

**Statement by Kevin Conole, United States Representative, on Agenda
Item 15, “Use of Nuclear Power Sources in Outer Space”
February 8, 2022**

Thank you, Mr. Chair. The United States calls on Member States and international intergovernmental organizations that are considering the use of space Nuclear Power Sources (NPS) to implement the joint Safety Framework developed in 2009 by this Subcommittee, in partnership with the International Atomic Energy Agency. The United States has actively participated in the NPS Working Group, which has provided a useful forum to discuss specific aspects of the Safety Framework’s guidance and to learn from presentations and papers. Our experience of more than 30 missions involving space NPS during the last 60 years allows us to offer mission-specific experiences implementing the guidance of the Safety Framework. We look forward to concluding this working group next year.

Since 1961, NPS applications have played a critical role in the exploration of space. Since landing in February 2021, the Mars 2020 Perseverance rover, powered by radioisotope power, has been exploring the Jezero Crater, seeking signs of ancient life and collecting samples of rock and regolith for possible future return to Earth. Perseverance brought with it the world’s first extraterrestrial rotorcraft “Ingenuity,” which has since flown 18 times.

Another example of the exciting potential for exploration uniquely enabled by nuclear power in space is the Dragonfly mission, which will follow the same successful safety processes as Mars 2020. Scheduled to launch Titan in 2027 and arrive in 2035, Dragonfly adds nuclear power to enable unlimited flight with eight rotors to fly like a large drone on multiple sorties through the atmosphere. All NPS missions have been, and will continue to be, implemented using processes consistent with the Safety Framework and in the spirit of the Principles.

Nuclear power has opened the solar system to exploration, allowing us to observe and understand dark, distant planetary bodies that would otherwise be unreachable. Similarly, use of nuclear power sources in in-space propulsion of spacecraft is a potential technology for crew and cargo missions to Mars, and scientific missions to the outer solar system, enabling faster and more robust human and robotic missions.

The United States remains committed to the Safety Framework and the safety intent of the Principles as we continually improve our processes to be more efficient and effective. NASA and the U.S. Department of Energy partner to ensure safety as we provide these vital space power technologies to enable and

enhance such ambitious and exciting exploration missions for the benefit of humankind.

The United States believes the Principles and the Safety Framework provide a comprehensive foundation to support the safe use of nuclear power in space. The guidance provided by the Safety Framework enables new approaches to safety based upon continuing advances in knowledge and practice since the adoption of the Principles. The Safety Framework allows for States and international intergovernmental organizations to innovate new approaches based on the expansion of knowledge and best practices gained from experience, and therefore continuously improve safety. The practical application of the Safety Framework satisfies the safety intent of Principles, and therefore is sufficient guidance to States and international intergovernmental organizations seeking to ensure the safe development and use of nuclear power in space.

As the current mandate for the Working Group comes to conclusion, the United States supports maintaining the NPS agenda item to allow for the sharing of information in order to promote further understanding and awareness of effective processes to ensure the safe use of nuclear power in space. To further support these objectives in the emerging NPS user community, the U.S. supports establishing an international technical expert group for the safe use space nuclear power and propulsion systems. Such an expert group could gather and disseminate knowledge and best practices in the development and use of space nuclear power and propulsion systems among governments, international/intergovernmental, academia, non-profit organizations, and private commercial entities, in order to promote the safe use of nuclear power and propulsion systems in space.

Mr. Chair, the United States Delegation extends our gratitude to the United Kingdom for its chairmanship of the NPS Working Group, the Secretariat for facilitating the work of the NPS Working Group and for the excellent translation services. Thank you, Mr. Chair.