

Committee on Energy and Commerce
U.S. House of Representatives
Witness Disclosure Requirement - "Truth in Testimony"
Required by House Rule XI, Clause 2(g)(5)

1. Your Name: James Nicholas ("Nick") Irvin		
2. Your Title: Director, Research and Development		
3. The Entity(ies) You are Representing: Southern Company		
4. Are you testifying on behalf of the Federal, or a State or local government entity?	Yes	No x
5. Please list any Federal grants or contracts, or contracts or payments originating with a foreign government, that you or the entity(ies) you represent have received on or after January 1, 2015. Only grants, contracts, or payments related to the subject matter of the hearing must be listed. Cooperative Agreement DE-NE0008473 Supporting the development of the Molten Chloride Fast Reactor.		
6. Please attach your curriculum vitae to your completed disclosure form.		

Signature: _____



Date: 5/20/2018

NICK IRVIN, PE

EDUCATION AND LICENSURE:

University of Alabama; Tuscaloosa, Alabama

- Bachelor of Science, Chemical Engineering
- Minor: General Business

Auburn University; Auburn, Alabama

- Master of Science, Chemical Engineering

State of Alabama Professional Engineer

- License Number PE 28299-E

KEY STRENGTHS:

- Strategic thinker with proven ability to achieve business goals while managing technical issues
- Proven and effective leader who challenges the status quo while delivering strategic results through the development and mentoring of broad, cross-functional teams
- Excellent communicator with a positive and engaging attitude and strong people skills

EXPERIENCE:

- Program Manager – Advanced Energy Systems, Southern Company Research and Environmental Affairs
Provides leadership and strategic direction of for a team of Research Engineers and Scientists responsible for developing zero emissions power generation technology options, including renewable energy, coal, gas, and nuclear; and the development and evaluation of emerging energy concepts such as hydrogen economy and hybrid energy systems. Further responsibilities include the development and communication of Southern Company’s long range R&D strategy, as well as integration of the R&D strategy into Southern Company’s corporate strategy.

Selected project responsibilities have included:

- Principal Investigator – Southern Company Services, Inc. / TerraPower, Inc. Project DE-NE0008743. Lead a multi-organization program to develop a Generation IV molten salt reactor concept. Responsibilities include:
 - Program management to ensure technical objectives are clearly identified, communicated, and delivered.
 - Project oversight including management of schedule, budget, and compliance with cooperative agreement
 - Outreach to key stakeholders to secure ongoing appropriations include key congressional delegations, professional committee staff, and DOE headquarters leadership
 - Communication to key Southern Company stakeholders including business unit experts and senior leadership
- Nuclear Energy Institute’s Advanced Reactor Working Group Representative for Southern Company
 - Initiated ARWG activities with EPRI, NEI, DOE, and SO leadership in 2014.
 - Provide strategic direction and perspective for industry working group promoting the advancement of Generation IV nuclear plant designs and innovative licensing frameworks
- Project Manager – Southern Company Services, Inc. / Mitsubishi Heavy Industries, Ltd. Carbon Capture Project
 - Project honors:
 - Southeastern Electric Exchange Chairman’s “Best of the Best” Award – 2014
 - Alabama Engineering Hall of Fame for Outstanding Project, 2012
 - R&D 100 Award- Corporate Social Responsibility – 2015
 - Mobile Chamber of Commerce Innovator of the Year- 2012
 - Mobile Area Partners for Environmental Progress- 2012
 - Savannah Ocean Exchange Industry Excellence Award - 2012
 - Responsible for development and execution of a project (approximately \$200M in value) involving the engineering, design, installation, operation, and evaluation of a FOAK 25 MW carbon capture facility at Alabama Power Company’s Plant Barry
 - Developed and fostered a positive, mutually beneficial, multi-level business and technical relationship between SCS, MHI, and MHI’s American subsidiary.
 - Actively participated in both internal and external communications relating to the project
 - Led the development, negotiation, and performance of all project contracts
 - Developed and mentored a site operations team from commissioning into commercial operation

- Coal Utilization Research Council Representative - Technical Subcommittee Member
 - Southern Company representative providing input and direction to industry wide committee evaluating technology impacts to coal use
 - Sub-program chair for industry wide team responsible for developing R&D road-map used by CURC advocacy efforts in support of DOE NETL budgeting process
- Project Manager - Gulf Power Mercury Research Center
 - Responsible for overall project execution from initial concept to operation (~\$5M budget)
 - Led the negotiation of multi-phase demonstration projects with multiple vendors during initial project operation, including the development of the site operations team
 - Primary interface with Gulf Power and Plant Crist management throughout all phases of the project
- Principle Engineer - Emissions Control Technology Development
 - Led the evaluation and development of dry sorbent injection systems for sulfuric acid control
 - Coordinated multi-discipline team examining plume visibility and developing mitigation strategies
 - Independently developed system wide initiative to enhance the effectiveness of FGD technology for a wide range of pollutants which led to:
 - First Southern Company waste water treatment technology demo
 - Low cost compliance technology demonstrations for mercury control
 - Extensive characterization of FGD operation
- EPRI Program Advisor
 - Ongoing role providing industry leadership and program level direction as SCS representative to the EPRI Technology Innovation and Advanced Nuclear Technology Programs.

PROFESSIONAL ACTIVITIES AND HONORS:

- EPRI Technology Transfer Award – Awarded for the demonstration of coal based CCS technology
- Graduate of 2007 Southern Company Generation Leadership Development Program
- EPRI Lighting the Way Award - Awarded for continued leadership in the development and demonstration of emissions control technologies
- EPRI Technology Transfer Award – Awarded for the support of full scale demonstration tests of mercury control technologies
- Southern Company Generation Greatness Award – Awarded for the support in the demonstration of activated carbon injection into ESPs at Plants Yates and Daniel as a reduced capital alternative for mercury compliance
- EPRI Technology Transfer Award – Awarded for initiative and support in demonstrating key EPRI mercury control technologies including sorbent injection, TOXECON, and MerCAP through first-of-a-kind demonstrations at full scale