



Savannah River
Nuclear Solutions, LLC
A Fluor Daniel Partnership

Integrated Safety Management and Quality Assurance

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What is Integration?

- Integration - 'To make whole'
- ~ Synthesis – 'Putting together parts to make a whole'
- Closely Related to
 - Assimilate - 'To make similar'
 - Amalgamate - 'To join together into one'



The Need for Integration

- “We taught each other some hard lessons lately, we ain’t learning, it’s the same sad story, that’s a fact, moving one step up, and two steps back.”
– *The Boss* (Bruce Springsteen)
- Integration *Unto* Implementation
- Integration *Through* Simplification



- #1 Scope →
- #2 Hazards → QA #1
- #3 Controls → QA #2 & 4
- #4 Performance → QA #5,6,7 &8
- #5A Feedback → QA #9 & 10
- #5B Improvement → QA #3



- **Management** (~ ISM Scope, Hazards, Controls, & Improvement)
 - *‘Program’, ‘Training & Qualification’, ‘Quality Improvement’ & ‘Documents and Records’*
- **Performance** (~ ISM Performance)
 - *‘Work Processes’, ‘Design’, ‘Procurement’ & ‘Inspection and Testing’*
- **Assessment** (~ ISM Feedback)
 - *‘Management Assessment’ & ‘Independent Assessment’*



- Recognize ISM & QA as *processes* rather than *programs*
- Determine the more fundamental (overarching) process
- **The ‘Deming’ Quality Improvement Cycle**
 - ‘Plan → Act → Check → Fix’ or
 - ‘Plan → Perform → Assess → Correct’ or
 - ‘Plan to Perform, Assess and Correct’ → ‘Perform, Assess & Correct’



The Integration of ISM & QA

Improvement Cycle	ISM Core Functions	Quality Assurance	Leadership Behaviors
Plan (To Perform, Assess & Improve)	1. Scope 2. Hazards 3. Controls	#1 Program #2 Training #4 Doc.& Records	Set the Course
Perform	4. Perform	#5 Work Process #6 Design #7 Procurement #8 Insp. & Test	Stay the Course
Assess	5A. Feedback	#9 Management Assessment #10 Independent Assessment	Identify Deviations from Course
Correct	5B. Improvement	#3 Improvement	Make Course Corrections



- **Clarity** – The ability of the overarching process to be communicated and understood by the team members.
- **Alignment** – The arrangement of all the programs (sub-processes) around the overarching process
- **Focus** – The commitment to abandon everything that falls outside the simple overarching process



- The **reality** of ‘Change’
- The **reality** of ‘Initiative Fatigue’
- The **reality** of ‘Lack of Understanding’
- The **reality** of ‘Disengagement’

- Ralph Waldo Emerson – *“To be simple is to be great.”*

The Value of Integration

- Less Hurdles to Trip Over
 - Less time getting up = Shortened Life-Cycles
 - Less \$ spent while getting up = Reduced Cost
 - Less people getting hurt falling down = Reduced Accident Rates
 - More focus on running the race = Higher Quality Products
- The Result
 - A less expensive superior product produced faster and safer than in the past



- Integration *unto* Implementation
- Integration *through* Simplification
- Simplification *via* Assimilation and Amalgamation

- Albert Einstein – “*Out of complexity, find simplicity.*”