PROGRESS REPORT

(January 2009 – December 2009)

EXTRABUDGETARY PROGRAMME
ON THE SAFETY OF NUCLEAR INSTALLATIONS
IN THE SOUTH EAST ASIA, PACIFIC AND FAR EAST COUNTRIES

ANSN
Asian Nuclear Safety Network

INTERNATIONAL ATOMIC ENERGY AGENCY

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International Atomic Energy Agency

Asian Nuclear Safety Network

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

PROGRESS REPORT

EXECUTIVE SUMMARY

In 2009, the ANSN entered a new era of cooperative work. At the 2nd meeting of Nuclear Safety Strategy Dialogue of ANSN, Seoul, Republic of Korea, 10 April 2009 'The Vision for the ANSN by thee year 2020" (Vision 2020) was developed by the participating Ministers and senior officials responsible for nuclear safety in the ANSN countries. Now the ANSN has a long-term plan to enhance human and IT network and develop regional capacity building system for nuclear safety infrastructure, with high level commitment and support.

The implementation of the Vision 2020 was tasked out to the Steering Committee, and the action plan to follow up the Vision 2020 was developed at the 9th meeting of the Steering Committee held from 12 to 14 May 2009 in Yogakarta, Indonesia. The ANSN Topical Groups (TGs) developed their 3-years midterm planning in addition to their work plans for the next year to pursue their activities from a longer term view point taking into account the Vision 2020. The TGs are seen as the forefront of the ANSN activities. They will hold specialist meetings and workshops, select documents to be shared, find workable solutions to emerging issues and exchange their experiences in respective areas.

It was of significant importance for the future of the ANSN that the Steering Committee, Singapore, 20-22 October 2009, approved a group for coordinating and monitoring TGs' activities for achieving the Vision 2020, in particular for developing the regional capacity building system in Asia. The group has been named Capacity Building Coordination Group (CBCG). For improving the management of the programme of ANSN activities, IAEA announced its intention to strengthen the ANSN project management team by assigning an ANSN Programme Manager (PM) and Project Management Officers (PMOs) to the TGs and CBCG.

In 2009, the ANSN entered a new era in view of outreach activities as well. A round-table discussion of the ANSN took place on 15 September 2009, organized in the framework of the 53rd IAEA General Conference, sponsored by the Korean Institute of Nuclear Safety (KINS) in cooperation with the IAEA. At the round table discussion, not only representatives from ANSN participating countries but also representatives from other networks of the Global Nuclear Safety and Security Network (GNSSN), the FORO (Ibero-American Network) and the newly created Forum of Nuclear Regulatory Bodies in Africa (FNRBA). Participants shared the view that cooperation among global and regional nuclear safety networks would be mutually beneficial.

Furthering and strengthening network of networks, a Forum on Regional Networks was organized as a side-event at the 2nd International Conference on Effective Nuclear Regulatory System, 14-18 December 2009, Cape Town, South Africa.

It is also notable that the Siting Topical Group (STG) was established and had its first bureau meeting in September 2009 to respond the need of regional cooperation on an initial stage of nuclear safety infrastructure development. The ANSN site (http://www.ansn.org) improved in 2009, in particular a new system for online request of ANSN regional and national activities was setup and the online process of the ANSN activity request for 2010 was successful. The Integrated Safety Evaluation (ISE), the online process of self-assessment by ANSN Member States and peer reviews among ANSN Members and Topical Groups, continued to be performed in 2009 on the ANSN site. Five ANSN Members, i.e. Indonesia, Malaysia, Philippines, Thailand and Vietnam made their self-assessments. The peer review process needs to be activated since it is an important system for assessing national and regional needs in Asia and timely planning the ANSN activities in accordance with the Vision 2020.

As an overview of the ANSN activities, 34 activities such as workshops, training courses and review missions have been conducted with 740 participants, support from 55 external experts and IAEA staff members, as indicated in the table below in more detail. As a result, nuclear safety experts in the region are able to work more closely together and capacity of Capacity Building in the region has conituously improved.

Table Number of activities, participants and external experts in 2009

ANSN Management	**7**
NSSD	1
SC	2
Round-table discussion	1
ITSG	1
Other IT related activities	2
Regional	**20**
E&TTG	4
EPRTG	2
GRITG	2
OSTG	2
RWMTG	4
SATG	2
SMRRTG	3
STG	1

National	**7**
China	1
Indonesia	1
Malaysia	3
Philippines	1
Vietnam	1
Total number of activities	**34**
Total number of participants	**740**
Total number of external experts and IAEA staff members4+51=55	**55**

Note: "NSSD" stands for "Nuclear Safety Strategy Dialogue
"SC" stands for "Steering Committee"
"ITSG" stands for "IT Support Group"
"E&TTG" stands for "Topical Group on Education & Training"
"EPRTG" stands for "Topical Group on Emergency Preparedness & Response"
"GRITG" stands for "Topical Group on Government & Regulatory Infrastructure"
"OSTG" stands for "Topical Group on Operational Safety"
"RWMTG" stands for "Topical Group on Radioactive Waste Management"
"SATG" stands for "Topical Group on Safety Analysis"
"SMRRTG" stands for "Topical Group on Safety Management of Research Reactors"
"STG" stands for "Topical Group on Siting"

INTRODUCTION

This report describes the activities implemented from January 2009 until December 2009.

More details about the results of activities described in this report are available in the main web site of the Asian Nuclear Safety Network (ANSN) at the following address: www.ansn.org.

Strategy and coordination

2nd annual meeting of the Nuclear Safety Strategy Dialogue

Seoul, Rep. of Korea, 10 April 2009

The ANSN Ministers and senior officials responsible for nuclear safety attended the Second Meeting of the Nuclear Safety Strategy Dialogue of the ANSN held in Seoul on 10 April 2009. About thirty participants from the ANSN participating countries including the State Minister for Research and Technology from Indonesia and the Vice Minister of Education, Science and Technology from the Republic of Korea. They were joined by senior officials from the Nuclear Energy Safety Sub-Sector Network of the Association of South East Asian Nations (ASEAN) and the European Commission (EC). The purpose of the meeting was to discuss broader strategy and policy issues that are intended to promote regional cooperation in the establishment and continuous improvement of nuclear safety infrastructure and capacity building in Asia, particularly the vision for the ANSN by the year 2020.

Mr. T. Taniguchi, IAEA Deputy Director General for Nuclear Safety and Security made the opening address at the welcome session and proposed the vision for the ANSN by the year 2020 at the topical session. After intensive discussion, the participants shared the vision for the ANSN and tasked out the further development of the Strategy and Actions reflected by their discussion and its implementation to the Steering Committee that will meet 12 to 14 May 2009. One of the main components of the Vision for the ANSN by the year 2020 is described in the article below.

In conclusion, while recognizing the primary and sovereign responsibility for safety rests with the Countries, the participants confirmed that, to help fulfil this responsibility, it is necessary to enhance bilateral, regional and international cooperation for capacity building, knowledge and lessons learned sharing, peer review and advisory services, and education and training. They gave their full support to the ANSN to achieve a sustainable regional network to contribute to the continuous improvements of Members Countries nuclear safety infrastructure. The supporting countries (Japan, Korea, USA, France) but also Asian countries (China, Malaysia) confirmed the availability of their resources and knowledge to the ANSN. This meeting could be recognised as a major evolution in the ANSN from conventional technical support (vertical cooperation) to knowledge sharing among peers (horizontal cooperation).

Enhancement of Regional Capacity Building System for Nuclear Safety Infrastructure

ANSN Steering Committee and Topical Groups members have now a plan to enhance human and IT network and develop regional capacity building system for nuclear safety infrastructure. This plan is composed of strong human and IT networks for capacity building, integrated virtual centre for Education and Training, technical advisory service and cooperative activities, and regional peer review and support arrangement.

For the time being, activities will focus on the initial stage of nuclear safety infrastructure development, i.e. governmental and regulatory infrastructure and siting, in addition to the current topical areas, whose activities will extend to nuclear power plants. With the progress of development, the focus will be on further issues, e.g. safety analysis, construction and commissioning, inspection and enforcement. By the year 2020, the ANSN is expected to provide regional capacity building system for all topics of nuclear safety infrastructure. Beyond information and knowledge sharing, the ANSN is entering a new era of cooperative work which needs high-level guidance, commitment, and support.

9th meeting of the ANSN Steering Committee
Yogyakarta, Indonesia, 12-14 May 2009

The objective of this meeting was to review the ANSN activities since October 2008 and to agree on a detailed work plan for the next six months based on the recommendations to the SC made by the participants of the 2nd meeting of the Nuclear Safety Strategy Dialogue (NSSD) held in Korea in April 2009.

The Nuclear Energy Regulatory Agency of Indonesia (BAPETEN) organized this 9th ANSN SC meeting. Thirteen participants from eight of the ANSN participating countries attended the meeting. The SC approved the nomination of Dr. Ir. As Natio Lasman, Chairman of BAPETEN as co-Chairman, representing the host country. After the adoption of the agenda, the IAEA staff made presentations on past activities and on the results of the 2nd meeting of the NSSD. Active discussion and information exchange amongst the participants took place regarding the actions to follow-up "the Vision for the ANSN by the year 2020". More than sixty concrete actions of various importance were listed and approved, with a responsible body and a target date for each action.

The second part of the meeting was devoted to the presentation of the new ANSN web site, followed by discussions about some IT issues. Each country made a brief presentation on the status of their web site: contents, number of users, feedback, usefulness, difficulties for maintaining the site, etc.

At the end of the meeting, Indonesia announced that Indonesia will host the third meeting of Strategy Dialogue in 2010, which will be scheduled back to back with a meeting of the Asia-Pacific Safeguards Association (APSA).

This first SC meeting of 2009 was held a month after the Strategy Dialogue held in Korea in April. It was obvious that this high level meeting gave a new impetus to the ANSN project. Several countries indicated more interest and commitment than in the past. The approval of the action plan based on the recommendations of the NSSD meeting was of significant importance. It was interesting to note that the responsibility of most of the tasks was given to the countries and not to the IAEA, paving the way for a more sustainable project.

It was recognised that the ANSN could play a major role for assisting countries planning to expand or develop a nuclear power programme. In this regard, amongst the most important decisions, it is worthy to note the approval of the concept of a Virtual Technical Support Organisation (TSO) within the ANSN, the creation of a Topical Group on siting and the development of Public Awareness activities.

The IT network would be reinforced with the improved ANSN web site and the recognition by the SC of the necessity to improve the contents and quality of the knowledge shared in hubs and national centres.

10th meeting of the ANSN Steering Committee
Singapore, 20-22 October 2009

Twenty eight participants from twelve ANSN participating countries and a representative from ASEAN attended the meeting hosted by the National Environment Agency (NEA) of Singapore. The Steering Committee (SC) approved the nomination of Mr. Joseph Hui, Director-General the Environmental Protection of NEA as co-Chair, representing the host country. After Mr. Hui's opening and welcome address, Mr. Yokoyama, permanent co-Chair of the ANSN SC, delivered his address for this meeting. Mr. Mrabit, Head of the Safety and Security Coordination Section, IAEA made

opening remarks on behalf of the IAEA and reported the ANSN activities since the last SC meeting in Indonesia.

He expressed the view that cooperation between the Global Nuclear Safety and Security Network (GNSSN), currently developed at the IAEA, and Regional Networks such as ANSN and the Ibero American network (FORO) would be mutually beneficial. He emphasized that ANSN would remain a valuable network for the development of the Regional Capacity Building (RCB) System in Asia, and that, while significant progress had been made, further proactive effort was needed to achieve the Vision for the ANSN by the year 2020, in particular to develop the three pillars of RCB System, i.e. virtual centre for regional education and training, pool of qualified experts, and virtual technical support organization (Virtual TSO) to provide technical advisory service for new and creative knowledge.

Each country made a brief presentation on its recent nuclear safety issues relevant to ANSN and their views of on-going and future ANSN activities. The ANSN participating countries were actively working for the improvement of organizational and institutional infrastructure for nuclear safety, and that most of those countries had a number of challenges in their capacity building, including human resource development. The SC recommended them to further promote nationwide use of the ANSN website and to open more nuclear safety information produced by the ANSN for enhancing public awareness.

The recent improvement on the central ANSN site was presented by IAEA staff, along with the results of the recent IT Support Group meeting. The SC approved the themes of activities in 2010 as listed in the regional and national activity work plan prepared by the IAEA, based on the requests received by the countries and the TGs through the ANSN web site.

Establishment of Capacity Building Coordination Group (CBCG)

Each Topical Group (TG) reported to the SC, in particular about the development of their midterm planning and proposed work plans for 2010 based on the Vision 2020. The TGs were encouraged to take initiatives to develop Virtual TSO and to start pooling qualified experts in their fields. In addition, it was of significant importance for the future of the ANSN that the SC approved the IAEA's proposal to establish a Group for coordinating and monitoring the TGs' activities for achieving the Vision 2020, in particular for developing the RCB System in Asia, eventually named Capacity Building Coordination Group (CBCG). The CBCG is expected to make significant progress in the development of the RCB System and will report to the next meeting of ANSN Nuclear Safety Strategy Dialogue to be held in April 2010 in Indonesia.

The SC agreed that ANSN activities should be evaluated based on outcomes of the programme rather than only on the outputs. In this regard, the CBCG will explore appropriate performance indicators for assessing ANSN activities.

Establishment of a New ANSN Management Team

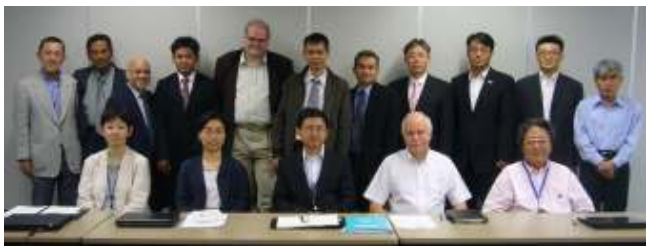
For improving the management of the programme of ANSN activities, IAEA announced its intention to strengthen the ANSN project management team by assigning an ANSN Programme Manager (PM) and

Project Management Officers (PMOs) to the TGs and CBCG.
The ANSN has been entering a new era of cooperative work based on the Vision 2020 to provide support in a timely and sustainable manner for responding to the increasing demand on the establishment of nuclear safety infrastructure in Asia, and the necessary coordination mechanism and the management support functions will be soon established as a result of the SC meeting for ensuring steady progress of implementation of the Vision 2020.

5th Information Technology Support Group meeting

Tokyo, Japan, 29 September-2 October 2009

The 5th Information Technology Support Group (ITSG) meeting was held in Tokyo, hosted by the Japan Nuclear Energy and Safety Organization (JNES). The group was informed of the "Vision for the ANSN for the year 2020" shared by the participants of the 2nd Strategy Dialogue meeting held on 10 April 2009 in Seoul, and agreed to actively participate in the implementation of the IT work for developing a Regional Capacity Building System.
After a live demonstration of the new main site known as ANSN.ORG, in reference to the address of the site: www.ansn.org, the group was impressed with the content and scope of the ANSN.ORG web site. The concept of a centralized user management was discussed, along with the role of the ANSN.ORG web site vs. the role of the national web sites.



In order to solve the conflict between the existing decentralised network and a fully centralised web site, a natural compromise would be to retain the capabilities of the local web sites, with the full responsibility of each country for their content and local management of their users. Each national site would have two distinct parts: strictly local pages in their national language that are provided to their local users, and some pages in English to be shared as part of the regional effort of developing a Regional Capacity Building System.
The ANSN.ORG site will form the backbone for managing the entire ANSN project and will be used mainly by the Level 2 users, i.e. the ANSN management team, Steering Committee and Topical Group members. Current Single Sign-On capabilities will be maintain in an outgoing direction from the ANSN.ORG site, allowing national nodes to clearly identify users that have been given access to ANSN.ORG.
The home page of every national site will be standardized and will clearly give the users the possibility to visit either the local pages or to be directed to the ANSN.ORG site. In this configuration, the countries will have the important responsibility of maintaining an attractive and updated compatible ANSN site, on line with the high level of visibility of the ANSN system within Asia.

Outreach Activities

Round-table discussion on future enhancements of the ANSN
Vienna, Austria, 15 September 2009

A round-table discussion on enhancements of the ANSN took place on 15 September, organised in the framework of the 53rd IAEA General Conference. About 50 participants attended this event which was sponsored by the Korean Institute of Nuclear Safety (KINS) in cooperation with the Agency. The participants came mainly from the ANSN participating countries, but also from Africa. In addition to recent development of ANSN, including its education and training programme for capacity building, discussions covered the future of ANSN activities and its cooperation with other regional networks.
The meeting was opened by DDG Taniguchi and a welcome address was delivered by Mr. Yun Choul-Ho, President of KINS. The round table discussions were chaired by Mr. Park Youn-Won, Director of the International Nuclear Safety School (KINS). In addition to presentations on the future of the ANSN, the Global Nuclear Safety and Security Network (GNSSN), the FORO (Ibero-American Network) and the newly created Forum of Nuclear Regulatory Bodies in Africa (FNRBA) were introduced.

Interesting discussions on how to improve the ANSN and the necessity to harmonize and optimise its activities with other mechanisms including the Association of South-East Asian Nations (ASEAN) and the Forum for Nuclear Cooperation in Asia (FNCA) and networks took place.
Noting that Asia is the region most actively embarking on or expanding its nuclear power programmes, participants shared a view that expanding and strengthening Human and IT Network for regional capacity building of nuclear safety in Asia, through adequately achieving the ANSN Vision, was crucial for continuously improving safety regionally and internationally. It was pointed out that a cross-cutting Group should take initiatives to developing an interactive and dynamic regional capacity building system, and that the IT network of ANSN should be further advanced in this regard.
Participants shared a view that cooperation among global and regional nuclear safety networks would be mutually beneficial and that the ANSN could be a good model for the new networks.

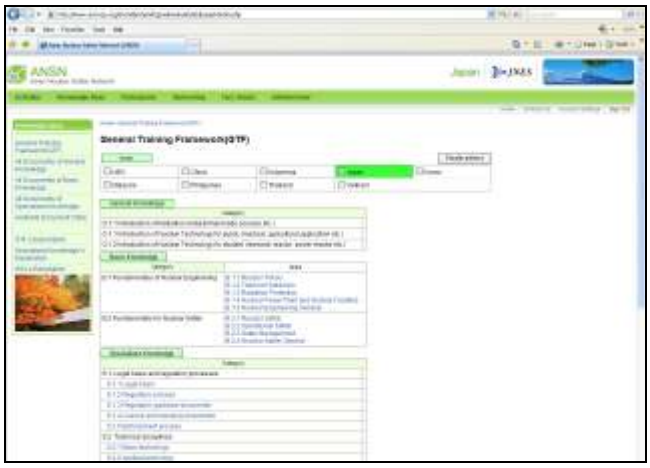
Education and Training Topical Group

OBJECTIVE

1. To identify and share best practices for national training strategies
2. To identify training needs and specific training projects
3. To identify training material needs
4. To contribute to revise and continuously improve the training material available in the ANSN

Bureau meeting of the Education and Training Topical Group (ETTG)
Vienna, Austria, 5-6 May 2009

An ETTG Bureau meeting convened in Vienna in order to prepare the annual meeting of the ETTG to be held in August. The coordinators and the IAEA representative of the Group were joined by IAEA members of the Steering Committee (SC) who provided the Bureau participants with the most recent ANSN strategy and the latest news from the SC.



Following the recommendation of the recent Strategy Dialogue meeting, it was agreed to expand the scope of the ETTG and to transform it as a cross cutting group on capacity building.
The status of the General Training Framework (GTF) regarding the uploading of IAEA documents was presented. It was pointed out that it is very important that the participating countries adopt a National Training Framework (NTF) as a basis for their policy and strategy to build up the necessary competence in nuclear safety. The coordinator from Indonesia presented the NTF of BAPETEN which was found very useful as an example for other ETTG Members. The plans for training from the Korea Institute of Nuclear Safety (KINS) for the next months were presented: a Regulatory Control course of one week will be followed by two weeks of On the Job Training (OJT) on regulatory activities. In addition KINS will offer a tailored Professional Training Course in August followed by another two weeks Basic Professional Training Course in September.

5th meeting of the Education and Training Topical Group (ETTG) and Regional Workshop on Training Needs Assessment (TNA)
Vienna, Austria, 10-14 August 2009

The Group discussed the main steps of its strategic plan based on the Systematic Approach for Training (SAT), including the development of a General Training Framework (GTF), using IAEA standards and documents such as TECDOC 1254, SG-325, and other national and international experiences; the identification of specific National Training Framework (NTF), that represents the particular needs of the country in view of its present infrastructure and future development plans as well as a national policy on

development of human resources in nuclear safety. Further steps would consist in compiling training materials for the areas of competence of the GTF and uploading them on the ANSN platform; planning, designing and implementing training to fulfill the identified gaps.

All countries presented and discussed the new developments on training and building up competence in their country. There was a fruitful exchange of information, discussion and comparison of the different mechanisms for dealing with training amongst the countries. It was noted that developing the necessary infrastructure for future nuclear power development is a major concern in most ANSN countries.

The Topical Group meeting was followed by a workshop on Training Needs Assessment (TNA). During this workshop, all the resources and information related to TNA were presented, in particular the General Training Framework (GTF) and the National Training Framework (NTF). The IAEA guidelines for self assessment of training and competence needs as well as IAEA standards and resources available for developing safety knowledge infrastructures were also developed. An external expert from Pakistan introduced the Systematic Approach for Training (SAT) and strategies for conducting TNA in a complete way. He also gave the experience of the Pakistan Nuclear Regulatory Authority (PNRA). The participants were invited to perform practical exercises in two working groups in the second part of the workshop.

Special On-the-Job Training (OJT) Course for the Regulatory Inspection of NPP under Construction

Daejon, Korea, 12-16 October 2009

Twenty three trainees from twelve countries attended the training course, hosted by International Nuclear Safety School / Korea Institute for Nuclear Safety (KINS). The objective of this training course was to provide practical knowledge and experiences for regulatory inspections required for licensing of a nuclear power plan. The training course was designed for the staff of regulatory authorities and their technical support organizations, and consisted of classroom lectures for one week and on-the-job training (OJT) an a NPP site for another week. At the class room lectures, an IAEA staff made a lecture about four topics, i.e. global nuclear power projections, development of nuclear safety infrastructures, IAEA safety standards and safety programme, and Integrated Regulatory Review Service (IRRS).

Workshop on Experience in Building up Competence in Nuclear safety for Continuous Embarking on Nuclear Power

Tokyo, Japan, 8-11 December 2009

This workshop was hosted by Japan Nuclear Energy Safety Organization (JNES) and attended by twelve participants from eight ANSN member countries and an IAEA staff member and two external experts from France and USA. The purpose of the workshop was to help ANSN member countries to develop effective nuclear safety infrastructure for their nuclear power programmes. After welcoming remarks from the host organization, the external expert from USA and the IAEA staff member introduced the relevant IAEA activities and documents in support of nuclear safety infrastructure development. The experiences of capacity building of human resources in the nuclear power programmes were presented by the external expert from France and participants from China, Japan and Korea. Participants from those countries that

are planning to introduce nuclear power plants, namely Indonesia, Malaysia, Philippines, Thailand and Vietnam described their current infrastructures for nuclear safety and training.

All the participants agreed on the value of sharing information and experience, particularly on the education and training systems of other countries. They also found that the masters' degrees and training materials currently offered by Japan, Korea, European countries and the IAEA are valuable. And they shared a view that the process of Systematic Approach to Training (SAT) and Training Needs Assessment (TNA) was very useful, and the top-down approach to analyze the needs of competence building could be applied for the analysis at the level of divisions.

A number of suggestions for the future work of the Topical Group on Education and Training (E&TTG) were drawn out as a result of this workshop. The participants identified the need of setting up an E&TTG peer review mechanism amongst the ANSN member countries. They found it desirable that the IAEA conclusions from various workshops involving countries embarking on nuclear power programmes were informed to the ANSN member countries. They suggested that the use of a harmonized syllabus for the Basic Professional Training Course (BPTC) should be continued in this region and the training materials and e-learning capabilities of the ANSN needed to be improved. They also suggested that the further effort should be made for improving the communication of the ANSN activities and available materials in the region and that this kind of workshop should be also offered to the middle and junior staff.

Emergency Preparedness and Response Topical Group

OBJECTIVE

1. To identify and share best practices for national EPR strategies
2. To identify EPR needs and strategic EPR programme
3. To serve as a forum for information exchange
4. To plan and to provide EPR training courses
5. To assist to learn the EPR through national and international level exercises.

Workshop on Emergency Response Off-site Liaison with On-site and 4th meeting of the Emergency Preparedness and Response Topical Group

Manila, Philippines, 27-31 July 2009

Twenty participants from China, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Thailand and Vietnam attended the workshop and the meeting, both hosted by the Philippine Nuclear Research Institute (PNRI). Lectures were delivered by an expert from Slovakia and an IAEA staff. The workshop on emergency response off-site liaison with on-site emergency aspects mainly focused on Threat Category I and II. Thirteen lectures were delivered based on the revised IAEA training modules and several files newly developed for the workshop. In addition to the presentation from the IAEA, Australia, China, Japan and Korea presented their experiences on radiation emergency along with other Member States that made country reports on their development of emergency response capability.

During the topical group meeting, the participants discussed subjects focusing on the Integrated Safety Evaluation (ISE) and developed a midterm strategy, specific milestones and an activity plan for 2010 and 2011, bearing in mind the Vision for the ANSN by the year 2020 developed by the 2nd Nuclear Safety Strategy Dialogue meeting. The results of these discussions and the programme of activities for 2010 will be presented at the 10th ANSN Steering Committee Meeting in October 2009. In addition, the meeting requested several actions of the participants based on the Vision for the ANSN.

It is worthwhile to mention a proposal for the creation of a working group to enhance collaboration among Member States about "on-line monitoring data sharing", "development of national assistance capability shared in this region" and "harmonized approach of emergency plan at the ports of nuclear powered ships in Australia, Japan, Malaysia, Singapore and Thailand".

Through the country reports and their results of ISE, the group recognized the progress of the emergency response capability in all Member States and acknowledged their efforts on this matter. The workshops and other activities carried out in the frame of ANSN have supported their efforts to enhance their radiation emergency capability.

The TG members requested continuous support of the ANSN to the planned future activities to further develop the emergency capability of each Member State.

Workshop on Infrastructures needed for Off-site and On-site Emergency Preparedness and Response Activity and on Medical Treatment

Kuala Lumpur, Malaysia, 16-20 November 2009

This workshop was hosted by the Atomic Energy Licensing Board (AELB), the Malaysian regulatory body, and attended by 32 participants from eight ANSN member countries including 15 local participants. During the first two days of the workshop, an IAEA staff member and two experts from Australia and Japan made presentations on overall emergency preparedness and response, and medical aspects for radiation. The latter half of the workshop focused on the infrastructures needed for off-site and on-site emergency preparedness and response activities. In addition to the IAEA presentations, Australia and Japan presented their experiences on off-site and off-site infrastructure. Other Member States presented country reports on their infrastructure of radiation emergency for overexposed or contaminated victims.

Local participants from different fields, such as military, police and fire department and local hospitals, who usually had no opportunity to attend any IAEA workshops or training courses, were able to learn the relevant IAEA guidelines and medical response to radiation emergency. Through the country reports presented, the participants recognized a need of further training medical personnel responding to radiation emergency in order for them to be able to handle such situation appropriately.

Government and Regulatory Infrastructure Topical Group (GRITG)

OBJECTIVE

1. To promote co-operation, share the best practice and lesson learnt among the member countries in the region
2. To enhance the governmental and regulatory infrastructure in the region using the international safety standards
3. To identify the needs and specific projects to assist member countries in the area of development of governmental and regulatory infrastructure
4. To improve governmental and regulatory infrastructure continuously and sustainability in the member countries

Workshop on Governmental and Regulatory Infrastructure and Preparatory Meeting of the Governmental and Regulatory Infrastructure Topical Group

Shenzhen, China, 29 June-3 July 2009

During the 1st ANSN Strategy Dialogue Meeting in 2008, it was decided to create a new ANSN Topical Group focusing on initial stages of nuclear safety infrastructure development, which was approved by the following 8th ANSN Steering Committee Meeting. The Committee also decided to organize a workshop in Asia on Governmental and Regulatory Infrastructure for Nuclear Safety.

The workshop was organized in three sessions: information on nuclear energy and safety; information on the Regulatory Framework; and a concluding session. The following issues were discussed and addressed: national policy and strategy for nuclear energy and safety; existing national safety infrastructure; nuclear programme including preparation for a first NPP; legislative and governmental responsibilities; regulatory framework: organization, responsibilities, activities of regulatory body; identification of the needs to establish the nuclear safety infrastructure. The importance of networking for sharing experience amongst regulators was also stressed.

During the preparatory meeting for the new Topical Group on Governmental and Regulatory Infrastructure, the IAEA representative provided an overview of the current situation and development of the ANSN. The Terms of Reference for the Topical Group (TG) were discussed and several key elements were finalized, including the vision and outcomes, the objectives, structure, working methods, outputs of TG meetings and self-assessment. It was agreed that the first TG meeting would be held in Tokyo, Japan from 26 to 29 October 2009.

Regarding Governmental and Regulatory Infrastructure for Nuclear Safety, the participants recommended that it is the responsibility of each state to protect people (workers, general public, etc.) and the environment from the hazards, when using nuclear energy, by setting up a Regulatory Infrastructure which stress, nuclear and radiation safety and security as the first priority.

It was fully recognized that China, Korea and Japan could provide sufficient and valuable information and assistance to other countries of the region that are going to develop a nuclear power option in the areas of governmental and regulatory infrastructure. Further cooperation is needed between the

Association of South-East Asian Nations (ASEAN) and the ANSN countries.

1st meeting of the Governmental and Regulatory Infrastructure Topical Group

Tokyo, Japan, 27-30 October 2009

The new Topical Group on Governmental and Regulatory Infrastructure (GRITG) had its first meeting after a preparatory meeting in Shenzhen, China in July 2009. Sixteen participants from China, France, Japan, Korea, Indonesia, Malaysia, and Vietnam attended the meeting, hosted by the Japan Nuclear Energy Safety Organization (JNES). During the meeting, participants shared the update information about the governmental and regulatory infrastructure (GRI) and deepened their understanding of GRI of member countries, having questions and answers and lively discussions. Following the country presentation, the group discussed and agreed the standard structure and format of national report at the future group meetings, consisted of nuclear programme development including status and national policy, information about legislation, regulatory activities and management system, challenges and possible action plans.

The participants recognized the importance of cooperation among group members and implementation of the GRITG activities to achieve the Vision for the ANSN by the year 2020. They agreed upon a Midterm Strategy for the Group, highlighting future activities on sharing experience in the development of nuclear safety infrastructure, organizing workshops, expert missions and training courses as needed, promoting and facilitating application of international instruments such as the Convention of Nuclear Safety, the Joint Convention and relevant Code of Conducts.

They also proposed to invite review missions like Integrated Regulatory Review Service (IRRS) and to follow up the improvement of the national governmental and regulatory infrastructure in the ANSN member states through an effective use of the ANSN Integrated Safety Evaluation (ISE).

Operational Safety Topical Group

OBJECTIVE

1. To identify and share best practices for the safe siting, design, construction, operation (including ageing management), modification and decommissioning of nuclear power plants as well as to be a source of expertise in these matters
2. To promote the mutual exchange of information through ANSN and to foster the sharing of knowledge and experience on the safety of nuclear power plants
3. To promote the mutual cooperation between both operators and regulators of participating Member States in the safe operation of nuclear power plants

Workshop on Human Resource Management and Knowledge Transition for NPP Projects
Kuala Lumpur, 2-4 July 2009

The Departments of Nuclear Energy and Nuclear Safety & Security jointly held a workshop on Human Resource Management and Knowledge Transition for NPP Projects in Kuala Lumpur, Malaysia from 2 to 4 July 2009. The workshop was requested by the Malaysian Government in the framework of the Asian Nuclear Safety Network.

The twenty-six participants of the workshop came from the following Member States: China, Indonesia, Philippines, Thailand, Vietnam and Malaysia. International experts that served as lecturers were drawn from Switzerland and USA, while six IAEA staff also gave presentations either in person or prerecorded to help the participants understand the importance and techniques of Nuclear Knowledge Management, including lessons learned, accumulated national experiences and good practices in the subject area. All together, fifteen topical presentations and five national reports were presented. The focus was on common needs, possible solutions and good practices with the aim of making results directly applicable to the nuclear organizations in the participating countries. The participants provided feedback to the IAEA, which will help to better serve the needs of nuclear organizations in 'newcomer' countries.

The end-of-workshop questionnaire and the evaluation session showed that most of the participants confirmed that the workshop was useful to them and that they would try and implement some of the ideas discussed. They also suggested that future workshops in the Asian Region should continue to provide opportunities for interactive (hands on) sessions as this provides an excellent forum for the exchange of ideas and allows time for more detailed discussions on specific challenges. For further activities to be organized within the framework of the ANSN, the participants would like a session on nuclear sociology – creating public awareness with a view to changing negative public perception of nuclear power.

Participants generally expressed satisfaction with the quality of presentations. They were involved in discussions and stressed the importance of interplay of theoretical concepts in knowledge management and real life situations. The participants indicated that the invited experts demonstrated a thorough knowledge and understanding of their subject, and most provided, in their presentations, theoretical knowledge concepts related to real life situations.

Workshop on Public Communication Programme established and management of NPP projects

China, 23-27 November 2009

Twenty-five participants from China, Indonesia, Malaysia, Philippines, Thailand, Vietnam with an the IAEA staff member and three external experts from USA and UK participated in this workshop hosted by the Research Institute of Nuclear Power Operation (RINPO) in China. The objective of this workshop was to exchange information and to improve skills for communicating nuclear safety issues to the public and the media.

The workshop was constructed as a good balance of presentations and practical exercises. External experts and the IAEA staff member gave presentations on various themes including message development, principles of nuclear communication in normal and crisis situation and communicating risk.

The second part of the workshop was focussed on practical exercises. The participants were divided into four groups and prepared and conducted a press conference, a public meeting and a TV discussion. All the events were video taped and a very open and deep discussion took place after the playback of each video taped including evaluation of each particular group. In addition a personal feedback was given to all the participants. This practical exercise was very useful and effective to improve the skills of communicating nuclear safety issues. Finally, there was time for participants' presentations and exchanges of practices in different countries.

Radioactive Waste Management Topical Group

OBJECTIVE

1. To identify and share best practices for safety of national radioactive waste management strategies
2. To establish usable support systems and database for safety of national radioactive waste management strategies
3. To assist to join and meet national obligations of the Joint Convention
4. To serve as a forum for information exchange and to provide training course

International Workshop on Sustainable Management of Disused Sealed Sources – Working towards Disposal

Chiang Mai, Thailand, 12–16 January 2009

Sealed radioactive sources are used to, among other things, diagnose and treat medical patients, inspect welds and protect stored crops. However, there is a safety and security risk associated with these sources which needs to be managed and maintained under regulatory control even once their useful life is over. The sustainable management of Disused Sealed Radioactive Sources (DSRS) remains a challenge for many countries, as most DSRS have no final disposition route. Although a number of storage facilities have been recently built or renovated with physical protection upgrades allowing for improved control of DSRS, storage remains a necessary but intermediate step and there is no better option than disposal for long-term sustainability. In fact, disposal is generally recognized as a safer and more secure solution for all types of radioactive sources, with the possible exception of very short lived sources which are suitable for decay storage. Yet, the lack of licensed disposal facilities accepting long-lived DSRS is a worldwide issue and dedicated solutions must be developed and implemented.

In an effort to highlight these issues and promote the safe and secure management of DSRS, the Thailand Institute of Nuclear Technology (TINT), under the auspices of the Asian Nuclear Safety Network (ANSN), hosted this International Workshop organized by the IAEA. Some 80 managers and experts from 23 countries representing national programmes, regulatory bodies, international projects and implementing and source management organizations attended the workshop. The topics discussed covered the life cycle of disused sources with a special focus on long term management aspects, namely storage and disposal. Discussions centred on international cooperation, national policies and strategies for source management, storage and disposal and associated regulatory aspects.

Workshop participants acknowledged the IAEA's efforts to strengthen the safety and security of DSRS and to support the upgrading of DSRS management infrastructure in Member States. The borehole disposal system known as "BOSS" (borehole disposal of sealed sources) was unanimously recognized as a mature concept which is ready for implementation in candidate Member States, in particular those where disused sources are prevailing in radioactive waste

inventories. All workshop participants, including safety and security experts, identified it as a simple, flexible and cost-effective solution that provides for safety and security for all types of DSRS.
Broader and better coordinated international efforts to implement complete and integrated systems for "cradle to grave" management of SRS (i.e., including disposal) are essential to moving forward and the IAEA is expected to play a leading role, coordinating efforts through the use of international instruments such as the Code of Conduct on the Safety and Security of Radioactive Sources, the Import/Export Guidance and the Joint Convention on the Safety of Radioactive Waste Management.

Training course on Safety Assessment for Radioactive Waste Disposal Facilities

Daejon, Korea, 13-17 July 2009

The training course on "Demonstrating the Safety of Radioactive Waste Disposal Facilities" was held at KINS, Daejeon, Korea, as an activity of the ANSN Radioactive Waste Management Topical Group (RWMTG). A total of twenty-seven participants (including sixteen students) attended the course. The participants were experts of waste management and regulation from various ANSN member countries: Australia (1), China (1), Indonesia (2), Malaysia (2), Pakistan (1), Philippines (2), Thailand (2), and Vietnam (1). Four participants from Ukraine also attended the course.
The training course was especially focused on the safety case and safety assessment for the **Korea Low-Intermediate Level Waste Disposal Facility** which is under construction at Wolsong disposal site, in KyeungJu City.

On the 1st, 2nd and 4th day, IAEA safety guides and related IAEA guides on Radioactive Waste Disposal were introduced by the IAEA representative of the RWMTG and by an expert of the European Commission. The experts of Korea Radioactive Waste Management Corporation (KRMC) gave lectures on site selection process, including site characterization and safety assessment of the Wolsong site. The regulatory experts from KINS introduced the safety evaluation of the case. The safety regulations and inspections on the radioactive waste disposal in Japan were also introduced by experts from JNES of Japan.
On the 3rd day, all participants of the training course visited the Wolsong disposal site under the guidance of KRMC. The participants had a chance to visit the field of surface facilities and the underground facility (rock cavern).
The training course on the Demonstrating the Safety of Radioactive Waste Disposal Facilities successfully accomplished the objectives of the ANSN RWMTG. In addition, all of participants passed the exam and received a certificate for the training course.

Annual meeting of the Radioactive Waste Management Topical Group and Workshop on lessons learnt from the last Joint Convention Review Meeting

Taiyuan, China, 28-30-September 2009

The annual meeting of the RWMTG, hosted by the Chinese Government through the China Institute for Radiation Protection (CIRP), was attended by representatives from China, Indonesia, Japan, Korea, Malaysia, Philippines, Thailand and Vietnam, together

with representatives from France and the United States.

After opening addresses by Mr. X. Yiren, President of the CIRP, and Mr. B. Jiabin of the China Atomic Energy Authority, the RWMTG reviewed the 1st phase (2007-2009) of activities carried out by the RWMTG, and was informed on developments in radioactive waste management in the member countries, including the results of the Integrated Safety Evaluation (ISE). IAEA staff reported on recent ANSN activities, including the recent outcomes of the Nuclear Safety Strategy Dialogue and the Vision for the ANSN by the year 2020. Drawing on the results of the first phase of RWMTG activities and member country requests, a proposal for the 2nd phase (2010-2012) RWMTG activities including both predisposal waste management and disposal was presented, along with efforts towards ratification of the Joint Convention.

The IAEA representative proposed that the scope of the 2nd phase activities be expanded to include decommissioning activities, radioactive waste generated from nuclear power plants, as well as clearance and discharge. After general discussion,

the following regional events were agreed to for 2010: evaluation of decommissioning waste including waste inventory and characterization, waste safety practices and establishing regulations for near surface disposal facilities, and promoting ratification of the Joint Convention.

Immediately following the annual meeting, the Workshop on Lessons Learnt from the 3rd Joint Convention Review Meeting was held to provide participants with further insight into the workings of the Joint Convention, and to encourage/assist them to accede to (e.g., ratify) the convention. The participants were informed of the highlights of the 3rd Joint Convention Review Meeting, the Chinese experience with compilation of the national report (including the review process before and during the review meeting), and the roles and duties of the officers of the Joint Convention.

Workshop on Safety Assessment for Predisposal Radioactive Waste Management Facilities

Bangkok, Thailand, 23-27 November 2009

The workshop, hosted by the Government of Thailand through the Thailand Institute of Nuclear Technology (TINT), was attended by approximately 20 scientific, technical and regulatory personnel from Australia, China, Indonesia, Japan, Malaysia, Philippines, Thailand and Vietnam who are involved in development and review of safety assessments, and an IAEA staff member and an expert from Germany. The purpose of the workshop was to provide an introduction to up-to-date approaches in assessing the safety of radioactive waste management facilities and activities, introducing to participants the methodology of DS284, Safety Case and Safety Assessment for Predisposal Facilities, and Safety Assessment Framework (SAFRAN) software tool, and to provide an opportunity to discuss and share experience in carrying out such assessments and in the use of outputs/results from them.

The workshop covered the development and use of the safety case and supporting safety assessment in demonstrating the safety of predisposal waste management facilities and activities. The workshop was introduced with a series of presentations on the concepts of predisposal radioactive waste management safety, IAEA activities related to development and implementation of guidance, application of the SAFRAN software tool, and the TINT Facility safety assessment. The focus of the workshop was on the implementation of a systematic methodology for structuring and developing safety assessment.

The participants expressed interest in the guidance (DS284) and practical application of the SAFRAN software tool as well as related international activities and projects. The TINT Facility test case was successful in illustrating and reinforcing the concepts of safety case and safety assessment. The SAFRAN software tool was seen as beneficial to countries in developing their own safety assessments.

Safety Analysis Topical Group

OBJECTIVE

1. To provide a forum for the exchange of information and documentation
2. To maintain and improve the knowledge acquired during the TG activities

Safety Forum "How to strengthen the safety assessment capability for design and operation of nuclear power plants"

Jeju Island, Rep. of Korea, 20-22 May 2009

The forum had been put forward to respond to the outcome of the past two ANSN Nuclear Safety Strategy Dialog meetings to develop a mechanism for sharing the safety assessment tools. The forum, hosted by the Korea Institute of Nuclear Safety (KINS) in cooperation with the Korean Nuclear Society (KNS), was attended by 15 participants from 6 member countries of the ANSN namely Indonesia, Korea, Malaysia, the Philippines, Thailand and Vietnam.

After an IAEA presentation titled "Development of regional safety assessment capability building system in the IAEA", KINS gave a presentation on the development of regional capacity building system in Asia and each participant of ANSN member countries presented its national nuclear power programme.

It was reaffirmed that implementing a nuclear power programme is a complex process requiring timely preparation for developing the national infrastructure and capacity for nuclear safety.

Looking at the very ambitious nuclear power programme of some member states, participants recognized once again that the quest of mechanisms for sharing safety assessment tools and for helping member states make safety related decision was imminently of importance.

In the discussion session, participants were actively involved in the discussion to reach a general consensus on the mechanism for sharing safety assessment tools like the IAEA CASAT. Member states, particularly those countries embarking on NPP are encouraged to utilize the IAEA CASAT from the early phase of national safety infrastructure building. Considering the level of knowledge required for and the degree of complexity associated with using the CASAT, embarking member states are recommended to maintain dedicated manpower whose involvement should be continued over a reasonable period of time.

The role of a Virtual Technical Support Organization (V-TSO) as a mechanism for helping member states to make decision was also discussed. The function and its associated organization of V-TSO are to be gradually given the shape through implementing candidate pilot projects selected during the discussion session.

The ANSN Topical Group on Safety Analysis was called on to further discuss the V-TSO assuming the role of review on the chapters 15 & 19 of the safety analysis report during the next off-line meeting scheduled in November 2009.

Annual meeting of the Safety Analysis Topical Group

Daejeon, Reoublic of Korea, 2-6 November 2009

The annual meeting of the SATG, hosted by the Korea Institute of Nuclear Safety (KINS), was attended by nine participants from Indonesia, Japan, Republic of Korea, Malaysia, Thailand and Vietnam, to share and enhance the knowledge of safety analysis, specifically of the design and licensing of nuclear power plants, among the ANSN member countries. The meeting was the first meeting since the SATG agreed to expand to cover the safety analysis of nuclear power plants (NPP) as well as research reactors.
At the part of the lecture session after the opening session, general overviews of NPP licensing, design and operation were presented to share a common recognition on the scope and role of safety analysis from the holistic view point of NPP. The topics related to the deterministic safety analysis (DSA) and the probabilistic safety analysis (PSA) were also addressed to give insights into how comprehensive and extensive the relevant knowledge and requirements are for ensuring the high level of the NPP safety. Recent IAEA activities in relation to building the safety assessment competency were also presented with emphasis on the use of the IAEA Centre for Advanced Safety Assessment Tools (CASAT), a web-based platform designed to support safety assessment capacity building in IAEA Member States.
The workshop session took place at the computer training facility of the KINS, assisted by experts from the Korean Atomic Energy Research Institute (KAERI). After brief introduction on basic theory, functions and input preparation, simulation exercises with simple problems, simulation of small break of loss-of-coolant accident (SB-LOCA) induced system transients in NPP and a simulation of an integral effect test were conducted.

At the discussion session, the participants shared their common understanding of the goal of the SATG and confirmed Mid-term Action Plan of SATG submitted to the 10th meeting of the ANSN Steering Committee in October 2009, and identified action items necessary for achieving the goal. They recognised the necessity of taking initiative to develop virtual technical support organization (Virtual TSO) in the field of safety analysis. They also recognised that CASAT and "Webinar", an IT tool of on-line communication, were essential for building national safety assessment competency in a sustainable and effective manner. It was appreciated that the IAEA was ready to provide member states with the safety analysis tool such as VISA/RELAP5, and the efforts that IAEA with the help of KINS put forward on-line communicator "Webinar".

Safety Management of Research Reactors Topical Group

OBJECTIVE

1. To identify and share best practices for the safe design, construction, operation (including ageing management), modification and decommissioning of Research Reactors as well as to be a source of expertise in these matters
2. To promote the implementation of the Code of Conduct on the Safety of Research Reactors and the application of IAEA Safety Standards
3. To promote the mutual exchange of information through ANSN and to foster the sharing of knowledge and experience on the safety of research reactors
4. To promote the mutual cooperation between participating Member States in the safe operation of Research Reactors

Workshop on Safety management and verification for research reactors and annual meeting of the Safety Management of Research Reactors Topical Group

Hanoi, Vietnam, 18-22 May 2009

The purpose of the workshop, hosted by the Vietnamese Agency for Radiation and Nuclear Safety (VARANS), was to provide practical information to the research reactor specialists from the Asian countries on safety management and methodologies for preparation (or update), review and assessment of research reactor safety documents. The workshop was also intended to provide a forum for the participants to discuss their national practices and for exchanging experience. The workshop was attended by 19 participants representing 13 organizations from 8 Asian Member States that have one research reactor or more.

The first part of the workshop was devoted to presentations covering the main safety issues for research reactors, including the regulatory requirements, the defence in depth, the safety limits, the safety features and the Safety Analysis Report (SAR) review.
The workshop participants made presentations covering various topics, including current status of research reactors in their organizations and associated safety documents, national regulations related to research reactors, process for review and assessment of safety documents, inspection and licensing process. These presentations also highlighted specific safety issues such as ageing management and decommissioning.
The presentations led to useful discussions of topics related to research reactor safety, including periodic safety review, updating of safety documents, regulatory supervision of research reactors, and interaction between the regulatory bodies and the operating organizations.
During the second part of the workshop, two working groups were formed to review, as a practical exercise, chapter 16 (safety analysis) of the Dalat research reactor SAR and to check the conformity of its content with the IAEA Safety standards. Useful recommendations for completing missing information in the safety analysis report and for improving its clarity were formulated. The review results were presented by each group and discussed with VARANS and the Dalat Nuclear Research Institute.
Following the workshop, the annual meeting of the Safety Management of Research Reactor Topical Group (SMRRTG) was held on 22 May. The group discussed the priorities and needs of Member States in relation to

important safety issues for research reactors. It also discussed and agreed on the regional activities to be implemented in 2010 including a workshop on ageing management, and another one on Inspections, review and verification of research reactors. The establishment of a Regional Standing Safety Committee for Asia which could meet regularly to discuss and assess important safety issues for the research reactors in the region, should be considered by the ANSN Steering Committee during its meeting in October 2009.

Workshop on Operational Radiation Safety in Research Reactors
Kajiang, Malaysia, 19-23 October 2009

Twenty-two participants from six Asian countries participated in this workshop hosted by the Malaysian Nuclear Agency, the operating organization for the Reactor TRIGA PUSPATI (RTP) in Malaysia.
The main objective of this workshop was to provide practical information and guidance to research reactor specialists from the Asian countries on the establishment of effective operational radiation protection programmes for research reactors. An IAEA staff made presentations on IAEA safety standards for research reactors, radiation protection and radiation monitoring for research reactors, emergency preparedness, and the Hungarian practice of radiation protection for research reactors was introduced by an external expert from Hungary. Participants made presentations on their national radiation protection policies and practices, the regulation and inspection activities on radiation protection, radiation protection programme, and operational radiation safety at research reactors.

On the fourth day of the workshop, two working groups were constituted, one representing the operators and the other representing the regulators. The working groups discussed the practice and experiences on the operation radiation safety for research reactors in participating countries, and performed exercises on consequence calculation by RASCAL code for a hypothetical radionuclide discharge from a research reactor. Also, on the first day of the workshop, the participants visited the RTP reactor facility in Malaysian Nuclear Agency, Bangi, Kajiang. During the visit, the radiation protection programme, ageing management, operational safety, personnel training of RTP were discussed. The workshop was a good occasion for improving the exchange of operating experience and information on good practices related to operational radiation safety for research reactors.

Workshop on Periodic Safety Review of Research Reactors
Thailand, 30 November-4 December 2009

This workshop was hosted by Thailand Institute of Nuclear Technology (TINT) and the Office of Atoms for Peace (OAP). It was attended by 14 participants representing regulatory bodies and operating organizations of research reactors from nine ANSN Member States and one IAEA staff . The purpose of the workshop was to provide the participants with practical information and guidance on research reactors, in particular the scope, contents and methodology of the periodic safety reviews (PSR) of research reactors. The workshop was also intended to provide a forum for the participants to discuss their national practices and exchange their experiences on this subject.

The workshop programme included 18 presentations covering the different topics related to research reactors PSR. The presentation from IAEA covered PSR contents and methodology, the feedback from recent activities and the safety documents for research reactors, particularly those needed for PSR. Presentations from some countries indicated that PSR were generally performed at the occasion of the relicensing process for the operating research reactors. Presentations from some other countries indicated that PSR would be performed after the finalization of regulatory documents which were under preparation.

Practical examples provided by two participants from ANSN Member States covered the safety analyses and safety evaluations made for particular research reactors in the country. The discussions among the participants focused mainly on the justification and benefit of PSR for safety enhancement, taking into account the aging of the facilities, their modifications and the changes in their environment.

The second part of the workshop was devoted to work on exercises. The participants were divided into two working groups including the operators and regulators, respectively. The exercises focussed on discussion and verification of the consistency of the Postulated Initiating Events (PIEs) considered in the Safety Analysis Reports of three research reactors, with the list of PIEs included in the IAEA Safety Standard NS-R-4, Safety Research Reactors; Safety Requirements. The exercises were very useful for sharing knowledge and experience among the participants.

Siting Topical Group

OBJECTIVE

1. To serve as a forum for exchanging and sharing information, experience and knowledge on all safety aspects related to the selection and evaluation of sites for nuclear power plants among member countries
2. To indentify, collect, analyze and share the best methodologies, criteria and practices and lessons learnt for dealing with and resolving the issues related to the selection and evaluation of sites for NPPs
3. To plan and implement an action plan based on performing activities for capacity building in the area of siting
4. To plan, develop and operate a pool of qualified experts and/or organization in all interdisciplinary fields of site selection and evaluation aspects existing in the member countries

Bureau meeting of the Siting Topical Group

Daejeon, Korea, 3-4 September 2009

During the 2nd meeting of the Nuclear Safety Strategy Dialogue at Ministers and DGs level held in Seoul, Korea on 10 April 2009, "The Vision for the ANSN by the year 2020" was shared among the participants and it was agreed to launch a new Topical Group on siting related aspects in 2009 following a proposal from Korea and Vietnam. The Steering Committee of the ANSN confirmed that agreement to create a new Siting Topical Group (STG) during its 9th Meeting held in Indonesia last May. Korea and Vietnam offered to coordinate the new group.

The objectives of the first Bureau Meeting, organized in KINS headquarters in Daejeon, from 3 to 4 September 2009, was to establish contact among the nominated Coordinators from Korea and Vietnam and the IAEA Technical Officer, to prepare the Terms of Reference for the STG and the three years Action Plan.

The IAEA TO provided presentations on the recently established International Seismic Safety Centre (ISSC) at the Nuclear Installation Safety Division (NSNI) with the functions and responsibility of dealing with all aspects related

to site selection and evaluation for nuclear installations, including external hazards and engineering related matters. It was also presented an overview of the concepts, approaches and criteria applied in these areas in accordance to the current IAEA safety standards.

The Terms of Reference (ToR) for the STG were discussed and prepared based on existing ToR for other topical groups. The ToR include a clear definition of the objectives of the group, its organizational structure, its working methods, the budget and administrative arrangements for implementing the Action Plan, and the self-assessment in line with other topical groups.

The Action Plan for the next 3 years was discussed and prepared. It is mainly based on activities (i.e. workshops) for capacity building and on-line networking. The first workshop will be held during the 1st semester of 2010 in Vietnam as host country.

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National Activities: China

Training Course on Safety Transport of Radioactive Material

Shanghai, China, 2-6 November 2009

The training course was hosted by the National Nuclear Safety Administration of China (NNSA). The object of the workshop was to enhance the safety regime of the Chinese regulatory body with respect to the safe transport regulations for radioactive material, to result in an improvement of transport safety in China.

Around 130 people took part in the workshop. They were from the regulatory body, local authorities, civil aviation administration, maritime safety administration, carriers, isotope producers, consigners and designers of packages.

The 16 lectures were given by an IAEA staff covered the basic safety concepts, international regime of safe transport regulations for radioactive material, IAEA regulations and relevant safety guides on safe transport of radioactive material. In addition, the Regulations for the Safe Transport of Radioactive Material (TS-R-1) of IAEA were explained thoroughly. The other aspects related to the transport of radioactive material such as planning and preparing for emergency response, quality assurance, radiation protection programmes for the transport of radioactive material were also introduced.

The lectures were well attended. Strong involvement and interest of the participants made the workshop active. Through this workshop the audience not only learned the safety requirements for the transport of radioactive material but also established communication with each other which is important for coordination and cooperation in their further work.

National Activities: Indonesia

Workshop on regulatory oversight during operation of research reactors
Jakarta, Indonesia, 10-13 March 2009

The main objective of the workshop was to assist the Indonesian Regulatory Body to enhance its oversight capability for research reactors, and to identify the good national practices and the areas that need improvement with regards to licensing and license compliance.
The workshop, hosted by BAPETEN (the regulatory authority of Indonesia), was conducted by one IAEA staff and one external expert from the Canadian Nuclear Safety Commission (CNSC). A total of 38 research reactor specialists participated in the workshop, including 29 participants from BAPETEN, and 7 participants from the research reactor operating organization — BATAN (the Indonesian National Nuclear Energy Agency).
Fifteen presentations were made at the workshop. The IAEA team provided six presentations, covering the topics of IAEA safety requirements and guides for the authorization, inspection and enforcement processes for research reactors, and the Canadian practice of regulating the safety of research reactors. The presentations included an overview of the licensing and inspection processes applied to research reactors in Canada as well as incident investigation practices by the CNSC. Also, an example of the regulatory activities related to the AECL's National Research Universal Reactor was provided.

The presentations made by the Indonesian participants covered the regulatory policy, the licensing status, the regulation and the inspection activities of the research reactors in Indonesia. In addition, one presentation addressed the implementation of the safety performance indicators for the Indonesian research reactors.
Four other presentations covered operational safety and safety management for specific research reactors.
On the third day of the workshop, two working group sessions were organized. Each session, which included one IAEA team member and participants from both BAPETEN and BATAN, discussed the operational safety and safety management of particular research reactors.
The workshop was held successfully, with the full support of the senior management of the Indonesian regulatory body as demonstrated by the meeting and discussion with the Chairman and senior officers of BAPETEN, the significant participation of the senior management of the research reactors, and the active participation in the discussions of the workshop topics.
Through the presentations and the discussions, the IAEA team members were able to effectively communicate with the rest of the workshop participants a comprehensive overview of IAEA Safety Guides related to research reactors and provide a concrete example of the regulatory practice in a country with a fully established research reactor programme.

National Activities: Malaysia

Review Mission of Emergency Preparedness (EPREV) infrastructure
Kuala Lumpur, Malaysia, 13-17 July 2009

A 4-member EPREV team—with experts from Hungary, Japan, Jordan and the IAEA—visited Malaysia to gather information on the country's preparedness for response to nuclear or radiological emergencies arrangements, in accordance with the Emergency Preparedness Review Team Guidelines. The work focused on assessing the current prevailing situation in Malaysia, regarding nuclear and radiological emergency potential (threats) and response capabilities (preparedness); determining if arrangements for preparedness and response for radiation emergencies in the country are in compliance with international requirements (more specifically with the IAEA Safety Standards Series No. GS-R-2, 'Preparedness and Response for a Nuclear or Radiological Emergency'); identifying methods and means of improving compliance with the international standards (GS-R-2, EPR-METHOD 2003) and other good practices, where (and if) applicable; reviewing and commenting the previously developed and submitted draft national radiation emergency plan (RADPlan).

The EPREV team met with representatives of the main responsible authorities, agencies and organizations involved in the national nuclear and radiological emergency preparedness and response system. A one-day trip was organized to Putrajaya, to visit the headquarters of the primary first responding organization (the Fire and Rescue Department), to attend its presentations and to observe a practical demonstration of its response capabilities.
A special session was devoted to detailed discussions on the draft RADPlan.
While the main elements of a good radiation emergency preparedness and response system are in place in Malaysia, with a well based legal background, distribution of roles with clearly assigned responsibilities, high-quality technical support and well trained and properly equipped first responding organization, some further steps for upgrading the current capabilities were suggested to the counterpart.

Workshop on Safety Analysis and Regulatory Requirements for Research Reactor Modifications
Bangi, Malaysia, 20-24 April 2009

The workshop was hosted by the Atomic Energy Licensing Board (AELB), the Malaysian regulatory body, and attended by 28 participants representing different divisions from the AELB and Nuclear Malaysia Agency (NMA), the operating organization of the PUSPATI research reactor. The purpose of the workshop was to provide the research reactor personnel in Malaysia with practical information on planning, implementing, and supervising research reactor modifications important to safety, including establishing the relevant regulatory requirements, performing safety analysis, and managing different phases of a modification project.

The workshop, conducted by two IAEA staff members and one external expert, covered a wide range of topics related to safety analysis and modification of research reactors, and concentrated mainly on demonstrating practical examples and providing the lessons learned from experience rather than on the theoretical aspects of the subjects. The workshop consisted of presentations, working groups' exercises, and discussions by the IAEA and participants from the AELB and NMA. The workshop discussed different safety aspects of the planned replacement of the I&C system and modification of the primary cooling system of the PUSPATI research reactor, and provided the NMA with guidance on their implementation. The workshop also included development of a draft document on research reactor modifications and provided guidance to AELB on the regulatory supervision on implementation of such modifications.

The participants considered the workshop effective, closely related to their work and appreciated the technical guidance provided on the topics covered. The AELB and NMA authorities appreciated the results of the workshop and indicated its contribution toward enhancement of the safety management of the PUSPATI research reactor and safe implementation of its planned modifications.

Observation by an ANSN member of an IRRS Mission to Peru

19-30 April 2009

An expert from Malaysia observed the full scope of Integrated Regulatory Review Service (IRRS) mission to Peru. The purpose of this IRRS mission was to conduct a review of the Peruvian regulatory framework for unclear, radiation, radioactive waste and transport safety and the regulatory activities of the regulatory body, to review regulatory effectiveness and to exchange information and experiences in the regulation of various areas including legal and governmental infrastructure for safety, emergency preparedness, transport, research reactor, and education and training.

National Activities: Philippines

National Training Course on Integrated Management System

Quezon City, Philippines, 2-6 March 2009

The mission was aimed at supporting the Philippines Nuclear Research Institute (PNRI) to align the current Quality Management System with Nuclear Safety goals and requirements in order to achieve an Integrated Management System (IMS) in compliance with IAEA GS-R-3 "Management System for Facilities and Activities". The workshop, held at PNRI in Quezon City, was attended by 40 delegates representing all divisions of the institute and covering responsibility levels from senior to middle management.

The workshop addressed a wide range of topics related to integrated management system with a specific emphasis on leadership. It consisted of presentations and technical discussions by the IAEA team of experts and participants on the following topics: (i) IAEA safety standards on integrated management system including comparison with ISO 9001:2000; (ii) role of senior management in implementation of IMS, (iii) leadership issues, management commitment and accountability; (iv) gradual implementation of IMS and, (v) tools for practical integration (experience feedback and corrective action programme).

A series of group exercises both deepened the understanding of how practically align the current management system with the nuclear safety goals and requirements and fostered a fruitful crosscutting exchange of needs and experiences. The discussions in the working groups were centred on leadership issues when implementing IMS, integration of existing processes and proposal action plan for the practical implementation of the current documented IMS.

The continuous effort put by PNRI senior management on development of IMS led to visible outcomes: among others, the successful development and implementation of a quality management system for the Nuclear Regulations Licensing and Safeguards Division, the nearly accreditation of some PNRI's laboratories. The next step would be to align the existing management system with nuclear safety goals and requirements, and to broaden the scope of application of this management system approach to the whole organization.

National Activities: Vietnam

IRRS Mission to Vietnam – Observation by an ANSN member

Vietnam, 28 September-9 October 2009

An IAEA Integrated Regulatory Review Service (IRRS) mission was carried out to Vietnam from 28 September to 9 October 2009. A team of international experts from Argentina, Canada, France, Pakistan, Syria, Slovenia, led by an expert of the United States Nuclear Regulatory Commission, and one observer from Malaysia performed a peer review of Vietnam's national regulatory infrastructure for radiation and nuclear safety, with support from staff of the IAEA secretariat.

The scope of the mission requested by the Vietnam Agency for Radiation and Nuclear Safety (VARANS) included a review of: legislative and governmental responsibilities; responsibilities and functions of the regulatory body; organization of the regulatory body; the authorization process; review and assessment; inspection and enforcement; the development of regulations and guides; and the management system of the regulatory body. In addition, at the request of VARANS, the mission scope included the following thematic areas: Code of Conduct on the Safety and Security of Radioactive Sources; emergency preparedness and response; control of medical exposures; and education and training. Also, at the request of the Vietnamese government and as part of the IRRS mission, the team reviewed the national safety infrastructure in preparation for introducing the first nuclear power plant in Vietnam. In addition to meeting with senior management of VARANS, the team held discussions with the Minister of Science and Technology, the Minster of Health, the Vice Minister of Natural Resources and the Environment, and the Vice Minister of Industry and Trade.

Overall, the IRRS mission identified both strengths and opportunities for improvement in radiation and nuclear safety in Vietnam, and a draft IRRS report was delivered to VARANS at the end of the mission.

CONTRIBUTIONS 2009

Country	Contributions
China	1 Information Technology expert (5 months) and hosted regional activities
France	1 cost-free expert
Indonesia	hosted the 9th Steering Committee meeting
Japan	746 479 USD, 1 cost-free expert and hosted the IT Support Group meeting and regional activities
Malaysia	hosted regional activities
Philippines	hosted regional activities
Republic of Korea Nuclear	100 000 USD, 1 cost-free expert and hosted of the 2nd Safety Strategy Dialogue meeting, regional activities and the Roundtable Discussion
Singapore	hosted the 10th Steering Committee meeting
Thailand	hosted regional activities
USA	180 000 USD
Vietnam	hosted regional activities

Regional Workplan 2009

Task #	Task Title	Host Country	Responsible officer	Status	Start date	Completion date
8015	International Workshop on Sustainable Management of Disposal of Disused Sealed Radioactive Sources (DSRS) - Working Toward Disposal	Thailand	Rowat John Harland	completed	2009-01-12	2009-01-16
9001	Nuclear Safety Strategy Dialogue, 2nd meeting	Korea, Republic of	Yamagata Hiroshi	completed	2009-04-10	2009-04-10
9009	Bureau meeting of the Education and training topical group - ETTG	Vienna HQ	Moracho Ramirez Maria Josefa	active	2009-05-05	2009-05-06
9002	Steering Committee, 9th meeting	Indonesia	Lemoine Philippe Paul	completed	2009-05-12	2009-05-14
9011	Workshop on Safety management and verification for research reactors, and annual meeting of the Safety management of research reactors topical group - SMRRTG	Vietnam	Abou Yehia Hassan	active	2009-05-18	2009-05-22
9004	Safety Forum "How to strengthen the safety assessment capability for design and operation of nuclear power plants"	Korea, Republic of	Park Chan Oh	active	2009-05-20	2009-05-22
9023	Workshop on Governmental and regulatory infrastructure, and meeting of the Governmental and regulatory infrastructure topical group - GRITG	China	Guo Lingquan	active	2009-06-29	2009-07-03
9016	Workshop on Human resource management and knowledge transition for NPP projects	Malaysia	Kearney Mark Dominic	active	2009-07-02	2009-07-04
9018	Training course on Safety assessment for radioactive waste disposal facilities	Korea, Republic of	Metcalf Philip Edward	completed	2009-07-13	2009-07-17
9010	Workshop on Emergency response - off-site liaison with on-site, and annual meeting of Emergency preparedness and response topical group - EPRTG	Philippines	Fujimoto Kenzo	completed	2009-07-27	2009-07-31
9003	Workshop on training needs assessment, and annual meeting of the Education and training topical Group - ETTG	Vienna HQ	Moracho Ramirez Maria Josefa	active	2009-08-10	2009-08-14
9027	Workshop on Siting / Bureau Meeting of TGS	Korea, Republic of	Godoy Antonio Ramon	active	2009-09-03	2009-11-12
9019	Workshop on lessons learnt from the last Joint Convention Review Meeting, and annual meeting of the Radioactive waste management topical group - RWMTG	China	Kinker Monika Brigitte	active	2009-09-28	2009-09-30
9028	IT support group meeting	Japan	Lemoine Philippe Paul	completed	2009-09-29	2009-10-02
9008	Training course on regulatory control for licensing of new NPP projects	Korea, Republic of	Moracho Ramirez Maria Josefa	active	2009-10-12	2009-10-30
9026	Workshop on Operational radiation safety in research reactors	Malaysia	Chen Haiyan	active	2009-10-19	2009-10-23

Regional Workplan 2009

9006	Steering Committee 10th meeting with TG coordinators	Singapore	Lemoine Philippe Paul	active	2009-10-20	2009-10-22
9024	Annual meeting of the Governmental and regulatory infrastructure topical group - GRITG	Japan	Guo Lingquan	active	2009-10-27	2009-10-30
9005	Safety Analysis Topical Group Meeting	Korea, Republic of	Park Chan Oh	active	2009-11-02	2009-11-06
9012	Workshop on Infrastructures needed for off-site and on-site emergency preparedness and response activity, and on medical treatment.	Malaysia	Fujimoto Kenzo	active	2009-11-16	2009-11-20
9014	Workshop on Public communication programme establishment and management of NPP projects	China	Lipar Miroslav	active	2009-11-23	2009-11-27
9017	Workshop on Safety assessment for predisposal radioactive waste management facilities	Thailand	Kinker Monika Brigitte	active	2009-11-23	2009-11-27
9025	Workshop on Periodic safety review of research reactors	Thailand	Abou Yehia Hassan	active	2009-11-30	2009-12-04
9007	Workshop on experience in building up competence in nuclear safety for countries embarking on nuclear power.	Japan	Moracho Ramirez Maria Josefa	active	2009-12-08	2009-12-11

National Workplan 2009

2010-01-18

Task #	Task Title	Host Country	Responsible officer	Status	Start date	Completion date
8030	Training Course on Safe Transport of Radioactive Material	China	Zhao Yongkang	active	2009-11-02	2009-11-06
8002	Workshop on regulatory oversight during operation of research reactors	Indonesia	Chen Haiyan	completed	2009-03-10	2009-03-13
9022	Training course on Safety analysis and regulatory requirements for research reactor modification	Malaysia	Shokr Amgad Mohamed Amin	completed	2009-04-20	2009-04-24
9013	EPREV Mission to assess the national emergency preparedness infrastructure	Malaysia	Zombori Peter	active	2009-07-13	2009-07-17
9033	IRRS mission to Vietnam - observation by an ANSN member	Malaysia	Guo Lingquan	active	2009-09-28	2009-10-09
8046	National Training Course on Integrated Management System	Philippines	Kerhoas Anne Marie Louise	active	2009-03-02	2009-03-06
9031	Observation by an ANSN member of an IRRS mission to Peru	Vietnam	Calpena Stephane	active	2009-04-19	2009-04-30

Regional Workprogramme 2010

2010-02-17

Task No.	Title	Host Country	Technical officer	Project Management Officer	Status	Start date	Completion date
9015	Workshop on Commissioning preparation and management, and annual meeting of the Operational safety topical group - OSTG	China	Henderson Neil Ross	Guo Lingquan	active	18-01-2010	22-01-2010
9021	Consultancy meeting to Develop IAEA guidance on verification and validation of computational tools in safety analysis	Vienna HQ	Park Chan Oh	Kim Dae Ki	active	18-01-2010	22-01-2010
10009	6th IT Support Group (ITSG) meeting	Vienna HQ	Kunjeer Sameer Bhikajirao	Guo Lingquan	active	03-03-2010	05-03-2010
10023	Workshop on Web-based Safety Analysis Competency Building	Malaysia	Park Chan Oh	Kim Dae Ki	active	15-03-2010	19-03-2010
10004	1st Capacity Building Co-ordination Group (CBCG)meeting	Japan	Fukuda Yasukazu	Guo Lingquan	active	29-03-2010	31-03-2010
10003	3rd Nuclear Safety Strategy Dialogue Meeting	Indonesia	Mrabit Khammar	Guo Lingquan	draft	22-04-2010	23-04-2010
10043	Consultancy Meeting to prepare the ToR and Mid-Term Strategy and Plan for ETTG	Vienna HQ	Moracho Ramirez Maria Josefa	Kim Dae Ki	draft	03-05-2010	07-05-2010
10012	Workshop on National Intervention Levels for taking Urgent Protective Actions and Protection of Workers and the Annual Meeting of EPRTG	Indonesia	Fujimoto Kenzo	Fukuda Yasukazu	draft	10-05-2010	14-05-2010
10020	Workshop on Evaluation of Decommissioning Waste including Waste Inventory and Characterization	Indonesia	Kinker Monika Brigitte	Fukuda Yasukazu	draft	17-05-2010	21-05-2010
10018	Workshop on Experience on the Periodic Safety Review (PSR) for Nuclear Power Plants	China	Toth Csilla	Guo Lingquan	draft	17-05-2010	21-05-2010
10024	Workshop on Level 2, 3 and External Events PSA	China	Park Chan Oh	Kim Dae Ki	draft	17-05-2010	21-05-2010
10001	11th ANSN Steering Committee meeting and 2nd Capacity Building Co-ordination Group (CBCG) meeting	Vienna HQ	Guo Lingquan		draft	25-05-2010	28-05-2010
10013	Workshop on Radiation Emergency Management for Decision Makers and Technical Supporters	Japan	Fujimoto Kenzo	Fukuda Yasukazu	draft	01-06-2010	01-06-2010
10026	Workshop on Ageing Management of Research Reactors and the Annual Meeting of SMRTG	Australia	Abou Yehia Hassan	Fukuda Yasukazu	draft	01-06-2010	01-06-2010
10029	Workshop on Regulatory Requirements for Site Selection and Evaluation for Nuclear Power Plants	Vietnam	Godoy Antonio Ramon	Kim Dae Ki	draft	07-06-2010	11-06-2010
10041	Basic Professional Training Course in Nuclear Safety	Korea, Republic of	Park Sang Ryeol	Kim Dae Ki	draft	21-06-2010	02-07-2010
10027	Workshop on Application of the Code of Conduct on the Safety of Research Reactors	China	Abou Yehia Hassan	Fukuda Yasukazu	draft	01-07-2010	01-07-2010
10045	2nd CS on Development of TECDOC related to Safety Analysis Code Verification and Validation	Vienna HQ	Park Chan Oh	Kim Dae Ki	draft	05-07-2010	09-07-2010

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10016	Workshop on the Lessons Learned from Peer Review Missions (IRRS) and Annual meeting of the GRITG	Vietnam	Guo Lingquan		draft	06-07-2010	09-07-2010
10042	Training Course on Regulatory Control of Nuclear Power Plants	Korea, Republic of	Park Sang Ryeol	Guo Lingquan	draft	26-07-2010	30-07-2010
10019	Workshop on Experience on Key Workflows' Development, Management and Standardization for Operating Nuclear Power Plants based on Information Technology	China	Henderson Neil Ross	Guo Lingquan	draft	01-08-2010	01-08-2010
10011	Workshop on Training Management and Annual Meeting of the Education and Training Topical Group (ETTG)	Indonesia	Park Sang Ryeol	Kim Dae Ki	draft	09-08-2010	13-08-2010
10010	7th IT Support Group (ITSG) meeting	Korea, Republic of	Kunjeer Sameer Bhikajirao	Guo Lingquan	draft	01-09-2010	01-09-2010
10021	Workshop on the Joint Convention and the Annual Meeting of RWMTG	Japan	Metcalf Philip Edward	Fukuda Yasukazu	draft	01-09-2010	01-09-2010
10014	Workshop on Effective Methods and Procedures for Evaluation of Emergency Preparedness and Response, and Observation of Member State's Exercise	Japan	Fujimoto Kenzo	Fukuda Yasukazu	draft	01-10-2010	01-10-2010
10017	Workshop on Governmental and Regulatory Infrastructure	Korea, Republic of	Caruso Gustavo	Guo Lingquan	draft	01-10-2010	01-10-2010
10025	Workshop on General Concept of Safety Analysis for Nuclear Power Plants	Korea, Republic of	Park Chan Oh	Kim Dae Ki	draft	01-10-2010	01-10-2010
10028	Workshop on Inspection, Review and Verification of Research Reactor Safety	Korea, Republic of	Abou Yehia Hassan	Fukuda Yasukazu	draft	01-10-2010	01-10-2010
10002	12th ANSN Steering Committee meeting and 3rd Capacity Building Co-ordination Group (CBCG) meeting	China	Guo Lingquan		draft	18-10-2010	22-10-2010
10008	Technical Meeting on establishment of the Regional Capacity Building in Asia	Japan	Fukuda Yasukazu		draft	25-10-2010	29-10-2010
10022	Workshop on Waste Safety Practices and Establishing Regulation for Near Surface Disposal	Philippines	Metcalf Philip Edward	Fukuda Yasukazu	draft	01-11-2010	01-11-2010

National Workprogramme 2010

2010-02-17

Task No.	Title	Country/ Region	Host Country	Technical officer	Project Management Officer	Start date	Completion date
10015	Emergency Preparedness Review (EPREV) Mission to Philippines	Philippines	Philippines	Zombori Peter	Fukuda Yasukazu	2010-04-01	2010-04-01
10034	Expert mission to review Regulatory Document entitled “Regulatory Guidelines for Site Selection and Evaluation of Nuclear Power Plant”. - STG	Malaysia	Malaysia	Coman Ovidiu Lucian	Guo Lingquan	2010-04-01	2010-04-01
10037	Expert Mission to review the National Policy and Strategy on Radioactive Waste Management - RWMTG	Philippines	Philippines	Metcalf Philip Edward	Fukuda Yasukazu	2010-05-10	2010-05-14
10036	Training Course on Shielding Design and Modelling Related to Reactor Upgrading Activities - SMRRTG	Malaysia	Malaysia	Shokr Amgad Mohamed Amin	Guo Lingquan	2010-05-24	2010-05-28
10033	Workshop on Review and Assessment of the Licensing Documents for the Construction Permit of Nuclear Power Plants - GRITG	Indonesia	Indonesia	Calpena Stephane	Guo Lingquan	2010-07-01	2010-07-01
10030	Workshop on Nuclear Fuel Cycle Facility Licensing System	Indonesia	Indonesia	Abou Yehia Hassan	Fukuda Yasukazu	2010-10-01	2010-10-01
9020	Expert mission on Siting for radioactive waste disposal in Java Island	Indonesia	Indonesia	Bruno Gerard	Fukuda Yasukazu	2010-11-22	2010-11-26

VISION FOR THE ANSN BY THE YEAR 2020: *Development of Regional Capacity Building System for Nuclear Safety Infrastructure in Asia*

The Asian Nuclear Safety Network (ANSN) will provide a sustainable regional network effectively supporting establishment and continuous improvement of Member Country's national nuclear safety infrastructure.

This regional network will function through a strong human and IT network, combined with a regional capacity building system consisting of:

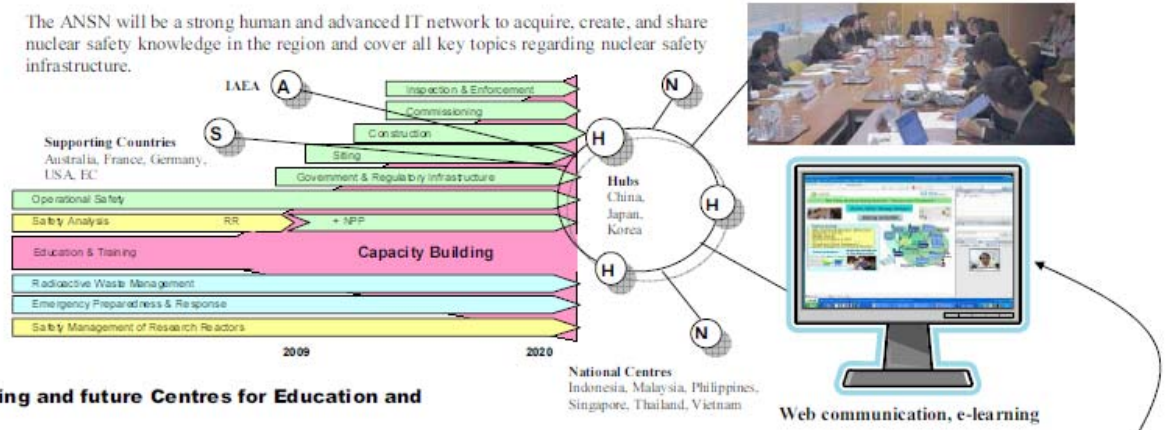
a) Integrated Virtual Centre for existing and future Centres for Education and Training,

b) Technical Advisory Service and Cooperative Activities, and

c) Regional Support for Peer Review and Support Arrangement.

Strong Human and IT Network for Capacity Building

The ANSN will be a strong human and advanced IT network to acquire, create, and share nuclear safety knowledge in the region and cover all key topics regarding nuclear safety infrastructure.



Regional Capacity Building System

Established Common Knowledge

Education & Training!

Integrated Virtual Centre for existing and future Centres for Education and Training (E&T)

- **e-Library** on the ANSN web site to provide e-learning and conventional materials
- **Regional E&T Centres** for training trainers, model national courses, regional state-of-the-art courses, and Master's Degree Program

Customised Specific Knowledge

Expertise Sharing!

Technical Advisory Service and Cooperative Activities

Solution Support Service

- **Topical Groups** of nuclear safety experts of member countries for sharing expertise and solution support through regular meetings, expert missions, and web communication
- **Pool and Roster of qualified experts** in/out of the region

New & Creative Knowledge

Dynamic Interaction!

Virtual Technical Support Organisation (TSO)

- **IT Platform and support for Cooperative and Interactive activities** among Asian nuclear safety researchers and experts
- **Technical support** from a Virtual TSO to member countries

Governmental & Institutional Capacity

Sharing & Learning!

Regional Support for Peer Review and Support Arrangement

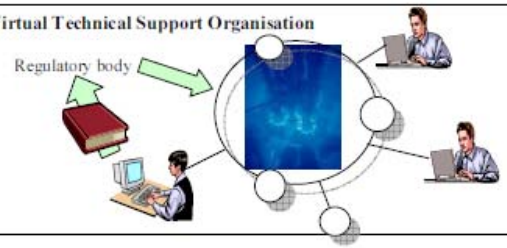
Promotion of Sharing Good Practices & Lessons Learned

- **Development and application of guidelines for safety evaluation** based on Safety Conventions, Codes of Conduct, IAEA safety standards, and review service guidelines
- **Self-assessment** of the safety status for each Asian country
- **Peer discussion and reviews** among member countries
- **Support Missions** to Asian countries

Regional Education and Training Centres

China	Nuclear Radiation Safety Centre (NNSA)
Japan	Inspection Oversight (JNES)
	Radiation Emergency (JAEA/NIET)
Korea	Regulatory Control of NPP (KINS)
	International Nuclear Safety Masters' Degree Program (KINS/KAIST)
Malaysia	Post-Graduate Programme on Nuclear 3S (UKM)

Virtual Technical Support Organisation



Observer participation in IAEA Review Missions

Emergency Preparedness & Review Mission (Malaysia in July 2009)
Integrated Regulatory Review Service (Vietnam in October 2009, USA in 2010)

New Structure of ANSN Management Team

	IAEA responsible officers		Responsible persons from National Members	
Programme Manager (PM)	K. Mrabit			
Strategy Dialogue (SD)	K. Mrabit			
Steering Committee (SC)	L.Guo		SC Members	
Capacity Building Coordination Group (CBCG)	Y. Fukuda / K. Mrabit		Members: PM, PMOs and coordinators of the TGs Coordinator of the CBCG: K. Tomita *(Japan)*	
Topical Groups (TGs)	**PMO**	**TO**		
Education & Training (E&TTG)	D.K. Kim	M. Moracho	G. Lokollo *(Indonesia)*	Y. Choi *(Korea)*
Emergency Preparedness & Response (EPRTG)	Y. Fukuda	K. Fujimoto/P. Zombori	K. Yamashita *(Japan)*	
Governmental & Regulatory Infrastructure (GRITG)	L. Guo	L. Guo	J.K. Kim *(Korea)*	H. Xiaofeng *(China)*
Operational Safety (OSTG)	L. Guo	N.R. Henderson	J. Cheng *(China)*	
Radioactive Waste Management (RWMTG)	Y. Fukuda	P. Metcalf / M. Kinker	S. Kihara *(Japan)*	
Safety Analysis (SATG)	D.K. Kim	C. Park	J.S. Park *(Korea)*	
Safety Management of Research Reactors (SMRRTG)	Y. Fukuda	H. Abou Yehia	G. Storr *(Australia)*	
Siting (STG)	D.K. Kim	A. Godoy	S.Y. Kim *(Korea)*	N.H. Luu *(Vietnam)*
Integrated Safety Evaluation (ISE)	L. Guo		SC members / ISE editors	
IT Support Group	L. Guo / S. Kunjeer			
ANSN web site	L. Guo / S. Kunjeer / A. Bjerre			
Newsletter, Annual Report	Y. Fukuda			