FIU FLORIDA INTERNATIONAL UNIVERSITY

Applied Research Center Lecture Series featuring

David DiPrete, Ph.D.
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Savannah River Nuclear Solutions

"Synergies Between Ongoing Savannah River Site Nuclear Processes and the Savannah River National Laboratory's Nuclear Measurements Group"

Nov. 14, 2016 | 11:30AM | MMC Campus | CP Room 103

This event is open to the public. **Refreshments will be provided.**

The Savannah River National Laboratory's Nuclear Measurements Group provides both radiochemical analyses and non-destructive assay of nuclear material to the Savannah River Site. The radioanalytical capability of the group serves to complement the more-limited services provided by the Savannah River Site production analytical laboratories as well as offsite commercial laboratories. The amounts of radioactivity in sample matrices vary widely, ranging from environmental levels to those with doses high enough to require remote handling and manipulation.

For items too large or too inconvenient to transport to the laboratory for analysis, non-destructive assay (NDA) can be performed in-situ. The NDA team conducts on-site neutron and gamma assays. The NDA team also provides technical support for non-destructive assay systems installed in various Site facilities.

An overview of past and present nuclear processes at SRS will be discussed, followed by explanations of how the Nuclear Measurements Group services are currently intertwined with these operations.

Dr. DiPrete is an Advisory Scientist at the Savannah River National Laboratory (SRNL) with more than 25 years of experience in nuclear and radioanalytical chemistry. Since 1994, he has served as the technical lead for the radiochemistry team in the SRNL Analytical Development Section's Nuclear Measurement Group. Under Dr. DiPrete's technical supervision, the radiochemistry laboratory performs complete radiological characterization on a wide range of matrices spanning from environmental-level samples to high level waste. The radiochemistry laboratory currently analyzes materials from various SRS processes, as well as from other DOE, DOD and DHS programs. The radiochemistry laboratory also supports nuclear measurement technology development to address shortfalls identified in various US Government Agency Calls.

In addition to developing and directing radiochemical analyses and nuclear counting capabilities, Dr. DiPrete serves as a primary nuclear and radiochemical technical resource for numerous Site organizations. Dr. DiPrete was appointed Adjunct Professor for the Department of Environmental Engineering at Clemson University in 2003, and has served as the SRS Site Advisor for numerous Clemson graduate students. Dr. DiPrete has authored or co-authored more than 75 publications in the public domain, and over 75 papers presented at professional meetings in his area of expertise. He has been awarded numerous patents for his innovative nuclear measurement systems.