



---

**Committee on the Peaceful  
Uses of Outer Space**  
**Scientific and Technical Subcommittee**  
**Fifty-fourth session**  
Vienna, 30 January-10 February 2017**Draft report of the Working Group on the Use of Nuclear  
Power Sources in Outer Space**

1. Pursuant to General Assembly resolution 71/90, the Subcommittee, at its 855th meeting, on 30 January, reconvened its Working Group on the Use of Nuclear Power Sources in Outer Space under the chairmanship of Sam A. Harbison (United Kingdom of Great Britain and Northern Ireland).

2. The Working Group recalled the objectives of its multi-year workplan for the period 2010-2015, adopted by the Subcommittee at its forty-seventh session, in 2010 ([A/AC.105/958](#), annex II, para. 7) and extended to 2017 by the Subcommittee at its fifty-first session, in 2014 ([A/AC.105/1065](#), annex II, para. 9):

(a) To promote and facilitate the implementation of the Safety Framework for Nuclear Power Source Applications in Outer Space by providing information pertinent to challenges faced by member States and international intergovernmental organizations, in particular those considering or initiating involvement in applications of nuclear power sources (NPS) in outer space;

(b) To identify any technical topics for, and establish the objectives, scope and attributes of, any potential additional work by the Working Group to further enhance safety in the development and use of space NPS applications. Any such additional work would require the approval of the Subcommittee and would be developed with due consideration for relevant principles and treaties.

3. The Working Group had before it the following:

(a) Draft report on the implementation of the Safety Framework for Nuclear Power Source Applications in Outer Space and general recommendations for potential future work ([A/AC.105/C.1/L.359](#));

(b) Safety recommendations for nuclear power source applications in outer space ([A/AC.105/C.1/L.360](#)).

4. The Working Group took note of the presentation entitled “Safety recommendations for nuclear power source applications in outer space”, which had been made to the Subcommittee by the representative of the United Kingdom.



5. In accordance with its multi-year workplan, the Working Group continued its consideration of document [A/AC.105/C.1/L.359](#) and prepared its report on the status of implementation of the Safety Framework for Nuclear Power Source Applications in Outer Space and its recommendations for future work.

6. The amended and finalized report and recommendations were before the Subcommittee in a conference room paper ([A/AC.105/C.1/2017/CRP.23](#)). The Working Group requested the Secretariat to make that conference room paper available as a revision to document [A/AC.105/C.1/L.359](#) immediately after the current session of the Subcommittee and in all official languages of the United Nations.

7. Based on the results of the current multi-year workplan, and taking note of potential opportunities for further enhancing safety in the use of space NPS, the Working Group reached consensus on the following recommendations:

(a) The Subcommittee should continue to encourage and provide opportunities for:

(i) States members of the Committee and intergovernmental organizations involved in space NPS mission applications, or planning or considering such involvement, to report on their progress in implementing the Safety Framework and to identify challenges and experiences relevant to implementing the Safety Framework;

(ii) States members of the Committee and intergovernmental organizations with experience in space NPS to share information relevant to addressing those challenges;

(iii) Presentations by States members of the Committee with experience in space NPS applications on their mission-specific experiences in implementing the guidance contained in the Safety Framework and in satisfying the intent of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space;

(b) The Subcommittee should provide the opportunity for States members of the Committee and intergovernmental organizations to engage in discussions within the Working Group about 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.

8. The Working Group prepared a new multi-year workplan encompassing the recommendations, and with the following objectives:

Objective 1. Promote and facilitate the implementation of the Safety Framework by:

(a) Providing an opportunity for member States and international intergovernmental organizations considering or initiating involvement in space 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.

9. The Working Group agreed that it would advance those objectives by conducting the following workplan for the period 2017-2021:

- 2017 Conduct intersessional work by holding teleconferences and meetings, as necessary, in order to prepare for activities to be implemented under the workplan. Request the Secretariat to invite, by no later than April 2017, States members of the Committee and international intergovernmental organizations to make technical presentations pursuant to the first and/or second objectives of the workplan.
- 2018 Receive technical presentations pursuant to the invitation extended in 2017. In its report to the Subcommittee, the Working Group will: (a) summarize the technical presentations; (b) identify any significant challenges that should be addressed in the presentations planned for 2019 by member States and international intergovernmental organizations with experience in space NPS applications; and (c) summarize the discussions about potential enhancement of the technical content and scope of the Principles. Request the Secretariat to invite, by no later than April 2018, States members of the Committee and international intergovernmental organizations to make technical presentations pursuant to the first and/or second objectives of the workplan.
- 2019 Receive technical presentations under the same arrangements as in 2018. In its report to the Subcommittee, the Working Group will: (a) summarize the technical presentations; (b) identify any significant challenges that should be addressed in the presentations planned for 2020 by member States and international intergovernmental organizations with experience in space NPS applications; and (c) summarize the discussions about potential enhancements of the technical content and scope of the Principles. Request the Secretariat to invite, by no later than April 2019, States members of the Committee and international intergovernmental organizations to make technical presentations pursuant to the first and/or second objectives of the workplan.
- 2020 Receive technical presentations under the same arrangements as in 2019. Determine whether the current workplan should be extended and, if it is not to be extended, prepare a draft report summarizing the technical presentations received and the challenges identified during the course of the workplan and identifying potential enhancements to the technical content and scope of the Principles.
- 2021 If the workplan has not been extended, finalize the report.

10. In accordance with the new multi-year workplan, the Working Group requested the Secretariat to invite, by no later than April 2017, States members of the Committee and international intergovernmental organizations to make technical presentations pursuant to the first and/or second objectives of the workplan.

11. The Working Group noted with sorrow the passing of Jan P. Fladeboe of the United States of America, who had been a long-standing contributor to the work of the Working Group.

---