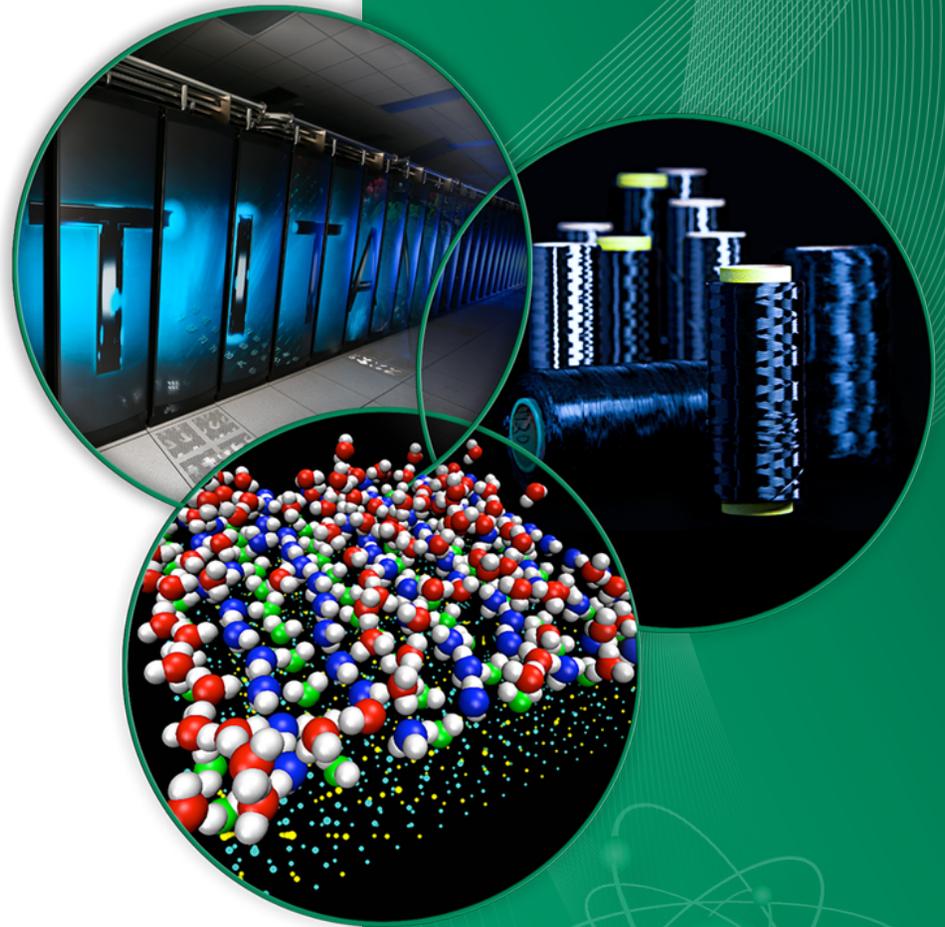


Introduction & July All Hands

Phil Ferguson

Fusion & Materials for Nuclear
Systems Division Director

July 19, 2013



Safety minute



Big thanks to Stan



He's not off the hook, and can't go anywhere yet...

Who is Phil Ferguson?

- Nuclear engineer, PhD in 1995, University of MO-Rolla
- Proud Missourian
 - Tigers and Cardinals
 - You really do have to “Show Me” some things
- 10 years at LANL, 12 years at ORNL
 - 20+ years of spallation source design experience
 - Significant experience designing and analyzing irradiation experiments, isotope production, etc.
- Married with 3 children
 - Close to being an empty nester
 - My kids and my money go to UT
- INTJ personality type (Introverted, Intuitive, Thinking, Judging) – “The Scientist”
 - Rare in the world, probably common at ORNL (science & engineering focus)
 - Strengths & weaknesses with INTJ

My values

- Lead by example
 - *Example is not the main thing in influencing others, it is the only thing.* – Albert Schweitzer
- Pick good people and let them do their job
 - *The best executive is the one who has sense enough to pick good men to do what he wants done, and self-restraint to keep from meddling with them while they do it.* – Teddy Roosevelt
- Be honest
 - *Whoever is careless with the truth in small matters cannot be trusted with important matters.* – Albert Einstein
- Listen to others, often they have the answers
 - *We have two ears and one mouth so that we can listen twice as much as we speak.* – Epicetus
- Do the right thing...it is always the right thing
 - *Do the right thing. It will gratify some people and astonish the rest.* – Mark Twain

Operational philosophy

- Be the best
 - Continually evaluate and improve
- Belief in the importance of people as individuals
 - Our staff is our greatest resource
 - Relationships are key
- Be willing to do anything & help anyone to support the mission
- Belief that most members of a R&D organization should be innovators, and its corollary, the willingness to endure failure
 - We will never be on the cutting edge if we do not bleed sometimes
- Be engaged
 - Integrity, the right attitude, and work ethic avoids most problems

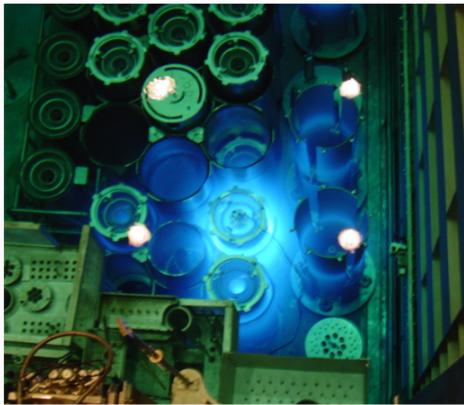
Safety Philosophy

- We are responsible for our own safety, and must take ownership of it
- All employees are empowered to stop work if they view the task as unsafe or out of scope of the planned job
- Protecting human resources is one of the most important aspects of job safety
- I believe in setting an example for others by my use of safe work practices
- Safety is an important part of work and life
- By doing a job safely, I will ultimately save both time and money
- I have a responsibility to provide a safe working environment for myself and others
- Training employees to properly perform their jobs is essential
- Paying attention to small details can make the difference between a safe and unsafe workplace

FMNSD is well aligned with the vision of the directorate

Vision

- Lead the science underpinning a sustainable nuclear energy future and a safer world



Strategy

- Develop the engineering science basis for advanced nuclear fission and fusion technology ✓
- Develop and apply modeling and simulation and systems engineering approaches for nuclear systems (reactors, fuel cycles, etc.) ✓
- Apply distinctive resources in nuclear and radiological chemistry, materials, and isotopes to strengthen energy, economic, national, and homeland security ✓

Outcomes

- Materials and technologies for advanced fission and fusion systems ✓
- Successful execution of U.S. contributions to ITER and fusion program transition to an energy technology orientation ✓
- Innovation in nuclear science and technology through modeling and simulation ✓
- Fuel cycle R&D supporting national nuclear priorities ✓
- Isotope R&D and production for basic research and applications
- Innovative nuclear science and technology for national security

FMNSD is poised to leverage strengths of ORNL: materials, neutrons, and modeling & simulation

- ORNL has a long tradition of excellence in radiation damage to materials
 - Wigner is generally credited with the first suggestion that fluxes of energetic neutrons and fission fragments ... would displace significant numbers of atoms and thus alter physical and mechanical properties
- HFIR & SNS are two of the premiere neutron sources in the world
 - HFIR has long been exploited for radiation damage studies
 - Plans for FMITS at SNS will create a world-leading capability for fusion materials
- The ORNL Leadership Computing Facility (OLCF) is a unique resource that can be leveraged to tackle previously intractable problems in materials and fusion research

Details

- No major changes to the org chart are eminent, and we are not going to stop what we are doing well
 - My experience (4 days) indicates that most sponsors are happy with the programs at ORNL
- Our goal is to grow, or add, additional efforts to our existing programs
 - We have an opportunity, and can leverage strengths of the laboratory
- We will evaluate and aim to get better
 - I need your help to do this

And down in the weeds...

- FY13 EPMs are past due
 - Work with your group leader to get these finished
- Rainy will be scheduling group meetings with each group next week
 - Smaller settings and better chance for 1-on-1 interactions
- My goal will be monthly division all hands
 - Every other month may be more likely
 - After today, we'll focus on division issues
 - Safety minute
 - Science highlights
 - Review results & upcoming meetings
 - Important deadlines

Upcoming

- July 22nd visit by Jim Van Dam, OFES Research Division Director
 - Seminar at 11:00 in the JICS auditorium titled, “The U.S. Fusion Energy Sciences Program: Past, Present, and Future”
- August 13-15, NSED Advisory Committee Meeting
 - Focus on Fusion