INIR: Integrated Nuclear Infrastructure Review Missions

Guidance on Preparing and Conducting INIR Missions (Rev. 1)

IAEA
International Atomic Energy Agency

INIR:
INTEGRATED NUCLEAR
INFRASTRUCTURE REVIEW MISSIONS

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INIR: INTEGRATED NUCLEAR INFRASTRUCTURE REVIEW MISSIONS

GUIDANCE ON PREPARING AND CONDUCTING INIR MISSIONS
(REV. 1)

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FOREWORD

The IAEA's Integrated Nuclear Infrastructure Review (INIR) missions are designed to assist Member States, at their request, in evaluating the status of their national infrastructure for the introduction of a nuclear power programme. Each INIR mission is coordinated and led by the IAEA and conducted by a team of international experts drawn from Member States who have experience in different aspects of developing and deploying nuclear infrastructure.

The IAEA publication Milestones in the Development of a National Infrastructure for Nuclear Power (IAEA Nuclear Energy Series No. NG-G-3.1) contains a description of 19 infrastructure issues to be considered during the different stages of development of a nuclear power programme. The starting point for an INIR mission is a self-evaluation performed by the Member State against these infrastructure issues. Following the self-evaluation, the INIR mission reviews the status of the national nuclear infrastructure, identifies existing gaps in specific infrastructure-related areas and proposes recommendations to fill these gaps.

The INIR mission provides Member State representatives with an opportunity to have in depth discussions with international experts about experiences and best practices in different countries. In developing its recommendations, the INIR team takes into account the comments made by the relevant national organizations. Implementation of any of the team's recommendations is at the discretion of the Member State requesting the mission.

The results of the INIR mission are expected to help the Member State to develop an action plan to fill any gaps, which in turn will help the development of the national nuclear infrastructure. The IAEA stands ready to assist, as requested and appropriate, in the different steps of this action plan.

This guidance publication is directed to assist in preparing and conducting the INIR missions. It was developed under the coordination of the IAEA Integrated Nuclear Infrastructure Group (INIG) with contributions from IAEA staff from all involved organizational units and from external experts.

EDITORIAL NOTE

This report has been edited by the editorial staff of the IAEA to the extent considered necessary for the reader's assistance. It does not address questions of responsibility, legal or otherwise, for acts or omissions on the part of any person.

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1. INTRODUCTION

1.1. BACKGROUND

An overall description of nuclear infrastructure issues was published in Considerations to Launch a Nuclear Power Programme [1], which was targeted mainly at policy makers. Subsequently, the IAEA publication Milestones in the Development of National Infrastructure for Nuclear Power [2] ('Milestones') provided more detailed guidance on the three phases of development outlined in Ref. [1]. It describes the sequential development through the three phases for each of 19 issues, ranging from the State's national position on nuclear power to procurement.

The publication on Evaluation of the National Nuclear Infrastructure Development Status [3] ('Evaluation'), which is based on Ref. [2], provides a holistic approach to evaluate progress in the development of the nuclear infrastructure. This approach can be used either by a Member State wishing to review its own progress (self-evaluation) or as a basis for an external review (international peer review) where the Member State wishes to invite others to carry out an evaluation of its progress.

The Integrated Nuclear Infrastructure Review (INIR) missions are established to provide international peer reviews conducted by the IAEA upon request from a Member State (host Member State).

Besides the INIR missions, a Member State may request other missions to review or assist on particular issues of nuclear infrastructure development. Different from the INIR missions, these specific-issue focused review missions are not looking into the overall status of infrastructure development but are focused on the individual infrastructure issue requested by the Member State. These missions are organized by the IAEA department responsible for the particular issue. For example, for an issue related to safeguards, the mission would be performed by the Department of Safeguards and an issue regarding regulatory framework would be a mission performed by the Department of Nuclear Safety and Security. The outputs from the specific-issue focused reviews are incorporated in the integrated reviews under INIR missions (and vice versa) in order to avoid duplication and conflicting recommendations and/or suggestions.

This publication is directed to assist in the implementation of the INIR missions during phases 1 and 2 of the Member State infrastructure development programme described in the Milestones publication. The first edition of the INIR guidance was published in March 2009. The results of the implementation of the first three INIR missions, based upon that guidance, were reviewed by a

consultants group in February 2010. Revision 1 of the INIR guidance reflects the consultants' recommendations based upon the experience gained from the implemented INIR missions, and incorporates the responsibilities assigned to the IAEA Integrated Nuclear Infrastructure Group (INIG)[1] leader.

1.2. OBJECTIVE

The objective is to provide guidance on preparing and conducting INIR missions.

1.3. SCOPE

The scope includes the activities to be undertaken by the team leader and team members for implementing INIR missions[2].

1.4. USERS

Intended users include IAEA staff and external experts assigned to preparing and conducting INIR missions. The guidance may also be useful to the host Member State for making the necessary country arrangements for the mission.

1.5. STRUCTURE

Section 2 provides an overview of the INIR missions. Section 3 presents an overall description of the INIR request and implementation process, including the initial arrangements accomplished before starting preparation. The guidance for setting up the mission and undertaking the preparatory activities is provided in Section 4. The guidance for conducting the mission, including the review approach and reporting, is presented in Section 5. Appendix I describes the main responsibilities assigned to the team leader, team members, host counterpart and observers. Appendix II gives the criteria for classification of the actions needed.

[1] INIG was established in July 2010 within the IAEA Division of Nuclear Power. INIG's responsibilities include planning, preparing and conducting INIR missions.

[2] The scope specific for each INIR mission is explained in Section 4.1.2.2.

Appendix III gives the criteria for identification of recommendations, suggestions and good practices. Appendix IV provides an example of the standard format for the INIR mission report.

2. INIR MISSION OVERVIEW

2.1. WHAT THE INIR MISSION IS

The INIR mission is a holistic, IAEA coordinated peer review conducted by a team of international experts who have direct experience in specialized nuclear infrastructure areas. The team is led by a senior IAEA staff member experienced in providing integrated support to nuclear infrastructure development. The team comprises both designated IAEA staff from various disciplines and organizational units, and international experts recruited from Member States and selected by the IAEA in consultation with the host Member State.

The major objective of an INIR mission is to assist the Member State in determining its infrastructure status and to identify further development needs; hence, the performance of a Member State self-evaluation is emphasized. The INIR mission is intended to build upon the Member State self-evaluation in order to determine areas where further work would be beneficial. While the INIR aims to perform an independent and objective review, it is not intended to be an external critical audit of the national infrastructure. The INIR is geared to helping the Member State to identify areas for further action and assistance, including that from the IAEA.

The mission's detailed scope and the work plan are specifically defined and adjusted to meet the needs of the requesting Member State.

The review is based upon the approach presented in the Milestones and Evaluation publications and assumes comprehensive assessment of all 19 nuclear infrastructure issues needed, specific to the conditions of a country. The material in the above mentioned publications is not considered as a requirement, but as assistance in thinking and reasoning for identification of the weaknesses or gaps that need to be filled in each development phase in order to reach the corresponding Milestone.

The review uses knowledge already obtained by the IAEA and the recommendations of previous review missions, and avoids duplicating work carried out previously by the IAEA. The review scope is adjusted to the degree of development of the different infrastructure issues but is focused on evaluating, as

much as is realistic in a limited period of time, all parts of the country's nuclear infrastructure. While mainly aimed at countries planning their first nuclear power plant, INIR missions may also be applied, with adequate flexibility, in countries expanding their nuclear power programmes.

The meetings and discussions between the mission members and the host representatives that take place during INIR missions contribute to the Member State's understanding of the existing status and actions needed for a successful development of the nuclear infrastructure. Additionally, the INIR mission can take into account recommendations from previous Department of Technical Cooperation missions and the results can contribute to the annual Technical Cooperation programme review and planning meetings. A complete or partial participation (i.e. exit meeting) in the mission of the project management officer may be considered to facilitate future planning of IAEA assistance, if requested. Outcomes of the INIR missions are considered when preparing and updating Technical Cooperation's Country Programme Framework.

The results of INIR missions may be considered as inputs for future related IAEA activities, including the Technical Cooperation support programmes, extrabudgetary programmes and development of further assistance in support of national nuclear infrastructure.

2.2. WHAT THE INIR MISSION IS NOT

It is relevant to note that the INIR mission is not:

(a) An audit or inspection against established requirements;
(b) An endorsement of the Member State self-evaluation;
(c) An assessment of detail or verification of what has really been done or achieved;
(d) A confirmation of the effectiveness of the Member State processes/actions.

For example, the INIR mission can evaluate whether some site prospecting was performed and criteria established. However, an assessment of the appropriateness of the prospecting performed and the adequacy of the criteria adopted is a matter for site specialists, and an appropriate review service is needed to cover these technical aspects in detail. The same logic applies to all the other issues.

Therefore, the results of an INIR mission cannot be considered as a 'release stamp' that certifies the quality and completeness of the work done and validates the host Member State's actions and programmes.

2.3. TIMING OF INIR MISSIONS

The timing of the INIR mission needs to be agreed with the Member State, considering the pace of the Member State infrastructure development, the completion of the Member State self-evaluation report and the added value of the INIR mission in covering all the 19 issues. In-depth reviews of specific issues can be accomplished by the other IAEA review services.

While INIR missions can be requested at any time during the development of the nuclear infrastructure, they will typically be expected to be arranged in the following sequence:

(i) Initial;
(ii) Follow-up;
(iii) Prior to invitation of bids for the first nuclear power plant.

2.3.1. Initial

The initial INIR mission requested by a Member State will review the overall situation in the country regarding the development activities in the 19 infrastructure issues (Table 1) described in the Milestones. It is a prerequisite that the Member State has already performed a self-evaluation[3] before implementing the initial INIR mission and that the corresponding self-evaluation report, including an action plan, is available in English.

2.3.2. Follow-up

A follow-up INIR mission is based on progress on the action plan developed within a reasonable period by the Member State in response to the previous INIR mission report. A follow-up INIR mission will focus on the response to a previous mission's or previous missions' recommendations and suggestions, and on the activities accomplished since the last mission. Each follow-up mission builds upon the previous one and provides direction for planning further activities, both by the Member State and through the Technical Cooperation programme.

[3] Assistance to a Member State for developing a self-evaluation report on the national nuclear infrastructure can be provided by the IAEA upon request.

TABLE 1. INFRASTRUCTURE ISSUES AND MILESTONES

ISSUE	MILESTONE 1	MILESTONE 2	MILESTONE 3
1. National position			
2. Nuclear safety			
3. Management			
4. Funding and financing	CONDITIONS	CONDITIONS	CONDITIONS
5. Legislative framework			
6. Safeguards			
7. Regulatory framework			
8. Radiation protection			
9. Electrical grid			
10. Human resources development			
11. Stakeholder involvement			
12. Site and supporting facilities			
13. Environmental protection			
14. Emergency planning			
15. Security and physical protection			
16. Nuclear fuel cycle			
17. Radioactive waste			
18. Industrial involvement			
19. Procurement			

2.3.3. Prior to invitation of bids for the first nuclear power plant

This INIR mission is implemented at the end of phase 2. Achieving Milestone 2 is a key stage at which the Member State is ready to invite bids for the first nuclear power plant. Through the use of a comprehensive external evaluation, this is the point in time at which the Member State is encouraged to present its readiness for the construction of the first nuclear power plant to a wider audience. The INIR review can help the Member State enhance confidence that the infrastructure is adequately established and in line with best international practices.

3. INIR REQUEST AND IMPLEMENTATION PROCESS

A typical description of the generic request and implementation process through a Technical Cooperation project is presented in Fig. 1. The step activities are graded depending on the specific type of mission (initial, follow-up, prior to invitation of bids). The first five steps in the process shown in Fig. 1 cover the request and initial arrangements before starting the implementation of the mission, which is covered by steps 6–11. The initial steps may differ if the INIR mission is conducted under an extrabudgetary programme or if it is cost-free to the IAEA.

3.1. REQUEST AND INITIAL ARRANGEMENTS

The first step is usually accomplished with an official governmental request to the IAEA that is conveyed through the Department of Technical Cooperation.

The following typical initial arrangements are expected to be accomplished before starting the preparation of an INIR mission:

(a) The Member State will have initiated, as part of a Technical Cooperation project, an INIR request made through the established official channel with the IAEA (normally the national liaison officer) indicating the tentative scope and date of the mission, any specific aspects to be included, the Member State funding and the designated host counterpart officer who will act as the official Member State liaison person for the INIR mission. The request includes the Member State self-evaluation report and other Member State relevant information.

(b) The assigned Technical Cooperation project management officer will have reviewed the request and, if needed, will have made further contacts with the requesting institution for clarification. The project manager officer will have transmitted the request to the technical officer and to the INIG leader. The financial arrangements, including the source of funding (Technical Cooperation funding, extrabudgetary contributions and Member State cost sharing), will have been identified.

(c) The INIG leader in consultation with the technical officer, project management officer and appropriate IAEA technical staff will have completed the evaluation of the request and will have submitted a recommendation to the Director, Division of Nuclear Power. If the request was for the comprehensive review mission prior to invitation of bids, the Nuclear Power Support Group will be informed by the INIG leader.

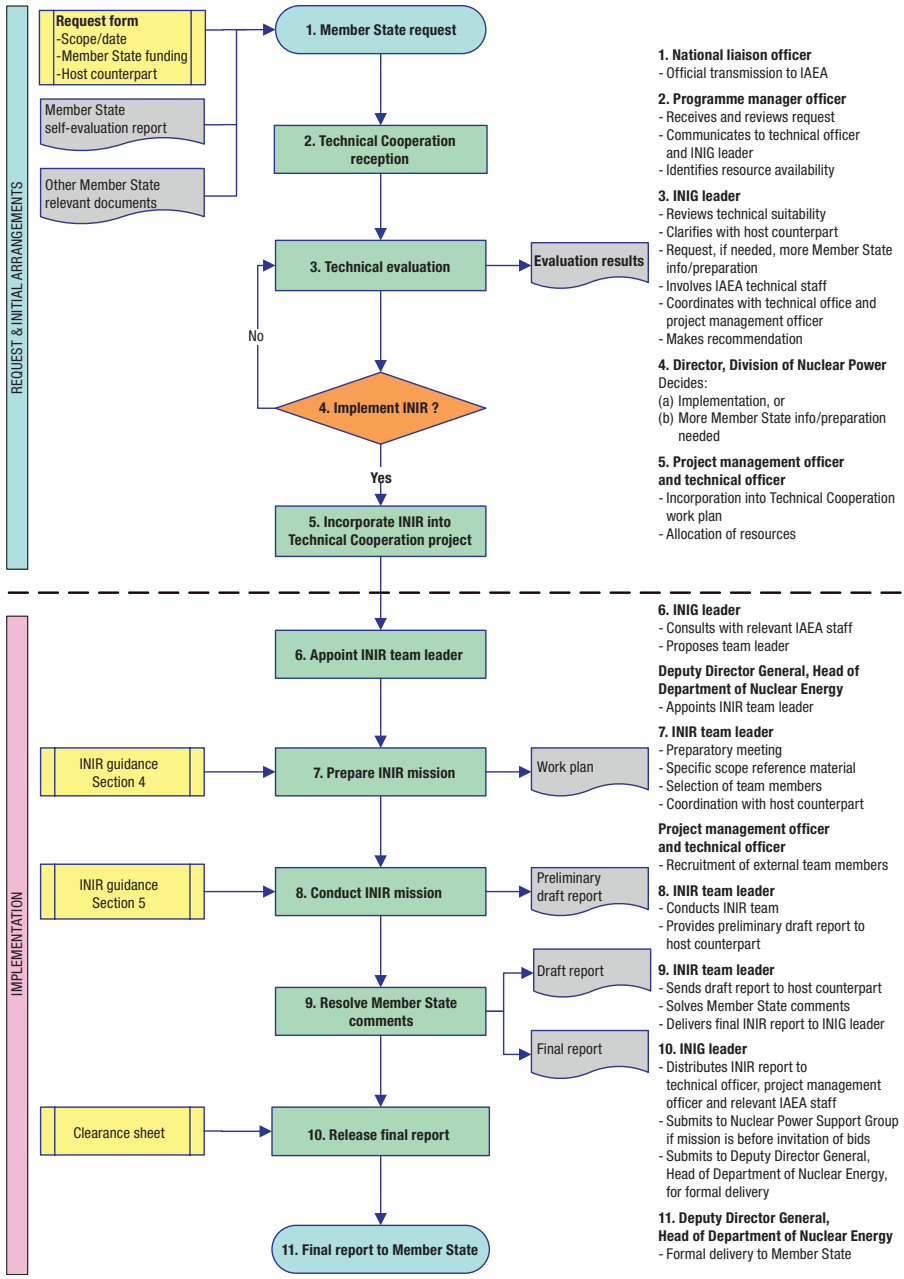

FIG. 1. INIR request and implementation process.

(d) The Director, Division of Nuclear Power, will decide if the preparation of the INIR mission can proceed.
(e) The technical officer, in conjunction with the project management officer, will have incorporated the INIR mission into the work plan of the corresponding Technical Cooperation project, as appropriate.

3.2. IMPLEMENTATION

Provided that the arrangements described in Section 3.1 above are fulfilled, the implementation of the mission, steps 6–11 in Fig. 1, is undertaken. The project management officer has responsibility for the proper use of the Technical Cooperation project funds and the overall management and delivery of outputs. The INIG leader is the focal point for ensuring technical consistency and fulfilment of the INIR guidance.

The INIR team leader[4] has responsibility for ensuring that the objectives of the mission are met. The INIR team leader is a senior IAEA officer possessing the necessary broad and practical experience in the specific development of the infrastructure of a nuclear power plant project. The INIR team leader is proposed by the INIG leader after consultation with appropriate officials from relevant IAEA departments. The INIR team leader is appointed by the Deputy Director General, Head of Nuclear Energy (DDG-NE).

4. PREPARATION OF THE INIR MISSION

4.1. SETTING UP THE INIR MISSION

The team leader is in charge of the overall coordination of the technical mission preparation activities. The main general activities in setting up the mission (Fig. 2) include:

(a) Consulting with the INIG leader, the technical officer, the project management officer and appropriate technical staff at the IAEA who may provide relevant inputs for the mission;

[4] The roles of the team leader, team members, host counterpart and observers are described in Appendix I.

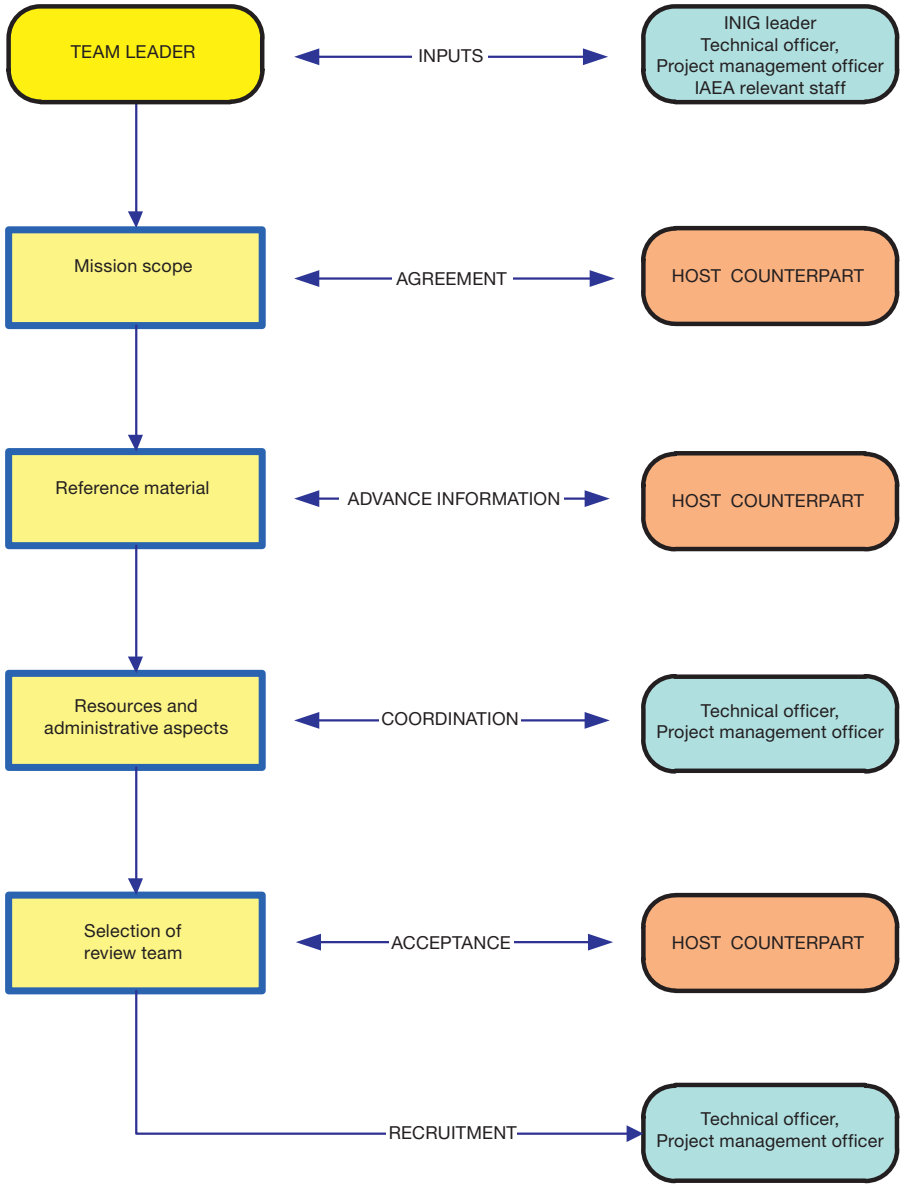

FIG. 2. Setting up the mission.

(b) Confirming, in conjunction with the technical officer and the project management officer, the dates for the mission with the host counterpart, taking due account of any holidays, national vacation periods, week structure and working hours;
(c) Collecting, analysing and distributing the Member State self-evaluation report and any relevant information;
(d) Consulting and seeking agreement with the host counterpart as needed;
(e) Selecting team members in conjunction with the host counterpart;
(f) Overseeing all of the necessary technical arrangements for implementing the mission;
(g) Promoting team building among the team members before the mission.

4.1.1. Preparatory meeting

A short preparatory meeting may be arranged at an appropriate time in advance of the mission, preferably in the host Member State, or possibly at IAEA headquarters. The purpose includes clearly defining, with the host counterpart, the specific scope, work plan and logistical arrangements. This is also used to identify and collect available advance material. It is the opportunity to identify representatives from the Member State's most relevant institutions and to establish the expectations for the availability of appropriate specialists from them.

4.1.2. Objective and specific scope of the INIR mission

4.1.2.1. Mission objective

The objective of the INIR mission is to evaluate the status of development of the 19 infrastructure issues described in the Milestones for phases 1 and 2 by applying the holistic approach described in Evaluation.

4.1.2.2. Mission specific scope

The detailed mission scope is defined by the team leader in conjunction with the host counterpart on the basis of:

(a) The current infrastructure development (phase 1 and/or phase 2) of the Member State;
(b) Particular requests from the Member State;
(c) Results of the Member State self-evaluation;
(d) Available information from previous IAEA missions;
(e) Member State action plans for further infrastructure develoment activities.

4.1.3. Reference material

Reference material includes:

(a) References [1–3];
(b) Applicable IAEA safety standards;
(c) Other publications, as appropriate, from the bibliography included in Ref. [2] and newly developed publications related to nuclear infrastructure;
(d) Country Nuclear Power Profile background information on the status and development of the nuclear power programme in the country;
(e) Collation of earlier Technical Cooperation activities and reports from previous IAEA missions in the host Member State that are relevant to the infrastructure subject;
(f) Information provided by the host counterpart, especially the results from Member State self-evaluation, as well as the existing relevant legislation.

4.1.4. Resource estimations and administrative arrangements

The number of experts and duration of the mission will logically depend on the request from the Member State and typically involve:

(1) Preparatory meeting: 2 persons × 2–3 days
(2) Initial and follow-up missions: ~5–8 persons × 1 week
(3) Prior to invitation of bids: ~ 8–10 persons × 2 weeks
(4) Preparation/coordination: ~1 person × 4–6 weeks

A clerk with excellent writing skills may be assigned to support the team leader from the beginning of the preparation activities to the issuing of the final report. This person may travel with the team during the performance of the INIR to provide administrative support mainly for compiling the preliminary draft report at the end of the mission. Administrative arrangements are accomplished under the normal Technical Cooperation procedures: recruitment, travel, per diem, etc.

4.1.5. Selection of the team members

The team leader proposes the team members to the INIG leader in accordance with the qualifications and experience required. The selection criteria will normally include:

(a) Involvement of a mix of generalists and specialists, depending on the particular needs of the Member State;

(b) Involvement of IAEA staff as well as external experts;
(c) Inclusion, if feasible, of at least one expert in the team fluent in the local language;
(d) Inputs from the INIG leader, technical officer, project management officer and relevant senior IAEA staff regarding qualified experts;
(e) Expert acceptability after consultation with the host counterpart.

The INIR mission has to evaluate the results as well as the processes applied by the Member State. Therefore, care has to be taken in selecting team members with due experience and skills in asking appropriate questions directed to assess the infrastructure development activities.

Because the INIR mission covers the whole range of infrastructure issues, team members are also selected for their ability to cover more than one of the 19 issues. Experts who hold or have held senior positions in owner organizations or regulatory bodies may be sufficiently familiar with several issues and be able to contribute effectively to the INIR mission.

In the case of follow-up missions, for reasons of continuity, it is preferable for the team leader and some of the reviewers in the team to have participated in the previous mission. The team leader will also take the lead in reviewing progress against the implementation of previous recommendations and suggestions.

Team members recruited from Member States, IAEA staff and external consultants to the IAEA are experts in specific infrastructure issues. In the case of missions to a Member State already in receipt of assistance from the IAEA, there may also be involvement by the relevant Technical Cooperation officer(s) for the country. In particular, the project management officer's involvement during the exit meeting can facilitate tailoring the Technical Cooperation programme to the Member State's needs.

In the selection of the team members, consideration is given to continuity, not only of previous missions, but also to the technical expertise that had worked with the Member State concerned on infrastructure issues and previous guidance and training activities. This may be most relevant in specific specialist areas such as nuclear law, where the particular expertise needs to be included in the team. However, care is taken to ensure that judgement based upon previous activities and previous personal involvement does not impair the independence of the INIR, in particular, in the mission prior to invitation of bids.

The team leader contacts potential team members regarding their availability for the mission. Suggested team members will then be recruited for the mission in accordance with Technical Cooperation procedures. This activity starts at least three months before the mission.

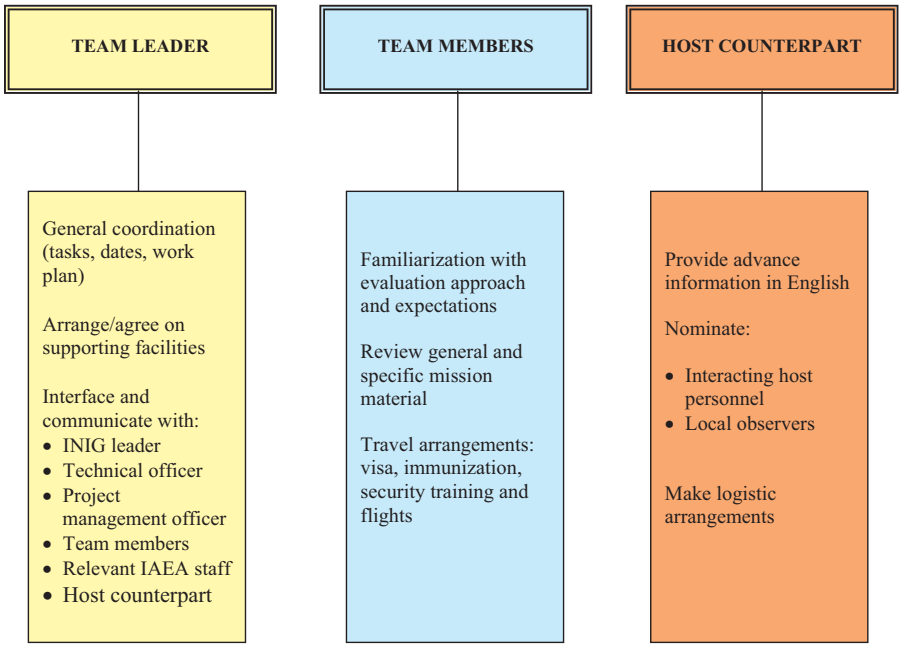

FIG. 3. Outline of the main preparation activities.

4.2. PREPARATION ACTIVITIES

Adequate preparation is a key factor in the successful conduct of an INIR mission, especially given the short time available in the host Member State. Figure 3 gives an overview of the main preparation activities undertaken by the team leader and the team members, and the activities expected to be undertaken by the host counterpart.

4.2.1. Preparation by the team leader

4.2.1.1. General

The team leader should:

(a) Assign tasks to team members at the earliest opportunity so they may concentrate on their specific issues;

(b) Ensure that all team members share common information and focus so as to perform as a harmonized team;
(c) Confirm, in conjunction with the technical officer and the project management officer, that appropriate travel arrangements have been made by the team, ensuring that all team members arrive in the host Member State with sufficient time to attend the coordination meeting prior to interacting with the host Member State personnel;
(d) Develop and agree on the work programme and agenda with the host counterpart in advance of the mission.

4.2.1.2. Supporting logistics

Prior to the mission, the team leader will make arrangements with the host counterpart to ensure the provision of necessary support facilities as follows:

(a) Reviews are normally expected to be conducted in English; otherwise the host Member State will need to provide any necessary interpretation facilities to enable the team members to do their work. In any case, the final report will be in English.
(b) At all times there should be at least one meeting room of sufficient size at the disposal of the reviewers, to enable them to work and hold discussions.
(c) At least one computer with internet connection, printer and screen projector should be made available. The computer should be provided with adequate desk tools and have downloaded in it all the advance and reference material (legal and regulatory texts, documents describing the relevant Member State organizations, etc.) that can be useful for the conduct of the mission.
(d) Administrative support (e.g. copying and printing services) should be made available by the host Member State throughout the review.

4.2.1.3. Interfaces/communication

Internal communication within the IAEA and with team members:

The team leader ensures that communication is established and maintained with the INIG leader, technical officer, project management officer, team members and relevant staff of all involved IAEA departments.

Communication with the host counterpart:

The team leader will:

(a) Liaise with the designated host counterpart officer for the INIR mission;
(b) Discuss and seek agreement on the scope and expectations in preparation for the review mission;
(c) Request nomination of the host persons in each review area who will be the primary contacts (host contacts) with the reviewers in each infrastructure issue;
(d) Agree with the host counterpart on any local and external observers to be trained during the mission;
(e) Agree on the final scope of the mission;
(f) Identify the advance material to be provided by the country, including the results from self-evaluations;
(g) Identify information that must remain confidential;
(h) Agree with the host counterpart on the provisional schedule and the logistical aspects for conducting the review mission;
(i) Provide a list of the documentation required in advance of, and during, the review;
(j) Discuss and agree on, if desired by the host counterpart, the team interaction with the local media. This interaction, when agreed, is undertaken only by the team leader.

4.2.2. Preparation by the team members

4.2.2.1. Review approach

The review is conducted to evaluate the infrastructure development status in accordance with the guidance provided in the Milestones [2] and using the approach described in Evaluation [3]. The review approach is not that of an audit, which aims to verify compliance with procedures and standards. The INIR mission's aim is to review ongoing activities with the assistance of peers and of host Member State personnel to provide confidence that appropriate implementation is taking place and those weaknesses, gaps and aspects that need attention or correction are identified.

Reviewers are expected to apply their good judgement and experience to interpret the particular Member State's situation, identify needs and develop conclusions based upon their observations and the information provided.

The team leader will describe to the team members the specific scope and expectations for the mission performance.

4.2.2.2. Supporting documents

Each review expert needs to be familiar with the following supporting material for each assigned issue:

General

(a) Generic information: publications related to the assigned issue that is indicated in the bibliography of the Milestones [2];
(b) Detailed information such as:
- Tables contained in Section 3 of Ref. [3] (Basis for Evaluation) related to the assigned issue;
- Technical Cooperation's Country Programme Framework and latest information on the design, implementation and trends of Technical Cooperation's national programme;
- Information available in the Country Nuclear Power Profile database;
- Other available IAEA databases and information as determined by the team leader.

Specific

Prior to the start of the mission, the team members review the advance reference material provided by the team leader, which typically includes:

(a) Reports from previous missions in the Member State.
(b) Available information that the Member State provided in advance. This information, when available, facilitates the performance and effectiveness of the mission. Information that the Member State is expected to provide includes:
- Results of Member State self-evaluations. While the Member State self-evaluation report significantly facilitates the review, the Evaluation publication [3] remains the basis for the INIR review.
- Actions undertaken since the last IAEA evaluation (outline of the significant changes in the development of the infrastructure), in particular, any action plan developed or revised in response to the previous recommendations and suggestions.
- Government or other involved organization (i.e. the future owner/operator) reports describing the status of infrastructure issues.

A 'preliminary evaluation' based upon the advance information material is prepared by each team member before starting the mission. This preliminary evaluation is then further elaborated during the mission.

4.2.2.3. Travel arrangements

It is important that, when travelling, arrangements are made to:

(a) Obtain a visa, if required.
(b) Sign confidential undertakings, if required.
(c) Bring a laptop computer with the appropriate electrical adapter and word processing, presentation, antivirus and other software, as required. If this is not possible, inform the team leader in sufficient time, so that alternative arrangements may be made.
(d) Undergo, as appropriate, the IAEA training courses on Basic Security in the Field and Advanced Security in the Field.
(e) Obtain clearance by the IAEA radiation safety regulator if the mission involves exposure to ionizing radiation.
(f) Arrange to receive the required immunizations.
(g) Provide information to the host counterpart and the IAEA team leader regarding flight (travel) details.

4.2.3. Preparation by the host counterpart

The following activities are expected to be accomplished by the host counterpart.

4.2.3.1. Advance information

The results of the Member State self-evaluations of the infrastructure implementation status are provided by the host counterpart. The relevant Member State's existing legal provisions are also expected to be provided in order to better prepare the mission.

The quality of the Member State self-evaluation report significantly impacts upon the preparation of the INIR mission. The report is expected to inform not only where to find the information, but also to describe the technical and/or legal content of the information.

For follow-up missions, the host counterpart is expected to provide an updated self-evaluation report that outlines any significant changes in the development of the national nuclear infrastructure that have taken place since the previous mission, as well as the actions taken to address the previous recommendations and suggestions.

The advance material, in English, is expected to be provided to the IAEA team leader at least one month before the mission. In order to save time, the advance material can, upon agreement reached during the preparatory

meeting, be sent in the language of the host Member State and translated by the IAEA.

4.2.3.2. Nomination of interacting host persons and observers

As regards nomination of interacting persons:

(a) The host counterpart will nominate a host contact person in each issue area as the primary contact with the team during the review.
(b) The host counterpart will be invited to nominate local observers as well as accept external observers. The participation of observers during the review is described in Appendix I.

4.2.3.3. Logistic arrangements

The host counterpart is expected to:

(a) Provide assistance with regard to hotel reservations;
(b) Make arrangements for adequate working space to be made available, as described in Section 4.2.1.2;
(c) Make arrangements for communications, in particular with IAEA headquarters;
(d) Provide local transportation;
(e) Make arrangements for translators and technical escorts, if needed;
(f) Arrange availability and schedule of host contact persons for the mission;
(g) Make the necessary arrangements for entry into the facilities, including clearance and any specific specialist training.

5. CONDUCT OF THE INIR MISSION

Figure 4 provides an overview of the main steps for conducting the mission.

5.1. TEAM COORDINATION MEETING

The team coordination meeting can be arranged in different ways, such as:

(a) In the host Member State, scheduled on the first day of the mission;
(b) At IAEA headquarters, before travelling to the duty place;
(c) By way of conference calls and/or video conferences.

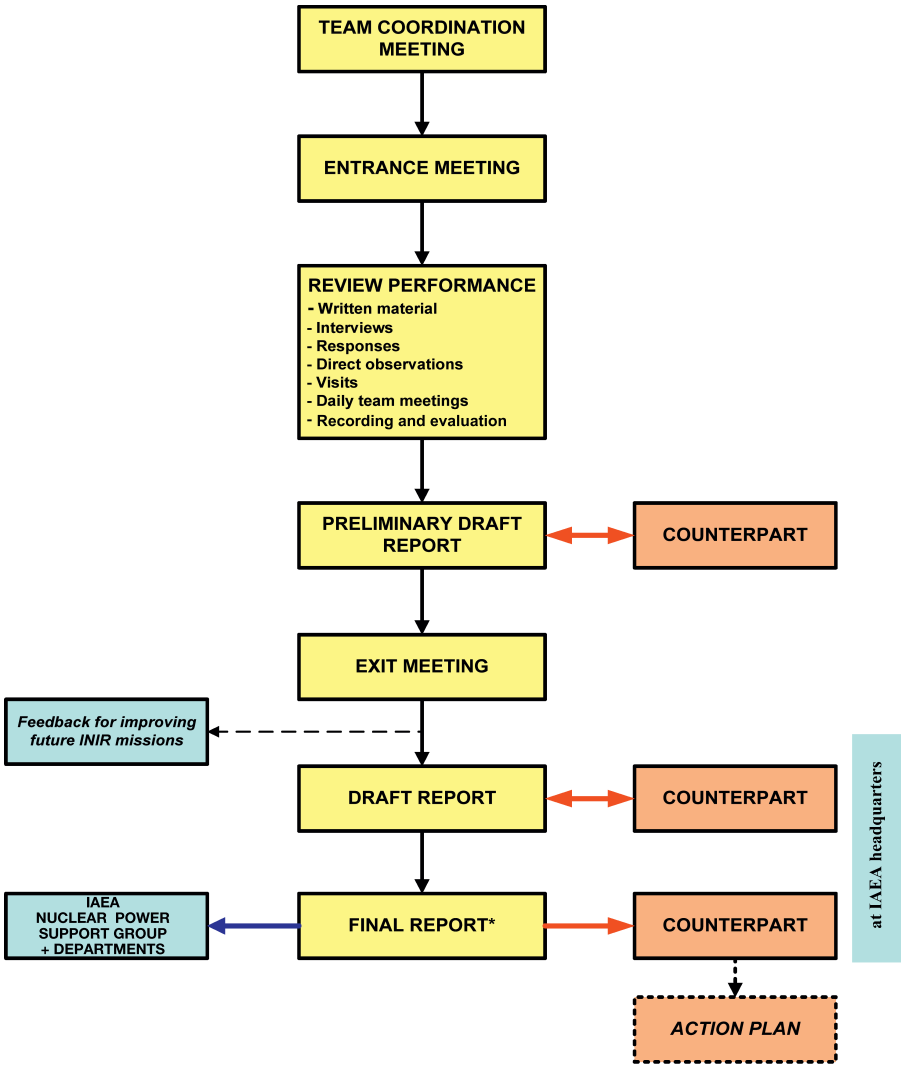

FIG. 4. Conduct of the mission.

The team leader decides how to implement the team coordination meeting. The meeting will include a training session for the team members and will discuss the specifics of the mission, including the approach to be taken for the review and the evaluations. The purpose is that all team members will have a common understanding of the background and objectives of the mission, the basis for the review, the type of information needed and the way it will be evaluated.

The team leader will brief the team on particular aspects, sensitive areas, priorities, schedule and expectations regarding the format and content of the deliverables by the team members. The team members will report their preliminary evaluations of their subject areas based on their review of the advance reference material. Team members are made aware that any interaction with the local public media will be undertaken only by the team leader. The host counterpart is invited to attend the team coordination meeting.

5.2. ENTRANCE MEETING

An entrance meeting will be conducted with senior representatives from the host Member State and observers. At the meeting, both the INIR team and the host Member State representatives will be expected to present their primary objectives for the review. The INIR team leader will provide a brief outline of the team work plan and approach and expectations for the mission, emphasizing that it is not an audit or inspection, but that it will be conducted as a peer review in cooperation with the host country's organizations.

As appropriate, a more detailed introductory and informational meeting with senior representatives from key organizations scheduled to be visited during the mission might be arranged. This can contribute to gaining the goodwill and fullest cooperation of the major organizations and improve the effectiveness of the mission. If practicable, inviting as many as possible of the host country's personnel directly involved in the review will help to prepare them and let them know what to expect.

In the case of follow-up missions, the host Member State will be expected to present a summary of the work carried out to address the suggestions and recommendation identified in the previous mission(s).

5.3. PERFORMANCE OF REVIEW

The review predominantly concentrates on evaluating the fulfilment of the conditions for the corresponding infrastructure development phase as described

in the Milestones [2]. The tables in Section 3 of Evaluation (Basis for Evaluation) [3] are applied in order to provide a consistent and comprehensive overview.

During all review activities, frank and open communications between all participants is to be promoted. This will enhance the quality of the review and optimize the benefits to the host country.

Reviewers seek to acquire information for identification of possible gaps in infrastructure issues through:

(a) Review of written material;
(b) Interviews;
(c) Review of the response to previous missions;
(d) Direct observations;
(e) Visits to organizations and facilities.

5.3.1. Written material

The review of the written material has two stages.

The first stage is performed prior to the start of the mission. Team members review all the information provided by the host Member State and by the IAEA (see Section 4.2.2.2). The team leader provides the team members with the advance reference material, prepared and structured by the host Member State and by the IAEA.

The second stage is performed during the mission. Additional material in the form of documents, presentations and examples of Member State's work will be reviewed. Results of the host Member State self-evaluations, including identification of forthcoming actions if available, will be helpful. This information will be taken into consideration in analysing and formulating recommendations and suggestions to address the identified needs.

5.3.2. Interviews

The prime objective of the mission interviews is to gather information not covered by the written material and, where necessary, to seek clarification of the written information provided.

The team members use the tables in Section 3 (Basis for Evaluation) of Evaluation [3] as a guide to improve the efficiency by which relevant information is collected. These tables provide a systematic and effective agenda for discussions and help to focus discussions on those topics that are most directly relevant to the review mission. The team members may deviate from the structure and content of the tables if alternative questioning methods might be beneficial in

resolving or clarifying infrastructure aspects. In line with the review of the relevant written material, the interviews can be linked to:

(a) Clarification of open topics arising out of the documentation review;
(b) Assessment of the implementation of relevant activities covered by Technical Cooperation projects;
(c) Evaluation of the aspects of the host Member State self-assessment.

The team members conduct interviews as a mutual exchange of views and not as an interrogation of the host. The team members lead the interview but allow time for the host to explain and illustrate specific points.

5.3.3. Response to previous INIR missions

The review of responses to recommendations and suggestions from previous INIR missions will be carried out in parallel, following the normal review mission approach. Information required to reach a judgement will be gathered by a combination, as appropriate, of review of written material, interviews with personnel, direct observations of the organization and activities, and visits.

The principal written material will be the action plan developed by the Member State, if available. Additional written material may be necessary to demonstrate the measures implemented and the progress made. The team members will be looking for evidence to support results of the progress and achievements recorded in the action plan and may provide further advice, as appropriate.

5.3.4. Direct observations

Direct observation of infrastructure activities is complementary to the review of written material and the interviews. The observations focus, as appropriate, on practices, use of procedures, reporting practices, and quality and management of the infrastructure development programme. From these observations, and in correspondence with the development phase (1 or 2) reviewed, the reviewers will judge, again as appropriate, the following:

(a) Establishment and use of work procedures;
(b) Technical knowledge and skills of the involved personnel;
(c) Priority of safety and the safety culture of the involved personnel;
(d) Commitment of relevant responsible personnel;
(e) Traceability of the information used for the decision making process;

(f) How organizational policy subjects are addressed;
(g) Whether there is a need to make recommendations or suggestions for particular activities.

5.3.5. Visits to organizations and facilities

Interviews and direct observations, as appropriate, may be carried out on the sites of involved organizations. The type of information to be gathered may include, as appropriate:

(a) Roles and responsibilities of the organization being visited;
(b) Resources available to fulfil assigned responsibilities, including facilities, equipment and staffing;
(c) General knowledge, skills and abilities of the staff;
(d) Existence of processes/procedures;
(e) Other elements relevant to the particular infrastructure issue.

5.3.5.1. Preparation for visits

Only one visit is normally arranged to each organization or facility in order to minimize travel time and reduce disruption for the visited organizations. More than one person (interviewee) may be made available by the visited organization, in order to cover all relevant topics in the single visit. Visits to government offices and/or other agencies for information gathering will be scheduled in the first half of the mission to the extent possible, to allow time for proper documentation and reviews.

Prior to the visit, the team member(s) will:

(a) Gain an understanding of the role of the organization;
(b) Identify those topics relevant to the mission and related to that organization;
(c) Be aware of related information collected so far during the mission and its relevance to the particular organization.

5.3.5.2. Conduct of visits

The visit will start with an opening statement by the team member(s) that includes a summary of the scope of the INIR mission, the purpose of the visit and questions to be addressed. This is particularly necessary if the visited organization was not represented at the entrance meeting. Team members should be prepared to accept changes made by the visited organization in scheduling and arrangements, while making every effort to cover all the topics on their agenda.

A representative of the host Member State is expected to accompany the team member(s) throughout the visit. At the end of the visit, the team member(s) will summarize and record the main observations, including strengths and weaknesses identified, for inclusion in the mission report.

5.3.6. Daily team meetings

At the end of each mission day, the team will meet to discuss the day's main achievements. The daily meetings are required in order to debrief and compare observations, to consolidate the results and to identify interfaces between the reviewed information. Daily meetings are to be held with the participation of all the team members. If this is not possible, then a telephone discussion may be arranged if the team is geographically separated. The team leader will establish the style and conduct of these meetings.

Items to be discussed may include:

(a) The summary by each team member of the day's key results;
(b) The insights and observations regarding the implications of the results;
(c) The feedback on potential new topics to be added to the initial review plan;
(d) The gaps, overlaps and areas where the information gathered that day was not clear;
(e) The inconsistencies between the information gathered that day and previous information;
(f) The observations, significant concerns and positive features which may form the basis for recommendations and suggestions;
(g) The elements which need to be brought to the attention of the entire team, especially those that have a bearing on the remainder of the mission;
(h) The plan to obtain missing information or resolve new topics that do not appear in the existing schedule;
(i) The activities and assignments to be conducted during the next day to enable all team members to provide input on the key topics to be addressed;
(j) The matters that the team leader needs to refer to the host counterpart or host contact persons;
(k) The status of each team member's written input to the draft mission report.

5.3.7. Recording and evaluation

5.3.7.1. Recording

During interviews, direct observations and visits, team members make detailed notes and record all relevant information gained, together with its source.

The information is recorded at the earliest opportunity and serves in developing the mission report. The recordings may include:

(a) The official names or titles of organizational units and the positions interviewed;
(b) A summary of points recorded or actions observed during the interview or visit, and their source;
(c) Comments on the role, responsibilities and effectiveness of the organization;
(d) Documentation obtained or reviewed;
(e) Comments on strengths and areas for improvement within the organization, as perceived at the time;
(f) A list of elements that need to be brought to the attention of other team members;
(g) The full meaning of abbreviations or acronyms used;
(h) Information needed to complete those parts of the Section 3 (Basis for Evaluation) tables of Evaluation [3] that were not previously completed.

Each team member summarizes the results for the day and records the insights and judgements in the standard evaluation forms (Appendix IV) that will be made available as an electronic template file. The daily summary record is then used to facilitate the effective discussion of all subject review areas at the daily meeting with the other team members. This meeting creates the opportunity for team members to consolidate their views, reach consensus where necessary and formulate the way in which their results are captured in the mission report.

5.3.7.2. Evaluation

The team members evaluate and draw preliminary conclusions, which may be further developed into recommendations and suggestions. The team members present the results of their evaluation using the standard evaluation forms (Appendix IV). The results of evaluation have their bases in known and formally documented evidence relating to the guidance in the Milestones approach [2].

5.4. PRELIMINARY DRAFT REPORT

Each mission is likely to be different, thus it is not practicable to suggest a timetable for all the mission's activities. However, at the earliest suitable opportunity, the team leader will discuss and formulate the team's conclusions,

and identify potential recommendations and suggestions based on the analysis of the team's review of the acquired information:

(a) Each team member evaluates those areas of the mission for which they were assigned, and aims to gain an understanding of, and share information in, other relevant review areas.
(b) When discussing each team member's input, the team leader seeks the team's agreement on the broad conclusions, recommendations and suggestions to the host Member State.
(c) When the team agrees upon a team member's results, the team leader incorporates the team member's written input into the preliminary draft report.

The team leader ensures that the conclusions presented in the report are in line with the objectives of the INIR mission and do not include an in-depth assessment of the quality of the infrastructure building activities.

During the latter part of the mission, the team leader, with clerical support if available, compiles the preliminary draft report based on daily inputs from the team members to capture the review results. Appendix IV provides an example of the standard report format. The host counterpart is provided with the individual sections of the preliminary draft report for review as soon as feasible. The host counterpart is invited to comment on this report during the mission to ensure technical accuracy and common understanding of the reported results. At the end of the mission, a copy of the preliminary draft report is provided to the host counterpart.

5.5. EXIT MEETING

The review mission concludes with the exit meeting. This consists of a presentation of the main results by the team, which can be followed by a discussion with the key representatives from the host Member State on possible ways to address the points that have been raised.

The exit meeting will normally be attended by:

(a) The INIR team;
(b) The host counterpart and, as appropriate, host contact persons and observers;
(c) Representatives from other organizations involved in the infrastructure development programme.

The INIR team leader summarizes the main results of the mission. The format of the exit meeting may vary widely, but will normally include:

(a) A description of the mission objectives and scope;
(b) Areas reviewed and activities conducted;
(c) Identified strengths and areas for improvement;
(d) Other observations that the team feels need to be highlighted to the host Member State;
(e) Recommendations and suggestions for planning further activities.

The team members may, as appropriate, provide a brief verbal report of results in their own subject review areas.

The preliminary draft mission report provided before the exit meeting will allow the host counterpart to review and provide comments on the contents. The team leader will explain to the host counterpart that the document is a 'preliminary draft report' which will require further review and subsequent approval by the IAEA before a final mission report is issued.

5.6. FEEDBACK FOR IMPROVING INIR MISSIONS

A short team meeting should be convened (this could immediately follow the exit meeting) to gather feedback from the team members as well as from the host counterpart on the performance of the review mission. The purpose is to discuss strengths and weaknesses and provide suggestions on what could be improved in future INIR missions. These comments will be collated by the team leader and, upon return to the IAEA, subsequently forwarded through the INIG leader to the Nuclear Power Support Group, the senior management of Technical Cooperation and to the other IAEA departments involved. The collected information is analysed to improve subsequent INIR missions and to consider the timing and scope of further revision to the guidance or the evaluation basis.

5.7. DRAFT REPORT

The team leader further develops the draft report after the mission. The draft report includes revisions to the preliminary draft report to reflect relevant inputs from the exit meeting, any subsequent discussion with the host counterpart and any necessary editorial style modification. The draft report is reviewed by all team members and their comments are incorporated by the team leader. The draft report is then sent to the host counterpart for comments. The goal is to have the

draft report sent to the host counterpart *within two weeks* of concluding the exit meeting.

The host counterpart is expected to collect all comments on the draft report from participating organizations within the host Member State and send them to the team leader. The comments from the host counterpart are expected to be limited to elements relating to the factual correctness of the information contained in the report. The return of the host counterpart's comments to the team leader is expected *within one month* of receiving the draft report.

5.8. FINAL REPORT

The team leader, with appropriate coordination with the other team members, assesses the comments received from the host counterpart and produces the final INIR mission report. The team leader delivers the INIR mission report to the INIG leader.

The INIG leader submits the INIR mission report to the Deputy Director General, Head of Nuclear Energy, for formal release. In the case of a mission before invitation of bids (see Section 2.3.3), the report is submitted by the INIG leader to the Nuclear Power Support Group for any additional comments prior to formal release to the Member State.

The Deputy Director General, Head of Nuclear Energy, formally delivers the INIR mission report to the host Member State through the official channels *not later than six weeks* after receiving the host counterpart's comments. The IAEA restricts initial distribution of the report to the authorities concerned, the contributors to the report and the responsible IAEA staff. Any further distribution is at the discretion of the host Member State.

The INIR mission report is not made publicly available unless the host Member State specifically requests otherwise. However, in the interest of openness, countries are encouraged to make their report public.

5.9. ACTION PLAN

Using the results from the INIR final report, the host Member State is expected to develop an action plan to specify the actions to be taken to develop and improve the national nuclear infrastructure further by addressing recommendations and suggestions from the mission report. It is expected that the action plan will be made available within a reasonable period after the INIR mission.

For certain countries, the action plan may also indicate what further IAEA input or assistance the country desires (e.g. documentation, expert missions, training) as well as the assistance that is, or could be, provided by other supporting organizations/countries. Any subsequent or consequent request for IAEA assistance would need to be channelled through the normal Technical Cooperation mechanism.

The decision to implement an action plan to address the mission's recommendations and suggestions lies entirely with the relevant authorities of the Member State concerned.

Appendix I

ROLE AND RESPONSIBILITIES OF THE INIR TEAM LEADER, TEAM MEMBERS, HOST COUNTERPART AND OBSERVERS

I.1. TEAM LEADER

Taking into account that different national conditions prevail in each Member State and that the Member States will be in different phases of infrastructure development, the team leader needs to recognize that there may be a need to adopt an appropriate, pragmatic and flexible approach aimed at maximizing the effectiveness of the mission.

The primary responsibilities of the team leader are to:

(a) Serve as the official IAEA liaison with the host counterpart prior to, during and after the review mission;
(b) Consult with the INIG leader, technical officer, project management officer and appropriate IAEA technical officers in areas related to the mission;
(c) Determine the specific scope of the mission and seek agreement with the host counterpart;
(d) Collect the necessary information and material;
(e) Develop the detailed work plan for the mission, in conjunction with the host counterpart;
(f) Identify appropriate team members in conjunction with the host counterpart and with the INIG leader, technical officer, project management officer and appropriate IAEA technical officers;
(g) Interact with the technical officer and project management officer, providing information for recruiting the team and for travel arrangements;
(h) Assign tasks to team members;
(i) Provide team members with appropriate pre-mission information;
(j) Interact with the host counterpart regarding logistical arrangements;
(k) Participate as a full team member in the mission, if other duties allow sufficient time;
(l) Lead the mission, including supervising the review, ensuring schedules are met and providing leadership in the resolution of subjects that may arise;
(m) Lead the team coordination, entrance, daily and exit meetings;
(n) Ensure that the team works in a consistent and cohesive manner;
(o) Communicate with team members on a regular basis prior to and during the mission, in order to ensure that team members are adequately prepared and informed;

(p) Ensure that the objectives of the mission are met;
(q) Provide guidelines for the conduct of the daily meetings;
(r) Collect the information for the mission's preliminary draft report based on the contributions from the team members;
(s) Prepare the preliminary draft report and submit it to the host counterpart at the end of the mission;
(t) Prepare the draft report using the preliminary report and incorporating comments received from the host counterpart and team members;
(u) Submit the draft report to the host counterpart for comments;
(v) Finalize the mission report on the basis of the comments received from the host counterpart and team members;
(w) Submit the final report to the INIG leader.

I.2. TEAM MEMBERS

The primary responsibilities of the team members are to:

(a) Make the necessary preparations for the mission on the basis of information provided by the team leader;
(b) Conduct the mission as directed by the team leader;
(c) Participate in the team coordination, entrance, daily and exit meetings;
(d) Take the lead during interviews with the Member State's hosts;
(e) Evaluate the acquired review information and provide conclusions, recommendations and suggestions;
(f) Review, jointly with the team, all conclusions, recommendations, suggestions and good practices;
(g) Provide daily inputs to the preliminary report, as directed by the team leader;
(h) Review the completed preliminary draft report;
(i) Assist the team leader to resolve any Member State comments in producing the final report;
(j) Maintain appropriate confidentiality of sensitive information in accordance with the Member State's confidentiality agreement;
(k) Provide comments after completion of the mission to the IAEA on the mission performance together with suggestions for improvement.

I.3. HOST COUNTERPART

The host counterpart officer is the focal contact person who has the authority to manage and coordinate the activities of the related local

organizations before, during and after the INIR mission. The host counterpart is expected to:

(a) Act as the official Member State liaison with the team leader;
(b) Coordinate overall host arrangements for the mission;
(c) Provide for the security of the team members;
(d) Work in conjunction with the team leader to determine the specific scope and work plan of the mission;
(e) Provide consent to the proposal for team members;
(f) Provide the advance information in English;
(g) Designate and provide information/instructions to the host contacts and host observers;
(h) Ensure availability of relevant local experts to address all 19 infrastructure issues;
(i) Arrange provision of adequate logistical facilities and support;
(j) Whenever possible, coordinate activities in a single location to facilitate efficient work;
(k) Participate in the initial and exit meetings, and in other team meetings when invited by the team leader.
(l) Provide comments to the preliminary draft report and to the draft report.

I.4. OBSERVER

The main purpose of an observer taking part in the INIR mission is to gain insight into the review process and acquire knowledge that can be used either for performing self-evaluations in their country or for participating as a team member in a future INIR mission. The observer can be someone from the host Member State appointed by the host counterpart, or someone from another Member State agreed on by the host counterpart. The scope of the observer's involvement is agreed to by the IAEA team leader and the host counterpart prior to the start of the mission. Typically, the observer will be expected to:

(a) Attend the entrance and exit meetings;
(b) Attend team activities;
(c) Participate in daily team meetings;
(d) Observe the overall review process with regard to the roles and responsibilities of the participants, the review approach and the mission report development;
(e) Attend the discussions between the team members and hosts;
(f) Watch the direct observation activities;

(g) Review the material provided for the mission;
(h) Maintain observer status and seek clarification if necessary;
(i) Prepare notes, concentrating on aspects of benefit to their country's situation, and to discuss them with the team leader.

Appendix II

CRITERIA FOR CLASSIFICATION OF ACTIONS NEEDED

The classification of the 'actions needed' for each of the 'conditions' identified in the Evaluation publication [3] is done through a consensus of the INIR team, and is not based solely upon the judgement of any individual team member.

The classification applied to each condition is valid at the point in time at which the INIR mission is conducted and the classification may, therefore, change if and when future evaluations are conducted.

The proposed classifications will be provided to the host counterpart, who will have the opportunity to question these classifications.

It is noted that if the mission is accomplished early in the phase, typically most of the conditions will be classified as 'significant actions needed'.

The following are the criteria for classification:

(a) Significant actions needed

The 'review observations' indicate that there is considerable effort still needed to realize the stated condition, and that achievement of this condition is needed in order to be able to sustain overall progress in developing an effective national nuclear power infrastructure.

(b) Minor actions needed

The review observations indicate that there is some effort still needed to realize the stated condition. However, the current status supported by the ongoing activities mostly achieves the desired condition.

(c) No actions needed

The available evidence indicates that the intention underlying this condition has been achieved. However, as work continues on the infrastructure knowledge and implementation, care has to be taken to ensure that this classification remains valid.

Appendix III

CRITERIA FOR IDENTIFICATION OF RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES

Recommendations

Recommendations are proposed when aspects related to fulfilment of conditions of nuclear infrastructure development are discrepant, incomplete or inadequately implemented. Recommendations are specific, realistic and designed to result in tangible improvement. Recommendations are based on the Milestone approach and, as applicable, state the relation with the specific issue. The recommendations are formulated so that they are succinct and self-explanatory.

Suggestions

Suggestions may indicate useful expansions of existing programmes and point out possible better alternatives to current work. In general, suggestions stimulate the management and staff to consider new or different approaches to develop infrastructure and enhance performance. The bases for each suggestion are clearly documented in the mission report. Suggestions are formulated so that they are succinct and self-explanatory.

Good practices

A good practice is identified in recognition of an outstanding organization, arrangement, programme or performance superior to those generally observed elsewhere. A good practice is more than just the fulfilment of the conditions or expectations. It is worthy of the attention of other countries involved in the development of nuclear infrastructure as a model in the drive for excellence. Good practices also reference the bases (similar to suggestions) and are clearly documented in the mission report.

Appendix IV

EXAMPLE OF AN INIR MISSION REPORT

The material in this appendix is provided to the INIR team members as a Word template file for use in collecting the review results during the performance of the mission and presenting them at the exit meeting.

Preliminary draft

REPORT

on

THE INTEGRATED NUCLEAR INFRASTRUCTURE REVIEW (INIR) MISSION

to

Review the Status of the National Nuclear Infrastructure in ……

Counterpart: …..

City, Country

Date

Technical Cooperation Project ……

CONTENTS

EXAMPLE

Summary of evaluation results

The results summarized in the table below neither validate the Member State actions and programmes nor certify the quality and completeness of the work done by the Member State.

1. National position	**Phase 1**		
Condition	**Actions needed**		
	SIGNIFICANT	**MINOR**	**NO**
1.1. Safety, security and non-proliferation needs recognized		X	
1.2. NEPIO[a] established and staffed			X
1.3. National strategy defined			X
2. Nuclear safety	**Phase 1**		
Condition	**Actions needed**		
	SIGNIFICANT	**MINOR**	**NO**
2.1. Understanding of key elements of nuclear safety		X	
2.2. Need for intergovernmental instruments on safety			X
2.3. Support through international cooperation	X		
3. Management	**Phase 1**		
Condition	**Actions needed**		
	SIGNIFICANT	**MINOR**	**NO**
3.1. Energy strategy and nuclear power compatibility analysed		X	
3.2. Unique Member State conditions evaluated			X
3.3. Available nuclear technologies identified			X
3.4. Ownership options and operational responsibilities considered	X		
3.5. Authorities and responsibilities established			X
3.6. Appropriate expertise and experience			X
3.7. The management systems of all participating organizations are used to promote and support a strong safety culture	X		
4. Funding and financing	**Phase 1**		
Condition	**Actions needed**		
	SIGNIFICANT	**MINOR**	**NO**
4.1. Adequate funding provided for the NEPIO to assess fully the commitments required to implement a nuclear power programme	X		
4.2. Strategies established for funding and financing			X

[a] NEPIO: Nuclear Energy Programme Implementing Organization.

Note: The forms for the other infrastructure issues are similarly produced using the information in the Evaluation publication [3].

EXAMPLE FOR ATTACHMENT 1

Detail review form for infrastructure issue: National position

Issue 1: National position **Condition 1.1: Safety, security and non-proliferation needs recognized**	**Phase 1**
Basis for evaluation	**Review observations**
Official documentation clearly demonstrating the government's commitment to the safe, secure and peaceful implementation of nuclear power for the long term.	

EVALUATION Condition 1.1

Significant actions needed ☐ **Minor actions needed** ☐ **No actions needed** ☐

RECOMMENDATIONS

R-1.1 No. 1

R-1.1 No. 2

…

SUGGESTIONS

S-1.1 No. 1

S-1.1 No. 2

…

GOOD PRACTICES

GP-1.1 No. 1

…

1. National position Condition 1.2: NEPIO established and staffed	Phase 1
Basis for evaluation	**Review observations**
The charter showing that the NEPIO has been established by, and reports to, a senior government minister.	
The roles and responsibilities defined in the charter are known by other government ministries and key members of the NEPIO.	
The NEPIO charter clearly charges and authorizes the preparation of a comprehensive report to identify the commitments and conditions necessary to establish a national nuclear power programme. It defines an adequate scope of investigations and clear definition of objectives and timescales. It should identify how its mandate and activities fit with the overall plan for implementing the nuclear power option.	
A clear description of how the NEPIO operates in terms of funding, office accommodation and equipment, and reference material.	
Evidence showing adequate interactions between, and support from, appropriate ministers such as those responsible for energy, environment, etc.	
A documented budget planning and reporting process showing that appropriate funding is provided to, and expended by, the NEPIO to fulfil its charter in the scheduled time.	
Organization chart, job descriptions and CVs of members demonstrating appropriate skills, qualifications and experience to address all of the infrastructure issues based on requirements in the publication Basic Infrastructure for a Nuclear Power Project (IAEA-TECDOC-1513) [4]. This includes appropriate use of consultants and the demonstration that the organization is an 'intelligent customer' (i.e. the organization has a clear understanding and knowledge of the product or service being supplied).	

1. National position Condition 1.2: NEPIO established and staffed	Phase 1
Basis for evaluation	**Review observations**
EVALUATION Condition 1.2 **Significant actions needed** ☐ **Minor actions needed** ☐ **No actions needed** ☐	
RECOMMENDATIONS **R-1.2 No. 1** …	
SUGGESTIONS **S-1.2 No. 1** …	
GOOD PRACTICES **GP-1.2 No. 1** …	

Note: The forms for the other infrastructure issues are similarly produced using the information in the Evaluation publication [3].

1 National position **Condition 1.3: National strategy defined**	Phase 1
Basis for evaluation	**Review observations**
Comprehensive report produced by the NEPIO covering all areas identified in the Milestones publication [2] and recognizing the resources and timescales required for the activities required for phase 2. A demonstration that the Member State can provide the overall resources required integrated across all areas.	
Executive summary of the comprehensive report is based on the detailed report, contains estimates of total resources and timescales and has been properly reviewed by senior government officials.	

EVALUATION Condition 1.3

Significant actions needed ☐ **Minor actions needed** ☐ **No actions needed** ☐

RECOMMENDATIONS

R-1.3 No. 1

…

SUGGESTIONS

S-1.3 No. 1

…

GOOD PRACTICES

GP-1.3 No. 1

…

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[1] Considerations to Launch a Nuclear Power Programme, GOV/INF/2007/2, IAEA, Vienna (2007).

[2] INTERNATIONAL ATOMIC ENERGY AGENCY, Milestones in the Development of a National Infrastructure for Nuclear Power, IAEA Nuclear Energy Series No. NG-G-3.1, IAEA, Vienna (2007).

[3] INTERNATIONAL ATOMIC ENERGY AGENCY, Evaluation of the Status of National Nuclear Infrastructure Development, IAEA Nuclear Energy Series No. NG-T-3.2, IAEA, Vienna (2008).

[4] INTERNATIONAL ATOMIC ENERGY AGENCY, Basic Infrastructure for a Nuclear Power Project, IAEA-TECDOC-1513, IAEA, Vienna (2006).

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