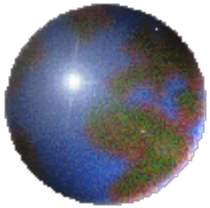
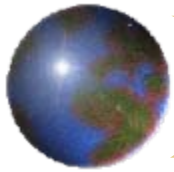


Next Generation Nuclear Security: Meeting the Global Challenge.

Defining a “Next Generation Nuclear Security Initiative”: Where Do We Go from Here?

C.Jorant Washington D.C. April 12th,2010



outline

- Introduction
- Where are we? threats, weaknesses,responsibility
- Where do we go?
- How to get there?
- Possible issues
- Concluding remarks

Introduction

- During the second half of the XXth century the international non proliferation regime has been developing and adapting to political situations and crisis, while coping with security issues was more left to each State
- The 9/11 terrorist attack naturally draw attention on the need to re assess security issues globally and in particular in relation with nuclear facilities and material
- Illicit trafficking has developped but not in relation with nuclear industry and has not resulted in direct terrorist nuclear threat
- With the expected nuclear civil expansion and military reduction ahead, renewed attention to security issues and continuous improvement should be pursued

What threat? State proliferation or terrorism

- Use of nuclear explosive device
  - acquisition of weapon or weapon grade material
  - or of weapon usable material (need to further process)
- Use of explosive device with radioactive material (dirty bombs)
- Use of radioactive material or destruction of nuclear facilities for radiological contamination

What weaknesses ?

- Lack of prevention ;easy access to material, poor physical protection of facilities
- Lack of detection;poor accountancy
- Lack of reaction; poor preparedness
- Lack of awareness? of resources?

Who is responsible for security?

- States
  - Holder of weapons , weapon material, research or nuclear facilities
  - Define and implement regulatory framework
  - Responsible for homeland security, peace keeping

- Nuclear Industry
  - Facility designers
  - Utility and fuel cycle operators
  - Export and trade

- Other users (small quantities)
  - **Medical**
  - **others**

Where do we go?

- Predictable trend
  - Increased number of nations resorting to nuclear energy
  - Increased number of nuclear facilities
  - Increased quantity of material potentially at risk (material released thanks to the progress of disarmament, and piling up of civil material)
  - Increased international trade

- Towards a global security regime
  - Increased awareness of security issues, towards a security culture
  - Security a matter of governance
  - Enhanced international cooperation and support to new comers
  - Reasonable and proportionate rules and constraints

How do we go there;public/private interactions

- To **reduce the quantity and quality of materials**
  - Implement an **international strategy for recycling** of weapon grade or weapon usable material in civil uses
  - Pursue efforts to reduce the need for HEU and secure existing HEU
  - G8 countries could together or individually promote(political support, finance) dedicated recycling reactors fuelled with foreign origin MOX fuels

How do we go there;public/private interactions

- **To facilitate the safeguards/security of NPPs and NM**
  - customers and designers should agree to **integrate safeguards/security friendly features** early in the design phase
  - Governments or World financial Institutions could facilitate loan guarantees or other **financial measures**
  - Vendors/governments should be able to obtain assurances as to the effective and efficient implementation of accountancy and physical security measures before exporting nuclear goods

How do we go there;public/private interactions

To increase the implementation of security best practices (1)

- Governments/IAEA could help finance and organize **training and exchanges of personnel**
- A **forum** with Government (SSAC) and industry personnel involved in Nuclear material accountancy could be set up
- Mature or experienced operators could sponsor selected facilities as part of their sustainable development contribution through « **Twinning programmes ».**

How do we go there;public/private interactions

To increase the implementation of security best practices (2)

- In case of poor record, facilities could be placed under **international supervision** (see Euratom Treaty)
- Good records or accomplishments could be part of overall evaluation of companies or countries ; security ratings to guide investment, export or aqcuisition strategies

Possible issues

- **Standardization**:is it feasible?advisable?Security is not limited to Physical protection measures it is more of an approach, a culture
- **Conditionality**; Together with non proliferation credentials, should the capacity of a State to enforce Security regulations be a condition to obtain nuclear material, facilities or equipment ?
- **Assessment**; How to define and assess implementation of good practices, given necessary confidentiality of measures? WINS?
- **Commercial neutrality**; if financial support to be granted how to ensure fair judgment, no bias?

Concluding remarks

- The development of nuclear energy worldwide should not equate with increased dangers
- Need global, international approach; MNA, IAEA safeguards and support,WANO ,UN resolutions and enforcement, WINS..
- Need supportive, incentive posture from governments; praise and pay approach for responsible management
- Need a security culture to be developped through some transparency measures and an impact on reputation
- Private sector has a basic responsibility , already offfers solutions for using sensitive material but it could play a more proactive role and should be associated with further developments