

**NEPA Categorical Exclusion Determination for
The Dr. Samuel B. Massie Chairs of Excellence Professorships in Engineering**

The Massie Chairs of Excellence Program is designed to assist its member institutions in producing top-level graduates in scientific and technical disciplines and is named after Dr. Samuel P. Massie, an African-American chemist of national reputation who was a leader in championing the cause of minority education in the United States.

The Program which presently comprises fourteen Historically Black Colleges and Universities (HBCUs) and one Hispanic Serving Institution (HIS) has established a team of world-class scholars, researchers and educators, who advance research, enhance academics, promote partnerships, and effect outreach in the sciences.

The Massie Chairs Program leverages support at the federal, state, and private industry levels to develop cutting-edge technologies through research and development in the areas of basic and applied science and engineering, environmental technology, national defense technology, homeland security, and nuclear nonproliferation studies led by world-class scholars, researchers and educators. The Chairs, selected from a number of highly qualified individuals, have national and international reputations in science and technology. Their professional experience includes work in the public and private sectors, as well as in academia.

The reviews of the research proposal packages submitted by the Massie Chair Program participants did not reveal any extraordinary related circumstances that might affect the significance of the environmental effects of these proposals. The proposals are not "connected" to other actions with potentially significant impacts, or to other proposed actions with cumulatively significant impacts, and are not precluded by 40 CFR 1506.1 or 10 CFR 1021.211. The proposals do not result in adverse effects to historic properties included or eligible for inclusion in the National Register of Historic Places (National Register) and would not impact sensitive resources (e.g., threatened and endangered (T/E) species, wetlands and floodplains). Nor do these proposals threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE and/or Executive Orders; require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators and facilities for treating wastewater, surface water, and groundwater; or disturb hazardous substances, pollutants, contaminants, or petroleum and natural gas products excluded from the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that pre-exist in the environment such that there would be uncontrolled or unpermitted releases.

Accordingly, and pursuant to the DOE NEPA Implementing Procedures at 10 CFR 1021, Subpart D, Appendix A and Appendix B, the categorical exclusion (CX) determination applies to the research proposals submitted by the following participants in the Massie Chairs of Excellence Program.

Institution	Massie Chair/ Principle Investigator	Research Topics
Alabama A & M University	Dr. V. Trent Montgomery	nuclear research for energy and security applications; computational studies and simulations for next generation reactors; radiation detector development; nuclear engineering course development
Fisk University	Dr. Arnold Burger	radiation detection materials and technologies; nuclear proliferation detection; remote sensing of radiological threats or accidents
Florida A & M University	Dr. Ben Wang	life cycle analysis of carbon nano-materials
Hampton University	Dr. Adeyinka A. Adeyiga	removal of arsenic and organic contaminants from wastewater by natural wastes and removal of organic chemicals from wastewater by surfactant technology; prepare and characterize the Fischer-Tropsch Catalyst
Howard University	Dr. James Johnson	Nano-material behavior and properties; bio-solids for renewable energy; hazardous waste treatment technologies
Jackson State University	Dr. Mark Hardy	cyber-security studies: software design and development; software assurance research; information assurance and infrastructure security
Morgan State University	Dr. Jiang Li	shock waves through saturated sedimentary material for sensor development
Norfolk State University	Dr Sandra DeLoatch	information assurance; wireless security in a classified environment; secure cloud computing
North Carolina A&T State University	Dr. Shoo-Yuh Chang	development and application of computation and modeling techniques in decision making; Investigate processes to improve the accuracy of contaminant transport models
Prairie View A&M University	Dr. Ing Chang/ Dr. John Fuller	solid state and portable nuclear detector technologies
South Carolina State University	Dr. G. Dale Wesson	computational fluid dynamics; thermal dynamics; thermal hydraulics
Southern University	Dr. Patrick Carriere/ Dr. Ernest L. Walker	detection and sensing of environmental and chemical substances using ad-hoc wireless sensor networks; data and sensor fusion; multi-sensor chip research

Spelman College	Dr. Michael Burns-Kaurin	material behavior and properties; condensed matter; EPR spectroscopy of bio-molecules
Tennessee State University	Dr. Lonnie Sharpe	chemical fate and detection in the environment: fate of contamination in non-ideal flow systems; synthesis of actinide based nano-particles; detection of emerging organic pollutants in aqueous samples; spectroscopic studies of host-guest interactions
Tuskegee University	Dr. Nosa Egiebor	material behavior and properties studies for Gen IV nuclear reactor applications; Studies of atomic and nano-structure developments in nuclear materials under extreme service environments
Universidad del Turabo	Dr. Roberto Loran-Santos	chemical and materials analysis for nuclear processes and technology; material properties of carbon nanotubes; application of magnetic films and multi-layer materials in radiation sensors

Based on my review, I have determined that the proposed actions are categorically excluded from further NEPA review and documentation.

A9, A 11 and B3.6 are the applicable CXs that cover the proposed actions in the DOE NEPA Implementing Procedures, 10 CFR 1021, Subpart D, Appendix A and Appendix B.

Mary E. Martin, NNSA HQ NEPA Compliance Officer

Date: September 21, 2010