

Green light for plutonium Pluto probe

Successful space exploration cannot do without RTGs

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The White House has granted approval to launch NASA's plutonium-powered Pluto probe Jan. 17.

The go-ahead clears one of the last hurdles facing the New Horizons spacecraft, which will launch from Florida on a Colorado-built Lockheed Martin Atlas V rocket.

New Horizons' electrical power comes from a single radioisotope thermoelectric generator. Because the RTG contains 24 pounds of plutonium dioxide, the launch required "nuclear safety launch approval" from John Marburger, director of the White House Office of Science and Technology Policy.

Marburger signed the approval Jan. 3, then forwarded it to NASA headquarters, spokesman Donald Tighe said Tuesday.

An RTG is not a nuclear reactor and does not rely on nuclear fission or fusion.

Instead, it provides power through the natural radioactive decay of plutonium – mainly plutonium-238, a non-weapons-grade form.

NASA says the probability of a New Horizons launch-area accident that would release plutonium is about 1 in 350. RTGs have been used on 24 U.S. missions over the past 40 years.

The public is invited to see the Pluto launch and the return of NASA's Stardust capsule at the Denver Museum of Nature & Science.

Stardust, built in Colorado by Lockheed Martin Space Systems, traveled seven years and nearly 3 billion miles to bring back thousands of dust grains from a comet. It is set to parachute to the Utah salt flats at 3:12 a.m. MST on Sunday, Jan. 15.