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Groups Blast Space Start-up for Pedaling Mercury Satellites Thrusters;

Urge potential customers to take the pledge not to use dangerous neurotoxin

The Zero Mercury Working Group and NGOs from around the globe are blasting Apollo Fusion, Inc. for pedaling mercury thruster technology to propel satellites because, if widely applied, the resulting pollution will have direct implications on the global environment. They are also urging potential customers—Space X, OneWeb and Planet Labs—to publicly pledge not to use this dangerous neurotoxin in their satellites, even though it's the cheapest propellant on the market.

“While marketing ‘cost savings’ from mercury to propel satellites, Apollo fails to recognize the costs, risks and impacts of a new mercury source on human health and the environment,” said Michael Bender, International Co-coordinator of the Zero Mercury Working Group in Montpelier, VT, USA. “This flies in the face of not only U.S., but global efforts, to reduce mercury pollution.

The group’s letter explains that the U.S. and other governments around the world have already expended millions of dollars to regulate and reduce mercury emissions from major sources. That’s because mercury is a very dangerous neurotoxin that circulates globally in the

atmosphere and ultimately makes its way up the aquatic food chain bioaccumulating in humans. US FDA, all 50 state health departments and health ministries worldwide warn pregnant women to avoid or limit consumption of many types fish primarily because of mercury contamination.

“Most of the mercury emitted from satellite propulsion systems will eventually find its way back to the earth’s surface according to numerous studies of the long-range transport of mercury,” said Jane Williams, Executive Director of California Communities Against Toxics. “If mercury is widely used to propel satellites, the resulting releases would significantly increase the global pool of mercury in the atmosphere and hydrosphere.”

Going against the grain and the general understanding for decades that mercury was considered ‘a dead fuel’—for many good reasons— Apollo Fusion, a Silicon Valley startup company, appears intent on exploiting the lack of regulatory restrictions on mercury in space. For example, in the 1970s, NASA recognized the risks related to mercury fuels in satellites and chose other options - even though NASA recognized mercury was cheaper to use.

“The Minamata Convention on Mercury seeks to reduce, and where feasible, eliminate all uses of mercury where technically-achievable mercury-free alternatives are available,” said Elena Lymberidi-Settimo, ZMWG International Co-coordinator at the European Environmental Bureau in Brussels. “In the case of satellite propulsion systems, mercury-free alternatives have been available and almost universally used for decades.”

Accordingly, as part of the upcoming COP3 review of the Minamata Convention on Mercury next November, the groups intend to raise the use of mercury as a propellant for inclusion in the list of prohibited mercury-added products under the Convention’s Article 4.

Finally, Bender notes that the export of pre-fueled thrusters to international launch facilities may violate the Mercury Export Ban Act of 2008, which prohibits, under the Toxic Substances Control Act (15 U.S.C. § 2611(c)(1)), “the export of elemental mercury from the United States.”

The second UN Conference of the Parties met in Geneva last month to further the Minamata Convention’s objective “to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds.” Thus far, over 100 countries (with

the U.S. being the first) have ratified the Convention, which entered into force in August 2017. Yet much more mercury reduction work is needed, because according to an upcoming UN report, global mercury emissions rose by 20% between 2010 and 2015.

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For more information:

http://www.zeromercury.org/index.php?option=com_phocadownload&view=file&id=261:n-go-open-letter-to-apollo-mercury-use-as-satellite-propulsion-fuel&Itemid=15

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