TRISO (TRi-structural ISOtropic) particle fuel has been developed for use in modular high temperature gas reactors (HTGR) designed to passively maintain core temperatures below fission product release thresholds under all licensing basis events and accident scenarios. This webinar will give an overview of the US DOE Advanced Gas Reactor (AGR) TRISO Fuel Qualification and Development Program’s activities focused on enhancing TRISO fuel performance by using uranium oxycarbide (UCO) fuel kernels and improving coated particle and compact fabrication methods for deployment in advanced HTGRs were radioactive releases are significantly reduced at the plant exclusion boundary. Topics include fuel characterization and qualification methods, TRISO production scale fabrication process improvements, AGR TRISO irradiation experiments, post-irradiation examination and safety heating test results, and fuel performance modeling efforts. Current US TRISO fuel reactor vendor efforts, and the first TRISO topical report submitted to the NRC will be presented.

**Free webinar**
December 18, 2019 at 8:30 am EST (UTC-5)

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**Who should attend:** policy makers, managers, regulators, students, general public

**Meet the Presenter...**

**Dr. Madeline Feltus** has led the DOE Office of Nuclear Energy’s Advanced Gas Reactor TRISO Fuels Qualification and Development Program since 2003. She provides technical support for DOE’s advanced nuclear fuel research and development (R&D), light water reactor accident tolerant fuel R&D, and reactor development projects where she focuses on improving reactor fuels and materials irradiation performance for current and advanced fuel designs to have safe, accident-tolerant, robust, and reliable reactor fuel that can be used in existing and future advanced light water, gas-cooled, and sodium cooled reactors. She has been involved in writing and providing input for OECD NEA Experts Committee reports, IAEA technical documents, and reviewing manuscripts for technical journals. She is responsible for managing various university grant projects, vendor/industrial projects and small business R&D efforts.

Prior to joining DOE in 1999, Dr. Feltus was an assistant professor of nuclear engineering at the Pennsylvania State University (1991-1999). Madeline received her B.S. in Nuclear Engineering from Columbia University in 1977. While working full-time as a nuclear engineer at Burns and Roe, Public Service Electric and Gas (N.J.) and the New York Power Authority, she continued her graduate studies at Columbia and earned her M.S. in Nuclear Engineering (Reactor Physics, 1980), her M. Phil. in Mechanical Engineering (Thermal-Hydraulics, 1989) and her Ph.D. in Nuclear Engineering (1990) with her thesis on 3D time-dependent coupled kinetics-neutronics and thermal-hydraulics analyses.

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<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 January 2020</td>
<td>Thermal Hydraulics in Liquid Metal Fast Reactors, Dr. Antoine Gerschenfeld</td>
</tr>
<tr>
<td>26 February 2020</td>
<td>SFR Safety Design Criteria (SDC) and Safety Design Guidelines (SDGs), Mr. Shigenobu Kubo</td>
</tr>
<tr>
<td>26 March 2020</td>
<td>MicroReactors: A Technology Option for Accelerated Innovation, Dr. DV Rao and Dr. Jess Gehin</td>
</tr>
</tbody>
</table>

For more information, please contact: Patricia Paviet at Patricia.Paviet@pnml.gov or visit the GIF website at www.gen-4.org