

2009 DOE ISM Conference

Putting Spokes in the Wheel:

Understanding Feedback and Improvement

Vance S. Tisdale

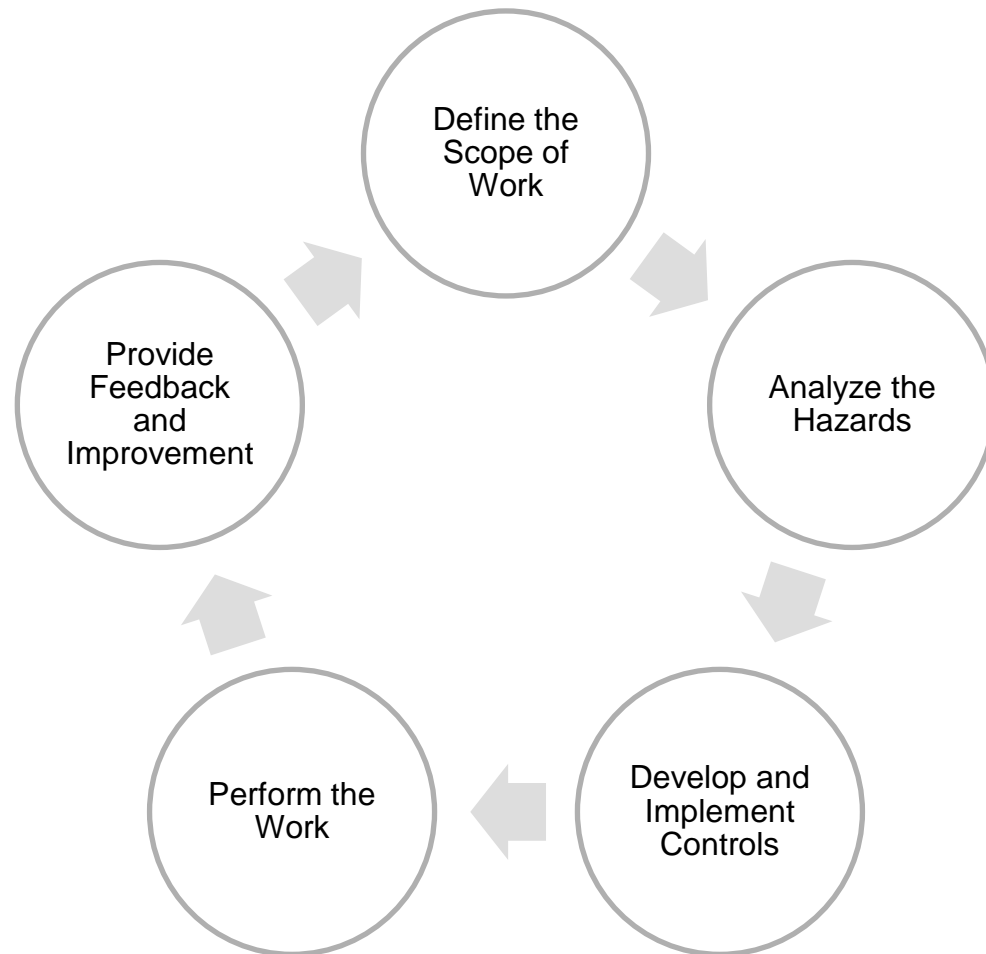
Operational Performance Improvement Manager

August 27, 2009

Personal Biography - Vance S. Tisdale

- Vance has been employed at Y-12 since December of 1995. He has served in eight different positions during his tenure including:
 - Operations Manager
 - Technical Assistant
 - Production Manager in Manufacturing
 - Program/Project Manager for Readiness in Technical Base and Facilities
 - Currently serving as Operational Performance Improvement Manager since May of 2007
- Vance gained his prior experience in the United States Navy where he served in the Nuclear Submarine Force. He graduated from the United States Naval Academy in 1983 with a Bachelors Degree in Mathematics. He earned his Masters Degree in Operations Analysis from the Naval Postgraduate School in Monterey, CA in 1990. He served on board the USS Woodrow Wilson (SSBN-624) as a Division Officer. His Department Head tour included positions as Engineering Officer and Navigator on board the USS Daniel Boone (SSBN-629). His final tour of duty in the Navy was serving on the Joint Staff at the Pentagon.
- Vance is married to Kori Tisdale of Pensacola, Florida. They have four sons: Brian – 25, Justin – 22, Shawn – 19, and Jeremy – 18.

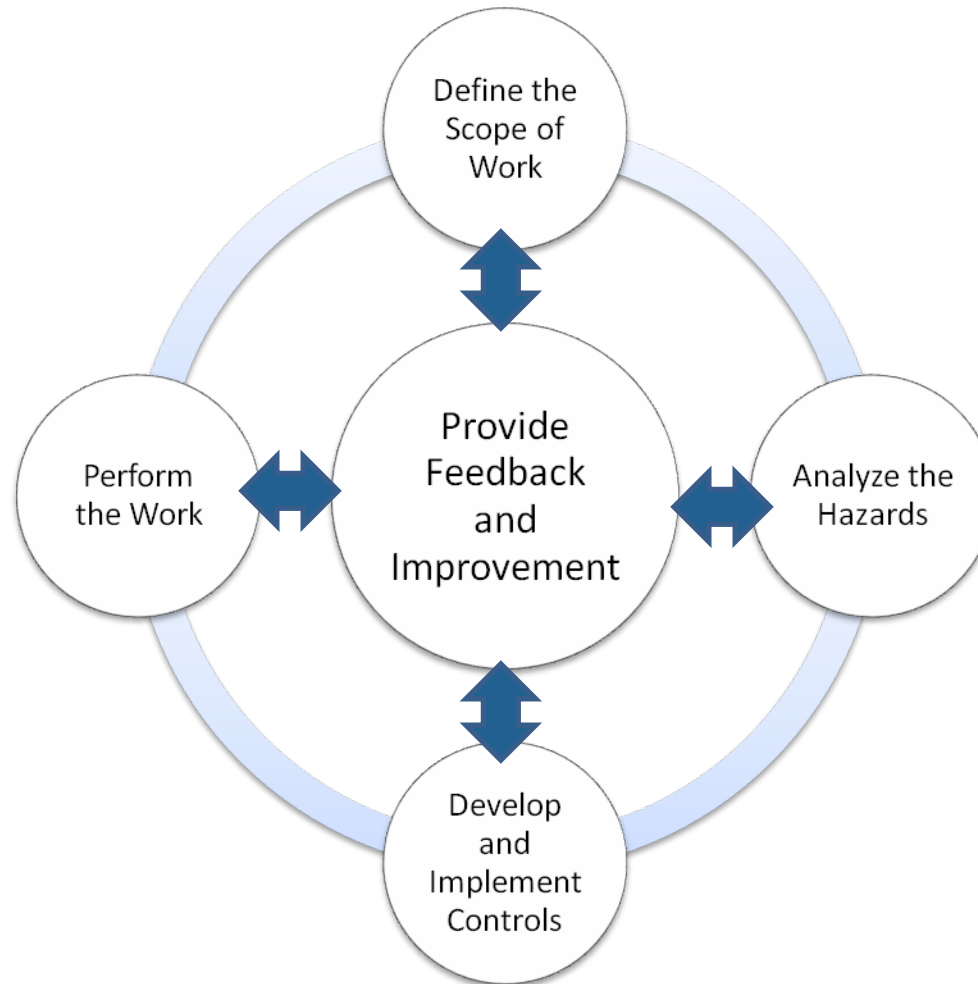
The Wheel as We Know It



Key Definitions

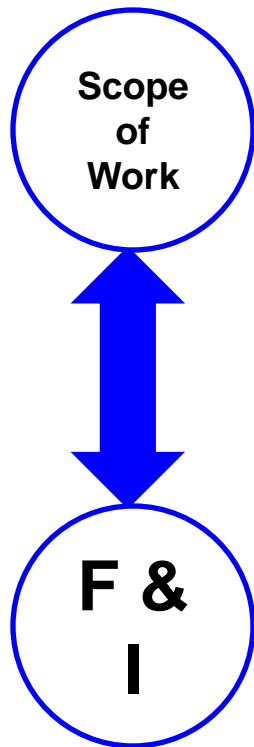
- **Feedback** – The return of a portion of the output of a system or process to the input, especially in order to correct, control, or modify the output. Process by which a continuing action is controlled or corrected.
- **Improvement** – The act of raising a process to a higher or more desirable condition. To increase in value or excellence. To make better.

The “Spokes” of Feedback and Improvement



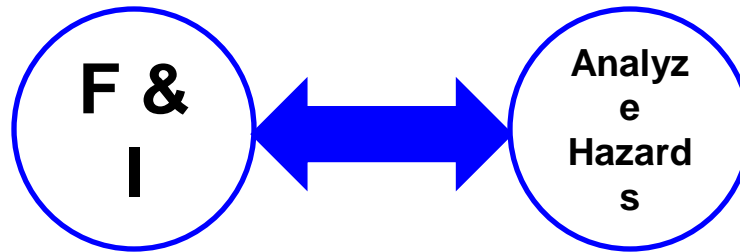
Define the Scope of Work

Translate missions into work, standards & requirements, expectations, task schedules, and resource allocations



- WORKER right and responsibility to participate
- NNSA proposes work scope; contractor evaluates against current capacity/resources/priorities
- Budget and funding based on proper use of resources (judicious use of OT, future planning, maint., const.)
- Unresolved items in budgeting/prioritization to Senior Management (Executive Steering Group)
- Budget reconciliation
- Performance measures/metrics show commitment to continuous improvement
- Baseline Change Proposals to update/revise scope

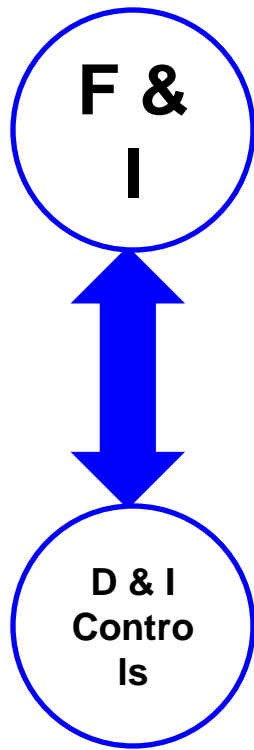
Analyze Hazards



Identify, analyze, and categorize hazards associated with the work

- Participation from all involved (technical and subject matter experts, ES&H disciplines, WORKERS)
- Detailed Engineering Analyses (Design Analysis Calculations)
- Automated Job Hazards Analysis (AJHA)
- Design Safety Analysis (SAR) and Unreviewed Safety Question Determination (USQD) process for changes
- Applicable Lessons Learned captured and applied
- Job-specific hazards formally identified

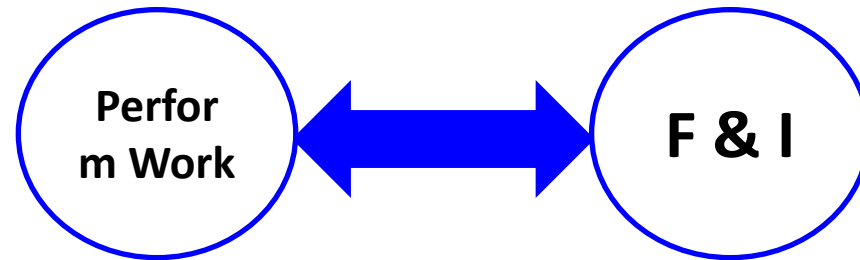
Develop and Implement Controls



Implement identified controls to mitigate risk of the hazards

- Tailor controls to the scope of work
- Implement engineered controls/admin controls/PPE
- Design/construct systems (passive controls over active)
- Follow Technical Safety Requirements (TSR)
- Maintain configuration management/control of SSCs
- Flow down controls into procedural steps/testing requirements (WORKER involvement/ownership)
- Confirm readiness (mock-ups/surrogate materials)
- Obtain approval of Operational Safety Board or Management Review Board (OSB/MRB)
- Authorize work (Operations Manager via POW/POD)

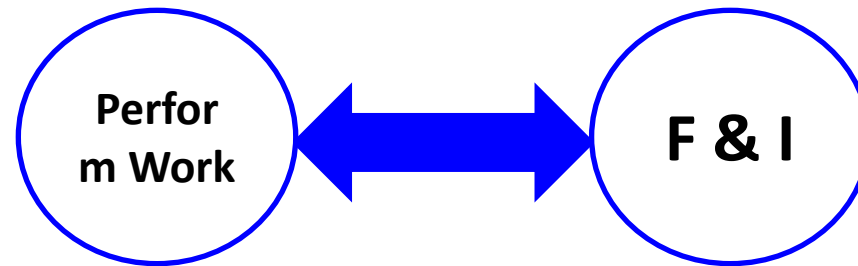
Perform the Work



Do the work within the identified controls and Conduct of Operations (CONOPS) requirements

- Control of operations in a disciplined manner (rigor and formality)
- Shift Manager grants work start approval (changing conditions)
- Pre-job Briefings
- Compensatory Measures
- Step-by-step performance of Technical Procedures
- Peer checks and Independent Verification (critical steps)

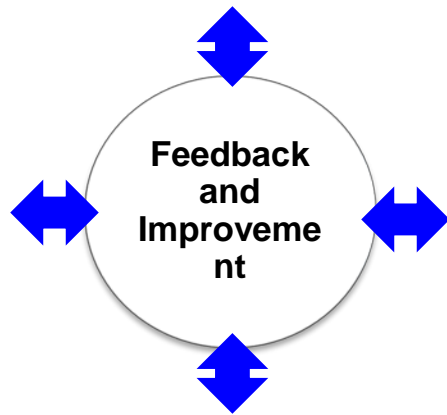
Perform the Work



Do the work within the identified controls and CONOPS requirements

- Area walk-downs by management/OPI Reps/External Reps
- Management Oversight Personnel (MOP) for new Start-up evolutions
- OPI Assist Visits as requested by management
- Formal Assessments of Work (MA, IA, external organizations)
- Suspend and Stop Work Authority

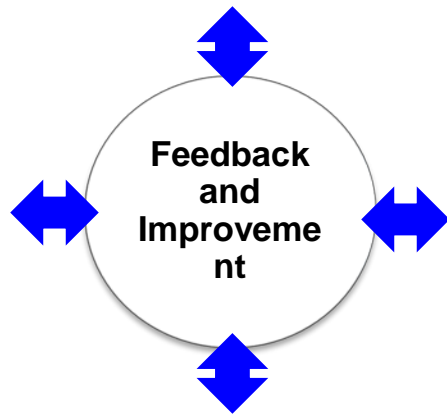
The STAR of the Show



Gather feedback information on the effectiveness of controls and the conduct of work to identify continuous opportunities for improvement

- Worker involvement at all levels
- Post-job debriefings
- Abnormal events (IEI, Critique Determination, Formal Critique, Occurrence Reporting)
- CONOPS Index (grading, normalizing, and trending of "CONOPS Errors")
- Lessons Learned and News You Can Use
- Continuous improvement of knowledge and experience at all levels (training and qualification, continuing training, OPI Focus Area Training)

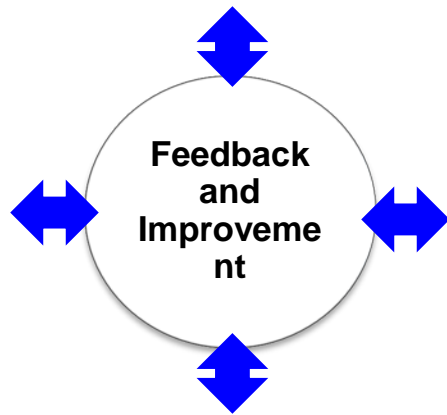
The STAR of the Show



Gather feedback information on the effectiveness of controls and the conduct of work to identify continuous opportunities for improvement

- Issues Management System (corrective action plan, field verification, beware “completion complacency”)
- Tracking and Trending of assessment data and corrective action plan progress
- Housekeeping to improve WORKER morale, direct involvement (funded efforts, results measured in tons)
- YSO/Y-12 regular interface (daily conference call)
- Incentive fees awarded for accomplishing milestones
- OPI recommended improvements

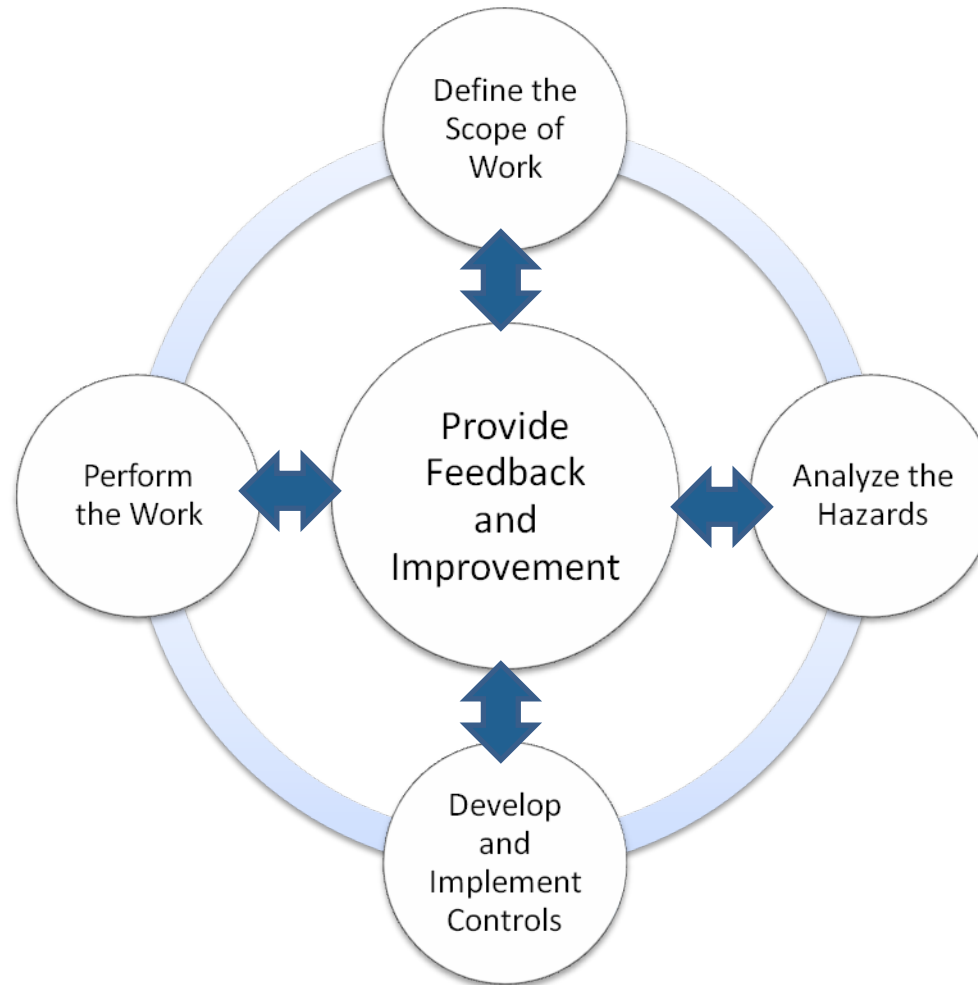
The STAR of the Show



Gather feedback information on the effectiveness of controls and the conduct of work to identify continuous opportunities for improvement

- Feedback and Improvement Working Group (FIWG)
 - Analysis of performance trends and conclusions
 - Evaluate site-wide performance – explore programmatic or systemic issues
 - Present results to senior management (ESG)
 - Support improvement DECISIONS
- Corporate Independent Assessment of ISM Implementation

Conclusion: The Spokes of the ISM Wheel



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