REGIONAL APPROACHES FOR IMPROVING REGULATORY CAPACITY FOR NUCLEAR SECURITY

SENIOR REGULATOR'S MEETING, IAEA VIENNA

For the protection of persons, property
and the environment against nuclear damage.

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Non-Restricted

INTERNATIONAL OBLIGATIONS

Member States within the Region have to adopt the key binding international nuclear security instruments such as:

- Convention on Physical Protection of Nuclear Material (CPPNM) and its 2005 Amendment.

- Convention for the Suppression of Acts of Nuclear Terrorism.

- UN Security Council Resolutions 1373 and 1540.

SOUTH AFRICAN NUCLEAR SECURITY REGIME

The national infrastructure related to nuclear security in RSA is comprised as follows:

- The Department of Energy has developed the Design Basis Threat (DBT) in association with State Security Agency (SSA-national intelligence body).

- Nuclear security obligations in RSA are consolidated and facilitated by the DoE with respect to role of the NNR, operators and law enforcement agencies.

- The national Nuclear Security Committee has been established comprising the chair being the DoE, NNR, South African Police Service, SSA, operators and others as applicable.

- The Government Sector Security Council (GSSC) has been established comprising of all State security functionaries including nuclear security matters chaired by the South African Police Service (Government Security Regulator: National Key Points).

In regard to the African Region similar national infrastructure should be developed by respective Member States.

NATIONAL LEGISLATIVE FRAMEWORK

In developing and benchmarking in the region, the nuclear security infrastructure of RSA can be referenced.

Key national legislation and policy include the following:

- National Nuclear Regulator Act No.47 of 1999 provides for regulatory responsibilities in respect of protection of persons, environment and property against nuclear damage.

- Nuclear Energy Policy (2008) provides for regulatory obligations in respect of nuclear safety and security.

- National Key Points Act No. 102 of 1980 provides for the establishment of strategic facility-specific Joint Planning Committees wherein nuclear security or physical protection matters are addressed. It is with regard to these provisions that the NNR exchanges information and input with South African Police Service, nuclear operators, SSA and other relevant entities.

NATIONAL LEGISLATIVE FRAMEWORK

- National Strategic Intelligence Act of No.39 of 1994 provides for the establishment of information security and security clearance or vetting in State owned institutions.

- Constitution of the Republic of South Africa No. 108 of 1996 provides for the establishment of Cooperative Governance mechanisms among and between government departments and State owned institutions. Also entrusts responsibility on State Organs to make provision for the protection critical and sensitive information associated with State functionaries.

- Protection of Information Act No. 84 of 1982.

REGULATORY FRAMEWORK

In the case of the National Nuclear Regulator the nuclear security regulatory framework is implemented in accordance with:

- The Nuclear Security Strategy and Policy is in place, determining strategic objectives for nuclear security regulation and associated operational activities.

- Compliance assurance activities in the form of inspections, audits, exercises and investigations on nuclear security or physical protection measures at authorisation holders are conducted with respect to Regulatory Guidance requirements such as;

    I.   Guidance on Physical protection of nuclear facilities and material.

    II.   Guidance on Cyber or computer security at nuclear facilities.

    III.   Guidance on Security during Transport of nuclear material

    IV.   Guidance on Incident report of security events at nuclear facilities.

REGULATORY FRAMEWORK

The NNR implements a performance-based approach to nuclear security regulation.

- The NNR continues to strengthen Nuclear Security Culture for all personnel across technical, administrative and support departments.

- Providing technical support and advice to law enforcement agencies for reported or confiscated Nuclear/Radioactive Material Out of Regulatory Control-MORC (joint operations at site of criminal incident or suspected activities and follow-up investigations).

Building regulatory capacity within the Region would involve consideration of the above factors to be incorporated as part of a regulatory framework.

INTERFACES BETWEEN STATES IN THE REGION AND THE LEADERSHIP OBJECTIVES FOR NUCLEAR SECURITY

States in the Region have to put in place sound and effective *policy* addressing concerns for nuclear security or PPS for radioactive material and facilities. It is equally required that provision is made to respond to Nuclear/Radioactive Material Out of Regulatory Control (MORC):

- MORC has to be realised on several levels such as within a facility or on-site, or even when material is in this condition outside the boundaries of the authorised facilities or activity.

INTERFACES BETWEEN STATES IN THE REGION AND THE LEADERSHIP OBJECTIVES FOR NUCLEAR SECURITY

- In the event of confiscated suspect RM/NM at Ports of Entry (PoE), the NNR is able to give advice in terms of protecting the workers, public, property and environment when material is on interim storage at site. Expertise for nuclear security during transport of NM or RM has been gained over many years. Regulatory requirements for security during Transport of RM/NM are in place.

- There is need to ensure a seamless strengthening of Radiation Border Monitoring and Information Sharing mechanisms among States in the Region.

FNRBA programmes

- FNRBA has established the following 10 Thematic Working Groups:
  - ✓ TWG1 – Legislative and Regulatory Infrastructure
  - ✓ TWG2 - Radiotherapy
  - ✓ TWG3 – NPP Licensing
  - ✓ TWG4 – Uranium mining and Milling
  - ✓ TWG5 – Research Reactor
  - ✓ TWG6 – Education and Training
  - ✓ TWG7 – Waste safety
  - ✓ TWG8 – Transport
  - ✓ TWG9 – Emergency Preparedness Response
  - ✓ TWG10 – Security

- South Africa has been coordinating the workings groups on NPP Licensing and Emergency Preparedness and Response

FNRBA programmes

- The products of these working groups includes:
  - ✓ Model regulations on Emergency Preparedness and Response
  - ✓ Five surveys and associated reports
  - ✓ Ten training workshops

- The benefits include:
  - ✓ Increase knowledge transfer and understanding of regulatory frameworks and standards;
  - ✓ Identification of similarities and differences in approaches;
  - ✓ Convergence on regulatory standards;
  - ✓ Enhanced regulatory cooperation

WHAT NEW COMER COUNTRIES SHOULD CONSIDER IN ESTABLISHING NUCLEAR SECURITY CAPACITY

Global developments in advancing nuclear security governance and capacity for New Comer countries are to be regarded in this respect amongst others:

- Newcomer countries must consider the outcomes of the Nuclear Security Summits 2010-2016, Outcomes of the international Nuclear Security forums such as seminars and conferences.

- Professionalising nuclear security technical resource in security management and appointed security guards and regulators for nuclear security.

- Integrating nuclear security mechanisms with national law enforcement programmes.

WHAT NEW COMER COUNTRIES SHOULD CONSIDER IN ESTABLISHING NUCLEAR SECURITY CAPACITY

- Developing capacity for establishing Regulations for nuclear security or PP

- Establishing and inculcating Nuclear Security Culture.

- Training and capacity building in nuclear security.

- Fellowships can be considered for placements at the NNR where fellow African States can undergo required training and professional development.

NATIONAL AND REGIONAL WORKSHOPS

South Africa has hosted numerous national and regional workshops as part of regional development initiatives addressing various aspects in nuclear security such as:

- Development and maintenance of DBT
- Design and Evaluation of PPS
- Vital Area identification
- Nuclear Security Culture

NATIONAL AND REGIONAL WORKSHOPS

- Prevention of illicit trafficking at PoE
- Interface nuclear safeguards/NMAC and nuclear security,
- Security during Transport of RM/NM
- Nuclear Security during major Public Events (e.g. 2010 FIFA World Cup, 2013 AFCON Regional tournament, UN Climate Change COP-17 Conference).

NATIONAL AND REGIONAL WORKSHOPS

Proposed training is requested of the Agency to provide as national and regional workshops to address the following:

- Licensing requirements for Emerging countries and enhancing existing nuclear security regulation
- Radiological Crime Scene Management,
- Establishment of Technical Support Centres
- Cyber security, Information security

INTERNATIONAL PARTICIPATION

- The NNR has for over 10 years contributed in the development of various aspects of IAEA Nuclear Security Series, by participating in Technical Meetings, Consultancy Meetings and Conferences.

- The NNR has had staff providing expertise and experienced exchange in the IAEA Advisory Group on Nuclear Security (AdSec) and Nuclear Security Guidance Committee (NSGC).

- The NNR has had staff representation in Technical Committees for IAEA 2013 Nuclear Security Conference (co-chair of Session on Nuclear Security Detection Architecture) and IAEA 2015 Licensing Challenges with respect to nuclear Security Seminar (delivered presentation and Rapporteur for developing the Chairman's Report).

- The NNR has had staff nominated to support IAEA training programmes as nuclear security instructors in South Africa and China.

CONCLUSION

- Member States in the Region are encouraged to ratify and adopt international conventions related to nuclear security.

- There is need to develop and maintain the legislative and regulatory framework as a building block for an effective nuclear security infrastructure.

- New Comer countries should be provided with technical and legal assistance to be able to have in place a policy outlining requirements and principles for nuclear security.

- International cooperation is important for engendering regulatory capacity building related to nuclear security.

- South Africa is willing and in particular the NNR is committed to play a pivotal role in strengthening the development of nuclear security infrastructure in the Region.

THANK-YOU FOR YOUR ATTENTION