of the development of performance indicators, including safety performance indicators, for regulatory bodies based on the IAEA Safety Standards.
R05 (R7)	ETTG	Regional Workshop on Implementing the Actions for Human Resource Development Outlined in SSG-16	Austria, Vienna, VIC	Koenick	Kim, Ho Kee	Q1 2013		To improve the effectiveness of training management for nuclear safety human resource development.
N16	Vietnam	National Workshop on the Safety Assessment of Nuclear Power Plant Sites	Vietnam, Hanoi, VINATOM	Samadarr, Sujit	Lim	Q3-Q4 2013		To provide training on NPP site safety assessment.
N03	Bangladesh	National Workshop on Regulatory Oversight of Leadership and Management for Safety of Owner/Operator		Khatoon	Kim, Ho Kee	Q2 2013		To develop professional training personnel in leadership and management for safety.
M07	ITSG / Vietnam	Tenth Annual Meeting of the ITSG and Workshop on Capacity Building IT Modules for all Vietnamese ANSN Topical Group Members	Vietnam	Kunjeer	Guo	Q4 2013		Review of the status of national centre websites; report on the enhancements in the centralised ANSN website (Capacity Building IT modules) and to further work on the ITSG action plan.

R03 (PR1)	GRITG/CBMG	Regional Workshop on Peer Review of Self-Assessment of Status of Nuclear Safety Capacity Building and Infrastructure Development for a National Nuclear Power Programme	Austria, Vienna, VIC	Jubin / Takahashi	Takahashi	Q4 2013		To conduct a peer review of the initial results of a self-assessment of the current status of nuclear safety capacity building and infrastructure development for a nuclear power programme to be conducted by ANSN newcomer countries against SSG-16, as a follow-up to the Regional Workshop on Establishing a Nuclear Safety Infrastructure for a National Nuclear Power Programme, Vienna, 4-15 July 2011 (R33-1st) and the Technical Meeting on Implementation of IAEA Self-Assessment Methodology and Tools, Vienna, 27 February-2 March 2012. (R4)
R31	RWMTG	Regional Workshop on Clearance of Decommissioning Waste (Part 2)	VARANS	Bruno	Katukhov	Oct / Nov 2013		To provide training on practical methods of management of contaminated materials, clearance and radiation protection during decommissioning.
M12 (PM4)	Management	Consultancy Meeting to Prepare the Final Report on the ANSN Evaluation	Austria, Vienna, VIC	Guo	Guo	TBD		ANSN evaluation.
N02 (PN2)	CBMG	ANSN Peer Review and Support Arrangement for Capacity Building Missions	TBD	Takahashi	Takahashi	TBD		The objectives of Peer Review and Support Arrangement (PReSA) missions will be to conduct needs, gaps and overlaps assessment and to support the elaboration of National Action Plans for Capacity Building by ANSN member countries embarking on a nuclear power programme.
N[5]01 (N7)	CBMG/IAEA	National Workshop on Self-Assessment (Governmental Level) of Capacity Building Activities in Indonesia	TBD	Takahashi	Takahashi	TBD		To provide Indonesia with a broad overview of capacity building and the IAEA methodology for self-assessment of capacity building activities, and to assist Indonesia to conduct its own self-assessment in this area. This activity will be organized upon request from/coordination with the host country.
N11	Malaysia	National Workshop on Training Need Assessment for Nuclear Power Programmes	Malaysia, Selangor, Dengkil	Khatoun	Lim	Postponed to 2014		to identify the needs and gaps on training competency in the areas of nuclear and radiation safety to develop the workshop action plan.
N21	Bangladesh	Self-Assessment for Peer Review Mission on the ETTG	Bangladesh (if there will be no IRRS mission)	Moracho	Kim, Ho Kee			To develop an effective and sustainable national education and training system for nuclear safety human resource development.
	China	Consultancy meeting with experts from the University of South China to discuss and identify possible areas of future cooperation in the field of nuclear, radiation and waste safety	Austria, Vienna, VIC	Guo	Guo			To discuss and identify possible areas of future cooperation in the field of nuclear, radiation and waste safety, and to establish a regional training centre for capacity building.