

## NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice 98-136]

### National Environmental Policy Act; Europa Orbiter Mission

**AGENCY:** National Aeronautics and Space Administration (NASA).

**ACTION:** Notice of intent to prepare an environmental impact statement and conduct scoping for the Europa Orbiter mission.

**SUMMARY:** Pursuant to the National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321, *et seq.*), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), and NASA policy and procedures (14 CFR Part 1216 Subpart 1216.3), NASA intends to prepare an Environmental Impact Statement (EIS) for NASA's Europa Orbiter mission. The EIS will address the environmental impacts associated with launching and operating the mission.

The Europa Orbiter mission is currently proposed to launch in November 2003 or December 2004 from Kennedy Space Center, Florida, on an orbital mission around Jupiter's icy moon Europa. The launch date would be affected by the launch date for NASA's proposed Pluto-Kuiper Express mission. Concurrent with the publication of this notice of intent (NOI), NASA is publishing an NOI to prepare an EIS for the Pluto-Kuiper Express mission. Environmental impacts to be considered in the EIS are those impacts associated with a normal launch from Kennedy Space Center, and the potential radiological and non-radiological risks of the mission. The baseline plan for the Europa Orbiter mission would include the use of a Radioisotope Power System (RPS) and approximately 50 Radioisotope Heater Units (RHU's).

**DATES:** Interested parties are invited to submit written comments to NASA on or before November 23, 1998, to assure full consideration during the scoping process.

**ADDRESSES:** Written comments should be addressed to Mr. David Lavery, Advanced Technology and Mission Studies Division, Code SM, NASA Headquarters, Washington, DC 20546-0001. While hard copy comments are preferred, comments by electronic mail may be sent to: osseuropa@hq.nasa.gov.

**FOR FURTHER INFORMATION CONTACT:** Mr. David Lavery, 202-358-1109; electronic mail: osseuropa@hq.nasa.gov.

**SUPPLEMENTARY INFORMATION:** NASA's Space Science Program seeks to investigate the mysteries of the Universe, explore the Solar System, find planets around other stars, and search for life beyond Earth. The Europa Orbiter mission would cast light on our search for the chemical and biological origins of life, and broaden our knowledge of our Solar System. Hydrothermal zones on Earth have been shown to harbor life and may represent the type of environment in which life might have arisen on Earth. If there is (or once was) an ocean and related volcanism on Europa, as suggested by results from NASA's Galileo Jupiter orbiter mission, then the Europa Orbiter mission may lead to the discovery of life beyond Earth.

The science goals of the Europa Orbiter and Pluto-Kuiper Express missions are independent. The implementation of either mission has no effect on the need for and implementation of the other mission other than logistical timing factors.

The Europa Orbiter spacecraft is currently proposed to launch in November of 2003 or December of 2004 from Kennedy Space Center, Florida, on an orbital mission around Jupiter's icy moon Europa. The currently proposed spacecraft and mission design would probably require the use of the Space Shuttle with an Inertial Upper Stage and one or more additional solid rocket stage(s) to launch the Europa Orbiter. The proposed trajectory would involve a direct flight and not require any planetary gravity assist maneuvers.

If the mission utilizes an RPS, it is anticipated that, due to relatively low spacecraft electrical power requirements and a potential for improved power system efficiency, the spacecraft would carry substantially less radioactive material (plutonium dioxide) than used in a single "conventional" radioisotope thermoelectric generator.

If an RPS is used, some of the waste heat from the RPS could warm temperature-critical elements such as propulsion components, the propellant tanks, and electronics in the spacecraft body. However, since the spacecraft would be operating very far from the Sun RPS waste heat alone may not provide adequate heating for all spacecraft components. Therefore, in addition to the RPS, the Europa Orbiter mission is considering the use of approximately 50 RHU's.

Alternatives to be considered in this EIS include, but are not necessarily limited to, the (1) use of alternative sources of on-board power (including solar); (2) alternative launch vehicles and launch sites; (3) alternative

trajectories and launch dates; and (4) not undertaking the mission or "no-action."

The EIS will consider the potential environmental impacts associated with the normal launch and operation of the spacecraft, and accident situations.

Written public input and comments on environmental impacts and concerns associated with the proposed mission are hereby solicited.

**Jeffrey E. Sutton,**

*Associate Administrator for Management Systems and Facilities.*

[FR Doc. 98-26809 Filed 10-6-98; 8:45 am]

BILLING CODE 7510-01-P

## NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice 98-137]

### National Environmental Policy Act; Pluto-Kuiper Express Mission

**AGENCY:** National Aeronautics and Space Administration (NASA).

**ACTION:** Notice of intent to prepare an environmental impact statement and conduct scoping for the Pluto-Kuiper Express Mission.

**SUMMARY:** Pursuant to the National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321, *et seq.*), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), and NASA policy and procedures (14 CFR Part 1216 Subpart 1216.3), NASA intends to prepare an Environmental Impact Statement (EIS) for NASA's Pluto-Kuiper Express mission. The EIS will address the environmental impacts associated with launching and operating the mission.

The Pluto-Kuiper Express mission is currently proposed to launch from Cape Canaveral Air Station or Kennedy Space Center, Florida in November 2003 or December 2004. The launch date would be affected by the launch date for NASA's proposed Europa Orbiter mission. Concurrent with the publication of this notice of intent (NOI), NASA is publishing an NOI to prepare an EIS for the Europa Orbiter mission. Environmental impacts to be considered in the EIS are those impacts associated with a normal launch from Cape Canaveral Air Station or Kennedy Space Center, and the potential radiological and non-radiological risks of the mission. The baseline plan for the Pluto-Kuiper Express mission would include the use of a Radioisotope Power System (RPS) and approximately 80 Radioisotope Heater Units (RHU's).