

**NUCLEAR PROLIFERATION  
PREVENTION PROJECT**

June 7, 2021

Ambassador Sarah Price  
Head, Counter Proliferation and Arms Control Centre  
Government of the United Kingdom

Dear Ambassador Price,

I noted with great interest the published Message of March 2021 of the United Kingdom, as incoming President of the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction. In particular, the Message stated that, "Under the UK's presidency we will reinvigorate the aim of minimizing the production and use of Highly Enriched Uranium (HEU),"<sup>1</sup> which is suitable for nuclear weapons.

In this regard, I write to ask what steps the UK is taking to minimize its own use of HEU as fuel for Navy propulsion reactors? As you know, the UK is one of only four countries in the world that currently uses HEU for naval propulsion. In fact, the Royal Navy uses more HEU annually for propulsion reactors than the entire world has ever used annually for production of medical isotopes, which as you know has been a major focus of HEU minimization efforts. The Royal Navy's continued use of HEU endangers international security in at least three ways: (1) It increases the risk of HEU theft by terrorists or criminals from the fuel cycle used to produce naval fuel; (2) It provides an excuse for countries such as Iran to produce HEU ostensibly for their own planned naval propulsion programs; and (3) It depletes a limited supply and thus eventually will necessitate resuming production of HEU, undermining global arms control and nonproliferation efforts.

Other countries, including China, fuel their naval reactors with low enriched uranium (LEU), which is unsuitable for nuclear weapons. Moreover, France has successfully converted its entire nuclear Navy from HEU fuel to LEU fuel, demonstrating the feasibility of such conversion to achieve HEU minimization. President Barack Obama, in 2016, stated that, "Consistent with its national security requirements and in recognition of the nonproliferation benefits to minimizing the use of highly enriched uranium globally, the United States values investigations into the viability of using low-enriched uranium in its naval reactors."<sup>2</sup> Since then, the United States for six years (FY2016 – FY2021) has funded research and development of LEU fuel for its naval reactors, at a total cost so far of \$60 million (Figure 1).

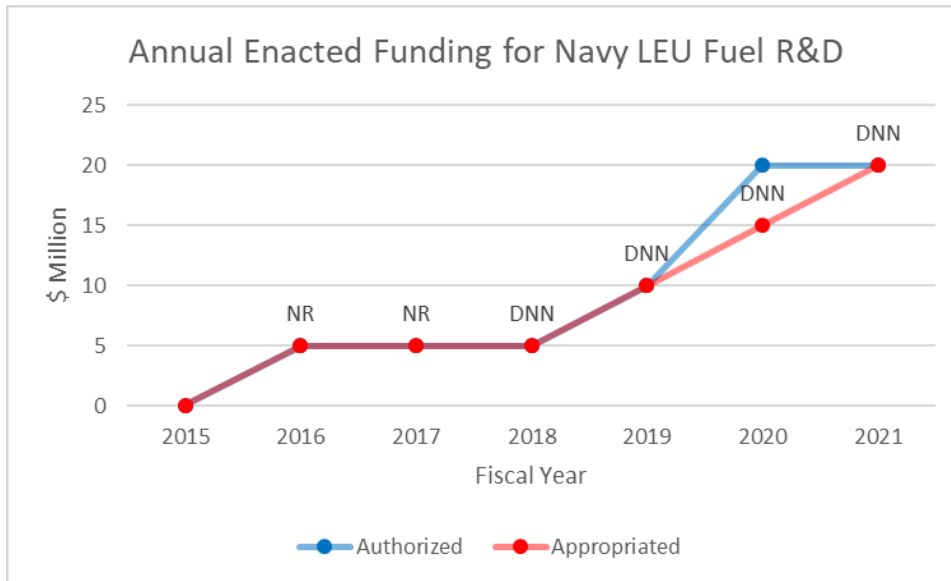
Accordingly, I request a formal response from the UK government about what it is doing to minimize its own use of HEU, for Navy reactors, consistent with its recent pledge to "reinvigorate the aim of minimizing the production and use of HEU." The world needs to know whether the UK's Message is sincere or merely the hypocrisy of "do as I say, not as I do."

Thank you for your attention, and I look forward to your reply.

Sincerely,

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Associate Professor  
University of Texas at Austin

Figure 1. U.S. government funding of Navy LEU fuel research and development



Note: NR is the Office of Naval Reactors; DNN is the Office of Defense Nuclear Nonproliferation.

<sup>1</sup> <https://www.gpwmd.com/a-message-from-the-uk-as-incoming-gp-president>.

<sup>2</sup> <https://obamawhitehouse.archives.gov/the-press-office/2016/03/31/fact-sheet-feasibility-low-enriched-uranium-fuel-naval-reactor-plants>.