



HEU Minimization Efforts

A briefing on reducing the use of bomb-grade, highly enriched uranium (HEU) in non-weapons activities, as a vital element of U.S. efforts to reduce the risk of nuclear terrorism

April 18, 2018

340 Cannon

11:30AM-1PM

Opening Remarks: Representative Bill Foster (D-IL)

Panel Introduction: Miles Pomper (CNS, FMWG Chair)

Speakers:

HE Henne Schuwer (Ambassador of the Netherlands)

Professor Alan Kuperman (University of Texas, Austin)

Dr. Ed Lyman (Union of Concerned Scientists)

Moderator: Dr. Sara Z. Kutchesfahani (FMWG, Center for Arms Control and Non-Proliferation)

The FMWG would like to thank the John D. and Catherine T. MacArthur Foundation and the Carnegie Corporation of New York for supporting its nuclear security efforts

~You're Invited~

Rep. Bill Foster (D-IL) and the Fissile Materials Working Group ([FMWG](#)) cordially invite you to a staff briefing on reducing the use of bomb-grade, highly enriched uranium (HEU) in non-weapons activities, as a vital element of U.S. efforts to reduce risks of nuclear proliferation and nuclear terrorism. The event is **Wednesday, April 18, in Cannon 340, from 11:30am-1pm, with lunch provided**. It will highlight both recent success – such as eliminating HEU from the production of medical isotopes – and ongoing challenges of converting specialized nuclear reactors from HEU fuel to low-enriched uranium (LEU) fuel.

Rep. Foster will offer opening remarks. The panel will then be introduced by [Miles Pomper](#), FMWG Chair, and the discussion will be moderated by FMWG Senior Program Coordinator, [Dr. Sara Kutchesfahani](#).

- His Excellency Henne Schuwer, Ambassador of the Netherlands, which is the world's largest producer of medical isotopes, will discuss the recent Dutch success in converting its production process from HEU to LEU, thereby fulfilling its pledge from the Nuclear Security Summits.
- [Prof. Alan Kuperman](#) from the University of Texas at Austin will discuss ongoing efforts to develop LEU fuel for the Navy's propulsion reactors.
- [Dr. Ed Lyman](#) from the Union of Concerned Scientists will examine potential conversion from HEU to LEU fuel for nuclear reactors in space missions.

Please RSVP to Erin Connolly at econnolly@armscontrolcenter.org by **Monday, April 16th**.



Representative Foster (D-IL) is a scientist and businessman representing the 11th Congressional District of Illinois. He previously served in Congress from March 2008 until January 2011 as the Representative of 14th Congressional District of Illinois. He is the only PhD physicist in Congress.

Bill serves on the House Committee on Financial Services, a position he also held in the 110th, 111th, 113th, and 114th Congresses. As a member of the Financial Services Committee, he advocates for consumer protection and a fair economy for everyone. In response to the Great Recession, he participated in the creation of several important reforms in the financial services and housing sectors, most notably the Dodd-Frank Wall Street Reform and Consumer Protection Act. He also serves on the Committee on Science, Space, and Technology.

Bill's business career began at age 19 when he and his younger brother co-founded Electronic Theatre Controls, Inc., a company that now manufactures over half of the theater lighting equipment in the United States.

Before he became a Member of Congress, Bill worked as a high-energy physicist and particle accelerator designer at Fermi National Accelerator Laboratory (Fermilab). He was a member of the team that discovered the top quark, the heaviest known form of matter. He also led the teams that designed and built several scientific facilities and detectors still in use today, including the Recycler Ring, the latest of Fermilab's giant particle accelerators.

Bill lives in Naperville with his wife Aesook, who is also a physicist. Bill has two grown children, Billy and Christine. Bill's father was a civil rights lawyer who wrote much of the enforcement language behind the Civil Rights Act of 1964.



Miles Pomper is a Senior Fellow in the D.C. office of the James Martin Center for Nonproliferation Studies, and Chair of the Fissile Materials Working Group (FMWG).

His work focuses on nuclear energy, nuclear nonproliferation, nuclear security, and nuclear arms control. He holds a master's degree in international affairs from Columbia University and a master's degree in journalism from Northwestern University.

Before joining CNS, he served as Editor-in-Chief of *Arms Control Today* from 2003-2009. Previously, he was the lead foreign policy reporter for *CQ Weekly* and *Legi-Slate News Service*, where he covered the full range of national security issues before Congress, and a Foreign Service Officer with the US Information Agency.

His recent publications include: "[Treatment not Terror: Strategies to Enhance External Beam Cancer Therapy in Developing Countries While Permanently Reducing the Risk of Radiological Terrorism](#)" (CNS, 2016), "[A Roadmap to Minimize and Eliminate Highly Enriched Uranium](#)" (Nuclear Threat Initiative, 2015) co-authoring "[Promoting Alternatives to High-Risk Radiological Sources: The Case of Cesium Chloride in Blood Irradiation](#)" (CNS 2014).



His Excellency Henne Schuwer is the Ambassador of the Netherlands. In a 40-year career with the Netherlands Ministry of Foreign Affairs, Ambassador Schuwer has focused his work on the European Union and the transatlantic relations. Since the Netherlands' presidency of the European Economic Community in 1986, he has been involved in all the Netherlands' presidencies, ending with his chairmanship of Coreper I in 2004. He has chaired various working groups in the fields of structural funds and Common Foreign and Security Policy, and was secretary of the EU-Coordination Committee in the Netherlands. Ambassador Schuwer also has extensive knowledge of US politics and trade issues due to two assignments in the US. While at NATO, he was responsible for the Bucharest Summit in 2008 and the Strassbourg-Kehl Summit in

2009.



Alan Kuperman is Associate Professor at the LBJ School of Public Affairs, University of Texas at Austin, and founding Coordinator of the Nuclear Proliferation Prevention Project (NPPP.org). His books include *Nuclear Terrorism and Global Security* (2014), and recent publications include "[Nuclear Nonproliferation via Coercion and Consensus](#)," in *International Cooperation on WMD Nonproliferation* (2016). Kuperman has made invited presentations to the International Atomic Energy Agency, the U.S. Nuclear Regulatory Commission, the U.S. Congress, the Department of Energy, and the National Academy of Sciences. Prior to his academic career, he worked in Congress, where he drafted a provision of the 1992 Energy Policy Act that restricts U.S. exports of bomb-grade uranium. Kuperman holds a Ph.D. in political science from M.I.T., an

M.A. in international relations from Johns Hopkins University, and an A.B. in Physical Sciences from Harvard University. In 2013-2014 he was a Senior Fellow at the U.S. Institute of Peace, and in 2009-2010 a fellow at the Woodrow Wilson International Center for Scholars.



Dr. Ed Lyman is a Senior Scientist at the Union of Concerned Scientists. He earned a doctorate in physics from Cornell University in 1992. From 1992 to 1995, he was a postdoctoral research associate at Princeton University's Center for Energy and Environmental Studies (now the Science and Global Security Program). His research focuses on the prevention of nuclear proliferation, nuclear and radiological terrorism, and nuclear accidents. He has worked on the issue of surplus plutonium disposition since 1992. He is a co-author (with David Lochbaum and Susan Q. Stranahan) of the book *Fukushima: The Story of a Nuclear Disaster* (The New Press, 2014), as well as a co-author of a 2017 Policy Forum article in *Science* about the danger of spent fuel pool fires. He is the recipient of the 2018 Leo Szilard Lectureship Award from the American Physical

Society.



Dr. Sara Z. Kutchesfahani is a Senior Policy Analyst at the Center for Arms Control and Non-Proliferation and the Senior Program Coordinator for the FMWG, where she focuses on efforts to reduce the risk of nuclear proliferation and terrorism. She was previously the Executive Director for the Center for International Trade and Security and the Director for the Master of International Policy (MIP) Program at the University of Georgia, where she worked on nuclear security-related projects and nuclear non-proliferation policy issues, and taught graduate courses on nuclear non-proliferation history and the global nuclear order. She has held research positions at Los Alamos National Laboratory, the RAND Corporation, the European Union Institute for Security Studies in Paris, and the International

Institute for Strategic Studies in London. She holds a PhD in Political Science from University College, London,

and is the author of *Politics and the Bomb: The Role of Experts in the Creation of Cooperative Nuclear Non-Proliferation Agreements* (Routledge: 2014). She is currently writing a book on the global nuclear order, due to be published by Routledge in late 2018.