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International Atomic Energy Agency

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Joint ICTP-IAEA School of Nuclear Energy Management

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The IAEA Nuclear Security Programme

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AUSTRIA

The IAEA Nuclear Security Programme

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Nuclear Security Plan 2010—2013

Objective:

Contribute to global efforts to achieve worldwide, effective security wherever nuclear or other radioactive material is in use, storage and/or transport, and of associated facilities, by supporting States, upon request, in their efforts to establish and maintain effective nuclear security through assistance in capacity building, guidance, human resource development, sustainability and risk reduction.

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Four elements of the Plan

- **Needs assessment, information collation and analysis**
- **Contributing to the enhancement of a global nuclear security framework**
- **Providing nuclear security services**
- **Risk reduction and security improvement**

Resources: A minimum requested for a serious programme: €23.1m/year

Mechanisms established to take on a substantive, higher value programme

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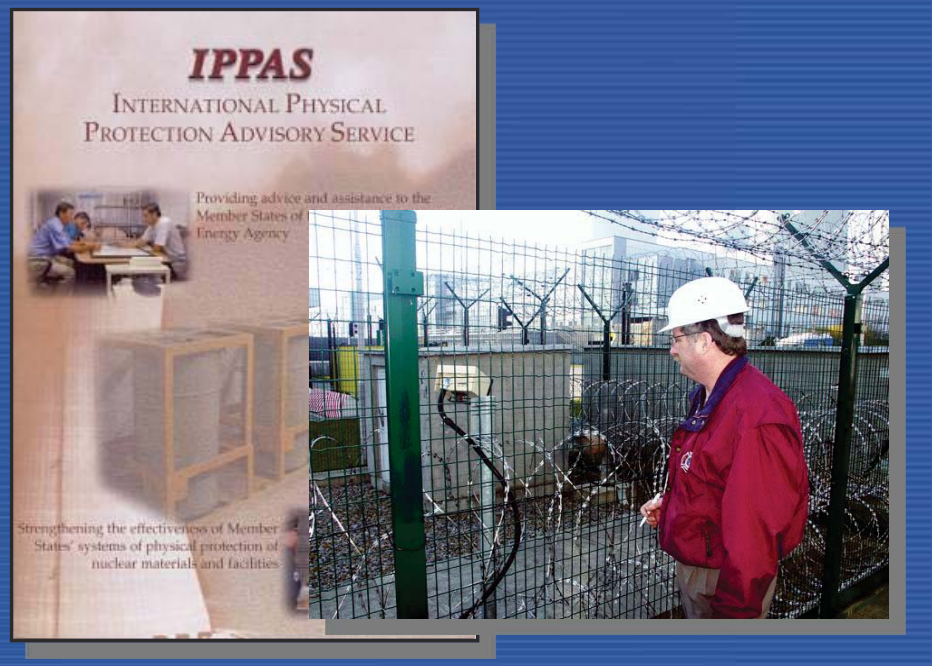
Nuclear Security Support Activities

- Advisory Services to assess needs
- Human Resource Development
- Guidelines Development
- Upgrades of Technical Capabilities
- Research & Development
- Information Exchange & Analysis
- Cooperation & Coordination



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Advisory Services to Assess Needs

- **Nuclear Security Advisory Services**
  - INSServ - International Nuclear Security Advisory Service
  - IPPAS - International Physical Protection Advisory Service
  - ITE - International Teams of Experts

- **Other Services**
  - IRRS – Integrated Regulatory Review Service
  - ISSAS - IAEA State System of Accounting for and Control of Nuclear Material Advisory Service

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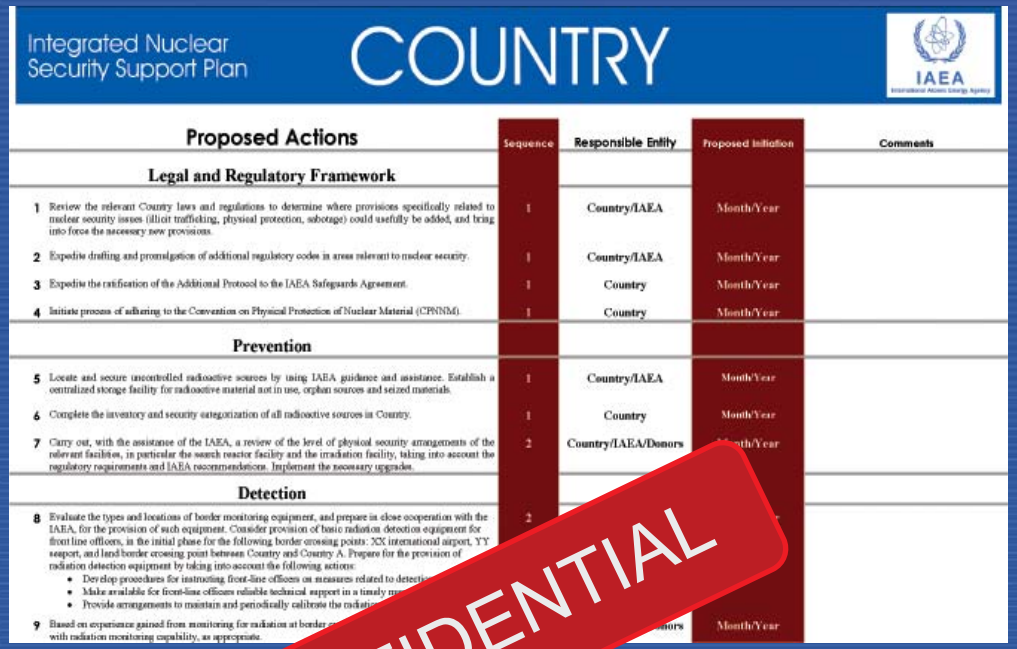
Integrated Nuclear Security Support Plan (INSSP)



Integrated Nuclear Security Support Plan

COUNTRY

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Proposed Actions	Sequence	Responsible Entity	Proposed Initiation	Comments
Legal and Regulatory Framework				
1 Review the relevant Country laws and regulations to determine where provisions specifically related to nuclear security issues (illicit trafficking, physical protection, sabotage) could usefully be added, and bring into force the necessary new provisions.	1	Country/IAEA	Month/Year	
2 Expedite drafting and promulgation of additional regulatory codes in areas relevant to nuclear security.	1	Country/IAEA	Month/Year	
3 Expedite the ratification of the Additional Protocol to the IAEA Safeguards Agreement.	1	Country	Month/Year	
4 Initiate process of adhering to the Convention on Physical Protection of Nuclear Material (CPNNM).	1	Country	Month/Year	
Prevention				
5 Locate and secure uncontrolled radioactive sources by using IAEA guidance and assistance. Establish a centralized storage facility for radioactive material not in use, orphan sources and seized materials.	1	Country/IAEA	Month/Year	
6 Complete the inventory and security categorization of all radioactive sources in Country.	1	Country	Month/Year	
7 Carry out, with the assistance of the IAEA, a review of the level of physical security arrangements of the relevant facilities, in particular the search reactor facility and the irradiation facility, taking into account the regulatory requirements and IAEA recommendations. Implement the necessary upgrades.	2	Country/IAEA/Donors	[illegible]/Year	
Detection				
8 Evaluate the types and locations of border monitoring equipment, and prepare in close cooperation with the IAEA, for the provision of such equipment. Consider provision of basic radiation detection equipment for front line officers, in the initial phase for the following border crossing points: XX international airport, YY seaport, and land border crossing point between Country and Country A. Prepare for the provision of radiation detection equipment by taking into account the following actions: • Develop procedures for instructing front-line officers on measures related to detecti • Make available for front-line officers reliable technical support in a timely m • Provide arrangements to maintain and periodically calibrate the radiati	2			
9 Based on experience gained from monitoring for radiation at border c with radiation monitoring capability, as appropriate.		[illegible]/Donors	Month/Year	

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- Based on findings from a range of nuclear security missions and other information
- Developed in consultation with the State and tailored to the State's specific needs

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Human Resource Development

Education

- Educational Programme in Nuclear Security

Training

- General Training
- Specialized Training
- Training of Trainer
- On-the-Job Training
- Fellow-ships
- Technical Visit

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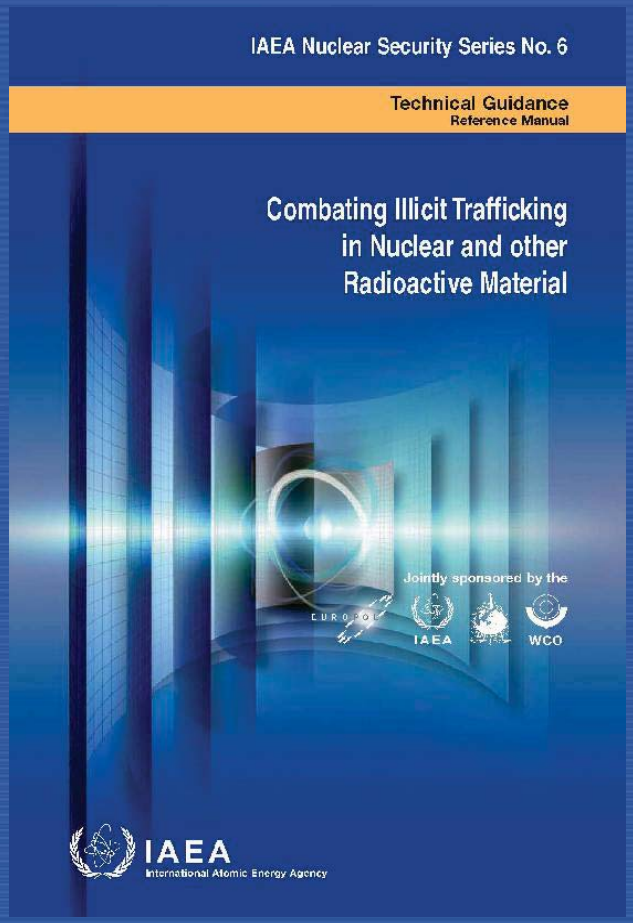
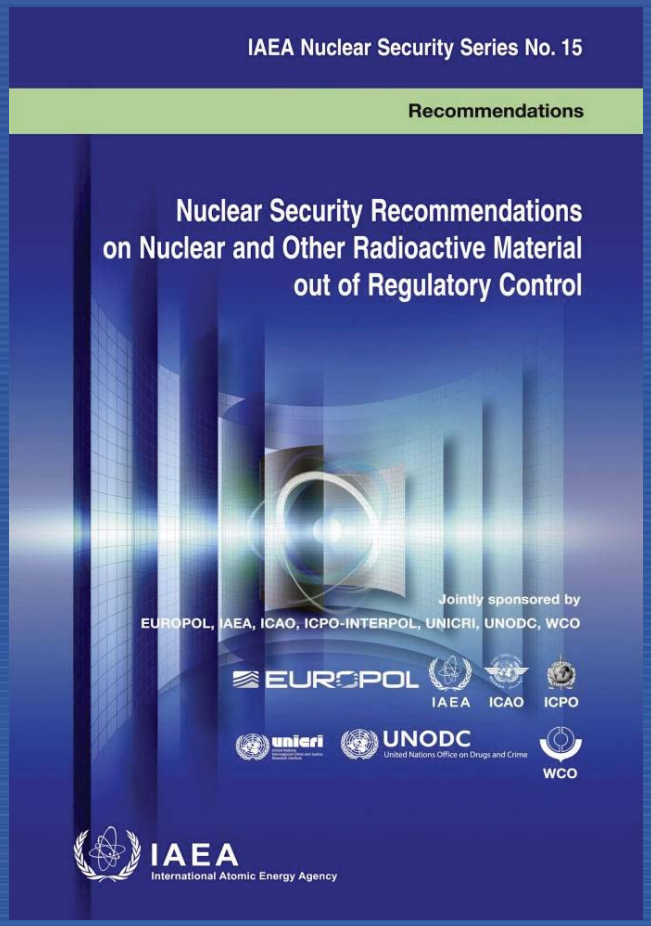
Guidelines Development





http://www-pub.iaea.org/MTCD/publications/ResultsPage.asp

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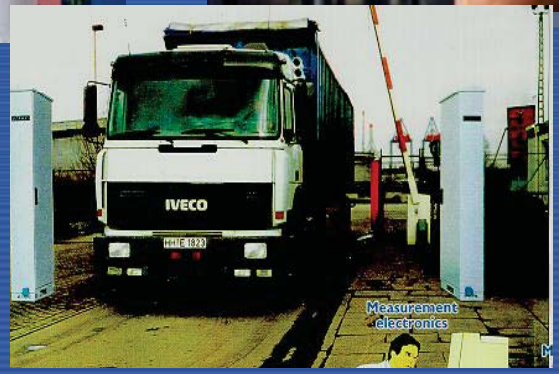
Upgrades of Technical Capabilities

- Physical protection & accountancy & control upgrades
- Detection and response equipment at border crossing and venues



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Research & Development

Coordinated Research Projects

1. ‘Development of Methodologies for Risk Assessment and State Management of Nuclear Security Regime’
2. ‘Development and Implementation of Instrument and Methods for detection of criminal or intention events involving nuclear and oth radioactive material’
3. ‘Application of nuclear forensics in illicit trafficking of nuclear and other radioactive materials’

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Information Exchange &Analysis

IAEA Illicit Trafficking

in Nuclear Materials and Other Radioactive Sources

Incident Notification Form

Status: (check one)
☒ Initial Notification
☐ Update of Previous Incident

IAEA ID#: 2002-03-002
(Enter the IAEA ID# if it is an update. Otherwise, leave blank)

Send to: IAEA Illicit Trafficking Database Office
FAX: 43-1-2600-29250
E-mail: trafficking@iaea.org

Box 1: Information for Unrestricted Distribution
Information contained in this section may be disseminated by the IAEA to parties outside the Agency.

Date of Incident: 15-Mar-02 (day-month-year format)

Country: Lithuania (where incident occurred)

Nature of Incident: DISCOVERY (Theft or Unauthorised Possession/Use/Transfer, etc)

Location: 20 km from Utena town (location within the country, i.e., city, airport, highway, rail station, etc.)

Materials Involved in Incident:

Nuclear Material

☐ Natural Uranium	☒ LEU (<20% ^{235}U)
☐ Depleted Uranium	☐ HEU (>20% ^{235}U)
☐ Thorium	☐ U-233
☐ Other (specify)	☐ Plutonium

Isotopic Content: _____ (% ^{235}U, ^{233}U, ^{239}Pu content)

Quantity: _____ g

Radioactive Sources

Nuclide	Activity* (☒ Bq or ☐ Ci)

*note: 1 Bq=1 disintegration/s, 1 Ci=3.7x10^{10}Bq

Chemical Description: _____ (i.e., U_3O_8, Oxide, Metal, UF_6, Kl, tritiated water, etc.)

Physical Description: _____ (i.e., pellets, powder, fuel element, liquid, dimensions, etc.)

Comments (any additional information, protective actions taken or requests for IAEA Lab Analysis or other support):
The representatives of prosecuter office using the operative information discovered the steil tube bar, which was buried in the depth of 50 cm. The radiation dose rate at the surface of the bar was 4 microSv/h. The aproximate dimensions of the bar: length 60 cm, diameter 10 cm, weight 20 kg. The ends of the bar are sealed with lead. The fresh fuel pellets are supposed to be inside.

Incident / Report

Incident | Incident Analysis | Attribute | **INCIDENT - State has confirmed**

Rating:

Analysis - Public: On 2000-04-19, Georgian authorities in Batumi seized 920 grams of highly enriched (about 30% U-235) UO2 fuel pellets. The pellet mass and geometry, together with the reported enrichment level, suggest that the pellets were from fast reactor fuel. Four Georgian citizens, residents of Batumi, were arrested. According to press reporting, they were trying to smuggle the material into Turkey.

Analysis - Confidential:

REPORT: State / 2000-05-04 2000-05-04 State <- 2 of 6 ->

Report | Involved Materials | Part II of State Report | Report Docs/Images

Counted ☑

Report Date: 2000-05-04 Report Type: State

Material Origin State: Material Origin Location:

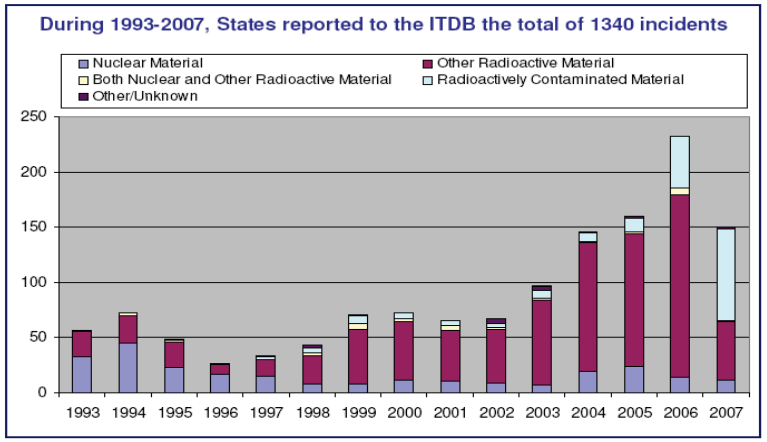
Report Source: Department for Standardization, Metrology and Certification of Georgia

Chemical Description: Unknown

Physical Description: 5 Fragments and 380 unbroken pills with central hole 1,8 mm. The weight of each pill is approx. 2,4 g. h+99 ± 0,3

Agency Comments: On 2000-05-04, the IAEA received a notificaiton from Georgia about a seizure of HEU (30% U-235) in batumi on 19 April 2000. Detailed laboratory analysis of the material was attached to the report.

State Part 1 Comments:



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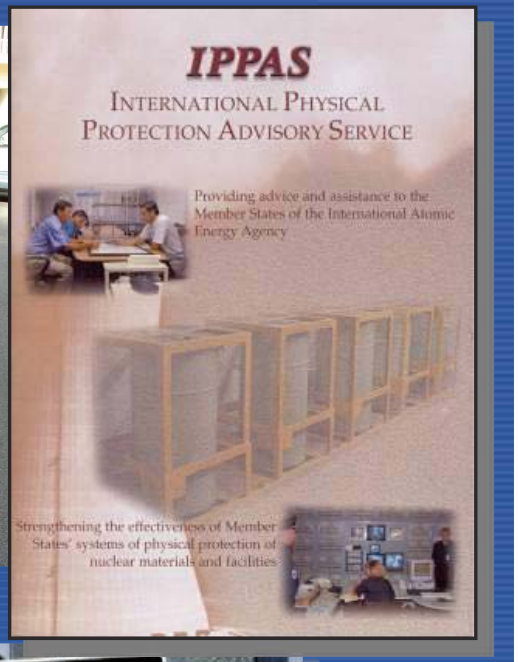
Co-operation with International Organizations

Nuclear Security Assistance

- Funded through IAEA Nuclear Security Fund
- Requests for assistance can be addressed directly to the Office of Nuclear Security



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Summary

The threat of *Nuclear Terrorism* is real & immediate.

The IAEA has developed a comprehensive Nuclear Security Plan, including a extensive assistance program, to support, upon request, States in their efforts to establish and maintain sustainable nuclear security regimes.

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For further information please visit our website:

http://www-ns.iaea.org/security/

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