

NTH on the Ground: The Importance of Accelerating Qualification of New Nuclear Fuel

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Our NTH reporter was on hand to cover the monthly Atomic Wings Lunch and Learn event on Capitol Hill, a bipartisan education series focusing on securing the economic, safe, clean reliable nuclear future.

This month's topic was "The Importance of Accelerating Qualification of New Nuclear Fuel" and was presented by General Atomic's Dr. Ron Faibish, Senior Director of Business Development.

In addition to Dr. Faibish, the event included Andy Griffith, Deputy Assistant Secretary, Nuclear Fuel Cycle and Supply Chain, U.S. DOE, Office of Nuclear Energy, Dr. Chris Stanek, Los Alamos National Laboratory and Dr. Kallie Metzger Westinghouse Advanced Fuels Development/Global Technology office.

Dr. Faibish set the stage for the discussion panel by describing the challenge the industry faces in developing and licensing advanced nuclear fuels on an accelerated basis so as to support the ambitious timeline for advanced reactor demonstrations that are currently underway as a result of congressional action last year.

Under the business-as-usual approach utilizing current processes, qualification of nuclear fuel takes upward of 20 years. Under a coordinated plan of action by government laboratories and industry, the use of advanced modeling and simulation as well as new experimental capabilities are being integrated to accelerate the verification and validation of new fuel material behavior over the simulated service cycles. This new approach promises to reduce the current time of 20 years down to 5 years that is required to validate new advanced nuclear fuels. If proven successful, this new approach will greatly assist the industry in meeting the challenge of deploying advanced nuclear demonstration within the next 5-7 years.