proposing the establishment of a working group of technical and scientific experts. Such a working group could be constituted along lines similar to earlier working groups established under the auspices of this subcommittee and its parent body, such as the Working Group on Remote-Sensing and Working Group on Direct Broadcasting by Satellites. It would be charged with a careful study of relevant aspects of the use of nuclear-power sources in outer space, with a view to making recommendations for action by member states. This working group would, of course, depend on the full support and active participation of all members concerned with this technology. It could make a major contribution to the clarification of the issues, as did its predecessors in other areas of study, thus preparing the ground for constructive action in the Legal Subcommittee, the parent committee and the General Assembly. At the same time as the working group is broadening our base of scientific and technical information, discussion of legal and other aspects could proceed in tandem.

The following are some of the questions and issues to which the proposed working group should address itself. What alternatives are available as power sources for satellites and what are their relative advantages and disadvantages, including safety considerations? As amongst various nuclear-power sources, such as reactors using uranium 235 and radioisotope generators using plutonium 238, what are the relative advantages and disadvantages, including safety considerations? Should certain standards of radiation levels be established for space objects returning to earth? As a related question, should restrictions be placed on use of nuclear-power sources in relation to altitude and lifetime of orbit and decay-time (half-life) of radioactive material? What special precautions should be taken so as to rule out any possibility of uncontrolled fission reaction or explosion on aborted launch or after re-entry? What special safeguards or design standards should be developed regarding dispersal of radioactive material on re-entry or, alternatively, regarding intact re-entry and recovery? What measures are appropriate and feasible so as to provide notification of: (a) intention to launch spacecraft with a nuclear-energy source on board; (b) risk due to re-entry; (c) probable time and place of impact; and, (d) actual impact? What role could be played by other UN organizations, such as IAEA and UNDRO, so as to enhance the level of safety of operations of such satellites and adequate international emergency-response operations, if needed, for search, recovery and clean-up?

Other delegations may well have other questions to put to the working group, and we offer these questions only as a preliminary indication of areas where we believe that technical studies should be pursued.

I do not wish to raise here legal matters that should appropriately be dealt with in the Legal Subcommittee meeting in Geneva next month. However, I should make clear our intention to call for parallel studies of legal implications of this matter, as part of a phased and comprehensive response. We have in mind proposing, in particular, a review of the existing international instruments adopted by the Outer Space Committee in earlier years to determine whether there is a need for elaboration of an additional instrument governing the use of nuclear-power sources in outer space, either in the form of guiding principles for adoption by the General Assembly or of a convention containing binding legal obligations. Taking into account all technical and