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Committee on the Peaceful Uses of Outer Space Scientific and Technical Subcommittee Fifty-eighth session Vienna, 19–30 April 2021

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

1. In accordance with paragraph 5 of General Assembly resolution 75/92, the Scientific and Technical Subcommittee, at its 935th meeting, on 19 April 2021, 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 had before it the following documents, which were discussed during its formal and informal meetings:

(a) Working paper entitled "Experience in the practical application of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space and the Safety Framework for Nuclear Power Source Applications in Outer Space", prepared by the Russian Federation (A/AC.105/C.1/L.388);

(b) Working paper entitled "Updated and risk-informed process for launching space nuclear systems in the United States of America", prepared by the United States (A/AC.105/C.1/L.389);

(c) Document entitled "Updated preliminary analysis of how the Principles Relevant to the Use of Nuclear Power Sources in Outer Space contribute to the safety of space nuclear power source applications", prepared by Italy, France, the United Kingdom and ESA (A/AC.105/C.1/L.390);

(d) Draft report on the implementation of the Safety Framework for Nuclear Power Source Applications in Outer Space and recommendations for potential enhancements of the technical content and scope of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, prepared by the Working Group on the Use of Nuclear Power Sources in Outer Space (A/AC.105/C.1/L.391).

4. The Working Group recalled that, in accordance with its workplan, in 2020, it had been necessary to determine whether the current workplan should be extended and, if it was not to be extended, to 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. In that connection, the Working Group recalled with satisfaction that during 2020 it had held a number of informal virtual meetings to meet the objectives of the workplan for that year and had been able to make good progress in developing a draft report to the Subcommittee on the outcome of its work under the current workplan (A/AC.105/C.1/L.391), while also considering the possibility of extending the workplan.

5. On the basis of its deliberations during 2020, as well as at the formal and informal meetings held during the current session, the Working Group agreed that more discussions and work were needed in order to complete its final report to the Subcommittee. The Working Group therefore recommended that the current multi-year workplan be extended to 2022, as follows:

2022 Finalize the report to the Subcommittee on the outcome of the multi-year workplan.

6. The Working Group agreed that, should the workplan be extended, a series of intersessional meetings would be necessary. In that connection, the Working Group requested the Secretariat to facilitate the scheduling, preparation and holding of those intersessional meetings. Furthermore, the Working Group felt that it would be highly desirable to hold a meeting on the margins of the sixty-fourth session of the Committee, which was planned to be held from 25 August to 3 September 2021.

7. The Working Group also agreed that the Secretariat should, under the guidance of the Chair of the Working Group, update the contents of the website of the Office for Outer Space Affairs dedicated to the work of the Working Group (www.unoosa.org/oosa/en/COPUOS/stsc/wgnps/index.html).

8. At its [...] meeting, on [...] April, the Working Group adopted the present report.