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Advisory Mission on Regulatory Infrastructure for Radiation Safety and Nuclear Security

Guidelines

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REGULATORY INFRASTRUCTURE
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FOR RADIATION SAFETY
AND NUCLEAR SECURITY
GUIDELINES

INTERNATIONAL ATOMIC ENERGY AGENCY
VIENNA, 2022

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For further information on this publication, please contact:

Regulatory Infrastructure and Transport Safety Section
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 Vienna, Austria
Email: Official.Mail@iaea.org

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FOREWORD

In 2015 the IAEA established the Advisory Mission on Regulatory Infrastructure for Radiation Safety (AMRAS) service. An AMRAS provides advice to the host country in order to establish or strengthen its regulatory infrastructure for radiation safety while recognizing the ultimate responsibility of the country in this area. In order to prepare and conduct an AMRAS efficiently and effectively and in a consistent and comprehensive manner, the IAEA published IAEA Services Series No. 38, Advisory Mission on Regulatory Infrastructure for Radiation Safety Guidelines in 2019.

Responding to a real need, the IAEA conducted pilot joint safety and security advisory missions that were based on the AMRAS model. These missions were very well received by the pilot countries and proved to be an excellent tool for advising, raising awareness and facilitating the commitment of senior government officials in establishing or strengthening the national framework for both radiation safety and security of radioactive material. As such, the IAEA established the Advisory Mission on Regulatory Infrastructure for Radiation Safety and Nuclear Security (RISS) service to advise and, where appropriate, provide support to countries in their efforts to establish or improve national regulatory infrastructure for radiation safety and nuclear security. Radiation safety refers to the safety of radiation sources (generators and radioactive material), whereas nuclear security refers to the security of radioactive material.

Each advisory mission is customized according to a host country's needs and considers the status of its regulatory infrastructure for radiation safety and nuclear security. Depending on the needs of the host country, other elements may be included in a mission, such as additional meetings with the country's decision makers and presentations on the development of regulatory infrastructure.

A RISS is conducted in countries where significant actions are necessary for the regulatory infrastructure to meet the provisions of the IAEA safety standards and nuclear security guidance, and of the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary guidance. A RISS might be conducted in countries with essentially no regulatory infrastructure for radiation safety or nuclear security. Advisory missions conducted in accordance with these guidelines address the national regulatory infrastructure for radiation safety and nuclear security, however the regulatory infrastructure for nuclear reactors and nuclear fuel cycle facilities is outside the missions' scope. Regulatory aspects for preparedness and response to radiological emergencies may be included in the scope of the mission, depending on the specific needs and interests of the requesting country.

The information provided in this publication is intended to encourage consistency and comprehensiveness in the preparation and conduct of an initial or follow-up RISS, by both the advisory mission team and the host country. This publication is based on IAEA Services Series No. 38, Advisory Mission on Regulatory Infrastructure for Radiation Safety Guidelines.

The IAEA officers responsible for this publication were V. Kamenopoulou of the Division of Radiation, Transport and Waste Safety and L.A. Betancourt Hernandez of the Division of Nuclear Security.

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1. INTRODUCTION

1.1. BACKGROUND

The IAEA's Division of Radiation, Transport and Waste Safety (NSRW) established the Advisory Mission on Regulatory Infrastructure for Radiation Safety (AMRAS) Service to advise and where appropriate, provide support to States in their efforts to establish or improve national regulatory infrastructure for radiation safety. AMRAS were usually conducted in Member States in which significant actions were necessary for the country's regulatory infrastructure to meet the provisions of the IAEA safety standards, and the Code of Conduct on the Safety and Security of Radioactive Sources and its Supplementary Guidance (hereafter referred to a Code of Conduct). AMRAS were sometimes conducted in States with essentially no regulatory infrastructure for radiation safety.

To optimize the technical assistance provided to the States, IAEA extended the scope of the missions by including a part on the regulatory infrastructure for nuclear security and formalized these missions as the "Advisory Mission on Regulatory Infrastructure for Radiation Safety and Nuclear Security (RISS)" Service. RISS aim to advise and, where appropriate, provide support to States in their efforts to establish or improve national regulatory infrastructure for radiation safety and nuclear security.

To prepare and conduct a RISS efficiently and effectively and in a consistent and comprehensive manner the revision of the AMRAS guidelines¹ was deemed necessary. Therefore, this publication supersedes the publication IAEA Service Series No 38.

1.2. OBJECTIVE

To prepare and conduct a RISS efficiently and effectively and in a consistent and comprehensive manner, this publication provides:

- (a) Guidance to host countries, RISS team members and IAEA staff on the preparation, conduct, report writing and follow-up RISS;
- (b) A specific approach to:
 - (i) Conducting the RISS;
 - (ii) Identifying areas where the national regulatory infrastructure for radiation safety and nuclear security, including radiological emergency preparedness and response, as appropriate, needs to be better aligned with the IAEA safety standards and the nuclear security guidance;
 - (iii) Providing advice and recommendations related to identified areas for improvement;
 - (iv) Offering support and assistance with the development of an action plan that considers the availability of IAEA support and/or resources where appropriate.

¹ INTERNATIONAL ATOMIC ENERGY AGENCY, Advisory Missions on Regulatory Infrastructure for Radiation Safety Guidelines, IAEA Services Series No. 38, IAEA, Vienna (2019).

1.3. SCOPE

The “Advisory Mission on Regulatory Infrastructure for Radiation Safety and Nuclear Security (RISS) Guidelines” include information on the organization and performance of a RISS.

1.4. STRUCTURE

Section 1 provides the background, objectives and scope of the RISS Guidelines.

Section 2 provides background information of the IAEA RISS service, its objective and scope, an outline of the process and related activities, and elements for customizing each mission.

Section 3 provides the information that the host country, the team and the IAEA staff need to be aware of, for the preparation of a RISS and in particular of a RISS mission.

Section 4 provides a description of the mission performance from the initial team meeting up to the exit meeting.

Section 5 provides guidance for the report writing and describes the stages of its development.

Section 6 introduces the need to get feedback on the RISS and a description of the duties of the team leader in this respect.

Section 7 provides information on the RISS follow-up mission and in particular on its objective and the process to be followed for its request, preparation and conduct.

Appendices I to V provide additional information, templates for mission preparations, conduct and reporting, and useful bibliography.

2. RISS OVERVIEW

2.1. BACKGROUND

Each State is responsible for establishing an effective regulatory framework for ensuring the safety of facilities and activities with radiation sources (as defined in the IAEA Safety Glossary [1]) and the security of radioactive material and associated facilities and activities (as defined in the IAEA Nuclear Security Series publications) on its own territory. States throughout the world face challenges in establishing such a framework because of the complexity and diversity of facilities and activities involving radiation sources or radioactive material. Furthermore, States face other challenges concerning the establishment of a regulatory framework for radiation safety and nuclear security, such as lack of resources, equipment, trained personnel, or political commitment. Thus, there is a need to support and strengthen States’ efforts to establish such a framework.

A national regulatory framework aims to protect people and the environment from the harmful effects of ionizing radiation. Accidents involving radiation sources or nuclear security events involving radioactive material are often the result of several factors, including the lack of an adequate regulatory infrastructure for radiation safety and security of radioactive material. An effective national regulatory infrastructure, established in accordance with the IAEA safety standards and nuclear security guidance, can reduce the likelihood of accidents or malicious acts and, as long as effective emergency preparedness and response measures exist, mitigate their consequences should they occur.

The AMRAS Service was established to advise and where appropriate, provide support to States in their efforts to establish or improve national regulatory infrastructure for radiation safety. AMRAS were conducted in Member States in which significant actions were necessary for the country's regulatory infrastructure to meet the provisions of the IAEA Safety Standards, and the Code of Conduct or in States with essentially no regulatory infrastructure for radiation safety.

To optimize the technical assistance provided under the Regulatory Infrastructure Development Project (RIDP), several existing IAEA tools (such as regional and national training courses, expert missions, and advisory missions) have been explored. NSRW and the IAEA's Division of Nuclear Security (NSNS) have conducted pilot joint "Safety-Security Advisory Missions" in the Central African Republic, Costa Rica, Gambia, Liberia, Paraguay, and Uruguay. These missions, based on the AMRAS model, were very well received, responded to a real need, and proved to be an excellent tool for raising awareness, and facilitating the commitment of senior government officials. This, in turn, is key to ensure that the necessary resources be allocated for establishing or strengthening national regulatory infrastructure for both radiation safety and nuclear security. The IAEA has formalized these missions as the "Advisory Mission on Regulatory Infrastructure for Radiation Safety and Nuclear Security (RISS)" Service to advise and, where appropriate, provide support to States in their efforts to establish or improve national regulatory infrastructure for radiation safety and nuclear security. Radiation safety refers to the safety of radiation sources (generators and radioactive material), whereas nuclear security refers to the security of radioactive material.

A RISS is carried out with a strong emphasis on helping the State meet the IAEA safety standards and nuclear security guidance considered within the scope of the mission. It provides advice for supporting the establishment or improvement of a national regulatory infrastructure for radiation safety and nuclear security.

RISS is separate from, but could be complementary to, two of the IAEA's peer review services: the Integrated Regulatory Review Service (IRRS) [2] and the International Physical Protection Advisory Service (IPPAS) [3]. A table comparing the characteristics of RISS, IRRS and IPPAS is provided in Appendix I.

States might request a RISS when they identify a need for advice, assistance, and support in one or more areas of regulatory infrastructure. In the case that in the host country different authorities regulate radiation safety and security of radioactive material, the involvement and cooperation of these authorities during all stages of the RISS is a prerequisite for organizing and conducting the mission.

2.2. OBJECTIVE

The objective of a RISS is to provide advice for supporting the establishment or improvement of a national regulatory infrastructure for radiation safety and nuclear security by:

- (a) Evaluating the status of the regulatory infrastructure for radiation safety and nuclear security, including radiological emergency preparedness and response, as appropriate, against the IAEA safety standards and nuclear security guidance, and the relevant international legal instruments, in particular the following:
 - (i) GSR Part 1 (Rev. 1): Governmental, Legal and Regulatory Framework for Safety [4];
 - (ii) GSR Part 2: Leadership and Management for Safety [5];

- (iii) GSR Part 3: Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards, in particular Section 2 (General requirements for protection and safety). Other requirements in Section 3 (Planned exposure situations) that are addressed to the regulatory body might also be considered [6];
 - (iv) GSR Part 7: Preparedness and Response for a Nuclear or Radiological Emergency [7];
 - (v) NSS-20: Objective and Essential Elements of a State's Nuclear Security Regime [8];
 - (vi) NSS-14: Nuclear Security Recommendations on Radioactive Material and Associated Facilities [9];
 - (vii) NSS-15: Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control [10];
 - (viii) The Code of Conduct on the Safety and Security of Radioactive Sources [11] and its Supplementary Guidance [12, 13].
- (b) Providing advice on any identified needs for improvement;
 - (c) Preparing a report that includes observations, recommendations and an action plan for strengthening the national regulatory infrastructure for radiation safety and nuclear security, including for radiological emergency preparedness and response, as appropriate. The action plan describes those activities considered fundamental for strengthening the national regulatory infrastructure.

The RISS provides the opportunity for discussion of regulatory technical issues within the agreed scope, together with advice on improvement, regardless of the level of development of the national infrastructure for radiation safety and nuclear security.

The Bibliography provides an IAEA list of publications to be used by the team and the counterparts, for preparing and conducting a RISS as well as for the establishment or improvement of a national regulatory infrastructure for radiation safety and nuclear security.

As the establishment and development of a national regulatory infrastructure for radiation safety and nuclear security requires a long term commitment of national resources and an exercise of government control over previously unregulated activities, awareness and support from the highest levels of government are desirable (e.g. the Prime Minister, Ministers and Parliament or equivalent).

The RISS team can assist the host country by raising the profile of the activity through meetings with high level government officials, explaining the importance of international standards and the consistency with international legal instruments for radiation safety and nuclear security.

2.3. SCOPE

While RISS supersedes AMRAS, the scope of each advisory mission is adjusted according to the specific needs and interests of the requesting State and aims to support the establishment and improvement of its national regulatory infrastructure for radiation safety and/or nuclear security. The scope of a RISS can be tailored to cover safety or security or both and may also include regulatory aspects for radiological emergency preparedness and response.

A RISS usually includes a review of the national regulatory infrastructure for radiation safety and nuclear security; therefore, the regulatory infrastructure for nuclear and fuel cycle facilities is outside of its scope. Radiation safety refers to the safety of radiation sources (generators and

radioactive material), whereas nuclear security refers to the security of radioactive material. The scope of RISS is determined based on the specific needs and interests of the requesting State and may cover radiation safety or nuclear security or both. It may also include regulatory aspects for radiological emergency preparedness and response.

When specific matters of law arise, before or during the mission, they need to be referred to IAEA's Office of Legal Affairs.

The review areas of a RISS, and their elements, are the following:

- Area I. Responsibilities and functions of the government
 - I.1 National policy and strategy
 - I.2 Legal framework
 - I.3 Governmental framework
 - I.4 Interface of radiation safety with nuclear security
- Area II. Global safety and nuclear security regimes
 - II.1 International legal instruments
 - II.2 Sharing of regulatory experience
- Area III. Responsibilities and functions of the regulatory body
 - III.1 Organization and management system of the regulatory body
 - III.2 Effective independence in the performance of the regulatory functions
 - III.3 Staffing and competence of the regulatory body
 - III.4 National inventory of radiation sources
 - III.5 Authorization and, review and assessment
 - III.6 Inspection
 - III.7 Enforcement
 - III.8 Regulations and guides
 - III.9 Regulatory aspects for on-site emergency preparedness and response.

2.4. RISS PROCESS OUTLINE AND ACTIVITIES

The structure of a RISS is quite flexible and the activities performed by the team can be quite diverse. Based on discussions held between the host country and the IAEA, various activities that might contribute to the objective of establishing or strengthening the country's national regulatory infrastructure for radiation safety and nuclear security might be included.

The activities during a RISS mission include meetings and interviews with high-level government officials concerned with radiation safety and nuclear security, the assessment of the status of the regulatory infrastructure, and the provision of advice for improvements to be made. However, based on the needs of the host country, other activities such as presentations on the IAEA safety standards and nuclear security guidance, or meetings with decision makers concerned with radiation safety and nuclear security might be included as well. The advice and information provided during a RISS needs to be formulated to make a realistic and significant contribution to the development of the national regulatory infrastructure for radiation safety and nuclear security.

RISS team members perform a review of the status of the national regulatory infrastructure for radiation safety and nuclear security and address recommendations, based on the provisions of IAEA safety standards and nuclear security guidance, resulting in an action plan for

improvement. In reviewing the national regulatory infrastructure for radiation safety and nuclear security, team members perform various tasks such as reviewing the pre-mission self-assessment questionnaire completed by the host country, interviewing staff members of the regulatory authorities or other governmental agencies, observing regulatory activities, and conducting site visits. Recommendations are developed by the team and an action plan is drafted in consultation with the host country. Accordingly, completion of the pre-mission self-assessment questionnaire, translations, and provision of any relevant documents into English need to be accomplished by the host country at least one month before the mission takes place.

2.5. CUSTOMIZATION

The conduct of each RISS takes account of the governmental structure, the regulatory processes which vary from country to country depending on the national legal and administrative system, the range of facilities and activities to be regulated, financial resources available to the regulatory body, etc. In the case that in the host country radiation safety and nuclear security are not regulated by the same authority, the involvement and cooperation of the authorities for radiation safety and nuclear security during all stages of the RISS is a prerequisite for organizing and conducting the RISS.

The agenda for each RISS mission is developed through discussions held in advance of the mission with the host country to address the agreed scope and needs.

Countries might request a RISS where they identify a need for advice, assistance and support in one or more review areas. A RISS might be requested by any IAEA Member State or non-IAEA Member State, although they are primarily aimed to assist States that need to develop or strengthen their national regulatory infrastructure for radiation safety and nuclear security, hence the broad thrust of a RISS is different dependent upon the maturity of regulatory activities within the host country.

For host countries at the very early stages of developing a national regulatory infrastructure for radiation safety and nuclear security, a RISS is mainly focusing on creating awareness at the political and technical level about the need to establish such an infrastructure. Consequently, under such circumstances, a RISS usually includes:

- (a) Meetings and interviews with high level government officials and counterparts of the host country to review and discuss the objectives, scope and expected outcomes of the mission based on the IAEA safety standards and nuclear security guidance;
- (b) Seminar on the use of radiation sources in medical, industrial, research and educational applications, on hazards associated with their use and the lack of control and protection over such sources, on security of radioactive material and/or on the need to establish a national regulatory infrastructure for radiation safety and nuclear security;
- (c) Identification of the existing legislation that might address various issues that are relevant to radiation safety or nuclear security (e.g. health, environment, energy, labour, emergency preparedness and response, transport, import and export, dangerous goods);
- (d) Meetings and interviews with the relevant authorities involved in the implementation of the above legislation to discuss the development of a national regulatory infrastructure for radiation safety and nuclear security;
- (e) Development, with the host country counterparts, of an action plan for establishing or improving the national regulatory infrastructure for radiation safety and nuclear security, based on the observations of the mission;

- (f) Presentation of the main observations and recommendations to high level government officials.

Visits to some facilities might be included but are not central to the objective of advising on the host country's needs for establishing the national regulatory infrastructure for radiation safety and nuclear security.

For host countries with a partially established national regulatory infrastructure for radiation safety and nuclear security, a RISS is mainly focussing to further strengthen the regulatory oversight of radiation sources and radioactive material. Consequently, under such circumstances, a RISS usually includes:

- (a) Meetings and interviews with high level government officials and counterparts of the host country, including the head and staff of the regulatory body (all regulatory authorities if there are more than one), to review and discuss the objectives, scope and expected outcomes of the mission based on the IAEA safety standards and nuclear security guidance and existing legal and regulatory framework;
- (b) Review and discussions on Areas I, II and III of the RISS, including site visits and direct observations of the performance of regulatory functions;
- (c) Development, with the host country counterparts, of an action plan for improving the national regulatory infrastructure for radiation safety and nuclear security, based on the observations of the mission;
- (d) Presentation of the main observations and recommendations to high level government officials and the head of the regulatory body, or the heads of all regulatory authorities for safety.

All RISS missions provide a written report to the host country with recommendations and an action plan (see Section 5).

Once the host country has received the report and had reasonable time to implement the recommendations from the mission, the country might wish to further assess its development towards an established regulatory framework in accordance with the IAEA safety standards and nuclear security guidance by requesting a follow-up mission (see Section 7).

2.6. LANGUAGE

English being the only working language in IAEA, all written material provided by the counterparts and the report will be in English. The meetings and interviews will be also held in English. Facilitation to use one of the IAEA official languages could be explored.

2.7. TEAM COMPOSITION AND MISSION DURATION

A RISS team is usually comprised of three to six international experts and one to three IAEA staff. The team might, as appropriate, comprise:

- (a) The RISS team leader, an IAEA staff member, who reflects the joint work and cooperation of NSRW and NSNS;
- (b) The RISS team members, recruited from Member States and/or IAEA staff.

RISS team members are usually current or former senior staff members from regulatory bodies of Member States, IAEA staff or other internationally recruited experts. Team members are experienced regulators or technical experts in specific topics within the scope of the mission.

RISS team members might be assigned one or several tasks for the mission and are expected to familiarize themselves, in advance of the mission, with the RISS guidelines, the pre-mission

self-assessment questionnaire, the report template, documents provided by the host country and relevant IAEA publications.

Team members are expected to have:

- (a) Full understanding of the RISS guidelines;
- (b) Recognition of their role as team member and understanding of their contribution to the success of the mission;
- (c) Good knowledge and understanding of the IAEA safety standards and nuclear security guidance, depending on the assigned role and tasks in the team;
- (d) Technical knowledge and experience in their field;
- (e) Good oral and written communication skills in English.

In addition:

- (a) No representative from the host country is included in the RISS team.
- (b) At least one RISS team member is recruited from the IAEA region of the host country.
- (c) Team members adopt an open attitude towards systems and approaches that vary from those with which they are familiar, keeping in mind that the reference is the IAEA safety standards and nuclear security guidance.

A detailed list of responsibilities of RISS team members and host country's counterparts is provided in Appendix III.

The entire RISS process (commencing with a formal request leading to the formation of a RISS team, and continuing with the conduct of the advisory mission, the submission of the draft final report and the completion of the final report) usually takes six to nine months.

The duration of the mission is typically four to five days. The composition of the team and the duration of the mission depend on the stage of development of the national regulatory infrastructure and is commensurate with the host country's regulatory infrastructure for radiation safety and nuclear security.

3. PREPARING FOR A RISS

A RISS is performed by an international team that includes IAEA staff and senior regulatory and technical experts with in-depth knowledge and extensive experience in the areas to be addressed during the mission.

Appendix II lists the actions for preparing and conducting a RISS and Fig. 1 provides a schematic diagram of the RISS process and time frame.

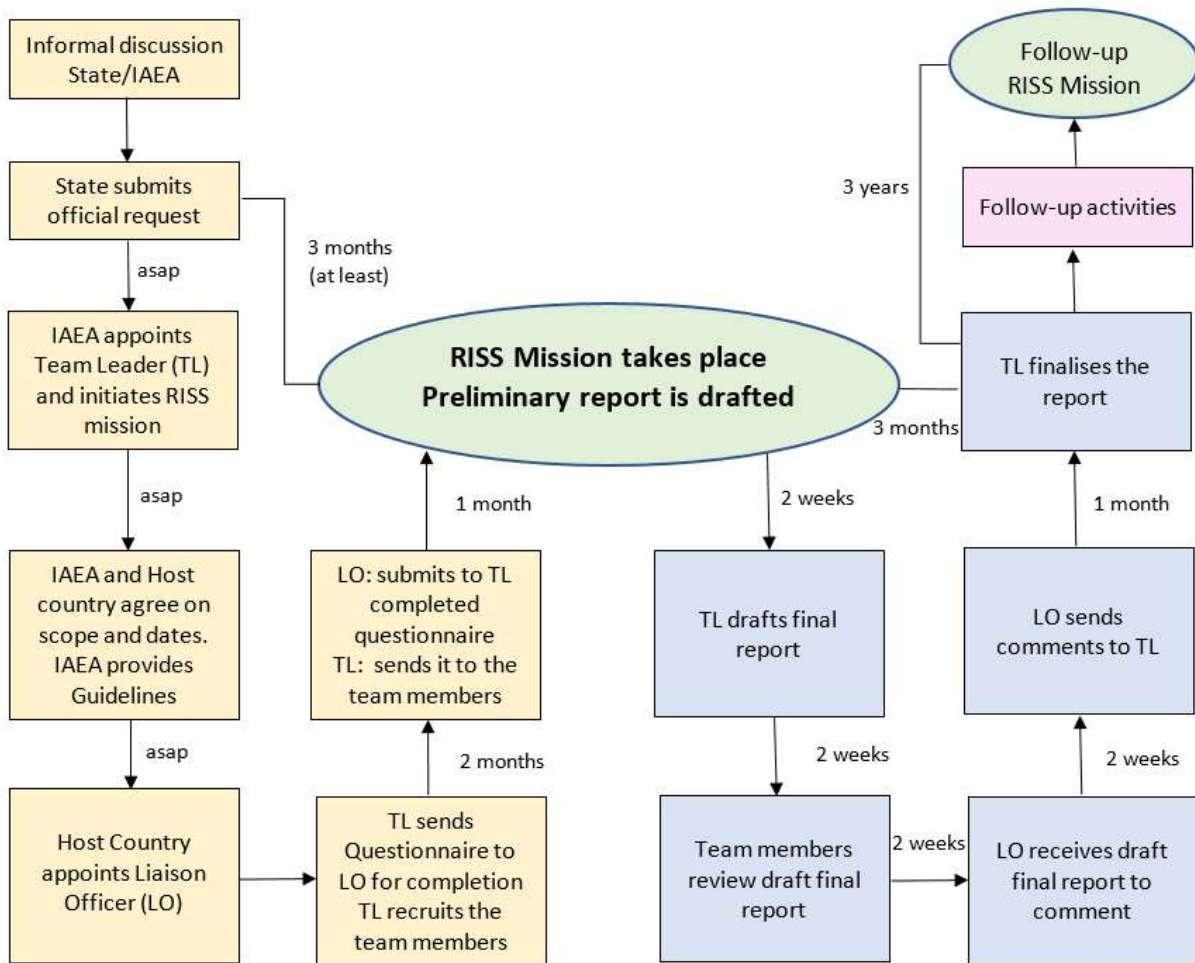


FIG. 1. Flowchart of the RISS mission process and time frame (in yellow the activities before the mission takes place, in blue the activities after the mission, in green the period of the mission itself and in pink the period after the initial mission and before the follow-up mission).

3.1. INITIATION

Informal discussions concerning a RISS might take place between the States and the IAEA in advance of a formal request for the mission. During these discussions, appropriate information on the flexibility in the conduct and scope of the mission will be provided. A RISS is then initiated by a formal request from the State to the IAEA. A RISS might be an agreed task within an IAEA assistance programme. In some cases, the IAEA might recommend that a country requests such a mission. Upon receipt of the request for a RISS, the IAEA begins a dialogue with the country regarding the scope and extent of the topics to be addressed during the mission (see Section 2.2). The IAEA provides to the host country these guidelines and any other relevant administrative or technical information requested.

RISS missions are led by NSNS and NSRW jointly. The IAEA team leader contacts the host country's representatives, to identify the host country's liaison officer (see Section 3.8) and arrange the necessary correspondence and meetings to determine the host country's needs and, thereafter, the scope and expectations of the mission. If a regulatory body has been established in the host country, the liaison officer is usually a senior member of its staff. In the case that in the host country different authorities regulate radiation safety and nuclear security, one host

country liaison officer is appointed representing both. The team leader oversees all administrative arrangements for the mission, agrees (with the host country) to the scope of the mission and recruits the team members. If regulatory requirements for radiological emergency preparedness and response are included in the scope of the mission, the team leader consults IAEA's Incident and Emergency Center (IEC) regarding the implementation of this part of the mission.

The scope of the mission needs to be adapted to reflect the stage of development of the regulatory infrastructure of the host country. The team leader ensures that the scope of the mission is consistent with these guidelines.

3.2. PREPARATION

Preparation for a RISS includes:

- (a) Identification of the host country's needs regarding the level of development of the national regulatory infrastructure for radiation safety and nuclear security;
- (b) Confirmation of the mission scope (review areas to be covered);
- (c) Completion of the pre-mission self-assessment questionnaire in Microsoft Word format;
- (d) Update of the country's profile in the Radiation Safety Information Management System (RASIMS) and the Nuclear Security Information Management System (NUSIMS);
- (e) Identification of the RISS team members;
- (f) Identification of the host counterparts including, where appropriate, counterparts from other organizations within the agreed scope of the mission;
- (g) Assignment of the tasks to the team members before and during the mission;
- (h) Provision to the team members of reports related to previous missions already performed in the host country;
- (i) Arrangement of any confidentiality and/or security matters;
- (j) Provision, if needed, of individual dosimeters, according to the IAEA standard rules and procedures.

3.3. PRE-MISSION SELF-ASSESSMENT QUESTIONNAIRE

3.3.1 Completion

Following the confirmation of the RISS scope, the team leader provides to the liaison officer the IAEA pre-mission self-assessment questionnaire. The host country, under the coordination of the liaison officer, completes the IAEA pre-mission self-assessment questionnaire.

The IAEA pre-mission self-assessment questionnaire is accompanied by any other relevant material (e.g. laws, regulations and other documents) translated into English.

Answering the pre-mission self-assessment questionnaire and providing the written material, as completely and as accurately as possible, is very important. The response to the pre-mission self-assessment questionnaire is the basis for the team's initial review.

The completed questionnaire and the other relevant material are to be delivered by the liaison officer to the team leader at least one month prior to the mission.

The team leader communicates to the team members the completed questionnaire and any other relevant material for their review prior to mission.

Team members review the written material (completed questionnaire and any other relevant material) and make their initial assessment having as basis the IAEA safety standards and nuclear security recommendations.

3.3.2 Evaluation

The written material provided by the host country facilitates the preparation of the mission report, minimizes risk of misunderstanding, and helps the team to respond to the areas important to the host country. The RISS team reviews the pre-mission self-assessment questionnaire and all written material provided by the host country, together with any additional material provided by the team leader. The preparatory work is very important for the success of the mission.

3.4. TEAM RECRUITMENT AND MISSION DURATION

Once the scope of the mission is agreed, the team leader, following consultation with the host country, contacts potential team members with appropriate qualifications regarding their availability. Team members are recruited and cleared for the mission in accordance with IAEA administrative procedures. This process needs to start at least three months before the mission.

The team composition and mission duration might be further adjusted according to:

- (a) The agreed scope of the mission;
- (b) Whether one or several organizations have regulatory roles and responsibilities;
- (c) The geographical spread of organizations and facilities to be visited;
- (d) The documentation to be reviewed.

3.5. LOGISTICS

During the preparatory phase, the team leader:

- (a) Identifies the source of funding for the mission;
- (b) Confirms the dates of the mission with the host country liaison officer, taking due account of any holidays, national vacation periods, work week structure and working hours;
- (c) Confirms that appropriate travel arrangements have been made by Team Members, ensuring they arrive in the host country in sufficient time to attend a team briefing prior to meetings with host country representatives;
- (d) Makes early contact with team members and maintains a regular dialogue to ensure every team member is thoroughly aware of the history of missions to the host country, the scope of the current mission, their roles, the issues to be addressed, and mission logistics.
- (e) Assigns to the team members specific technical areas to review.

Prior to starting the mission, the responsibilities of each team member are:

- (a) Obtain a visa, if required;
- (b) Receive any required immunizations and medical precautions in good time;
- (c) Undergo the IAEA training for security in the field, as appropriate to the country being visited;
- (d) Bring a laptop computer with the appropriate electrical adapter, word processing, presentation and other software, as required;
- (e) Make travel arrangements, if requested so, and provide their travel details to the team leader;
- (f) Read the pre-mission self-assessment questionnaire and other relevant documents concentrating on the material pertaining to the areas assigned to each member. Based on

their review of this material, team members identify issues to be reviewed further during the mission.

3.6. PREPARATION OF THE AGENDA

The team leader establishes the agenda of the mission in coordination with the host country liaison officer. In setting the RISS schedule, attention is needed to ensure sufficient time is available for each part of the mission described in Section 4 and in Appendix II, considering travel time as well.

The mission agenda is adapted to the scope and duration of the mission and might be further adjusted according to many factors. For example, a site visit could be useful in evaluating the national regulatory infrastructure for radiation safety or nuclear security.

A daily meeting between the team leader and the liaison officer of the host country might help to adjust the agenda during the mission.

An example of a typical agenda for the initial team meeting is provided in Appendix IV and an example of a typical mission agenda is provided in Appendix V.

3.7. RESPONSIBILITIES OF THE HOST COUNTRY

The host country liaison officer needs to be knowledgeable in the areas to be addressed during the mission and have a broad understanding of the national regulatory infrastructure for radiation safety and nuclear security. The liaison officer acts as the host country's mission administrator and logistics officer. The liaison officer needs to have access to resources, credibility with staff, the ability to obtain clarifications from many sources and a good understanding of what the host country has provided and needs to do with respect to the scope of the mission.

The responsibilities of the host country liaison officer include:

- (a) Cooperates with the team leader for the administrative arrangements and other preparations for the mission (including funding resources, as applicable);
- (b) Acquires and administers all local resources for the mission;
- (c) Ensures the availability and preparedness of host counterparts (including those of interested parties and partner organizations where appropriate);
- (d) Makes reservations for hotels and arrangements for in-country travel including local transportation;
- (e) Provides for adequate working space and resources for the team including printers, paper, computer projector and free access to internet;
- (f) Provides for communication between the team members and their base organizations (especially the IAEA), and between team members within the host country;
- (g) Arranges access for team members to enter facilities, as needed.

More information on the responsibilities of the host country liaison officer is provided in Appendix III.

4. CONDUCT OF THE MISSION

4.1. INITIAL TEAM MEETING

When team members have arrived in the host country, an initial team meeting is conducted to discuss the specifics of the mission. A typical agenda for the initial team meeting is given in Appendix IV. The team leader briefs the team on issues and objectives, priorities, schedule, approach, format and content of the mission report, and any sensitive topics. Team members give their initial impression of their review of the pre-mission self-assessment questionnaire and any other relevant documents, including any issues that warrant further review and that might be the subject of recommendations. The team leader reminds the team of the need to finalize and agree upon the preliminary report before the end of the mission. The host country liaison officer is invited to attend the initial team meeting, to meet the team, highlight host country expectations and discuss local arrangements. A close review of the agenda is performed to ensure that all meetings and activities are included and appropriately scheduled.

4.2. ENTRANCE MEETING

The entrance meeting is the official starting of the mission. It is essential to exchange knowledge and ideas on common issues and to discuss the benefits of an effective regulatory infrastructure in accordance with IAEA safety standards and nuclear security guidance, and to consider the risks of inadequate regulatory control of radiation sources or radioactive material (Appendix V includes also details for the entrance meeting).

It is preferable that the meeting is opened by a high level government official, who is encouraged to participate in the discussion during the entrance meeting, especially in cases where a regulatory body has not yet been established. This is because the high level government officials need to understand the importance of having established regulatory infrastructures for safety and security in line with IAEA safety standards and nuclear security guidance, and thus to contribute towards their development. It is highly recommended to involve all appropriate regulatory authorities and their relevant staff during the development of the mission planning and drafting of the entrance meeting agenda.

The team leader presents the plan, approach, scope, objectives, and expectations for the mission, emphasising that the mission is conducted in support of the host country's organizations, with the expectation of providing advice, recommendations, and an action plan for the establishment and/or improvement of the host country's regulatory infrastructure for radiation safety and nuclear security. The host country is encouraged to present its expectations of the mission and to ensure a common understanding of the characteristics of the mission. When the mission covers both, radiation safety and nuclear security and if different authorities regulate radiation safety and nuclear security of radioactive material, then high level representatives and staff from both authorities need to participate at the entrance meeting.

The entrance meeting is generally attended by:

- (a) The RISS lead and team members;
- (b) The host country's liaison officer;
- (c) High level government officials and, if established, the head of the regulatory body. If different authorities regulate radiation safety and nuclear security of radioactive material, high level representatives and staff from these authorities need to participate;
- (d) Representatives from other organizations to be involved in the mission;
- (e) Other counterparts identified by the host country.

4.3. REVIEW OF REGULATORY TECHNICAL AREAS

RISS team members use three main methods to develop an understanding of the status of the regulatory infrastructure and to assess specific regulatory technical issues within the agreed scope of the mission:

- (a) Evaluation of the pre-mission self-assessment questionnaire and documents provided by the host country before and during the mission;
- (b) Meetings and interviews with host country counterparts and other personnel;
- (c) Direct observations and site visits, when advantageous to the mission.

RISS team meet daily, usually at the end of each day, to discuss their observations, potential recommendations and reach consensus on the input to the RISS report.

4.3.1. Evaluation of written material

During the mission, additional written material in the form of government and regulatory body documents, presentations and examples of local work might be provided and reviewed and taken into consideration in analysing the status of the regulatory framework and formulating observations and recommendations.

4.3.2. Meetings and interviews

Meetings and interviews conducted with host counterparts represent an important component of a RISS mission. The prime objective of the meetings is to gather information, whereas the main objective of the interviews is to get answers and, if necessary, clarification on the material given from the host country. Meetings and interviews provide also an opportunity for the host country's participating organizations to share their practices and professional opinions with the team. During the interviews, the counterparts can describe or demonstrate real examples of the work carried to further explain or to illustrate specific points.

If different authorities regulate radiation safety and nuclear security of radioactive material, the meetings and interviews are conducted with representatives from these authorities. As appropriate, meetings and interviews are conducted with representatives of government departments performing regulatory functions or having responsibility for regulatory activities, with the authorities and services supporting the on-site emergency preparedness and response, with technical support organizations, research institutes and users of radiation sources or radioactive material, and with other competent authorities in the State.

4.3.3. Direct observations and site visits

For some missions it may be advantageous to observe the performance of regulatory functions and associated activities. These may include performing radiation safety and nuclear security inspections, undertaking radiation surveys, holding public meetings, or training of inspectors. The direct observation of regulatory work activities provides opportunities for personal contact between regulators and the RISS team. This personal contact fosters the exchange of professional knowledge and understanding and provides an opportunity for RISS team to gain further information about specific regulatory or technical issues. The direct observation of performing an inspection is not considered or perceived as an IAEA inspection. When regulatory aspects of emergency preparedness and response are included in the scope of the mission, site visits to relevant authorities and services expected to provide support to on-site emergency preparedness and response might be included.

Site visits to facilities of special interest for the RISS might be included in the mission activities.

Both, direct observations and site visits start with an opening statement of the team leader to the host, which includes a summary of the scope and objectives of the RISS. It is important that staff of the visited organization understand in advance that the visit is not an IAEA review of their facility or them, but it is conducted solely to observe regulatory procedures in practice and their implementation by regulatory body staff.

Through site visits and direct observations, the types of information to be gathered might include:

- (a) The host country's capacity to perform regulatory functions (e.g. inspections, enforcement procedures);
- (b) The perceived and actual roles and responsibilities of the regulator at the organization being visited;
- (c) The resources available to fulfil these regulatory responsibilities, including equipment, staffing and training;
- (d) The relations between the regulatory body and the organization being visited.

Team members are accompanied by a host country counterpart to facilitate the logistics.

At the end of the visit, the team may meet with the relevant manager at the visited facility, briefly explain the purpose of the mission, and request a discussion on the regulatory framework as seen by the facility. Generally, to facilitate open and frank discussions, the presence of the regulatory staff in this meeting is not advisable.

4.4. PREPARATION OF THE MISSION REPORT

A preliminary report including the mission objectives, scope, activities, observations, recommendations, basis for recommendations, and an action plan are drafted during the mission. The preliminary report is provided to the host country liaison officer before the exit meeting, to allow the counterparts sufficient time to review and provide comments on its content. Details are given in Section 5.

4.5. EXIT MEETING

The mission concludes with an exit meeting. The format and formality of the exit meeting might vary, but generally it includes a description of the mission's activities and progress, the areas reviewed, the activities conducted, the main observations, the recommendations, the action plan and any other area the team feels that has to be highlighted to the host country. As appropriate, team members might provide a brief verbal report of results in their own subject review areas. The team leader explains to the host country that the report at this stage is a 'preliminary report' which requires further review before the final mission report is issued. However, the main observations and recommendations remain as agreed before the end of the mission.

The individuals who participated in the entrance meeting are generally invited to the exit meeting.

5. DOCUMENTATION AND REPORTING

5.1. REPORT WRITING INSTRUCTIONS

The team leader is responsible for the overall management of drafting the report.

The report follows the RISS report template.

The content of the various sections of the report are developed through a multi-step collaborative process, that begins with the review of the pre-mission self-assessment questionnaire and any other documents provided prior to the mission. Team members are assigned to review specific areas in advance of the mission, and they concentrate on the written material pertaining to those areas. Based on their review of this material, team members identify issues to be reviewed further during the mission.

The report includes a short description of the situation in the host country based on the answers to the pre-mission self-assessment questionnaire and on interviews and meetings, recommendations for improving the situation and an action plan. The description of the current situation needs to be brief. Those areas, which are in line with the IAEA safety standards and nuclear security guidance, and the Code of Conduct, are to be described very briefly in the text. Emphasis is to be given to the identified gaps and the proposed recommendations.

The findings of the RISS are formulated as observations and recommendations, along with the basis for recommendations.

Observations

Issues not meeting the relevant provisions of IAEA safety standards or nuclear security guidance, or of the Code of Conduct, need to be addressed in some detail and have their justification on established facts. The description would state whether this provision is consistent with the IAEA safety standards and nuclear security guidance, the Code of Conduct, and if not, how it is deficient. It needs to be sufficient for understanding the reasons for the recommendations that follow.

Basis

For each recommendation, reference is made to the corresponding IAEA safety standard and/or nuclear security guidance, and/or the Code of Conduct.

Recommendations

Recommendations are proposed when the implementation of one or more of the IAEA safety standards requirements and/or recommendations of the nuclear security guidance and/or provisions of the Code of Conduct are missing, incomplete or inadequate. Recommendations are:

- (a) Based on a specific reference to the IAEA safety standards or nuclear security guidance, or the Code of Conduct provisions;
- (b) Specific, realistic and designed to result in tangible improvements to regulatory effectiveness of the host country;
- (c) Formulated concisely and clearly.

The responsible party for the implementation of the recommendation needs to be identified and “should” language is used (e.g. “the regulatory body should develop ...”, “the Government should establish ...”).

An integral part of the mission report is the action plan, which is developed during the mission. The action plan is based on the recommendations addressed and includes actions for improvement. Drafting of the action plan is jointly undertaken by the team and the host country counterparts. The action plan is of great benefit in determining and monitoring the most effective ongoing and future technical assistance for the State, based mainly on the recommendations listed in the mission report. The action plan identifies the organization(s) to

be responsible for the implementation of the recommendations addressed, the estimated time frame for their completion and any IAEA input or support to the improvement programme. An example of an action plan is included in the RISS report template.

5.2. PRELIMINARY REPORT

A preliminary version of the RISS report, following the structure outline and the report template, is developed during the mission.

Cross-cutting issues need to be identified as early as possible during the mission so that such issues can be addressed in a consistent and coordinated manner, both through the conduct of the mission and in the writing of the report.

Relevant information on direct observations and site visits is included as an Appendix to the report. Any important observations during these visits or direct observations can be included in the main text of the report.

5.3. FINAL REPORT

The process to finalize the report is as follows:

- (a) Based on the preliminary report, the team leader develops the draft final report after the mission. The draft final report might include modifications to the preliminary report to reflect relevant input from the exit meeting and necessary editorial changes. It is advisable not to change the main observations and the recommendations addressed, as agreed by the end of the mission. The draft final report needs to be completed within two weeks after the exit meeting;
- (b) If considered necessary by the team leader, this draft final report is reviewed by some or all team members, whose subsequent comments are, to the extent possible, incorporated into this report. This step needs to be completed in two weeks. The team leader sends the draft final report to the liaison officer for comment. The host country liaison officer collects all comments on the draft final report from participating organizations within the host country and submits a complete set of comments to the IAEA. The comments from the host country need to be limited to the factual correctness of the report. The host country returns final comments to the IAEA team leader within two weeks of receiving the draft final report. Upon receipt of any comments from the host country, the team leader, in appropriate coordination with team members, if needed, assesses the comments, and produces the final RISS report. The goal is to issue the final report within two weeks after receipt of comments from the host country. Figure 1 in Section 3 provides a schematic diagram of the process and time frame;
- (c) The IAEA, following the official channels, distributes the final report to the host country liaison officer, the authorities concerned, the contributors to the report and relevant IAEA staff.

The final RISS report is used by the host country liaison officer to make sure that the host country's profiles in platforms such as RASIMS, NUSIMS and the Emergency Preparedness and Response Information Management System (EPRIMS) as appropriate, are updated. The team leader takes care that the final report is also uploaded on any other appropriate platform or database.

The results of the RISS might be used for identifying regulatory trends and issues in the host country and for planning future activities by the host country and the IAEA, such as Technical

Cooperation support projects, Integrated Nuclear Security Support Plans, and extra-budgetary projects.

6. FEEDBACK ON THE MISSION

Following each RISS mission, the team leader corresponds with the team members to get their feedback and discuss lessons learned from the mission. Areas for improvement and good practices in the preparation and conduct of the RISS identified during these discussions or correspondence need to be documented. In addition, the team leader solicits feedback from the host country through the host country liaison officer regarding the host country experience. Such information is analyzed by the IAEA to be taken into consideration for improving the RISS process.

7. FOLLOW-UP MISSION

7.1. OBJECTIVE

The objective of a follow-up mission is to continue the work of improving regulatory effectiveness by reviewing the host country's progress in response to the initial RISS recommendations and agreed action plan.

A host country can request a follow up mission when it sees benefit in receiving further advice during or after the completion of the action plan. A follow-up mission usually takes places three years after the initial mission. The host country and the IAEA conduct informal discussions on the objectives and scope of a potential follow up mission, based on the scope of the action plan and host country's progress in improving its regulatory infrastructure. As a result of this discussion, the host country and the IAEA might determine whether a follow-up RISS, a new RISS, or other peer review mission (e.g. IRRS, IPPAS) is most appropriate.

When a host country has not achieved timely progress with the implementation of the recommendations of the initial RISS, in accordance with the agreed action plan (for example inability to progress the making of relevant laws and regulations), the IAEA make further contact with the host country to assess whether a follow-up mission will provide additional incentive to inform and/or assist the government to implement the items in the action plan.

7.2. REQUESTING A FOLLOW-UP MISSION

A follow-up RISS has to be formally requested by the host country.

A follow-up mission usually takes places three years after the initial mission.

Follow-up RISS are conducted in accordance with the other sections and appendices of these guidelines (see Figure 1) except where noted in this section.

7.3. PREPARING FOR A FOLLOW-UP MISSION

Upon the decision to conduct a RISS follow-up mission, the IAEA team leader is appointed to arrange the preparation of the mission including tasks similar to the initial mission.

The host country provides a report describing and documenting its progress in implementing the action plan. As applicable, the host country submits updated versions of the material given

for the initial mission, as well as newly developed material related to the implementation of the action plan.

Additional review areas could be added in the scope of the follow-up mission.

The follow-up RISS team comprises an IAEA team leader, together with the appropriate number of reviewers. For reasons of continuity, it is preferable that the follow-up mission team includes the team leader and team members who participated in the initial mission. The skill set of the team is adjusted to account for the scope of the follow-up mission including any new review areas. The recruitment of team members is undertaken in accordance with the initial mission provisions.

7.4. CONDUCT OF A FOLLOW-UP MISSION

The follow-up mission is carried out following these RISS guidelines. In the same way as for the initial mission, the necessary information is gathered by a combination of the review of written material, interviews, meetings, site visits, and direct observations of performance of regulatory activities.

On completion of the review, a follow-up mission preliminary report is prepared summarizing the team's main observations on the implementation of the recommendations addressed in the initial RISS and any other new observations, recommendations, and their basis. Before the text is finalized, the regulatory body can comment on the accuracy and clarity of the report's contents. The follow-up mission's review of progress made by the host country in implementing actions in response to a RISS recommendation is expressed using the following categories and providing the proper justification: (a) Recommendation remains open, or (b) Recommendation is closed.

In exceptional circumstances, a recommendation raised during the initial advisory mission might no longer be relevant to the follow-up mission. This might, for instance, be due to changes that have occurred in regulatory organization, regulatory framework, or processes in the intervening period. Where such an instance occurs, the initial recommendation might be closed concurrent with the opening of a new, related recommendation.

Based on new observations, new recommendations might be provided. All results are reported in the same way as for an initial RISS mission.

A revision of the action plan of the initial mission can be suggested to the host country.

A follow-up RISS needs to be of sufficient duration to thoroughly review the actions taken in response to previously identified recommendations. The duration allows for the preparation of the preliminary report prior to the exit meeting.

APPENDIX I. COMPARING CHARACTERISTICS OF THE ADVISORY MISSIONS ON REGULATORY INFRASTRUCTURE FOR RADIATION SAFETY AND NUCLEAR SECURITY, THE INTEGRATED REGULATORY REVIEW SERVICE MISSIONS AND THE INTERNATIONAL PHYSICAL PROTECTION ADVISORY SERVICE

Characteristic	RISS	IRRS	IPPAS
Purpose	To advise Member States on actions to be taken for the establishment or improvement of a regulatory infrastructure for radiation safety and nuclear security whilst recognizing the ultimate responsibility of each State to ensure safety and security in these areas.	To assess the effectiveness of the national regulatory framework for nuclear, radiation, radioactive waste, and transport safety with regards to IAEA safety standards, whilst recognizing the ultimate responsibility of each State to ensure safety in these areas.	To assess the existing practices of a Member State, in the light of relevant international instruments and IAEA nuclear security publications, and exchange experience and accepted international practices aimed at strengthening the security organization and the procedures and practices being followed.
Scope	Regulatory infrastructure for radiation safety and/or nuclear security, including radiological emergency preparedness and response, as appropriate. Radiation safety refers to the safety of radiation sources (generators and radioactive material), nuclear security refers to the security of radioactive material.	Regulatory infrastructure for nuclear, radiation, radioactive waste, and transport safety. Sections for the on-site emergency preparedness and response, and the interface between safety and security might also be included.	The national physical protection regime, a nuclear facility’s physical protection system, security of nuclear material during transport, security of radioactive material and cyber security. The security of radioactive material, associated facilities and associated activities is a stand-alone module,

Characteristic	RISS	IRRS	IPPAS
			encompassing the national regime, the security of radioactive material and associated facilities and security during transport.
Nature	Advisory mission	Peer review mission	Advisory and peer review mission
Activities conducted during mission	<p>As agreed with the host country. Can include a review of the regulatory infrastructure for radiation safety and nuclear security, delivery of lectures, and organization of meetings with decision makers concerned with the establishment or strengthening of the regulatory infrastructure for radiation safety and nuclear security and, when included in the scope of the mission, emergency preparedness and response.</p> <p>Review of the written material, interviews, direct observations, and site visits.</p>	<p>International peer review of, at a minimum, responsibilities and functions of the government, global safety regime, responsibilities and functions of the regulatory body, management system of the regulatory body, core regulatory processes, and emergency preparedness and response. Interface of safety with security.</p> <p>Review of the written material, interviews, meetings, direct observations, and site visits.</p>	<p>International peer review of the Member State nuclear security regime: national review of nuclear security regime for nuclear material and nuclear facilities, nuclear facility review, transport review, security of radioactive material and associated facilities and activities, information, and computer security review.</p> <p>Review of the written material, interviews, direct observation, and visits.</p>
Status of regulatory infrastructure	Not mature; it could range from no existing regulatory infrastructure to that being in a developmental phase.	A regulatory infrastructure has been established that is in general agreement with the IAEA safety standards.	Based on its unique nuclear security programme, each Member State might request an IPPAS mission that addresses one or more subject areas.

Characteristic	RISS	IRRS	IPPAS
Team leader	IAEA staff member	Senior regulator from an IAEA Member State	Expert from an IAEA Member State with very broad experience in nuclear security
Team members	2 – 6 international experts	5 – 20 international experts	6 – 12 international experts
Duration	4 – 5 days	5 – 15 days	10 – 12 days
Final report	The report is not made public	The host country is encouraged to make the report public. The IAEA makes the report publicly available unless the host country specifically requests that it remains restricted	Classified by the IAEA as highly confidential and marked accordingly. IAEA does not distribute the report (or parts thereof) to any third parties without the permission of the host government
Basis for recommendations	IAEA safety standards and nuclear security guidance, and the Code of Conduct	IAEA safety standards, and the Code of Conduct	Convention on the Physical Protection of Nuclear Material and its 2005 Amendment, security provisions of the Code of Conduct, IAEA Nuclear Security Fundamentals, and IAEA Nuclear Security Recommendations
Observations	Recommendations	Recommendations, Suggestions and Good Practices	Recommendations, Suggestions and Good Practices
Action plan	Developed during the mission jointly undertaken by the mission team and the host country	Proposed before the mission by the host country	Proposed after the mission by the host country based on recommendations and suggestions

APPENDIX II. ACTIONS FOR PREPARING AND CONDUCTING AN ADVISORY MISSION ON REGULATORY INFRASTRUCTURE FOR RADIATION SAFETY AND NUCLEAR SECURITY

Event		Responsibility	Timing (indicative)
Request from the Host Country/Member State			
1	Informal discussions between a Member State and the IAEA	Member State and IAEA	Prior to the submittal of a formal request for a RISS
2	Formal request from a Member State to the IAEA for a RISS	Host country	At least three months prior to RISS
3	After the request is received, briefing for host country on RISS process	IAEA	As soon as possible after receipt of formal request for a RISS
Preparatory Phase			
4	Designation of RISS team leader	IAEA	As soon as possible after receipt of formal request for a RISS
5	Appoint host country's liaison officer and potential counterparts	Host country	As soon as possible, and at the latest, in the weeks after a formal request for a RISS has been submitted
6	Request the completion of the pre-mission self-assessment questionnaire	Team leader	As soon as possible after receipt of formal request for a RISS
7	Discussions and exchange of communication to define the scope, objectives, provisional agenda and schedule of the RISS considering the needs of the host country	Team leader and host country liaison officer	Might start before formal request for mission has been submitted; major points need to be agreed three months before RISS, but discussions on fine points might continue until the time of the mission
8	Resource planning (size, duration of the mission)	Team leader and host country liaison officer	At least three months prior to the RISS
9	Identify and recruit RISS team members considering the agreed scope of mission	Team leader	At least three months prior to RISS

Event		Responsibility	Timing (indicative)
10	Assemble background information including previous IAEA missions and projects, and host country profile	Team leader and IAEA technical officers (as appropriate)	At least two months prior to RISS
11	Completion of the pre-mission self-assessment questionnaire, submittal of relevant documents available in the host country (laws, regulations, regulatory procedures, etc.)	Host country liaison officer	One month prior to RISS
12	Notification of completion of completed pre-mission self-assessment questionnaire, and collection and translation (if needed) of the relevant documents to RISS team leader	Team leader	As soon as possible upon receipt of material from host country
13	Team members review the pre-mission self-assessment questionnaire and relevant documents (laws, regulations, regulatory procedures, etc.) and develop initial impression	Team members	Prior to the mission
Mission Commences			
14	Initial RISS team meeting	Team leader	Usually, the evening before the start of the RISS
15	RISS activities planned within the agenda/schedule	Team and host country liaison officer	4 to 5 days
16	Visit's coordination	Team leader, team members and host country liaison officer	Before and during the RISS
17	Preliminary report provided and discussed with host country at exit meeting	Team leader	Before team departs
Post-Mission			
18	Draft final report submitted to host country	Team leader, team members	One month following mission

Event		Responsibility	Timing (indicative)
19	Comments from host country on draft final report provided to IAEA	Host country liaison officer	Two weeks after receiving draft final report
20	Final report provided to host country	IAEA	One month after receiving comments from host country on draft final report
21	Lessons learned	All	At the end of the mission

APPENDIX III. RESPONSIBILITIES OF THE MISSION PARTICIPANTS

Team leader

The RISS team leader is responsible for:

- (a) Reflecting the joint work and cooperation of NSRW and NSNS;
- (b) Ensuring the communication with IAEA's IEC in matters relevant to the RISS;
- (c) Being the official IAEA liaison with the assigned host country organization(s) prior to, during and after the mission;
- (d) Identifying and recruiting the team members;
- (e) Determining the scope and objectives for the mission, after consulting with IAEA technical officers, paying due regard to previous and planned IAEA activities for the host country and adjusted according to the specific needs and interests of the requesting Member State;
- (f) Ensuring the scope of the mission is consistent with these guidelines;
- (g) Developing the detailed work plan for the mission in accordance with these guidelines;
- (h) Making copies of the reports of previous missions to the host country available to team members;
- (i) Communicating with team members on a regular basis prior to and during the mission, to ensure team members are adequately prepared and informed;
- (j) Requesting assignment of the host country liaison officer;
- (k) Providing a copy of the RISS guidelines to the host country liaison officer;
- (l) Requesting completion of the pre-mission self-assessment questionnaire by appropriate organizations in the host country through the host country liaison officer;
- (m) Requesting that the host country liaison officer arranges for a presentation on the current regulatory infrastructure by an official at the entrance meeting;
- (n) Collecting travel details of the team members;
- (o) Assigning tasks and responsibilities and ensuring all team members fully understand the objectives and scope of the mission;
- (p) Collecting individual dosimeters and distributing them during the mission, keeping track of serial number;
- (q) Preparing a briefing for the host country on the mission process and its objectives;
- (r) Leading the mission including supervising the review of documents and activities, ensuring schedules are met and providing leadership in the resolution of issues arising;
- (s) Ensuring the team works in a consistent and cohesive manner;
- (t) Ensuring the objectives of the RISS are met;
- (u) Providing guidelines for the conduct of daily meetings;
- (v) Leading the initial team meeting, entrance and exit meetings during the mission;
- (w) Collating the preliminary report of the RISS based on the contributions of team members;
- (x) Preparing the draft final report based on the preliminary report and comments received from the host country and team members, ensuring the advice and action plan within it are consistent with the agreed scope of the mission and with these guidelines;
- (y) Concurring on appropriate changes to the draft report in consultation with team members, based on comments received from the host;
- (z) Finalizing the report based on comments received from the host country;
- (aa) Ensuring that the final report is sent following the official channels to the host country;
- (bb) Expressing appreciation to the host country for their cooperation during the mission;
- (cc) Obtaining, summarizing, and communicating feedback from the team members and host country following completion of the mission.

Host country liaison officer

The host country appoints a liaison officer who needs to be an experienced, senior official. If a regulatory body has been established, the liaison officer is usually a senior member of its staff. If the host country has different authorities regulating radiation safety and security of radioactive material, only one liaison officer is appointed. The liaison officer communicates and cooperates with these authorities during all stages of the RISS. The liaison officer has a key role in the effective coordination of the mission and is responsible for:

- (a) Being the main contact and focal point with the team leader in the preparatory phase and during the mission;
- (b) Acquiring and administering all local resources for the mission, including funding;
- (c) Arranging mission logistics, administration, and scheduling within the host country;
- (d) Ensuring that all necessary information for the review of the regulatory infrastructure is provided to the team;
- (e) Making reservations for hotels and arrangements for in-country travel including local transportation;
- (f) Providing for adequate working space and resources for the team including printers, paper, computer projector, and internet connection;
- (g) Enabling communication between the team members and their base organizations (especially the IAEA), and between team members during their stay in the host country;
- (h) Arranging required security clearances for team members to enter facilities, as needed;
- (i) Assisting host organization(s) and other government organizations in understanding what is needed for a successful mission;
- (j) Ensuring the availability and preparedness of all host counterparts (including those of interested parties and partner organizations requested by the team leader or host organization(s));
- (k) Facilitating communications between the RISS team and the host country counterparts and the host organization(s) and other government organizations;
- (l) Attending team meetings as requested by the team leader;
- (m) Being available throughout the mission;
- (n) Ensuring that the host country's profiles in the IAEA's Radiation Safety Information Management System (RASIMS) and Nuclear Security Information Management System (NUSIMS) and other databases or platforms, as appropriate, such as the Emergency Preparedness and Response Information Management System (EPRIMS), are updated using the final report.

Team members

RISS team members are responsible for:

- (a) Making necessary preparations (travel arrangements, visas, immunizations, etc.) for the mission as directed by the team leader;
- (b) Preparing for the mission by reviewing the RISS guidelines, IAEA standards and guides, and the host country responses to the pre-mission self-assessment questionnaire and other material provided;
- (c) Conducting RISS activities as directed by the team leader (e.g. provide presentations);
- (d) Participating in the initial team meeting, entrance and exit meetings during the mission;
- (e) Leading discussions with their review area counterparts;
- (f) Reviewing the assigned regulatory areas against IAEA safety standards, nuclear security guidance and the Code of Conduct;
- (g) Evaluating observations and proposing recommendations;

- (h) Reviewing with the team all observations, recommendations, and contributions to the action plan;
- (i) Providing daily input to the preliminary report, as directed by the team leader;
- (j) Reviewing the preliminary report;
- (k) Reviewing the draft final report and host country comments on the draft final report with the team leader;
- (l) Providing feedback to the team leader after completion of the mission.

APPENDIX IV. SAMPLE AGENDA FOR THE INITIAL TEAM MEETING

Each RISS is unique and the initial team meeting agenda is adjusted accordingly, but an example of the topics typically covered are given below. The initial team meeting is attended by the RISS team leader, the team members, and the host country liaison officer.

Activity		Responsibility
1.	Opening remarks and introduction of liaison officer	Team leader
2.	Self-introductions: Each team member to give a brief statement of their careers and current responsibilities	Team members
3.	Remarks on country background	Team leader and Liaison officer
4.	Presentation on the RISS process	Team leader
5.	Guidance for reporting and documenting	Team leader
6.	Team discussion on the scope of the mission, pre-mission self-assessment questionnaire and relevant documents available in the host country, and strategic points to be discussed during the mission	Team
7.	Review of the schedule and practical arrangements	Team leader and Liaison officer
8.	Closing remarks	Team leader

APPENDIX V. SAMPLE AGENDA FOR THE MISSION

Each RISS is unique, and the mission agenda is adjusted accordingly, but an example of the topics typically covered are given below.

Day 1

8:30 – 12:30	Entrance Meeting	Participants
<p>8:30 – 9:30</p> <p>9:30 – 10:15</p>	<p>Official opening of the mission:</p> <ul style="list-style-type: none"> - Welcome remarks (host country liaison officer); - Introductory remarks and objectives of the mission (team leader: thank the regulatory body for the arrangements, thank the regulatory body staff making themselves available for the duration of the mission, other related IAEA work, e.g. Technical Cooperation programme); - Introduction of the team members (each member in turn explains their background); - Introduction of the participants; - Keynote speech (host country regulatory body senior officer, high level government official). <p>Host country's presentation of the regulatory infrastructure for radiation safety and nuclear security. Briefing to the team on:</p> <ul style="list-style-type: none"> - Current use of radiation sources in the host country, include estimation of inventory of sources, specific needs, and interests of the host country; - Current measures taken for controlling these sources and practices; - Organizations involved; - Structure, roles, and responsibility of regulatory body; - Relationship of regulatory body to end-users (where applicable); - Regulatory technical and policy issues; - What the regulatory body hopes to gain from the mission; 	<p>All interested parties. For instance, authorities concerned in areas such as:</p> <ul style="list-style-type: none"> - Safety of workers and the public; - Protection of the environment; - Applications of radiation in medicine, industry, and research; - Emergency preparedness and response; - Management of radioactive waste (including government policy making and the strategy for the implementation of policy); - Safety in relation to water use and the consumption of food; - Land use, planning, and construction; - Radiation safety and nuclear security in the transport of dangerous goods, including nuclear material and radioactive material; - Physical protection of radioactive material; - National security areas; - Import and export of radioactive material.

	<ul style="list-style-type: none"> - Any current issues that could impact the mission; - How the regulatory body use the results of the mission; - How the regulatory body regulate on-site emergency preparedness and response; - Any near-term activities that team need to be aware of; - Developments since the past missions (if applicable). <p>Discussion</p>	
<i>10:15–10:45</i>	<i>Coffee break</i>	
10:45– 12:30	<p>IAEA presentation (optional): Radiation applications and the need for a regulatory infrastructure for radiation safety and nuclear security:</p> <ul style="list-style-type: none"> - Uses of radiation sources; - Need for regulatory programme; - IAEA safety standards and nuclear security guidance related to a regulatory programme and the Code of Conduct; - Nuclear security regime. <p>IAEA assistance to establish and maintain a regulatory programme.</p>	All interested parties (see above)
<i>12:30–14:00</i>	<i>Lunch</i>	
14:00– 16:00	Discussion between the IAEA’s and the host country’s technical experts on the essential elements of the regulatory infrastructure for radiation safety and nuclear security.	Host country liaison officer and relevant technical experts from all interested parties
16:00– 16:30	Summary of the day and information on the next day’s programme.	Host country liaison officer and team leader
16:30 –	Preparation of the report.	Team

Day 2

8:30 – 12:30	Technical evaluation of the host country regulatory infrastructure for radiation safety and nuclear security (continue).	Host country liaison officer and relevant technical experts from all interested parties
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10:00–10:30	<i>Coffee break during discussions</i>	
11:00– 12:30	Meeting with the relevant Minister or other officials as might be suggested by the host country liaison officer.	Relevant Minister and other representatives
12:30–14:00	<i>Lunch break</i>	
14:00– 16:00	Technical evaluation of the host country regulatory infrastructure for radiation safety and nuclear security (continue).	Host country liaison officer and relevant technical experts from all interested parties
16:00– 16:30	Summary of the day and information on the next day’s programme.	Host country liaison officer and team leader
16:30 –	Preparation of the report.	Team

Day 3

09:30– 16:30	<p>Meeting with high level officials as might be suggested by the host country liaison officer or discussion going on between the IAEA’s and the host country’s technical experts on the essential elements of the regulatory infrastructure for radiation safety and nuclear security.</p> <p>Consider whether a site visit is useful in evaluating the regulatory infrastructure for radiation safety and nuclear security.</p>	Relevant personnel
16:30 –	Finalizing the preliminary mission report, including the action plan.	Team

In case the mission has a duration of 5 days, day 4 could be similar to day 3.

Day 4

09:00–11:00	Exit Meeting	
	<p>Introducing the preliminary report.</p> <p>Summary of the observations and recommendations.</p> <p>Presentation of the action plan.</p> <p>Official closure of the mission.</p>	Individuals who participated in the entrance meeting

REFERENCES

- [1] INTERNATIONAL ATOMIC ENERGY AGENCY, IAEA Safety Glossary: Terminology Used in Nuclear Safety and Radiation Protection, 2018 Edition, IAEA, Vienna (2019).
- [2] INTERNATIONAL ATOMIC ENERGY AGENCY, Integrated Regulatory Review Service Guidelines, IAEA Services Series No. 37, IAEA, Vienna (2018).
- [3] INTERNATIONAL ATOMIC ENERGY AGENCY, International Physical Protection Advisory Service (IPPAS) Guidelines, IAEA Services Series No. 29, IAEA, Vienna (2014).
- [4] INTERNATIONAL ATOMIC ENERGY AGENCY, Governmental, Legal and Regulatory Framework for Safety, General Safety Requirements, IAEA Safety Standards Series No. GSR Part 1 (Rev. 1), IAEA, Vienna (2016).
- [5] INTERNATIONAL ATOMIC ENERGY AGENCY, Leadership and Management for Safety, IAEA Safety Standards Series No. GSR Part 2, IAEA, Vienna (2016).
- [6] EUROPEAN COMMISSION, FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL LABOUR ORGANIZATION, OECD NUCLEAR ENERGY AGENCY, PAN AMERICAN HEALTH ORGANIZATION, UNITED NATIONS ENVIRONMENT PROGRAMME, WORLD HEALTH ORGANIZATION, Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards, IAEA Safety Standards Series No. GSR Part 3, IAEA, Vienna (2014).
- [7] FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL CIVIL AVIATION ORGANIZATION, INTERNATIONAL LABOUR ORGANIZATION, INTERNATIONAL MARITIME ORGANIZATION, INTERPOL, OECD NUCLEAR ENERGY AGENCY, PAN AMERICAN HEALTH ORGANIZATION, PREPARATORY COMMISSION FOR THE COMPREHENSIVE NUCLEAR-TESTBAN TREATY ORGANIZATION, UNITED NATIONS ENVIRONMENT PROGRAMME, UNITED NATIONS OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFAIRS, WORLD HEALTH ORGANIZATION, WORLD METEOROLOGICAL ORGANIZATION, Preparedness and Response for a Nuclear or Radiological Emergency, IAEA Safety Standards Series No. GSR Part 7, IAEA, Vienna (2015).
- [8] INTERNATIONAL ATOMIC ENERGY AGENCY, Objective and Essential Elements of a State's Nuclear Security Regime, IAEA Nuclear Security Series No. 20, IAEA, Vienna (2013).
- [9] INTERNATIONAL ATOMIC ENERGY AGENCY, Nuclear Security Recommendations on Radioactive Material and Associated Facilities, IAEA Nuclear Security Series No. 14, IAEA, Vienna (2011).
- [10] EUROPEAN POLICE OFFICE, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL CIVIL AVIATION ORGANIZATION, INTERNATIONAL CRIMINAL POLICE ORGANIZATION–INTERPOL, UNITED NATIONS INTERREGIONAL CRIME AND JUSTICE RESEARCH INSTITUTE, UNITED NATIONS OFFICE ON DRUGS AND CRIME, WORLD CUSTOMS ORGANIZATION, Nuclear Security Recommendations on Nuclear and Other

- Radioactive Material out of Regulatory Control, IAEA Nuclear Security Series No. 15, IAEA, Vienna (2011).
- [11] INTERNATIONAL ATOMIC ENERGY AGENCY, Code of Conduct on the Safety and Security of Radioactive Sources, IAEA/CODEOC/2004, IAEA, Vienna (2004).
- [12] INTERNATIONAL ATOMIC ENERGY AGENCY, Guidance on the Import and Export of Radioactive Sources, 2012 Edition, IAEA/CODEOC/IMO-EXP/2012, IAEA, Vienna (2012).
- [13] INTERNATIONAL ATOMIC ENERGY AGENCY, Guidance on the Management of Disused Radioactive Sources, 2018 Edition, IAEA/CODEOC/MGT-DRS/2018, IAEA, Vienna (2018).

BIBLIOGRAPHY

Useful documentation for preparing and conducting a RISS

- [1] INTERNATIONAL ATOMIC ENERGY AGENCY, Governmental, Legal and Regulatory Framework for Safety, IAEA Safety Standards Series No. GSR Part 1 (Rev. 1), IAEA, Vienna (2016).
- [2] INTERNATIONAL ATOMIC ENERGY AGENCY, Leadership and Management for Safety, IAEA Safety Standards Series No. GSR Part 2, IAEA, Vienna (2016).
- [3] EUROPEAN COMMISSION, FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL LABOUR ORGANIZATION, OECD NUCLEAR ENERGY AGENCY, PAN AMERICAN HEALTH ORGANIZATION, UNITED NATIONS ENVIRONMENT PROGRAMME, WORLD HEALTH ORGANIZATION, Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards, IAEA Safety Standards Series No. GSR Part 3, IAEA, Vienna (2014).
- [4] FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL CIVIL AVIATION ORGANIZATION, INTERNATIONAL LABOUR ORGANIZATION, INTERNATIONAL MARITIME ORGANIZATION, INTERPOL, OECD NUCLEAR ENERGY AGENCY, PAN AMERICAN HEALTH ORGANIZATION, PREPARATORY COMMISSION FOR THE COMPREHENSIVE NUCLEAR-TESTBAN TREATY ORGANIZATION, UNITED NATIONS ENVIRONMENT PROGRAMME, UNITED NATIONS OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFAIRS, WORLD HEALTH ORGANIZATION, WORLD METEOROLOGICAL ORGANIZATION, Emergency Preparedness and Response, IAEA Safety Standards Series No. GSR Part 7, IAEA, Vienna (2015).
- [5] INTERNATIONAL ATOMIC ENERGY AGENCY, Regulations for the Safe Transport of Radioactive Material, 2018 Edition, IAEA Safety Standards Series No. SSR-6 (Rev. 1), IAEA, Vienna (2018).
- [6] INTERNATIONAL ATOMIC ENERGY AGENCY, Communication and Consultation with Interested Parties by the Regulatory Body, IAEA Safety Standards Series No. GSG-6, IAEA, Vienna (2017).
- [7] INTERNATIONAL ATOMIC ENERGY AGENCY, Organization, Management and Staffing of a Regulatory Body for Safety, IAEA Safety Standards Series No. GSG-12, IAEA, Vienna (2018).
- [8] INTERNATIONAL ATOMIC ENERGY AGENCY, Functions and Processes of the Regulatory Body for Safety, IAEA Safety Standards Series No. GSG-13, IAEA, Vienna (2018).
- [9] FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL LABOUR ORGANIZATION, PAN AMERICAN HEALTH ORGANIZATION, OECD NUCLEAR ENERGY AGENCY, PAN AMERICAN HEALTH ORGANIZATION, UNITED NATIONS OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFAIRS, WORLD HEALTH ORGANIZATION, Arrangements for Preparedness for a Nuclear or Radiological Emergency, IAEA Safety Standards Series No. GS-G-2.1, IAEA, Vienna (2007).
- [10] FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL LABOUR OFFICE,

PAN AMERICAN HEALTH ORGANIZATION, WORLD HEALTH ORGANIZATION, Criteria for use in Preparedness and Response to Nuclear or Radiological Emergency, IAEA Safety Standards Series No. GSG-2, IAEA, Vienna (2011).

[11] FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL CIVIL AVIATION ORGANIZATION, INTERNATIONAL LABOUR OFFICE, INTERNATIONAL MARITIME ORGANIZATION, INTERPOL, OECD NUCLEAR ENERGY AGENCY, UNITED NATIONS OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFAIRS, WORLD HEALTH ORGANIZATION, WORLD METEOROLOGICAL ORGANIZATION, Arrangements for Termination of a Nuclear or Radiological Emergency, IAEA Safety Standards Series No. GSG-11, Vienna (2018).

[12] FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL CIVIL AVIATION ORGANIZATION, INTERPOL, PREPARATORY COMMISSION FOR THE COMPREHENSIVE NUCLEAR-TEST-BAN TREATY ORGANIZATION, UNITED NATIONS OFFICE FOR OUTER SPACE AFFAIRS, Arrangements for Public Communication in Preparedness and Response to a Nuclear or Radiological Emergency, IAEA Safety Standards Series No. GSG-14, IAEA, Vienna (2020).

[13] INTERNATIONAL ATOMIC ENERGY AGENCY, Establishing the Infrastructure for Radiation Safety, IAEA Safety Standards Series No. SSG-44, IAEA, Vienna (2018).

[14] INTERNATIONAL ATOMIC ENERGY AGENCY, Categorization of Radioactive Sources, IAEA Safety Standards Series No. RS-G-1.9, IAEA, Vienna (2005).

[15] INTERNATIONAL ATOMIC ENERGY AGENCY, Radiation Safety of Gamma, Electron and X Ray Irradiation Facilities, IAEA Safety Standards Series No. SSG-8, IAEA, Vienna (2010).

[16] INTERNATIONAL ATOMIC ENERGY AGENCY, Radiation Safety in Industrial Radiography, IAEA Safety Standards Series No. SSG-11, IAEA, Vienna (2011).

[17] INTERNATIONAL ATOMIC ENERGY AGENCY, National Strategy for Regaining Control over Orphan Sources and Improving Control over Vulnerable Sources, IAEA Safety Standards Series No. SSG-19, IAEA, Vienna (2011).

[18] INTERNATIONAL ATOMIC ENERGY AGENCY, Control of Orphan Sources and Other Radioactive Material in the Metal Recycling and Production Industries, IAEA Safety Standards Series No. SSG-17, IAEA, Vienna (2012).

[19] INTERNATIONAL CIVIL AVIATION ORGANIZATION, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL MARITIME ORGANIZATION, Preparedness and Response for a Nuclear or Radiological Emergency Involving the Transport of Radioactive Material, Specific Safety Guide No. SSG-65, IAEA, Vienna (in preparation).

[20] INTERNATIONAL ATOMIC ENERGY AGENCY, Objective and Essential Elements of a State's Nuclear Security Regime, IAEA Nuclear Security Series No. 20, IAEA, Vienna (2013).

[21] INTERNATIONAL ATOMIC ENERGY AGENCY, Nuclear Security Recommendations on Radioactive Material and Associated Facilities, IAEA Nuclear Security Series No. 14, IAEA, Vienna (2011).

[22] EUROPEAN POLICE OFFICE, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL CIVIL AVIATION ORGANIZATION, INTERNATIONAL CRIMINAL

POLICE ORGANIZATION–INTERPOL, UNITED NATIONS INTERREGIONAL CRIME AND JUSTICE RESEARCH INSTITUTE, UNITED NATIONS OFFICE ON DRUGS AND CRIME, WORLD CUSTOMS ORGANIZATION, Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control, IAEA Nuclear Security Series No. 15, IAEA, Vienna (2011).

[23] INTERNATIONAL ATOMIC ENERGY AGENCY, Security of Radioactive Material in Use and Storage and of Associated Facilities, IAEA Nuclear Security Series No. 11-G (Rev. 1), IAEA, Vienna (2019).

[24] INTERNATIONAL ATOMIC ENERGY AGENCY, Security in the Transport of Radioactive Material, IAEA Nuclear Security Series No. 9-G (Rev. 1), IAEA, Vienna (2020).

[25] INTERNATIONAL ATOMIC ENERGY AGENCY, Nuclear Security Culture, IAEA Nuclear Security Series No. 7, IAEA, Vienna (2008).

[26] INTERNATIONAL ATOMIC ENERGY AGENCY, National Nuclear Security Threat Assessment, Design Basis Threats and Representative Threat Statements, IAEA Nuclear Security Series No. 10-G (Rev. 1), IAEA, Vienna (2021).

[27] INTERNATIONAL ATOMIC ENERGY AGENCY, Developing Regulations and Associated Administrative Measures for Nuclear Security, IAEA Nuclear Security Series No. 29-G, IAEA, Vienna (2018).

[28] INTERNATIONAL ATOMIC ENERGY AGENCY, Code of Conduct on the Safety and Security of Radioactive Sources, IAEA/CODEOC/2004, IAEA, Vienna (2004).

[29] INTERNATIONAL ATOMIC ENERGY AGENCY, Guidance on the Import and Export of Radioactive Sources, 2012 Edition, IAEA/CODEOC/IMO-EXP/2012, IAEA, Vienna (2012).

[30] INTERNATIONAL ATOMIC ENERGY AGENCY, Guidance on the Management of Disused Radioactive Sources, 2018 Edition, IAEA/CODEOC/MGT-DRS/2018, IAEA, Vienna (2018).

[31] INTERNATIONAL ATOMIC ENERGY AGENCY, IAEA Safety Glossary: Terminology Used in Nuclear Safety and Radiation Protection, 2018 Edition, IAEA, Vienna (2019).

[32] INTERNATIONAL ATOMIC ENERGY AGENCY, Notification, Authorization, Inspection and Enforcement for the Safety and Security of Radiation Sources, Technical Reports Series No. 1002, IAEA, Vienna (in preparation, preprint 2021).

[33] INTERNATIONAL ATOMIC ENERGY AGENCY, Safety Assessment Plans for Authorization and Inspection of Radiation Sources, IAEA-TECDOC-1113, IAEA, Vienna (1999).

[34] INTERNATIONAL ATOMIC ENERGY AGENCY, Model Regulations for the Use of Radiation Sources and for the Management of the Associated Radioactive Waste, IAEA-TECDOC-1732 (Supplement to IAEA Safety Standards Series No. GS-G-1.5), IAEA, Vienna (2013).

[35] INTERNATIONAL ATOMIC ENERGY AGENCY, Application of a Graded Approach in Regulating the Safety of Radiation Sources, IAEA-TECDOC-1974, IAEA, Vienna (2021).

[36] INTERNATIONAL ATOMIC ENERGY AGENCY, Integrated Regulatory Review Service Guidelines, IAEA Services Series No. 37, IAEA, Vienna (2018).

[37] INTERNATIONAL ATOMIC ENERGY AGENCY, International Physical Protection Advisory Service (IPPAS) Guidelines, IAEA Services Series No. 29, IAEA, Vienna (2014).

[38] INTERNATIONAL ATOMIC ENERGY AGENCY, Handbook on Nuclear Law, Vienna (2003).

[39] INTERNATIONAL ATOMIC ENERGY AGENCY, Handbook on Nuclear Law: Implementing Legislation, IAEA, Vienna (2010).

[40] INTERNATIONAL ATOMIC ENERGY AGENCY, Sealed Radioactive Sources. Information, Resources, and Advice for Key Groups about Preventing the Loss of Control over Sealed Radioactive Sources, IAEA/PI/A.98, IAEA, Vienna (2013)

CONTRIBUTORS TO DRAFTING AND REVIEW

Betancourt, L.	International Atomic Energy Agency
Bokov, D.	Rostechnadzor, Russian Federation
de la Vega, R.	International Atomic Energy Agency
Doncel, F.	Radiological and Nuclear Regulatory Authority, Paraguay
Holahan, V.	Nuclear Regulatory Commission, USA
Khaliq, M.	International Atomic Energy Agency
Kamenopoulou, V.	International Atomic Energy Agency
Mansoux, H.	International Atomic Energy Agency
Morris, F.	Pacific Northwest National Laboratory, USA
Nestoroska Madjunarova, S.	International Atomic Energy Agency
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