New Nuclear Engine Speeds Nuclear Power

Rotary Engine Burns Used Nuclear Fuel

Llewellyn King, Host,"White House Chronicle"

WASHINGTON, D.C., USA, August 27, 2018 /EINPresswire.com/ -- It's not your father's reactor. In fact, a new reactor may not be a reactor at all but an engine, according to an article by Llewellyn King, columnist and broadcaster, distributed by the InsideSources newspaper syndicate.

King writes in his current column that Mark Adams, a MIT-educated, former scientist at the Lawrence Livermore National Laboratory in Livermore, Calif., is working on a rotary engine which burns up used nuclear fuel in small quantities and overcomes many of the problems with today's nuclear power plants.

The engine would combine gasified transuranic elements -- ideally from nuclear waste sources -- with hydrogen in a Wankel engine, which looks like the one that powered some Mazda cars in the 1970s. This would be ignited from a neutron source; a fission reaction in the chamber would then drive the rotor forward and expose the next chamber for the same loading.

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>
> *Llewellyn King*

Testing some components for the new engine is now taking place at the Idaho National Laboratory in Idaho Falls. Historically, the laboratory has been the site of much cutting-edge technology, including the first-ever nuclear reactor, EBR-1.

The new nuclear engine is being privately funded; government money isn't involved yet. Adams is chief executive officer of Global Energy Research Associates (GERA), which was formed to develop the nuclear engine.

In his article, King writes that the concept of the reactor is important because it moves beyond boiling water to make electricity. The engine produces direct shaft horsepower and doesn't involve the normal heat-transfer stage of today's nuclear power plants.

King's article quotes Adams as saying the new engine will produce 340 megawatts of electricity "in a combined-cycle configuration," which will be financially competitive with other generating sources.

Adams says in the article, "Much like the way your car converts chemical energy into mechanical work, our engine converts nuclear energy directly and safely into useful mechanical work. This eliminates a lot of expensive reactor equipment and paves the way for low-cost nuclear power plants."

King cautions readers, as with much new technology, to be skeptical but excited.

The full column can be read at whchronicle.com

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