REGULATIONS AND ASSOCIATED ADMINISTRATIVE MEASURES FOR NUCLEAR SECURITY

DRAFT IMPLEMENTING GUIDE

INTERNATIONAL ATOMIC ENERGY AGENCY

VIENNA, 201X
FOREWORD

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The IAEA’s principal objective under its Statute is “to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world.” Our work involves both preventing the spread of nuclear weapons and ensuring that nuclear technology is made available for peaceful purposes in areas such as health and agriculture. It is essential that all nuclear and other radioactive materials, and the facilities in which they are held, are managed in a safe manner and properly protected against criminal or intentional unauthorized acts.

Nuclear security is the responsibility of each individual country, but international cooperation is vital to support States in establishing and maintaining effective nuclear security regimes. The central role of the IAEA in facilitating such cooperation, and providing assistance to States, is well recognized. The Agency’s role reflects its broad membership, its mandate, its unique expertise and its long experience of providing technical assistance and specialist, practical guidance to States.

Since 2006, the IAEA has issued *Nuclear Security Series* publications to help States to establish effective national nuclear security regimes. These publications complement international legal instruments on nuclear security, such as the Convention on the Physical Protection of Nuclear Material and its Amendment, the International Convention for the Suppression of Acts of Nuclear Terrorism, United Nations Security Council Resolutions 1373 and 1540, and the Code of Conduct on the Safety and Security of Radioactive Sources.

Guidance is developed with the active involvement of experts from IAEA Member States, which ensures that it reflects a consensus on good practices in nuclear security. The IAEA Nuclear Security Guidance Committee, established in March 2012 and made up of Member States’ representatives, reviews and approves draft publications in the Nuclear Security Series as they are developed.

The IAEA will continue to work with its Member States to ensure that the benefits of peaceful nuclear technology are made available to improve the health, well-being and prosperity of people world-wide.
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1. INTRODUCTION

BACKGROUND

1.1. Nuclear security focuses on the prevention of, detection of and response to criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities or associated activities. Other acts determined by the State to have an adverse impact on nuclear security are to be dealt with appropriately [1]. A nuclear security regime requires nuclear security responsibilities to be clearly identified and defined. A nuclear security regime contains provisions for appropriate integration and coordination of responsibilities within the nuclear security regime and State oversight to ensure the continued appropriateness of the nuclear security responsibilities. [1]

1.2. A legislative and regulatory framework is an essential element of a State’s nuclear security regime [1]. Implementation of a legislative and regulatory framework for nuclear security within a State requires the development of regulations, agreements and associated administrative measures to govern nuclear security.

OBJECTIVE

1.3. The objective of this publication is to provide guidance for a State in relation to measures it may take to develop and/or implement the legislative and regulatory framework to govern the nuclear security regime.

1.4. This publication is intended to assist States in developing suitable regulations, agreements and associated administrative measures so that assigned roles and responsibilities are carried out and powers exercised according to law, cooperatively and in a coordinated manner within a State and, where necessary, between States. This publication emphasizes the importance of the allocation of sufficient financial, human and technical resources to establish, maintain and sustain the nuclear security regime.

SCOPE

1.5. This publication assists a State identify the responsibilities of those involved in nuclear security so that suitable regulations, agreements and associated administrative measures may be developed for establishing and sustaining an effective nuclear security regime. The publication is structured to provide a State with the means to undertake an assessment of its legislative and regulatory framework for governing nuclear security and take actions to update its framework as necessary.

1.6. This publication includes material that may assist a State to:
Identify key subject matters that relate to nuclear security;
Define roles and responsibilities for nuclear security;
Identify regulations, agreements and associated administrative measures that may be developed to govern nuclear security within a State, and between States, where necessary. It includes examples of regulations and agreements with explanatory notes.

1.7. This publication does not provide specific recommendations on the drafting of legislation. It does not contain model regulations, model agreements or model associated administrative measures as there are many approaches that may be taken to the development of each. It provides means for a State to select and develop regulations, agreements and associated administrative measures compatible with its own national legislative framework and institutions.

1.8. This publication is complementary to and consistent with the following Nuclear Security Series publications:

— The Nuclear Security Fundamentals (NSS No. 20) [1]; and
— The three underlying Nuclear Security Recommendations publications [2, 3, 4], which cover, respectively, nuclear material and nuclear facilities, other radioactive material, associated activities and facilities that are under regulatory control, and nuclear and other radioactive material that is out of regulatory control.

1.9. This publication refers to, but does not repeat the substance of, other relevant IAEA publications including the following:

— The International Legal Framework for Nuclear Security [5], which details the principal international legal instruments and relevant international legal obligations in this field.
— The Handbook on Nuclear Law (the 2003 Handbook) [6] and its second volume Handbook on Nuclear Law: Implementing Legislation (the 2010 Handbook) [7], which describe the necessary legislative measures needed to address key issues related to the peaceful uses of nuclear energy, including some aspects of nuclear security.

1.10. Nuclear security and nuclear safety have the shared objective to protect people, society and the environment. Requirement 12 of the General Safety Requirements Part 1 [8] states that “[T]he government shall ensure that, within the governmental and legal framework, adequate infrastructural arrangements are established for interfaces of safety with arrangements for nuclear security and with the State system of accounting for, and control of, nuclear material.” This safety requirement applies when a State is implementing its legislative and regulatory framework for nuclear security. In addition the guidance in this publication should be followed having regard to the requirement under

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1 The IAEA has developed model text that may be used by Member States upon request. This Working Material consists of “Model Regulations for the Security of Radioactive Sources during Manufacture, Use, Storage and Transport”.

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Requirement 12: “Safety measures and nuclear security measures shall be designed and implemented in an integrated manner so that nuclear security measures do not compromise safety and safety measures do not compromise nuclear security” [8].

STRUCTURE

1.11. Following this Introduction, this publication contains three major sections (2, 3 and 4) and two Appendices. Section 2 lists and describes those institutions within a State that may be responsible for the implementation of the legislative and regulatory framework for nuclear security. Section 3 gives an overview of regulations, agreements and associated administrative measures. Section 4 is divided into six thematic areas which assist States to consider the regulations, agreements and associated administrative measures that may be necessary to govern a State’s nuclear security regime:

— General regulatory activities for nuclear security;
— Threat assessment;
— Security of information;
— Detection of nuclear and other radioactive material out of regulatory control;
— Preparedness for and response to nuclear security events; and
— Offences and penalties related to nuclear security including criminalization.

Two Appendices provide illustrative examples of regulations and agreements of the types referred to in the main text.

2. IDENTIFICATION OF RESPONSIBILITIES FOR IMPLEMENTING THE LEGISLATIVE AND REGULATORY FRAMEWORK FOR NUCLEAR SECURITY

INTERNATIONAL LEGAL INSTRUMENTS

2.1. Article 2A of the amended Convention on the Physical Protection of Nuclear Material (CPPNM) [10], requires each State Party to establish and maintain a legislative and regulatory framework to govern physical protection. Fundamental Principle D of [10] requires the State to establish or designate a competent authority which is responsible for implementation of the legislative and regulatory framework and is provided with adequate authority, competence and financial and human resources to fulfil its assigned responsibilities.

2.2. The Convention on the Early Notification of a Nuclear Accident [11] and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency [12] are conceived and

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2 This publication does not cover preparedness or response to nuclear or radiological emergencies initiated by a nuclear security event. This is covered in the IAEA Safety Requirements G-SR-2 Preparedness and Response for a Nuclear or Radiological Emergency.
adopted as instruments for nuclear and radiological accidents. However, these conventions serve to
strengthen the international response to radiological emergencies, including those initiated by a
nuclear security event. These conventions provide a mechanism for rapid information exchange and
mutual assistance with a view to minimizing the consequences of such radiological emergencies and
protecting people and the environment against the effect of radioactive releases. These conventions
require the designation within a State of the key competent authorities that have roles and
responsibilities in the context of a radiological emergency as well as the key mechanisms to ensure
appropriate cooperation, coordination and communication, both at the national and international
levels.

2.3. The Code of Conduct on the Safety and Security of Radioactive Sources [13], which is a non-
binding legal instrument, recommends States to have in place legislation and regulations that, inter
alia, prescribe and assign governmental responsibilities to assure the safety and security of radioactive
sources and that provide for the effective control of radioactive sources. The Guidance on the Import
and Export of Radioactive Sources encourages States to nominate a point of contact in order to
facilitate the import and/or export of radioactive sources in accordance with the Code of Conduct [13]
and the Guidance [17].

IAEA NUCLEAR SECURITY SERIES GUIDANCE

2.4. A State’s obligation to establish competent authorities that have nuclear security functions, as
reflected in the amended CPPNM [10], is also highlighted in IAEA guidance. Essential Element 2 of
the Nuclear Security Fundamentals [1] provides that nuclear security responsibilities of competent
authorities designated by the State are clearly defined and provisions are made for the appropriate
integration and coordination of responsibilities within the nuclear security regime. In addition [1]
provides that the legislative and regulatory framework, and associated administrative measures to
govern the nuclear security regime should: assign the nuclear security responsibilities of each
competent authority; provide these authorities with sufficient financial, human and technical resources
to fulfil the assigned responsibilities; and establish measures to ensure proper coordination and
communication among competent authorities and between competent authorities and authorized
persons in order to fulfil their nuclear security responsibilities. A competent authority is defined “a
governmental organization or institution that has been designated by a State to carry out one or more
nuclear security functions” [1].

2.5. All three Nuclear Security Recommendations publications [2–4] stipulate that the State’s
competent authorities involved in physical protection of nuclear material and nuclear facilities,
nuclear security of radioactive material and associated facilities and nuclear and other radioactive
material out of regulatory control should have clearly defined legal status and the legal authority to enable each to perform its responsibilities and functions effectively.

RESPONSIBILITIES FOR NUCLEAR SECURITY WITHIN A STATE

2.6. Each State will organize its nuclear security responsibilities according to its own institutional framework. In most States nuclear security is considered to be a sub-set of national security and the sovereign responsibility for nuclear security may well reside in the office of the Head of Government or Head of State, assisted by a National Security Committee, with responsibilities divided at the national level between Ministries or Departments of the State. Ministries or Departments of the State typically have policy responsibilities but may also have competent authorities within or under the Ministry or Department. Competent authorities may also be structured as separate government bodies. These competent authorities typically have responsibility to implement the legislative and regulatory framework. In addition, there may be other stakeholders that are subject to the legislative or regulatory framework, for example authorized persons, or those that have an interest in its functioning, for example the general public and other interested parties such as non-governmental organizations.

2.7. Those stakeholders most likely to be involved within such a framework include, but are not limited to, the following:

— Executive Government, including Ministers, typically have responsibilities for national security, including nuclear security, and develop national policy in relation to nuclear security, including a State’s response to the threat of nuclear terrorism, and may also have responsibility for issuing regulations, decrees or orders or similar subordinate legislation.

— Ministry of Foreign Affairs is typically responsible for developing and carrying out the State’s foreign policies, including those related to international security, including nuclear security; may be the primary Ministry involved in the negotiation and fulfilment of a State’s treaty obligations; exchanges assurances with other States in relation to international agreements pertaining to nuclear security and in addition may also carry out some responsibilities as a competent authority, for example the licensing of certain nuclear related exports and imports.

— Ministry of Defence or the Ministry of Interior may have responsibility for response to nuclear security events.

— Ministry of Energy or Ministry of Industry is typically responsible for government activities relating to the promotion and development of energy technology including nuclear energy. In addition the Ministry of Energy may also be an owner of facilities within a State and therefore have responsibility for protection of nuclear material and nuclear facilities.
— *Ministry of Justice or Prosecuting Authority* is typically responsible for prosecuting violations of national law.

— *Ministry of Justice* or the *Attorney General’s Office* is, in some cases, responsible for the development and implementation of legislation, and for representation of government entities in legal proceedings.

— *Regulatory Body* is typically an independent body responsible for conducting the regulatory process including issuing authorisations and undertaking inspections and enforcement. A State may have one or more regulatory bodies responsible for regulatory activities in relation to nuclear and other radioactive material, associated facilities and associated activities.

— *National Emergency Response Agency* is typically responsible for overall development and coordination of a State’s plan(s) for addressing all types of national emergencies, including those arising from nuclear security events.

— *Intelligence agencies* are typically responsible for the collection, evaluation and appropriate communication of information that could have security implications and inform the development of a national threat assessment.

— *Interior or homeland affairs* authorities are typically responsible for activities inside a State that may have national security implications.

— *Border protection authorities* are typically responsible for monitoring and enforcing the movement of persons and/or conveyances across national borders (points of entry/exit).

— *Transport authorities* are typically responsible for regulation of air, sea and land means of transport, including the approval of transport of dangerous goods.

— *Customs authorities* are typically responsible for regulating the import and export of controlled items and technology which may include responsibilities for screening and deployment of detection capabilities including in the context of combatting illicit trafficking in nuclear and other radioactive material.

— *Police and other law enforcement agencies* are typically responsible for dealing with criminal activities within a State or involving nationals of the State, including investigations, crime scene management, and forensic analytical capability.

— *Public Affairs/Communications offices* are typically part of each State Ministry and organization and may be responsible for public communication strategies, including communication related to security information.

— *Civil defence and emergency response organizations* (fire, ambulance, and rescue services) are typically part of regional and/or local governments and are called upon to provide assistance in events involving injury to persons and damage to property, including that arising from a nuclear security event.

— *Authorized persons* are typically responsible for nuclear security measures in the context of licensed activities.
— *Shipper and carriers* are typically responsible for security measures during transport of nuclear and other radioactive material.

2.8. The State should consider all relevant international legal instruments and guidance documents related to nuclear security and establish its nuclear security regime on the basis of the functions of prevention, detection and response to criminal or intentional unauthorized acts involving or directed at nuclear and other radioactive material, associated facilities and associated activities.

2.9. Subject to its own institutional framework a State should undertake a review of all Ministries and Departments, competent authorities and other stakeholders that may play a role or be involved in nuclear security. All should be identified according to their roles and responsibilities in relation to the State’s nuclear security regime.

2.10. A State should make provision for the appropriate integration and coordination of responsibilities within the State’s nuclear security regime. All nuclear security activities within a State should be coordinated by a body or mechanism under the Prime Minister or President or the Head of State which may for example be a national security committee or a nuclear security committee. The lead Ministries and their competent authorities with nuclear security functions are identified in accordance with a State’s national institutional framework.

### 3. SELECTION OF APPROPRIATE REGULATIONS, AGREEMENTS AND ASSOCIATED ADMINISTRATIVE MEASURES TO GOVERN THE NUCLEAR SECURITY REGIME

#### 3.1. Legal Hierarchy

3.1. The legal hierarchy in most States consists of three basic levels, with constitutional instruments at the top, followed by enactments by a parliament or legislature at the statutory level (i.e. primary or principal legislation), then followed by regulations and other types of subordinate, secondary or delegated legislation promulgated by expert governmental bodies as a subsidiary set of detailed technical and administrative rules in a particular subject area [6, 7].

3.2. Different legal systems allow the making of regulations and other types of secondary or delegated legislation by either the legislature or parliament or a delegated competent authority including a statutory office holder in some cases.

3.3. Primary legislation confers powers and functions and may in addition assign institutional roles and responsibilities. With powers and functions assigned in primary legislation it is commonly the case that detailed technical, procedural and administrative rules are developed by the relevant ministry or the body to which the role and responsibilities are assigned through the development and adoption...
of subordinate secondary or delegated legislation, commonly called regulations. For simplicity all such instruments will be referred to as “regulations” throughout the remainder of this publication.

REGULATIONS

3.4. Development of regulations requires a power for regulations to be made to be conferred in primary legislation and generally the subject matter of the regulations is limited by reference to primary legislation. Regulations are legally binding instruments. Regulations are usually more detailed and prescriptive than the primary or principal legislation. In an area such as nuclear security, technical requirements tend to be set out in regulations rather than in the primary legislation. However, regulations may set out performance based statements about the objective to be achieved rather than how it must be achieved. Regulations tend to be considered as more amenable to amendment or revision than primary legislation. Regulations may be updated and revised more regularly than primary legislation.

AGREEMENTS

3.5. In addition to legally binding instruments such as regulations, the nuclear security regime may require agreements such as memoranda of understanding (MOUs), inter-agency agreements and other similar agreements. Different States may describe these agreements in a variety of ways, using different terms. For the purposes of this publication all such instruments will be referred to as “agreements”. Generally, the purpose of these agreements is to ensure co-ordination and co-operation between competent authorities with nuclear security responsibilities.

3.6. It is important to note that agreements may or may not be legally binding depending on the parties concerned and the provisions of the agreement. For example MOUs are usually not legally binding. However, an MOU may also be legally binding if the Parties so consent and its provisions give legally binding force to the agreement.

3.7. Agreements may be bilateral, but may also be concluded between more than two competent authorities, such as in the case of the national strategy for detection or the national response plan when multiple authorities are involved.

3.8. The power to develop agreements is generally conferred upon the competent authority in primary or secondary legislation. Powers and functions are assigned in primary legislation, whereas agreements generally establish the manner in which these roles and responsibilities are to be carried out. These agreements define the parties involved, the work to be performed, the manner in which

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These may also be called orders, decrees, rules, by-laws, norms depending on the legal system.

These similar agreements might include: memoranda of agreement, memorandum of intent, memorandum of cooperation, inter-agency agreements, cooperative agreements, etc.
work is to be performed and, where necessary, the transfer of technologies and funds. They are usually concluded for the purpose of enhancing coordination and cooperation in key areas of nuclear security.

3.9. Bilateral or multilateral agreements may also be concluded between States or competent authorities of different States in areas, such as: investigation of alleged offences related to nuclear security; sharing of sensitive information in the context of threat assessment; import and export of nuclear and other radioactive material and preparedness and response to a nuclear security event.

Agreements between competent authorities within a State

3.10. There will often be circumstances where responsibilities under the nuclear security regime are shared between more than one competent authority (such as in the case of emergency preparedness and response to a nuclear security event when various authorities are involved in response). In these situations, there should be clear definition of roles and responsibilities and agreements for overall coordination, communication and co-operation. In the case of agreements between competent authorities within a State, these are likely to include memoranda of understanding, inter-agency agreements and other like agreements. Prior to entering into any such agreements, the competent authority needs to have the legal or administrative power to enter into any such agreements and needs to ensure that these agreements are reviewed by legal advisors for lawfulness, appropriateness and other matters, including avoiding the inappropriate assignment of responsibilities or roles to another competent authority through such agreements.

Agreements between competent authorities of different States

3.11. In some circumstances a State may have to conclude an agreement with another State in order to discharge its nuclear security responsibilities. This situation may arise when there is a transnational or trans-boundary issue that has to be resolved between two (or more) States, for example in relation to the investigation of an alleged criminal offence connected to a nuclear security event. This may also arise when there is a need to coordinate between regulatory bodies in two or more States when radioactive sources are regularly moved between them. Bilateral and multilateral nuclear security mechanisms include: legally binding agreements, such as treaties, for example in the case of mutual legal assistance in criminal matters; administrative agreements under nuclear cooperation agreements such as in the case of protection and sharing of information; memoranda of understanding and associated agreements such as in the case of emergency preparedness and response; or law enforcement agreements.
ASSOCIATED ADMINISTRATIVE MEASURES

3.12. In addition to regulations and agreements, the nuclear security regime may also need associated administrative measures, such as strategy and policy documents, guidance documents, administrative manuals, procedures, protocols and forms to be developed. This is not an exclusive list. Different States may describe these associated administrative measures in a variety of ways, using other terms.

3.13. Associated administrative measures are generally not legally binding; however they may contain important guidance and information that supports the legislative and regulatory framework for nuclear security. Associated administrative measures may include regulatory guidance documents that establish the regulator’s expectations as to how an authorized person may demonstrate compliance with the regulatory framework. Because of the sensitive nature of their contents some nuclear security regulatory documents may themselves be subject to restriction based on their classification and may not be available to the public or be generally accessed, except on a need to know basis (see paragraphs 4.12–4.23).

3.14. Associated administrative measures are regularly reviewed and updated and those responsible for their development ensure that they are consistent with any rules, requirements and principles arising from primary legislation or regulations.

3.15. Existing institutional agreements typically govern the types of associated administrative measures that competent authorities and authorized persons will develop. In addition, these associated administrative measures will also be developed within existing management systems within each competent authority and authorized person.

4. APPLICATION OF THE GUIDANCE TO SPECIFIC SUBJECTS WITHIN NUCLEAR SECURITY

4.1. This section provides guidance on regulations, agreements and associated administrative measures that may be developed by States for establishing, maintaining and sustaining the nuclear security regime, with reference to the following thematic areas:

— General regulatory activities for nuclear security;
— Threat assessment;
— Security of information;
— Detection of nuclear and other radioactive material out of regulatory control;
— Preparedness for and response to nuclear security events; and
— Offences and penalties related to nuclear security including criminalization.
GENERAL REGULATORY ACTIVITIES FOR NUCLEAR SECURITY

International legal instruments

4.2. Fundamental Principle C of the amended CPPNM [10] provides that the State is responsible for establishing and maintaining a legislative and regulatory framework to govern physical protection and that this framework includes physical protection requirements, an authorization (licensing) system, a system of inspection to verify compliance, and a means of enforcement. The Code of Conduct on the Safety and Security of Radioactive Sources [13] recommends that States have in place legislation and regulations that provide for the security of radioactive sources, including a regulatory body, which establishes and applies a system of authorization, regulation, inspection, and enforcement.

IAEA Nuclear Security Series guidance

4.3. The Nuclear Security Fundamentals [1] provide that an essential element of a nuclear security regime is a legislative and regulatory framework, and associated administrative measures which:

— establish competent authorities, including regulatory bodies, and provide them with adequate legal authority and sufficient financial, human and technical resources to fulfil their assigned nuclear security responsibilities;
— provide for the establishment of nuclear security regulations and requirements, and associated procedures for evaluating applications and granting authorizations or licences;
— establish verification and enforcement measures to ensure compliance with applicable laws, regulations and requirements, including the imposition of appropriate and effective sanctions;
— provide for the establishment of systems and measures to ensure that nuclear material and other radioactive material are appropriately accounted for or registered and are effectively controlled and protected.

4.4. The Nuclear Security Recommendations on physical protection of nuclear material and nuclear facilities [2] recommend that a State’s legislative and regulatory framework provides for the comprehensive regulation of physical protection and include a licensing requirement or other procedures to grant authorization. An authorization is only obtained based upon a demonstration of effective nuclear security systems and predicated on compliance with applicable regulatory requirements. Compliance with applicable regulations is assessed through an appropriate legislative and regulatory framework, including the enforcement of physical protection regulations. The regulatory framework includes the power to issue, amend, revoke, cancel or suspend an authorization. The legislative and regulatory framework may include other sanctions for violations. Criminal offences and penalties are discussed at paragraphs 4.95 - 4.105.
4.5. The Nuclear Security Recommendations on radioactive material and associated facilities [3] recommend that “The State should establish, implement and maintain an effective national legislative and regulatory framework to regulate the nuclear security of radioactive material, associated facilities and associated activities” which establishes, inter alia, the enforcement process for the failure to comply with security requirements; the regulatory body should verify continued compliance with nuclear security regulations through periodic inspections and ensure that corrective action is taken when needed. They also recommend the State to develop security requirements for radioactive material in transport in order to minimize the likelihood of loss of control or malicious acts.

**Actions for a State to select appropriate regulations, agreements and associated administrative measures**

**Identification of responsibilities within a State for regulatory activities**

4.6. In some States the competent authority with responsibility for assessing nuclear security in the context of authorization or licensing decisions is referred to as the nuclear security competent authority, regulatory authority or regulatory body. In this publication all actions that relate to licensing functions will be referred to as the responsibility of the regulatory body. (Note that this is not necessarily the same authority as the regulatory body responsible for safety.)

**Regulations**

4.7. The nuclear security responsibilities of a regulatory body are assigned in primary legislation. Primary legislation generally assigns the power to establish regulatory requirements through issue of regulations, as well as the power of the regulatory body to issue legally binding directions.

4.8. Regulations establish requirements that are applicable to nuclear security for nuclear material and nuclear facilities, including nuclear security systems and measures as well as the security of other radioactive material, associated facilities, and associated activities. According to applicable IAEA Guidance [4, 8], these requirements should apply the principles of risk management by which the State ensures that the nuclear security regime is capable of establishing and maintaining the risk of unauthorized removal and sabotage at acceptable levels through a risk informed approach. This requires the assessment of the threat and the potential consequences of malicious acts and actions to ensure, through the legislative and regulatory framework, that appropriate nuclear security measures are put in place. In addition, these requirements should also apply the graded approach that takes into account the current evaluation of the threat, the relative attractiveness and nature of the material and the potential consequences associated with the removal of material or sabotage of a facility or material in transport. In order to protect against the defined threat, the requirements should also take into account the principle of defence in depth to ensure that the nuclear security systems developed by the
authorized person reflect a concept of several layers and methods of protection. These would all have
to be overcome or circumvented by an adversary to achieve its objective.

4.9. Regulations include the development of formal objectives and standards that are a necessary part
of the nuclear security regime, including requirements for security measures to be taken. Regulations
should detail the requirements that the regulatory body has adopted in relation to the measures to be
put in place against sabotage and unauthorized removal of nuclear and other radioactive material.
Regulations should also set out requirements for recovery of any damaged, stolen or lost nuclear and
other radioactive material, as well as for the mitigation of any radiological consequences arising from
unauthorized removal or sabotage.5

4.10. In addition to primary legislation, regulations related to authorization of activities having regard
to nuclear security requirements may be issued as part of the regulatory framework.

4.11. Legislation or regulations made under primary legislation may also require an authorized person
to maintain control over radioactive sources that may pose risks to nuclear security, including a
requirement for registration or an accounting and inventory system that is maintained and verified by
the authorized person. Legislation or regulations made under primary legislation may also require the
regulatory body to maintain a national register or inventory of radioactive sources.

4.12. To help counter potential insider threats [15], i.e. an adversary with authorized access to a
nuclear facility, a transport operation or sensitive information who might attempt a malicious act, the
State should establish a trustworthiness policy intended to identify the circumstances in which a
trustworthiness determination is required and how it is to be made using the graded approach. In
carrying out this policy the State should ensure that processes are in place to determine the
trustworthiness of persons with access to sensitive information or, as applicable, to nuclear and other
radioactive material or nuclear and related facilities. This process is subject to employment law and
privacy law where applicable.

4.13. The State is responsible for national security and, depending on the circumstances, may also be
responsible for the provision of response force on the facility site, as well as off-site response forces.
If the authority responsible for the response force at the nuclear facility is separate from the operator,
the State should ensure through the legislative and regulatory framework that there is clear guidance
as to the jurisdiction and mandate of response forces.

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5 The State system of accounting for and control of nuclear material is an obligation imposed under a comprehensive
safeguards agreement as described in INFCIRC/153 (Corrected) paragraphs 7, 31, 32 and 51-69 that relate to States with a
comprehensive safeguards agreement concluded pursuant to the Treaty on Non-Proliferation of Nuclear Weapons. As such it
is outside the scope of this publication. However, States may establish a system of accounting for and control of nuclear
material to meet their needs in a number of different areas simultaneously, including for nuclear security purposes. This
system may contribute to achieving nuclear security objectives including the detection of any unauthorized removal of
nuclear material and the deterrence, by this capability, of malicious acts by an insider threat. [14]
4.14. In addition to primary legislation, regulations related to inspection and monitoring of nuclear security systems and measures should be issued. The regulatory body is typically responsible for conducting inspection and oversight activities to confirm that authorized persons comply with applicable regulatory requirements. The inspection process includes the planning, conduct, and reporting on inspections, which may be planned, and either announced or unannounced, reactive or ad-hoc.

4.15. In addition to primary legislation, regulations related to enforcement should be developed. Enforcement powers tend to be set out in primary legislation, with other detailed measures that are binding set out in the regulations. Enforcement action may be taken against authorized persons who breach applicable regulatory requirements or licence conditions. According to applicable IAEA Guidance [2], the State should impose sanctions that are commensurate with the significance of the non-compliance, in accordance with a graded approach. Such sanctions may include recorded verbal notification, written notification, and imposition of additional regulatory requirements and conditions, written warnings, penalties. Enforcement, especially in the case of particularly grave non-compliance or failure to cooperate with the regulatory body in addressing the non-compliance through corrective action, may result in the imposition of other penalties such as a fine or cancellation of licence. In many States prosecution of an authorized person leading to a fine or imprisonment may only be undertaken by the judicial system of the Member State (see paragraphs 4.95 - 4.105 on Offences and Penalties including Criminalization).

4.16. If not provided for in primary legislation, regulations should require authorized persons to report specified nuclear security events, including failure to maintain nuclear security in relation to their authorized activities, to the regulatory body within specified time frames.

Agreements

4.17. If not covered by legislation or regulations, the regulatory body should put in place agreements between itself and other relevant competent authorities for the reporting of all significant non-compliances with regulatory requirements that relate to nuclear security, including loss of control of nuclear or other radioactive material and other nuclear security events [2, 4]. Once the regulatory body is in receipt of these reports, national agreements may require the regulatory body to notify other competent authorities involved in nuclear security within the State or provide reports to international organizations, such as the IAEA. Appropriate agreements should be put in place to ensure that notification and reporting requirements are well established. These agreements include memoranda of understanding or inter-agency agreements within the State. The competent authorities that may require notification of significant non-compliance include Customs authorities (if material is lost, missing or stolen and may be trafficked out of the country), law enforcement agencies or the State’s
prosecuting authority if there is evidence which indicates that a criminal offence may have been committed.

4.18. In circumstances where responsibility for nuclear security at a site is assigned to more than one authorized person or to authorized persons and competent authorities, agreements should be made for the integration and coordination of nuclear security responsibilities amongst the parties [1, 3].

Associated administrative measures

4.19. In addition to the requirements set out in primary legislation and regulations, a regulatory body may develop and publish regulatory guidance documents, manuals and procedures within its regulatory framework to guide authorized persons on regulatory requirements, as well as to ensure consistent application of the regulatory body’s requirements.

4.20. The regulatory body may issue a guide to the expected content of an application for authorization, including its expectations as to the content of an authorized person’s security plan and security management systems.

4.21. The regulatory body may provide details on the conduct of inspections in a security inspection manual or a similar instrument. A security inspection manual provides guidance to the regulatory body’s security inspectors in planning, conducting, and reporting on security inspections of the facilities and activities of authorized persons.

4.22. The regulatory body may develop and publish an enforcement policy to provide the administrative foundation for consideration what action is appropriate regarding cases of non-compliance on a systematic and consistent basis, including imposing sanctions that relate to the gravity of the offence.

4.23. The regulatory body may use source inventory forms in determining the source inventory information to be used by the operator. In addition, the regulatory body may use a source inventory verification as a mechanism for the regulatory body to define how the operator documents the regulatory requirement to verify at prescribed intervals the presence of the radioactive sources in the operator’s inventory.

Actions for a State to select appropriate regulations, agreements and associated administrative measures for transport security of nuclear and other radioactive material

4.24. Fundamental Principle B of the amended CPPNM [10] provides that the responsibility of a State for ensuring that nuclear material is adequately protected extends to the international transport thereof, until that responsibility is properly transferred to another State, as appropriate. The CPPNM provides that each State Party shall not import or authorize the import of nuclear material from a State
not party to this Convention unless the State Party has received assurances that such material will, during the international nuclear transport, be protected at the levels described in Annex I. A State Party shall not allow the transit of its territory by land or internal waterways or through its airports or seaports of nuclear material between States that are not party to this Convention unless the State Party has received assurances as far as practicable that this nuclear material will be protected during international nuclear transport at the levels described in Annex I [9].


4.26. IAEA guidance for security in transport reflects the provisions of the Transport of Dangerous Goods Model Regulations [16] that recommend a basic security level for all dangerous goods and an enhanced security level with additional provisions for those quantities of dangerous goods defined as “high consequence” dangerous goods.

Identification of responsibilities within a State for transport security

4.27. In some States the regulatory body may be assigned the responsibility for security of nuclear and other radioactive material during transport. However, in some States there may be another competent authority with responsibility for the transport of dangerous goods (including Class 7 Goods Radioactive Material) and, in those circumstances, it is very important that there is close cooperation between the two authorities.

Regulations

4.28. The assignment of responsibility for transport security is generally made in legislation and regulations. Generally, transport approvals are undertaken by the competent authority with responsibility for transport that may have responsibility for both transport safety and transport security. Regulations should include formal objectives and standards that are a necessary part of the transport security regulations, including requirements for security measures to be taken during transport and the submission of a transport security plan. Regulations for transport security should set out the requirements that the competent authority for transport security has in relation to the measures to be put in place against sabotage and unauthorized removal of material. Regulations should also set out requirements for recovery of any damaged, stolen or lost radioactive material as well as the mitigation of any radiological consequences arising from unauthorized removal or sabotage of material during transport.
Agreements between competent authorities within a State

4.29. Transport of nuclear and other radioactive material within a State may require the advance notification and involvement of the competent authority for transport or the regulatory body, law enforcement and response agencies that may all be identified within a transport security plan, having regard to the applicable legislative and regulatory framework for security of nuclear and other radioactive material in transport.

Agreements between competent authorities of different States

4.30. Carriers are required to comply with the legislative and regulatory framework of each competent authority having jurisdiction in each State through which the consignment is shipped or trans-shipped. International transport of nuclear and other radioactive material may require agreements to be entered into between each competent authority with this responsibility in each jurisdiction through which the nuclear or other radioactive material is shipped (transit States), in addition to the shipping State and the receiving State.

Associated administrative measures

4.31. The competent authority with responsibility for transport security should establish regulatory guidance for shippers and carriers, consignors and consignees and procedures for meeting its requirements for transport security, taking into account the concept of defence in depth and the use of a graded approach to achieve the objective of preventing the material becoming susceptible to malicious attacks. The regulatory guidance should take into account the quantity and physical form of the material, the mode of transport, the packages being used; the measures that are required to deter, detect and delay unauthorized access to the material while in transport and during storage in transit; to defeat any malicious acts and to the capabilities for recovering any damaged, stolen or lost material and bringing it under regulatory control as well as minimizing and mitigating the radiological consequences of any theft, sabotage or other malicious act.

Actions for the State to select appropriate regulations, agreements and associated administrative measures for the import and export control of radioactive sources

4.32. An important component of a State’s nuclear security regime is a comprehensive and properly enforced national import and export control regime for sources. Non-binding Guidance on the Import and Export of Radioactive Sources [17] has been developed in conjunction with the Code of Conduct on the Safety and Security of Radioactive Sources that applies to sources categorized as “Category 1 and Category 2 sources” within the Guidance. States may also apply this Guidance to other radioactive sources or materials.
Identification of the responsibilities within a State for import and export control of radioactive sources

4.33. A State may choose to give this responsibility to the regulatory body responsible for regulating radioactive sources. Many of the associated responsibilities related to import and export control of radioactive sources require that the radioactive sources are only be exported to or imported from a jurisdiction that controls radioactive sources.

Regulations

4.34. The State should establish and apply a system of control for the import and export of radioactive sources through primary legislation and regulations that confer responsibilities on the relevant competent authority. The regulations should cover requirements for export of category 1 and 2 sources, including the evaluation of applications for export authorization, consent of the importing State and requirement for notification prior to shipment. This is generally done in coordination with the regulatory body responsible for safety. In addition, the regulations should cover requirements for import of category 1 and 2 sources, including authorization and control of imports, including whether or not a recipient is authorized to receive the source in accordance with the laws and regulations of the importing State.

Agreements between competent authorities within a State

4.35. Requirements for licensing the import and export of radioactive sources generally include agreements between competent authorities within the State to ensure appropriate coordination and cooperation between the regulatory body responsible for safety and the regulatory body responsible for security, if different, and the competent authority with responsibility for import and export, where this responsibility for import and export does not lie with the regulatory body responsible for security or safety. There should also be an agreement with the body responsible for enforcing compliance with the export and import regime, which is typically the Customs authority.

Agreements between competent authorities of different States

4.36. In relation to the import and export of radioactive sources agreements may be entered into between competent authorities of different States (importing State and exporting State) in order that each is satisfied that the source may legally be exported from one State and imported into the other. Generally this requires that a satisfactory regulatory framework for the safety and security of radioactive sources is established in each State.
**Associated administrative measures**

4.37. The competent authority with responsibility for import and export for radioactive sources should develop a process for applications for import and export approvals with accompanying documents that support its decision-making in relation to the import and export of radioactive sources.

**THREAT ASSESSMENT**

**International legal instruments**

4.38. Fundamental Principle G of the amended CPPNM [10] states that “The State’s physical protection should be based on the State’s current evaluation of the threat.” The Code of Conduct on the Safety and Security of Radioactive Sources, paragraph 16 [13] provides: “Every State should define its domestic threat, and assess its vulnerability with respect to this threat for the variety of sources used within its territory, based on the potential for loss of control and malicious acts involving one or more radioactive sources”.

**IAEA Nuclear Security Series guidance**

4.39. Essential Elements 7 and 8 of a State’s nuclear security regime [1] are that nuclear security threats, both internal and external to a State, are identified and assessed including their credibility regardless of whether the targets of internal nuclear security threats are within or outside the jurisdiction. Further, the State’s nuclear security threats should be kept up to date and the assessment used in the State’s nuclear security regime. The identification and assessment of targets and potential consequences and the use of risk informed approaches should be applied in the conduct of nuclear security related activities.

4.40. The Nuclear Security Recommendations publications [2–4] provide recommendations for States on the development of a threat assessment and/or a design basis threat and highlight the importance of periodically reviewing and evaluating the threat assessment / design basis threat for determining effective nuclear security systems in relation to nuclear material, other radioactive material, associated facilities and associated activities, including transport. These assessments also apply to preparation of the national detection strategy, national response plan, and the design of nuclear security systems for nuclear and other material out of regulatory control. Each of these publications recommends that competent authorities work closely together and the State facilitates timely, secure and reliable exchange of threat information related to nuclear security, on both national and international levels.
Actions for a State to select appropriate regulations, agreements and associated administrative measure for threat assessment

4.41. A State may include in its legislative and regulatory framework the requirement for:

— a national threat assessment for nuclear and other radioactive material, associated facilities and associated activities;
— a design basis threat (DBT) or alternative threat assessment for nuclear material in transport and nuclear facilities;
— a DBT or a threat assessment using an alternative threat based approach for other radioactive material and associated facilities; and
— a threat assessment for nuclear and other radioactive material out of regulatory control.

Identification of responsibilities within a State for threat assessment

4.42. The State should identify a competent authority that has the responsibility to undertake each of the threat assessments identified in para. 4.41. Typically, the competent authority for threat assessment consults and involves in the development of the threat assessment other competent authorities, such as (see also Section 2): internal security or national security agency; intelligence agencies; regulatory body; police and law enforcement agencies; Customs authorities; border protection authorities; Ministry of Defence; and military services. Consideration should be given to the involvement of all stakeholders, including operators, in accordance with national legislation.

Regulations

4.43. As indicated previously, the State may have assigned responsibilities for threat assessment and associated threat methodologies in primary legislation. Further detail about the roles and responsibilities may be set out in regulations. This may be done in the framework of national security legislation and accompanying regulations and in addition may also require suitable references in the legislation and regulations establishing a regulatory body.

Agreements between competent authorities within a State

4.44. As the development of threat assessment is usually dependent on information from a number of competent authorities, an MOU or inter-agency agreement may be prepared to include such matters as:

— Role of each agency in the preparation of the threat assessment (consistent with their assigned responsibilities in law).
— Assignment of points of contact for each agency that is involved in the establishment, conduct and review of the threat assessment.
— Clear lines of communication between the competent authority and all the related agencies.
— Agreements for the distribution of the threat assessment to appropriate recipients within the State and principles governing its further use.

**Agreements between competent authorities of different States**

4.45. A State may enter into bilateral agreements with other States to share information that may increase understanding of the threat as it affects each State. It is essential that the bilateral agreements contain appropriate clauses to establish the classification and protection level required of all information that is proposed to be exchanged under the MOU (see also paragraphs 4.47–4.62 on managing sensitive information).

**Associated administrative measures**

4.46. The national threat assessment and/or the DBT could be developed with guidance contained in an associated administrative measure, such as a procedural document that includes the methodology for preparing the assessment.

**SECURITY OF INFORMATION**

**International legal instruments**

4.47. Fundamental Principle L of the amended CPPNM [10] provides that the State should establish requirements for protecting the confidentiality of information, the unauthorized disclosure of which could compromise the physical protection of nuclear material and nuclear facilities. The International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT) [18] provides that States Parties shall take appropriate measures consistent with their national law to protect confidential information received from another State Party or by implementing the Convention.

**IAEA Nuclear Security Series guidance**

4.48. Essential Element 3(g) of a State’s nuclear security regime [1] is the establishment of regulations and requirements for protecting the confidentiality of sensitive information. Essential Element 6(e) is that States cooperate and assist each other by ensuring that appropriate agreements are put in place to adequately and appropriately protect sensitive information exchanged in confidence.

4.49. Each of the three Nuclear Security Recommendations publications [2–4] highlights the importance of protection of sensitive information in the context of nuclear security systems and measures, including as a key preventive measure. In addition, the international legal instruments relating to nuclear security, as well as IAEA guidance, recognize that in important key contexts sensitive information may be shared and a condition of sharing is appropriate protection of the...
information. One context for the sharing of sensitive information is in circumstances of an actual or potential nuclear security event.

4.50. Reference [2] highlights the need for the protection of information and computer systems that process information and provide control functions for physical protection, nuclear safety and nuclear material accountancy and control at nuclear facilities. A State ensures that measures are in place to protect those systems against compromise from cyber-attack. There should be a graded approach to security systems that protect the confidentiality, integrity and availability of information in those systems consistent with the threat assessment or design basis threat.

Actions for a State to select appropriate regulations, agreements and associated administrative measures for security of information

4.51. States should establish an effective framework to ensure the confidentiality, integrity and availability of sensitive information and sensitive information assets.

4.52. Ensuring confidentiality, integrity, and availability of sensitive information requires an effective national framework composed of legislation, regulations, national guidance and security policy. Key elements of this framework are information classification schemes and the protective measures required for the respective classification levels. In many States, the classification scheme may already exist, in which case nuclear security sensitive information is identified and assigned within the current scheme.

Identification of responsibilities within a State for the security of information

4.53. The security of information requires the identification of information the unauthorized disclosure of which could compromise nuclear security and otherwise assist in the carrying out of a malicious act against a nuclear facility, organization or transport. The security of information is the responsibility of every legal and natural person within a State that has access to information the unauthorized disclosure of which could compromise nuclear security and otherwise assist in the carrying out of a malicious act against a nuclear facility, organization or transport. [19] This includes competent authorities, authorized persons as well as third party contractors or vendors. All of these entities are subject to relevant legislation, regulations, or other requirements of a State in relation to sensitive information.

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6 “Sensitive information” is defined in the Nuclear Security Fundamentals [1] as “Information, in whatever form, including software, the unauthorized disclosure, modification, alteration, destruction, or denial of use of which could compromise nuclear security”. NSS No. 20 also provides the definition of “sensitive information assets” as “any equipment or components that are used to store, process, control or transmit sensitive information. Example: sensitive information assets include control systems, networks, information systems and any other electronic or physical media”.

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4.54. A State may assign responsibilities for the security of information in primary legislation, such as national security legislation, that requires any legal or natural person that produces, uses, stores, transmits or otherwise handles sensitive information to ensure confidentiality, availability and integrity of sensitive information, and of sensitive information assets. Additionally there is a need to assign responsibility for instrumentation and control systems that are important to nuclear safety and security or are critical for nuclear security.

4.55. The State may also develop an appropriate system for the enforcement of the obligations of persons to comply with the State programme for information security.

Regulations

4.56. A State should develop regulations to further define the rules for the security of information.

Agreements between competent authorities within a State

4.57. Competent authorities may establish requirements regarding the sharing of sensitive information between different organizations within the State when necessary. This is generally done by specific provisions within an agreement between competent authorities such as an MOU or other inter-agency agreement that refers to the obligations to protect sensitive information including the manner in which the information is to be transmitted, received, stored, used or disposed of.

Agreements between competent authorities of different States

4.58. Each State may put in place agreements for the secure exchange of information internal to a State or on a regional or international level based on bilateral or multilateral agreements. To put this into effect the State develops agreements that govern the sharing of information between States or the reporting of sensitive information to an international organization (such as in the case of the IAEA Incident and Trafficking Database ITDB), having regard to the provisions of relevant international legal instruments to which the State may be a Party.

Associated administrative measures

4.59. The State should establish a classification system for information to ensure appropriate levels of protection for information depending on its classification. In some States this is contained in national legislation such as security legislation. In other States this may be done through promulgation of a national security classification system by the Government of the State that may or may not require primary legislation to be in place.

4.60. The State may specify its requirements for protection of sensitive information through a national policy that applies consistently to all stakeholders that hold sensitive information. The State, through
its competent authorities, should establish requirements and provide guidance on the disclosure of sensitive information, which should be incorporated in the national policy on protecting sensitive information, as well as in the internal policy, plans and procedures of organizations and authorized persons dealing with sensitive information.

4.61. Each competent authority that produces, stores, transmits, uses or disposes of sensitive information should in addition establish requirements for protecting sensitive information, in line with the State’s national policy on the protection of information, in the form of internal policy and procedures specifying matters such as:

— the nature of information to be protected;
— the level of protection;
— handling and storage requirements;
— access levels for staff including the requirement for security vetting in order to determine access to information.

4.62. A competent authority or authorized person that deals with sensitive information may develop associated administrative measures such as organizational policy and procedures that implement the national requirements.

DETECTION OF NUCLEAR AND OTHER RADIOACTIVE MATERIAL OUT OF REGULATORY CONTROL

International legal instruments

4.63. The CPPNM [9] and its Amendment [10] require States to establish, implement and maintain an appropriate physical protection regime of nuclear material and nuclear facilities in order to ensure the implementation of measures to locate and recover nuclear material, including through informing each other through points of contact. United Nations Security Council Resolution 1540 [20], operative paragraphs 3 and 10 require States to take effective physical protection measures, border controls, and national export and trans-shipment controls, as well as cooperative action to prevent illicit trafficking.

IAEA Nuclear Security Series guidance

4.64. Essential Element 3 of a State’s nuclear security regime [1] is that States take appropriate and effective steps to prevent, deter, detect, respond to, and otherwise combat illicit trafficking in nuclear material and other radioactive materials. Essential Element 3 also recommends that States establish law enforcement systems and measures relevant to nuclear security, including those for the import, export, and appropriate border control practices for nuclear material and other radioactive material.
4.65. The key guidance on nuclear security measures for nuclear and other radioactive material out of regulatory control is contained in NSS No. 15 [4] and supplemented by the guidance in NSS No. 21 [21]. Nuclear and other radioactive material out of regulatory control could be used in a criminal or terrorist act, including criminals or terrorists acquiring or using nuclear material to construct an improvised nuclear device (IND); deliberate dispersal of radioactive material through a radioactive dispersal device or a radioactive exposure device.

4.66. Preventing, detecting and responding to nuclear and other radioactive material that is out of regulatory control is one of the key components of a State’s nuclear security regime. Every State should establish, maintain and sustain their capabilities to effectively deter, detect and respond to nuclear and other radioactive material out of regulatory control. Material may be reported as being out of regulatory control, may be lost, missing or stolen but not reported as such, or may otherwise have been discovered.

**Actions for a State to select appropriate regulations, agreements and associated administrative measures for detection of material out of regulatory control**

4.67. A State should include in its legislative and regulatory framework the requirements for:

— A national strategy for detection of a criminal act, or an unauthorized act with nuclear security implications involving nuclear or other radioactive material out of regulatory control;

— Nuclear security systems and measures for detection of nuclear and other radioactive material out of regulatory control;

— Measures to locate and recover nuclear and other radioactive material out of regulatory control;

— Agreements for international cooperation and assistance in relation to detection.

**Identification of responsibilities within a State for detection of material out of regulatory control**

4.68. The competent authorities with responsibilities for detection of material out of regulatory control may be designated in primary legislation, such as the nuclear law, customs and other related legislation, including primary legislation related to border protection and national security legislation. The main competent authorities involved in detection of material out of regulatory control include all those with responsibilities to monitor and control the movements of goods and people. Competent Authorities with responsibilities for detection of material out of regulatory control may include (see also Section 2): the regulatory body, police and law enforcement agencies, customs authorities, border protection authorities, intelligence agencies.
Regulations

4.69. The primary legislation that assigns roles and responsibilities to each of the competent authorities involved in the State’s detection systems is supplemented by regulations under separate primary legislation that provide more detail as to how the powers and functions of relevant competent authorities are to be carried out, including relevant legislation that concerns the safety and security of nuclear and other radioactive material.

4.70. Effective nuclear security detection systems require regulatory bodies and other competent authorities to have sufficient authority to control and regulate the use, storage and transport of nuclear and other radioactive material. Nuclear security detection systems rely on information alerts and instrument alarms. The regulations should support the roles and responsibilities assigned to appropriate competent authorities in primary legislation to undertake inspection of vehicles, transport routes, facilities and other locations that may be the target of nuclear security events. These functions are generally carried out by customs and border authorities and law enforcement agencies as part of their operations and may occur at other strategic locations within the State’s territory as well as at designated and undesignated points of entry and exit.

4.71. Competent authorities involved in these activities may require regulations that further describe their powers and functions for the inspection of, detection, seizure or interdiction of nuclear and other radioactive material out of regulatory control. Competent authorities involved in these activities may need suitable powers further defined in regulations that provide adequate coverage of the State, its facilities and other strategic locations, such as designated and undesignated points of entry and exit, and the power to require appropriate operational information, medical surveillance data, and non-compliance reports from the regulatory authority and other competent authorities who may provide information alerts, unless these requirements are put in place having regard to agreements between competent authorities only and without the need for separate regulations.

Agreements between competent authorities within a State

4.72. An important consideration in the area of detection is the need for integration of systems and measures which requires effective cooperation, communication and coordination between the different competent authorities that work together to apply the detection strategy. Memoranda of understanding and inter-agency agreements are powerful agreements to ensure the effective deployment of the strategy. Agreements may be entered into between competent authorities to ensure that relevant information may be considered and shared if it is related to their detection function.

4.73. As indicated in the general regulatory activities section (see paragraph 4.17) the regulatory body shares information with other competent authorities in circumstances where nuclear or other
radioactive material is lost, missing or stolen including in circumstances where there has been a report to the regulatory body, or in the case of theft, a report to law enforcement officials in the State.

Agreements between competent authorities of different States

4.74. Agreements may be entered into between competent authorities of different States in order to share, on a voluntary basis, details of nuclear security events following detection of nuclear or other radioactive material out of regulatory control. Agreements may be concluded between competent authorities of different States in circumstances where States are required to cooperate for the free movement of people and goods and a regional approach to detection systems and measures would be appropriate, or where the particular circumstances, such as the occurrence of a nuclear security event, require an agreement to be entered into between two States.

Associated administrative measures

4.75. Every State should establish a national strategy for detection of a criminal act or an unauthorized act with nuclear security implications involving nuclear and other radioactive material out of regulatory control. Such a strategy relies upon an effective nuclear security detection system. The detection systems and measures are applied within a concept of operations that is supported by communications, law enforcement, intelligence and systems of regulatory compliance and response authorities.

PREPAREDNESS FOR AND RESPONSE TO NUCLEAR SECURITY EVENTS

International legal instruments

4.76. The amended CPPNM requires States Parties to identify points of contact in relation to matters within the scope of the Convention, to provide cooperation and assistance in the recovery and protection of nuclear material by informing other States in a timely manner and by exchanging information, to cooperate in the case of sabotage, and to consult with each other directly or through the IAEA and other international organizations in order to obtain guidance regarding physical protection of nuclear material. Fundamental Principle K provides: “Contingency (emergency) plans to respond to unauthorized removal of nuclear material or sabotage of nuclear facilities or nuclear material, or attempts thereof, should be prepared and appropriately exercised by all licence holders and authorities concerned.” [10]

4.77. Article 18 of the ICSANT on recovery and return of material, provides that upon seizing or otherwise taking control of radioactive material (defined as including nuclear material) devices or nuclear facilities (defined as including transport of nuclear material) a State Party should take steps to render harmless the radioactive material, device or nuclear facility, ensure that nuclear material is held
in accordance with applicable IAEA safeguards and have regard to physical protection
recommendations, and may take steps to determine whether the radioactive material may be returned
to the State Party to which it belongs [18].

4.78. As a part of the international cooperative effort to identify material out of regulatory control,
States Parties should also promptly report the potential loss of control of any such material to the
IAEA and to any States that may be of assistance in recovering the material in accordance with the
CPPNM and the ICSANT. Timely reporting of the potential loss of material significantly improves
the likelihood of location and recovery of such material.

4.79. The Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency
requires States Parties to cooperate between themselves and with the IAEA to facilitate prompt
assistance in the event of a nuclear accident or radiological emergency [12]. The Convention on Early
Notification of a Nuclear Accident requires States Parties that, in the event of a nuclear accident that
may have trans-boundary radiological consequences, they will notify countries that may be affected
and the IAEA, and provide relevant information on the development of the accident in order that
trans-boundary radiological consequences can be minimized [11].

4.80. The Code of Conduct on Safety and Security of Radioactive Sources, paragraph 22 provides that
every State should ensure that its regulatory body requires authorized persons to prepare emergency
plans, is prepared, or has established provisions, to recover and restore appropriate control over
orphan sources, and to deal with radiological emergencies, and has established appropriate response
plans and measures [13].

**IAEA Nuclear Security Series guidance**

4.81. As part of Essential Element 11, competent authorities and authorized persons are prepared to
appropriately respond at local, national and international levels to nuclear security events by
developing agreements and response plans and by periodically exercising, testing and evaluating the
effectiveness of the plans [1].

4.82. Reference [2] recommends that the State and authorized persons develop contingency plans to
respond to unauthorized removal of nuclear material, or sabotage of nuclear facilities, or nuclear
material in transport, or attempts thereof, that are appropriately exercised by the authorized person
and authorities concerned [2]. Contingency plans are initiated following the detection and assessment
of any malicious act. The contingency plan is regularly exercised. Agreements are also made to ensure
that during emergency conditions and exercises the effectiveness of the physical protection system is
maintained.
4.83. Reference [3] recommends that operators are required to develop, implement, test, periodically review, revise as necessary a security plan and comply with its provisions. The plan describes the nuclear security system in place to protect the radioactive material and includes measures to address an increased threat level, the protection of sensitive information, and response to nuclear security events, including response actions comprising cooperation with relevant competent authorities in the location and recovery of radioactive material consistent with national practice [3].

4.84. Reference [4] recommends the State to develop a national response system, which is documented in a national response plan outlining the various response measures, and which is implemented coherently by the various competent authorities, ideally coordinated by the coordinating body. Effective and sustainable detection and response measures rely on multidisciplinary infrastructures implemented by several independent competent authorities in the State [4]. For nuclear security events the responsible competent authorities complement and support the safety emergency response activities at the international, national and local levels to mitigate and minimize the radiological consequences to human health and the environment. The coordination of competent authorities is vital for effective response at the scene [4].

4.85. A comprehensive national plan for nuclear security events may include preparations to detain and/or seize, recover or control material or render harmless any threat or associated device. The CPPNM specifically requires States Parties to cooperate and assist one another to the maximum feasible extent in the recovery of such material [9], and other IAEA Guidance highlights the need to ensure the availability of human resources for the recovery of material [3]. Preparations to locate and recover nuclear and other radioactive material are also part of a nuclear security event national response plan.

4.86. Reference [22] recommends that all organizations involved in response establish internal plans describing their particular roles, responsibilities, equipment teams and the various standard operating procedures to be followed in a nuclear security event, as well as multidisciplinary group agreements and protocols to determine intergroup cooperation foreseen by the nuclear security response plan.

4.87. Reference [23] recommends States to establish cooperative agreements with other States and international organizations on nuclear security events and designate national points of contact and to establish notification systems among relevant competent authorities of other States to facilitate mutual assistance. In addition it recommends that States consider participating in the Incident and Trafficking Database (ITDB) programme maintained by the IAEA. It is also recommended that a State that located, seized, recovered or otherwise obtained nuclear and other radioactive material out of regulatory control safely and securely stores the material and cooperates with the State where regulatory control had been lost to arrange for the safe and secure return of the material. Actions taken by a State should be consistent with the national laws of the State including, for example, any
regulatory obligations that may be imposed for the safe and secure storage of the material. In addition, the State should have regard to any bilateral or multilateral agreements that it may have in place, for example with neighbouring States [23].

Actions for a State to select appropriate regulations, agreements and associated administrative measures for preparedness and response

4.88. A State should establish a comprehensive system to prepare for and respond to a nuclear security event, including the development of capabilities related to radiological crime scene management and ensuring the availability of capabilities in nuclear forensic analysis and interpretation (either by developing national capabilities or by entering into agreements with other States or relevant regional or international institutions). States should establish national, sub-national, and local provisions which will enhance their ability to prepare for and respond to a nuclear security event. Competent authorities with responsibilities for preparedness and response to nuclear security events have their roles and responsibilities assigned either in primary legislation, or in regulations if principal legislation so permits. In some States this occurs under the overall national legislative scheme for crisis or emergency management.

Identification of responsibilities for preparedness and response within a State

4.89. A State should identify the competent authorities for preparedness and response in primary legislation. Preparedness and response involves the participation of multiple competent authorities with different roles and responsibilities that have to cooperate and coordinate with each other (through a clear delineation of roles and responsibilities and through the conclusion of agreements) in case of a nuclear security event. The competent authorities involved in preparedness and response may include (see also Section 2): police and law enforcement agencies, intelligence agencies, military organizations, customs authorities, border protection authorities, National Emergency Response Agency, Ministry of Defence, civil defence and other response organizations, etc.

Regulations

4.90. The requirements to establish a national response plan may be set out in legislation with more detail as to the requirements set out in regulations. Generally the regulatory framework developed under the relevant legislation requires the State, through assigned competent authorities, to establish a national response plan, determine a national response system for nuclear security events, and establish a coordinating body or mechanism to ensure that the various response measures are taken coherently by the responsible competent authorities. Depending on the legislative framework for national response multiple sets of regulations may be required to define the role of each competent authority within the State involved in response to a nuclear security event.
Agreements between competent authorities within the State

4.91. All competent authorities that are assigned roles in the national response plan should ensure that they have appropriate agreements in place to work with each other. These agreements may include MOUs between national and sub-national competent authorities within a State, whose responsibilities are defined in the national response plan and supported by appropriate legislation and regulations.

Agreements between competent authorities of different States

4.92. To ensure the effectiveness of the preparedness and response measures, coordination and cooperation between competent authorities of different States and international organizations is necessary. Within this framework, national points of contact should be designated and notification systems and other measures should be established through bilateral or multilateral agreements.

4.93. In circumstances where material has been recovered and has to be returned to the State of origin, the State that has recovered the material should work with the State of origin (if this can be ascertained) and other relevant States to return the material to regulatory control. An agreement to return the material may be contained in a written agreement such as an MOU or other agreement that clearly specifies each party’s responsibilities in relation to the material. Such an agreement may be put in place as a consequence of recovery on a case by case basis. Investigations undertaken in relation to a nuclear security event may determine the State where regulatory control was lost and upon identification of the State, the State that has custody of the material should work with the other State to return the material.

Associated administrative measures

4.94. All competent authorities that are assigned roles and responsibilities in preparedness and response to nuclear security events should develop internal plans, defining their particular roles, responsibilities, equipment teams and standard operating procedures to be followed in a nuclear security event. They should also regularly conduct training, exercises and drills in order to evaluate the effectiveness of the plans.

OFFENCES AND PENALTIES RELATED TO NUCLEAR SECURITY INCLUDING CRIMINALIZATION

International legal instruments

4.95. A number of key international legal instruments developed in the context of countering nuclear terrorism focus on the prosecution and, where necessary, extradition of offenders and punishment of offenders commensurate with the gravity of the offence. Article 7 of the amended CPPNM [10], and
Articles 2 and 5 of the ICSANT [18] oblige States Parties to criminalize a range of acts related to nuclear and other radioactive material, associated facilities and associated activities. The ‘prosecute or extradite’ principle is also embodied in both the CPPNM (Article 10) and the ICSANT (Article 9). Mutual legal assistance in nuclear security is mandated in Article 13(1) of the CPPNM and Article 7 of the ICSANT.

IAEA Nuclear Security Series guidance

4.96. Essential Element 5 of a State’s nuclear security regime [1] is that each State should define as offences or violations under domestic law or regulations those criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities or associated activities and establish appropriate penalties proportionate to the gravity of the harm that could be caused by commission of the offences or violations. A nuclear security regime includes measures to establish jurisdiction over such offences and to provide for the prosecution or, where necessary, extradition of alleged offenders. The 2010 Handbook [7], as referenced below, includes model criminalization legislation in the nuclear security field.

4.97. Reference [2] recommends that sanctions against persons violating confidentiality are part of a State’s legislative and regulatory framework [2].

4.98. Reference [4] recommends a State to establish criminal offences, including the threat or attempt to commit an offence, related to nuclear and other radioactive material in accordance with international treaties, conventions and legally binding UN Security Council resolutions and to establish its jurisdiction over such offences and appropriate penalties and to effectively cooperate with other States regarding criminal proceedings related to nuclear security events [4].


Actions for the State to select appropriate regulations, agreements and associated administrative measures for offences and penalties related to nuclear security including criminalization

4.100. A State should have primary legislation in place that creates punishable offences in its domestic laws related to criminal or intentional unauthorized acts involving or directed at nuclear and other radioactive material, associated facilities and associated activities. In addition, a State should have established appropriate penalties proportionate to the gravity of the harm caused by the commission of these offences. A State should also have established its jurisdiction over these offences and provided for the prosecution or, where necessary, extradition of alleged offenders. In some legal
systems only primary legislation can establish criminal offences, while in others these may be created in regulations that support primary legislation.

4.101. In addition to offences required to be created by States Parties to the relevant conventions, a national legislative framework may also create other offences related to nuclear security. These may include offences related to unauthorized disclosure of sensitive information; unauthorized access to a site or facility; and knowingly, intentionally or recklessly breaching licensing requirements.

**Assertion of jurisdiction over alleged offenders**

4.102. International instruments, such as the CPPNM and the ICSANT, require States Parties to assert jurisdiction over persons suspected of having committed offences involving nuclear and other radioactive materials, associated facilities or associated activities. This typically involves the apprehension and arrest of suspects and detention prior to a decision on jurisdiction over the alleged offence. This can be of particular importance regarding potential nuclear security offences to prevent suspected offenders from evading prosecution by seeking a safe haven in a State other than that in which an offence has been committed or threatened.

**Investigations**

4.103. The investigation of possible criminal violations related to nuclear security may arise as a result of information alerts, instrument alarms or some other physical evidence detected by a regulatory body, customs or border agency or another law enforcement agency. States have different procedures for conducting criminal investigations. However, it is important that the State designate a single competent authority to coordinate the investigation into an alleged nuclear security offence. Typically, the national police service is the lead authority for such investigations. A successful criminal investigation also requires close cooperation, coordination and communication between relevant competent authorities within a State at all levels — national, regional and local — and not only with those primarily responsible for law enforcement and prosecution. In certain cases an investigation may reveal an international dimension that requires communication to other States or international agencies such as INTERPOL or EUROPOL. Therefore, agreements and associated administrative measures are necessary for communication and coordination between relevant competent authorities, including determining methods for the conduct of joint operations to support investigations of possible nuclear security related offences.

**Prosecution and extradition**

4.104. A fundamental principle of international criminal law embodied in instruments such as the CPPNM and the ICSANT is that alleged offenders must either be prosecuted by States Parties or transferred through extradition to a State Party having jurisdiction over the offence. Extradition
treaties between States Parties should cover nuclear security related offences. However the CPPNM and the ICSANT contain provisions that make offences under these Conventions extraditable, even in the absence of extradition treaties between the affected States Parties. Implementing mechanisms, such as national criminal procedure laws and regulations, should provide for extradition, where necessary, of persons allegedly having committed nuclear security offences, even in the absence of an extradition treaty with the other relevant State Party.

4.105. In some cases, alleged nuclear security related offences may have a trans-boundary aspect. For example, an alleged offender, forensic evidence or witnesses may be located in another State. As indicated, the CPPNM and the ICSANT mandate the greatest measure of cooperation between the States Parties in assisting in criminal proceedings regarding nuclear security offences. States that have not already done so may wish to negotiate mutual legal assistance treaties or agreements, particularly if they have close geographical connections or commercial relationships in the nuclear field. A resource for drafting such treaties is the Model Treaty on Mutual Assistance in Criminal Matters developed by the UN Office of Drugs and Crime and adopted by the UN General Assembly in 1990 (amended in 1998) [24].
APPENDIX I

EXAMPLE REGULATIONS

I.1. This Appendix provides further detail on regulations and provides an example to illustrate the guidance given in the main text. The example in this Appendix is intended for illustration only. The content of the primary legislation, responsibilities and powers vested in difference agencies, their working agreements and other conditions and limitations differ from State to State and should be taken into account when developing regulations and agreements for nuclear security.

OVERVIEW OF CONTENT OF REGULATIONS

I.2. All regulations should be drafted having regard to: the legal drafting rules of the State; the primary legislation under which the regulation is made; the degree of specificity or prescription that the subject requires; the technical subject matter to be covered; and the appropriateness of the articles that are included.

I.3. It is recommended that all regulations and other like instruments be drafted in close coordination and cooperation between legal advisors and technical experts of a State, and other relevant stakeholders, including public participation, as appropriate.

I.4. The title of the regulations should be clear and reflect the subject matter and purpose of the regulations.

I.5. The authority to issue regulations should be clear and reference should be made to the relevant primary legislation that gives authority for the making of regulations. Regulations are made having regard to a primary or principal legislative instrument. A reference to the primary legislation in the regulations indicates that there is specific authority to issue the regulations and that the regulations are designed to implement an aspect of a specific piece of primary legislation. For example primary legislation may deal with an overall subject (Customs control) and only one part may relate to nuclear security areas (detection of nuclear and other radioactive material for example) however a specific regulation may be drafted in relation to detection responsibilities of a Customs Authority carried out under Customs legislation.

I.6. The date of entry into force of the regulations should be clearly expressed in the regulations as regulations are generally not retrospective and can only apply on and from their date of entry into force.

I.7. The purpose of the regulations should be clearly expressed as this is the reason for making the regulations. The purpose of a regulation should be consistent with the purpose expressed in the primary legislation cited at the very beginning of the regulations. The purpose is also important in the context of interpretation of substantive provisions in the regulations.

I.8. The scope of the regulations should be clearly stated and indicates the subject matter that is covered by the regulations. The scope of the regulations should not exceed what the primary legislation authorizes. The scope may also indicate whether earlier regulations are revoked.

I.9. Regulations may expressly state that the regulations are legally binding on those that are subject to the regulations.
I.10. Regulations should **include all relevant definitions, unless included in primary legislation**, which are essential to the understanding of, interpretation of and consistent application of the regulations. Definitions have the role of limiting or expanding a term beyond its ordinary meaning and of translating technical terms into common language.

I.11. Each substantive provision of the regulations should **describe the key subjects** that the regulations relate to. In the context of nuclear security it should assist each Competent Authority that has a role and responsibility defined in legislation to clearly understand the scope of its role and responsibilities. Whether or not the regulations describe this in prescriptive language is a matter of drafting style and national legal practice.

I.12. Regulations may refer to other documents that may be developed as part of the regulatory framework for example it may describe the content of administrative measures that further describe the application of the provisions of the regulations. Regulations may contain information as to the content of forms or applications or inspectors identification cards for e.g.

I.13. Provisions relating to **enforcement** may include sanctions, such as: verbal/written notification, imposition of additional requirements, written warnings, penalties, fines, etc., and if provided under primary legislation, may include criminal offences.

I.14. The regulation should **clearly state the entities that have responsibility** for carrying out obligations under the regulation.
EXAMPLE OF A REGULATION

I.15. The regulation outline below is an example structure that can be used by States to develop their own regulations. States may develop regulations according to their own national legislation. Given the multitude of legal systems and the different approaches for drafting regulations, some of the Articles or matters contained in the example below may be dealt with in primary legislation. This example does not represent a recommended regulation on this topic. This example provides an outline of basic elements of regulations from which States may choose elements to draft their own regulations in line with their national legal systems and according to their needs. As appropriate, nuclear security provisions could be integrated within an existing regulation for safety or radiation protection.

Outline of a regulation for the security of radioactive sources for possession, use, storage and transfer

These regulations are issued under the following authority [make reference to the relevant primary legislation or statute which gives the authority to issue regulations- only subjects referred to in that legislation can form the basis of any regulation made under it/pursuant to it]:

Part I. General Provisions

Article 1. Entry into force (unless provided for in other legislation)

These Regulations [or full name of Regulations] shall enter into force on [include date] [Alternative:]

These Regulations [or full name of Regulations] shall enter into force on [a date determined by [title of official] and when published in [name of official publication or gazette]].

Article 2. Purpose

(1) These Regulations specify the basic requirements for the security of radioactive sources for possession, use, storage and transfer.

Article 3. Scope

(1) These Regulations apply to the management of all Category 1, 2 and 3 radioactive sources within [include State].

(2) These Regulations do not cover manufacture, import, export, or disposal of radioactive sources.

(3) These Regulations do not apply to nuclear material, except for sources incorporating plutonium-239.

(4) These Regulations do not apply to radioactive sources within military or defence programmes.

Article 4. Fundamental obligation

No person shall engage in the management of radioactive sources as specified in Article 3 of these Regulations unless the requirements of [insert applicable relevant primary legislation] and these Regulations are met.

Article 5. Definitions (unless provided for in primary legislation)

[Set out all relevant definitions in this article of the regulations]

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Article 6. Regulatory inspection of premises and information

Licensees shall permit authorized representatives of the [regulatory body] immediate access to premises and facilities in which radioactive sources are located in order to obtain information about the status of security and verify compliance with regulatory requirements. Each licensee shall make available to [regulatory body] information and records regarding security as required.

Article 7. Reporting of events

(1) In the event of any failure to comply with any applicable requirements of these Regulations, licensees shall:
   (a) Report to [the regulatory body] promptly / as soon as practicable and in any case within 24 hours;
   (b) Take appropriate action to remedy circumstances and to prevent a recurrence of similar situations;
   (c) Provide [the regulatory body] with a report on the causes of the failure, its circumstances and consequences, and on the corrective or preventive actions taken or to be taken.

(2) Whenever a situation involving loss of control of, unauthorized access to, actual or attempted theft or sabotage of a radioactive source has occurred, or is occurring, licensees shall:
   (a) Immediately inform [the regulatory body] and local law enforcement bodies;
   (b) Take appropriate action to remedy the circumstances and to prevent a recurrence of similar situations;
   (c) Investigate the event and its causes, circumstances and consequences; and
   (d) Within 30 days, or as required, provide [the regulatory body] with a report on the causes of the event, its circumstances and consequences, and on the corrective or preventive actions taken or to be taken.

(3) Failure to take corrective or preventive actions within a reasonable time in accordance with these Regulations shall be grounds for enforcement in accordance with the provisions of the [cite relevant principal legislation].

Article 8. Responsibilities of licensees

1. Licensees shall be responsible for establishing and implementing the measures that are needed for ensuring security of radioactive sources for which they are licensed and for compliance with all applicable requirements of these Regulations.

2. Licensees shall notify the regulatory body of their intention to introduce any modification to facilities or activities affecting the security of a radioactive source for which they are licensed, and shall not carry out any such modification unless specifically authorized [by the regulatory body] under [cite principal legislation].

Article 9. Integrated Management System

Licensees shall establish an integrated management system, commensurate with the size and nature of the authorized activity, which ensures that:

(1) Policies and procedures are established that identify security as an important priority;
(2) Problems affecting security are promptly identified and corrected in a manner commensurate with their importance;
(3) The responsibilities of which individual for security are clearly identified and each individual is suitably trained and qualified;
(4) Clear lines of authority for decisions on security are defined;
(5) Organizational arrangements and lines of communication are established that result in an appropriate flow of information on security at and between the various levels in the entire organization of the operator.
Article 10. Qualification and training

(1) Licensees shall ensure that all personnel on whom security depends are appropriately trained and qualified so that they understand their responsibilities and can perform their duties with appropriate judgment and according to defined procedures.

(2) All employees shall be periodically informed of the importance of effective security measures and be trained as appropriate in taking such measures.

(3) Training programmes shall be periodically evaluated and updated as necessary.

Article 11. Requirements for Transfer of Radioactive Sources

(1) Licensees shall not transfer radioactive sources to another party (recipient) unless:

a) They are authorized to do so by the regulatory body

b) The recipient possesses a licence for sources issued by the relevant regulatory body.

Part II. Requirements for security in possession, use and storage

Article 12. Security levels

Article 13. Assignment of sources to security levels [this may be done in an Annex containing a Schedule of Tables]

Article 14. Security objectives and measures for radioactive sources

Article 15. Security management

Article 16. Requirements for security plans

Article 17. Inventory and records

Article 18. Physical verification.

[The content of the paragraphs above will depend on the overall requirements established by the principal legislation. The principal legislation may set out the scheme including a system of categorizing security levels to be applied to radioactive sources and in those circumstances this regulation would then provide any other necessary detail for the implementation of the scheme. On the other hand if the need for such a scheme is simply referred to in the principal legislation then a detailed scheme may be set out in its entirety in the regulations.]
APPENDIX II
EXAMPLE AGREEMENTS

OVERVIEW OF CONTENT OF AGREEMENTS

II.1. Agreements between competent authorities of different States are generally concluded having regard to an overarching agreement between the Governments of each State. Agreements should not establish additional responsibilities upon competent authorities (roles and responsibilities are generally established in primary or secondary legislation, or government agreements).

II.2. It is recommended that agreements be drafted in close coordination and cooperation between policy experts, legal advisors, technical experts and other relevant stakeholders of a State.

II.3. The parties should be clearly defined by name at the beginning of the agreement.

II.4. The purpose of the agreement should be a concise statement explaining the reason why the agreement is entered into. The purpose shows when and in what context the agreement applies, and how the agreement will be applied (used).

II.5. The agreement generally has an introductory clause or background to explain the context of the agreement.

II.6. The agreement should set out the specific matters that are agreed under the agreement.

II.7. The agreement should include the following within its substantive clauses:

— Definitions, which are important so that all relevant terms in the Agreement are defined to enable the Agreement to be interpreted and applied consistently.

— Scope of the Agreement is clearly defined in the Agreement.

— Protection of information. In most Agreements entered into in the context of nuclear security it is essential to define the circumstances of exchange of information; protection of information and other relevant matters. Such clauses should be expressed as being subject to appropriate legislative and regulatory provisions that operate in the area of protection of information.

— Area of cooperation. In most Agreements entered into in the context of nuclear security it is important to define the areas of co-operation. In any substantive clauses that relate to cooperation any limitation on cooperation should to be clearly defined.

II.8. The appointment of an administrator for each party for the purposes of the agreement is important. These may have other names or descriptors such as a point of contact for example.

II.9. A clause on implementation and interpretation of the agreement which should include provisions as to how any dispute will be resolved under the agreement.

II.10. A substantive clause related to costs resulting from the cooperation under the agreement can be included. The general rule is that the costs resulting from the agreement are the responsibility of the Party that incurs them.
II.11. In addition there may be a clause that states that the ability of parties to carry out their obligations is subject to appropriation of funds by the appropriate governmental authority and to the legislation and regulations applicable to the parties.

II.12. If there are annexes or other attachments that are intended to form part of the agreement then it is advisable to include a clause that sets out the documents that form the agreement.

II.13. A clause may be included which sets out when the agreement comes into effect and clauses which allow for early termination under certain conditions.

II.14. Agreements specify mutually accepted expectations between the parties, as they work together towards a common purpose.

II.15. Agreements are generally concluded for cooperation and coordination purposes.

II.16. The power to enter into such agreements is conferred upon the competent authorities in primary or secondary legislation.
EXAMPLE OF A MEMORANDUM OF UNDERSTANDING BETWEEN COMPETENT AUTHORITIES OF TWO STATES

II.17. The MOU outline below is an example containing elements that can be used by States as a tool for developing their own MOU with another State, in line with their own legal systems and according to their needs.

Outline of an MOU between a competent authority in State A and a competent authority in State B for the exchange of information and cooperation in nuclear security matters

PARTIES

The Competent Authority of State A (hereafter called CA-A) and the Competent Authority of State B (hereafter called CA-B) both hereafter called the Parties:

WHEREAS the Government of State A and the Government of State B have entered into an agreement for cooperation concerning measures to counter criminal and intentional unauthorized acts involving or directed at nuclear and other radioactive material, associated facilities and associated activities;

[NOTE: In order to identify particular competent authorities in each State that are cooperating it is generally the case that an overarching agreement between the Governments of each State is entered into so that subsidiary agreements between competent authorities may be entered into.]

AND WHEREAS the Parties are concerned to establish acceptable nuclear security measures for the prevention, detection and response to criminal and intentional unauthorized acts involving or directed at nuclear and other radioactive material in their jurisdictions;

AND WHEREAS the Parties have an interest in exchanging information and requesting cooperation in relation to nuclear security matters;

The PARTIES have now agreed as follows:

1.0 Definitions

It is important in this clause to define all the relevant terms in the MOU to enable the Agreement to be interpreted and applied consistently.

2.0 Scope of the Agreement

[Note: the Scope describes the competent authorities of State A and State B and their relationship. This section might also make reference to the overarching agreement between the Governments of the two States.]

2.1 Information Exchange

To the extent that the Parties are permitted to do so under the legislation, regulations and policy directives of their respective States and subject to [insert reference to clause that limits exchange of information in accordance with national law] the Parties will exchange, pursuant to this MOU, information related to [Outline relevant areas of information exchange].
2.2 Cooperation

To the extent that the Parties are permitted to do so under the legislation, regulations and policy directives of their respective States and subject to [insert any references on limitation of cooperation], the Parties will cooperate in relation to the following areas [outline relevant areas of cooperation., e.g. cooperation could include cooperation for the recovery and return of material from State A to State B]

3.0 Administrators

[Appointment of an administrator for each Party for the purposes of the Agreement. These may have other names or descriptors such as a Point of Contact for example.]

4.0 Duties of Administrators

[Generally the roles relate to the management of the Agreement on behalf of each Competent Authority from each State including communication and coordination and ensuring any conditions or prohibitions are adhered to- in particular in relation to any conditions or prohibitions in relation to exchange of sensitive information.]

5.0 Implementation and Interpretation

The Parties agree that, except as otherwise provided in this MOU, the administrators will be jointly responsible for its implementation and interpretation and that any difference of opinion between the administrators concerning such matters which they are not able to resolve between them will be resolved by mutual agreement of the Parties.

6.0 Costs

Unless otherwise agreed, all costs resulting from cooperation pursuant to this MOU will be the responsibility of the Party that incurs them. The ability of Parties to carry out their obligations is subject to appropriation of funds by the appropriate governmental authority and to the legislation and regulations applicable to the Parties.

7.0 Entire Agreement

The following Annexes shall form an integral part of this Agreement:

- Annex A: Administrative Arrangements
- Annex B: Exchange and Use of Sensitive Information.

8.0 Entry into effect and early termination

8.1 This MOU will become effective upon its execution by both Parties and, subject to Article 6.2 will remain in effect [for five years]. It may be extended for further periods of time by the written consent of the Parties.

8.2 Either Party may withdraw from the MOU upon informing the other Party of its intention 180 days prior to the effective date of the withdrawal.

8.3. The obligation to protect sensitive information continues beyond the life of this Agreement.

SIGNATURES of the Authorized Officers of the Parties
1 APPENDIX A – ADMINISTRATIVE ARRANGEMENTS

2 APPENDIX B – EXCHANGE AND USE OF SENSITIVE INFORMATION
EXAMPLE OF A MEMORANDUM OF UNDERSTANDING BETWEEN COMPETENT AUTHORITIES WITHIN A STATE

II.18. The MOU outline below is an example containing elements that can be used by competent authorities as a tool for developing MOUs, in line with their own national legal systems and according to their needs. The two entities in the MOU below are examples of competent authorities and may be changed accordingly. Given the multitude of national legal systems, the subject matter contained in the MOU below might be a matter to be dealt with in primary or secondary legislation.

Outline of an MOU between the nuclear regulatory authority of State A and the prosecuting authority of State A

Parties to the MOU

The Nuclear Regulatory Authority (hereinafter called NRA) [insert the name of the Nuclear Regulatory Authority, the address, and other contact details] and The Prosecuting Authority (hereinafter called PA) [insert name and address of the Prosecuting Authority, the address and other contact details] have agreed as follows:

I. Purpose

The [Name of Nuclear Regulatory Authority] and the [Name of Prosecuting Authority] enter into this agreement [or MOU]:
(1) to provide for coordination of matters that could lead to both enforcement action by the NRA as well as criminal prosecution by the PA regarding nuclear security incidents; and
(2) to facilitate the exchange of information relating to matters within their respective responsibilities regarding nuclear security.

This agreement [or MOU] does not affect the procedures and responsibilities set forth in [cite any relevant previous agreements or MOUs] between the NRA and [cite any other relevant agencies or organizations].

This agreement does not apply to matters arising from internal investigations conducted by the NRA [cite relevant internal inspector or auditor office].

II. Background [to the MOU]

Under the relevant laws of [name of State] the NRA is responsible for implementing regulatory measures to protect the public health, safety, security and environment from hazards that might arise from the peaceful uses of nuclear and other radioactive materials and related facilities and activities. The enforcement program of the NRA is designed to carry out these policies by ensuring compliance with NRA regulatory requirements, securing prompt correction of violations that may affect nuclear security and to deter violations.

The responsibility of the Prosecuting Authority is to conduct prosecutions of criminal violations of NRA requirements as well as violations of other criminal laws of [name of State] that may jeopardize nuclear security. Therefore, it is important for the NRA and the PA to coordinate to the maximum practicable extent in discharging their related, but separate, responsibilities.

[Paragraph citing relevant law or laws authorizing the NRA to conduct investigations and take enforcement action]
Enforcement actions within NRA authority include licence revocations, suspensions and 
modifications, cease and desist orders, imposition of civil monetary penalties and notices of violation 
[include any other relevant NRA enforcement actions].

The PA has the responsibility for determining whether to institute criminal prosecution for violations 
of relevant laws including [cite relevant laws]. Such violations may be brought to the attention of the 
PA through a number of sources including [cite NRA and other law enforcement bodies that may refer 
cases to the PA].

Thus, both the NRA and the PA have the authority and responsibility to investigate and take action for 
certain violations that may arise from the same circumstances or activities. Although each agency will 
discharge its legal responsibilities independently, the NRA and the PA agree that maintaining and 
enhancing nuclear security will be enhanced by cooperation and timely consultation on enforcement 
actions and possible criminal prosecutions. In some cases it may be appropriate for the NRA to delay 
enforcement action pending a criminal prosecution. Both the NRA and the PA recognize that these 
enforcement decisions are matters of judgment for each agency, but that due regard should be given to 
the responsibilities and perspectives of the other.

III. Areas of cooperation

A. PA Notification to the NRA of Information Concerning Nuclear Security

Should the PA learn of or discover information related to a possible nuclear security event or other 
related matter within the jurisdiction of the NRA, and not already reasonably known to the NRA, the 
PA should communicate such information to the NRA as soon as practicable.

Should the PA, during initial proceedings involving a potential criminal prosecution, discover 
information concerning a potential nuclear security event, the PA should seek [cite relevant 
procedure such as a court order] to authorize the disclosure of such information to NRA in 
connection with its enforcement responsibilities.

[Include a paragraph detailing the specific procedure of communicating to the NRA, including 
contact offices or officials.]

B. NRA Notification to the PA of Suspected Criminal Violations

If the NRA learns of or develops information regarding suspected criminal violations on matters not 
within the regulatory jurisdiction of the NRA, the NRA will provide the information regarding such 
suspected criminal violations promptly or as soon as practicable to the PA [or other relevant 
investigative agency] having jurisdiction over the matter.

[Include a paragraph detailing the specific procedure of communicating to the PA, including contact 
offices or officials. This should include language authorizing the NRA to take prompt enforcement 
action in cases where regulatory action is necessary to prevent or deter a nuclear security event]

C. Procedure for Parallel NRA Regulatory Activities that May Affect Future PA Activity

NRA regulatory activities with respect to matters that have been referred to the PA for criminal 
prosecution, or to which the notification provisions of Section B apply, shall be coordinated as 
follows:
1. If the NRA concludes at any time that it lacks reasonable assurance that authorized activities are being conducted without jeopardizing nuclear security, and that immediate action is required to protect the public, it will proceed with such action as necessary. If time permits, the NRA shall notify the PA of its proposed action prior to acting, but in any event, shall notify the PA of its action as soon as practicable. [This paragraph shall apply only to those situations that do not allow sufficient time for reasonable consultation.]

2. If the NRA concludes that the regulatory action is necessary in the public interest, other than the actions described in paragraphs 1 and 2 of this section, the NRA shall first consult with the PA concerning its intended action. The NRA shall take into account the views of the PA and proceed in a manner that accommodates these views to the fullest extent possible. [Include examples of measures such as delay or regulatory proceedings to accommodate a criminal prosecution]

D. Timing of Notification of Matters Referred to the PA

1. If, on completion of its investigation, the NRA concludes that civil enforcement action is appropriate, it will notify the PA of its proposed action within [cite time in days, e.g. 30, 45, 60] of its referral to the PA.

2. The PA will notify the NRA, normally within [cite time in days] of the referral, of its preliminary decision as to whether a criminal investigation or prosecution is warranted.

E. NRA Assistance to the PA

The NRA will make reasonable efforts, at the PA’s request, to provide assistance regarding applicable NRA requirements, technical issues and factual circumstances of matters under investigation or prosecution. Such assistance should be requested to [name of NRA office]. [Include any specific requirements for the form and content of such an assistance request].

[Note: Given the special nature of the field of nuclear security, providing assistance (especially on technical issues) to the PA is very important.]

F. Exchange of Information Related to Civil or Criminal Enforcement

Following a PA decision not to prosecute a referred case, or at the conclusion of a criminal proceeding, the PA will provide the NRA, upon its request, information not protected from disclosure by [cite relevant rule of procedure, if applicable] relevant to an associated legal proceeding. Similarly, the NRA will provide information to the PA, upon its request, on matters being considered by the PA for action.

IV. Responsible Officials

The PA official responsible for implementation of this MOU is [cite relevant official]. The NRA official responsible for implementation is [cite relevant official].

V. Effective Date

This agreement is effective [cite date or when signed by both parties, as applicable].
REFERENCES


