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Certified Health Physicist Corner

K. L. Shingleton

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CHP Corner
By Kathy Shingleton, CHP
AAHP Past-President

The upcoming AAHP Special Session at the annual Health Physics Society meeting in Sacramento, California is entitled, *The National Ignition Facility: Bringing Star Power to Earth*, and is sure to be a crowd pleaser. Located 90 miles from Sacramento at the Lawrence Livermore National Laboratory (LLNL), the National Ignition Facility (NIF) is the world's largest and most energetic laser system for inertial confinement fusion (ICF) and experiments studying high-energy-density (HED) science. NIF is a 192-beam, Nd-glass laser facility that is capable of producing up to 1.8 MJ, 500 TW of ultraviolet light, making it over fifty times more energetic than other existing ICF facilities. The construction of NIF began in 1997 and the facility was completed in 2009. The facility is capable of firing up to 192 laser beams onto a small target placed at the center of a 10 m spherical target chamber. Experiments involving the use of tritium targets have been underway for some time, with a concomitant array of radiological issues: prompt neutron/gamma dose, neutron activation, fission product generation, and decay radiation.

This AAHP Special Session will provide a comprehensive picture of the NIF, including an overview of the facility, its missions, and radiological program challenges and systems in place to address these challenges. Topics will include the facility's physical design (shielding, ventilation); safety and access control systems; tritium and target management; activation and dose management; neutron damage mitigation; preparing for and managing readiness assessments; standing up the radiation protection program; and managing radioactive materials. In short, there will be something for everyone!

As an added bonus, a technical tour of the NIF will be available to U. S. citizens on Thursday, July 26, 2012. The tour itself takes about an hour, and it will take about 90 minutes by bus to get from Sacramento to Livermore. You will have the opportunity to register for the NIF tour via the HPS registration web-site; registration for this tour will close on July 9 and on-site registration will NOT be available. Space is limited to the first 100 registrants.

So, please plan to attend the AAHP's Special Session at the upcoming HPS meeting, and then join us for a one-of-a-kind tour of the NIF. I guarantee you won't be disappointed!

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