Digital Technology to Improve Plant Status Control

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Today’s Challenges

How do we continue to improve human performance?

What role can digital technology play?

Human Performance – Current Direction

• Great Gains - using human performance tools targeting individual behaviors
• Less Effort – using technology to improve human performance
• Current Reminder – from INPO SOER 10-2 *(Engaged, Thinking Organizations)* that human performance is a significant factor in the cause and/or complication of events
• Growing Impact – in the cost of improving human performance along with the burden on the humans
License renewal opens up a business opportunity for Duke

When choosing to invest, we have twin measures of success

- Reliability
- Safety
Twin Success Measures

Are we?

**Reliability**
- Maximizing production - key to long term operation
- Making investments to keep equipment running
- Making investments to keep people engaged

**Safety**
- Reducing number of consequential events - key
- Working less in fear of making error and more in confidence with supportive and guiding processes and systems
- Protecting public & employee confidence by operating safely
Catawba Welcomes Research Opportunity

- Catawba is joining with the Idaho National Laboratory to investigate the role digital technology can play as we invest for our future.

- At the January kick-off
  - Jim Morris, Catawba Vice President, and his senior staff shared a clear, supportive vision for this effort.
  - Catawba team includes a number of folks across work disciplines, ages and experience ranges.
  - Team engaged from the first day, ideas exchanged, and hopefulness that technology could hold the key.

- Many eyes will be on the progress of this research.
Catawba Project Research Path

1. Identify & Analyze Plant Issues
2. Develop Hypothesis
3. Select Technology
   - Right component
   - Right position
   - Right position indication
4. Test selected technology in lab setting
5. Plant readiness evaluation

Baseline: Current Work Processes

Duke Review

Training for plant personnel

Evaluation/Collect data

INL Report

Fall 2011

Evaluation
Did the deployed technology solve the plant issues:
- Right component
- Right position
- Right position indication

Take technology to the plant

Install and test