United Nations A/AC.105/C.1/NPS/2019/L.1

General Assembly

Distr.: Limited
15 February 2019

Original: English

Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee
Fifty-sixth session
Vienna, 11–22 February 2019

Draft report of the Working Group on the Use of Nuclear Power Sources in Outer Space

1. Pursuant to General Assembly resolution 73/91, the Scientific and Technical Subcommittee, at its 895th meeting, on 11 February, reconvened its Working Group on the Use of Nuclear Power Sources in Outer Space, with Sam A. Harbison (United Kingdom of Great Britain and Northern Ireland) as Chair.

2. The Working Group recalled the following objectives of its multi-year workplan for the period 2017–2021, adopted by the Subcommittee at its fifty-fourth session, in 2017 (A/AC.105/1138, annex II, paras. 8 and 9):

> Objective 1. Promote and facilitate the implementation of the Safety Framework for Nuclear Power Source Applications in Outer Space by:
>
> (a) Providing an opportunity for member States and international intergovernmental organizations considering or initiating involvement in space nuclear power source (NPS) applications to summarize and discuss their plans, progress to date and any challenges faced or foreseen in implementing the Safety Framework;
>
> (b) Providing an opportunity for member States and international intergovernmental organizations with experience in space NPS applications to make presentations on challenges identified under subparagraph (a) above, and on their mission-specific experiences in implementing the guidance contained in the Safety Framework.
>
> Objective 2. Discuss within the Working Group advances in knowledge and practices and their potential for enhancing the technical content and scope of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space through presentations from member States and international intergovernmental organizations based on one or more of the following:
>
> (a) Their practical experience in implementing the Principles;
>
> (b) Their knowledge of advances in science and technology relating to space NPS;
>
> (c) Their knowledge of internationally accepted norms, standards and practices regarding radiation protection and nuclear safety.

3. The Working Group also recalled that 2019 marked the tenth anniversary of the adoption of the Safety Framework by the Scientific and Technical Subcommittee, at its forty-sixth session, in February 2009. The Working Group further recalled the subsequent agreement to the Safety Framework of the Commission on Safety Standards of the International Atomic Energy Agency, at its twenty-fifth meeting, in April 2009. In that connection, the Working Group:

(a) Recalled that the purpose of the Safety Framework was to promote the safety of space NPS, and noted with satisfaction that a number of States and one international intergovernmental organization had been implementing the Safety Framework;

(b) Noted the value and importance of implementing the Safety Framework;

(c) Noted with satisfaction that, following consideration of objective 1 of the current multi-year workplan, to date, Member States and international intergovernmental organizations had not identified any challenges to implementing the Safety Framework that would require any modification or additions to the Safety Framework;

(d) Expressed the view that the Safety Framework provided all the necessary information pertinent to the challenges of the safe use of space NPS faced by Member States and international intergovernmental organizations;

(e) Called upon Member States and international intergovernmental organizations to continue, or to begin, the implementation of the Safety Framework.

4. The Working Group had before it a conference room paper entitled “Implementation of the guidelines provided for in the international safety framework for nuclear power source applications in outer space for ESA space missions: the ESA safety policy on the use of nuclear power sources” (A/AC.105/C.1/2019/CRP.10), which had been prepared by ESA under objective 1 of the multi-year workplan of the Working Group.

5. The Working Group noted with satisfaction that ESA had become the first international intergovernmental organization to implement the Safety Framework and thanked it for its long-standing and active participation in the work of the Working Group.

6. Under objective 2 of its multi-year workplan, the Working Group continued its discussion of advances in knowledge and practices and their potential for enhancing the technical content and scope of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space. In accordance with the agreement reached at its meeting during the fifty-fifth session of the Subcommittee, in 2018 (A/AC.105/1167, annex II, para. 8), the Working Group continued to exchange views on practical experiences in implementing the Principles in relation to enhancing the safety of space NPS applications.

7. In relation to the work referred to in paragraph 6 above, the delegation of the United States of America presented an informal paper for discussion at an informal meeting, concluding that, in its country’s view, the practical application of the Safety Framework satisfied the safety intent of the Principles, and therefore provided sufficient guidance to States and international intergovernmental organizations seeking to ensure the safe development and use of nuclear power in outer space. That conclusion was supported by the experience of the United States in practical application to a range of space NPS missions.

8. The delegations of China and the Russian Federation indicated, informally, that according to their countries’ experiences, the application of the practical guidance contained in the Safety Framework satisfied the intent of the Principles and, in their view, provided sufficient guidance to member States and international intergovernmental organizations seeking to ensure the safe development and use of nuclear power in outer space. The Working Group invited the delegations of China and the Russian Federation to prepare informal papers for discussion during its work

at the fifty-seventh session of the Subcommittee, in 2020, providing further details on their experiences of how the Safety Framework and Principles contributed to promoting the safety of their space NPS applications.

9. The Working Group continued to discuss a number of aspects of the Principles, including their structure and scope and the treatment of space NPS safety in principles 3 and 4. The Working Group noted that the Principles reflected technical knowledge and practices relevant to the safety of space NPS applications at the time of their drafting and adoption. The Working Group also noted that the scope of the Principles was different to the scope of the Safety Framework.

10. The Working Group agreed that intersessional work would be required to be successful in meeting the objectives of its multi-year workplan, including the discussion of the matters referred to in paragraph 9 above, and decided to conduct its intersessional work in 2019 by teleconferences, the first of which would be held on 6 June 2019.

11. In accordance with its multi-year workplan, the Working Group requested the Secretariat to invite, by no later than April 2019, States members of the Committee and international intergovernmental organizations to make technical presentations and/or prepare informal papers for discussion pursuant to objective 1 and/or objective 2 of the workplan. The Working Group requested the Secretariat to allocate sufficient time for its work during the fifty-seventh session of the Subcommittee, in 2020, in order to ensure the effective delivery of technical presentations, to be followed by an exchange of views and discussions.

12. At its […] meeting, on […] February, the Working Group adopted the present report.