

HPI Site-Wide Assessment



Aerial view of DMPP.

Dexter Ray, SRR
HPI Project Manager



Biography

Marvin Dexter Ray

Master of Science Degree in Project Management from University of Wisconsin

Bachelor of Science in Engineering from University of Southern Illinois

Project Manager Professional (PMP) Certified

28 Years Experience in Nuclear Power Generation and DOE Complex's

- * Startup/Operation/Maintenance
- * Project Management
- * Engineering
- * Quality Assurance
- * Project Design
- * Work Planning/Control
- * Training/Procedure Development





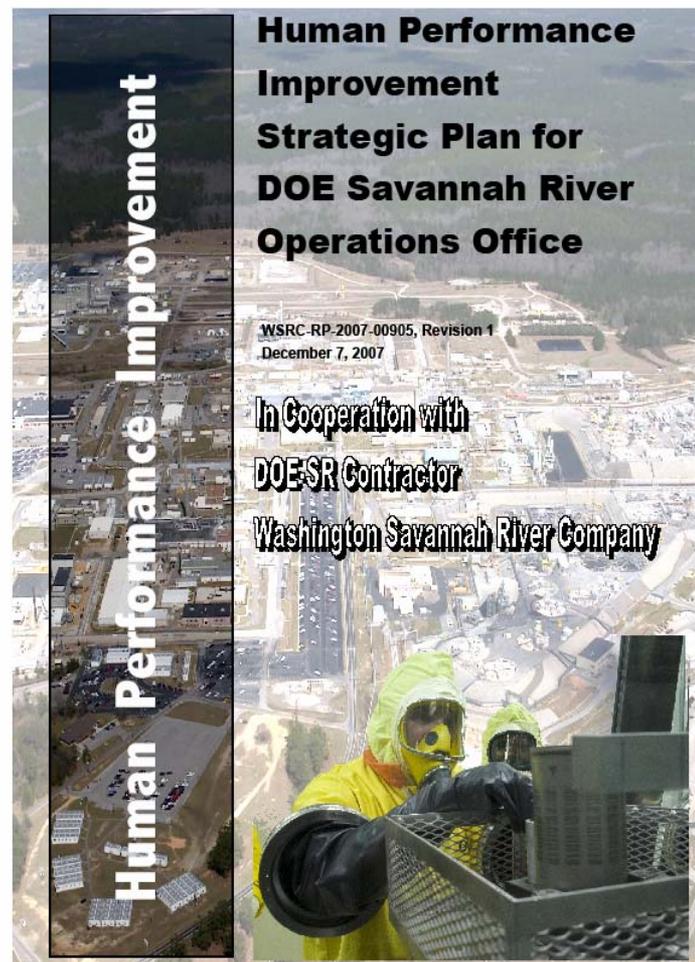
The Journey

- In 2005 Savannah River Site (SRS) performed a Gap Analysis
- In 2006 SRS started Human Performance Improvement (HPI) Program
- End of 2006 trained 1,400 Managers on Standards and Expectations with HPI
- In 2007 over 8,000 personnel trained in HPI and Error Reduction Tools



The Journey

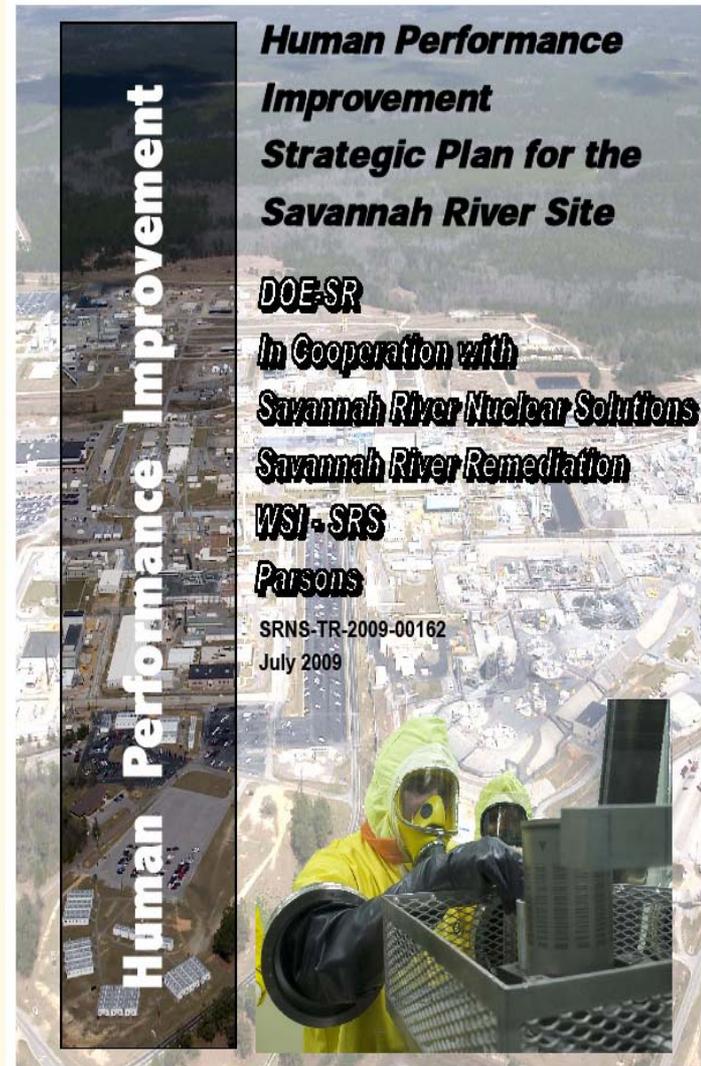
- In 2007 developed and approved the HPI Strategic Plan
 - The key areas:
 - Partnership with our DOE customer
 - Site-wide effort with Oversight Structure and resources
 - Integrated Approach that will change many of our existing processes





The Journey

- In 2008 performed external and internal assessment on HPI program
- In 2009 revised our Strategic Plan to capture improvement items





Human Performance Campaign

- Conducted GAP Analysis
- Developed the HPI Strategic Plan
- Senior Level Commitment
- Steering Team & Working Group Formed
- Implemented Nine Site Error Reduction Tools
 - (6) Core
 - (3) Nuclear Facilities



Human Performance Campaign

- Communication Campaign
 - Spectrum Video
 - Posters
 - Website
 - 18 Days of Excellence
 - Safety Conference
- Trained Site Personnel
 - Managers First
 - Workers Second



Human Performance Campaign

- Integration of HPI into Site Programs
 - Corrective Action Process (CAP)
 - Disciplinary process revised
 - Fact Finding / Post Job Review
 - Human Performance Procedure
 - Pre-Job Briefing Procedure and Checklist
 - Work Control Guide (SAFER)
 - Error Coding and Reporting
 - Self Assessment & Management Observations
- HPI Booklet
- Web Page



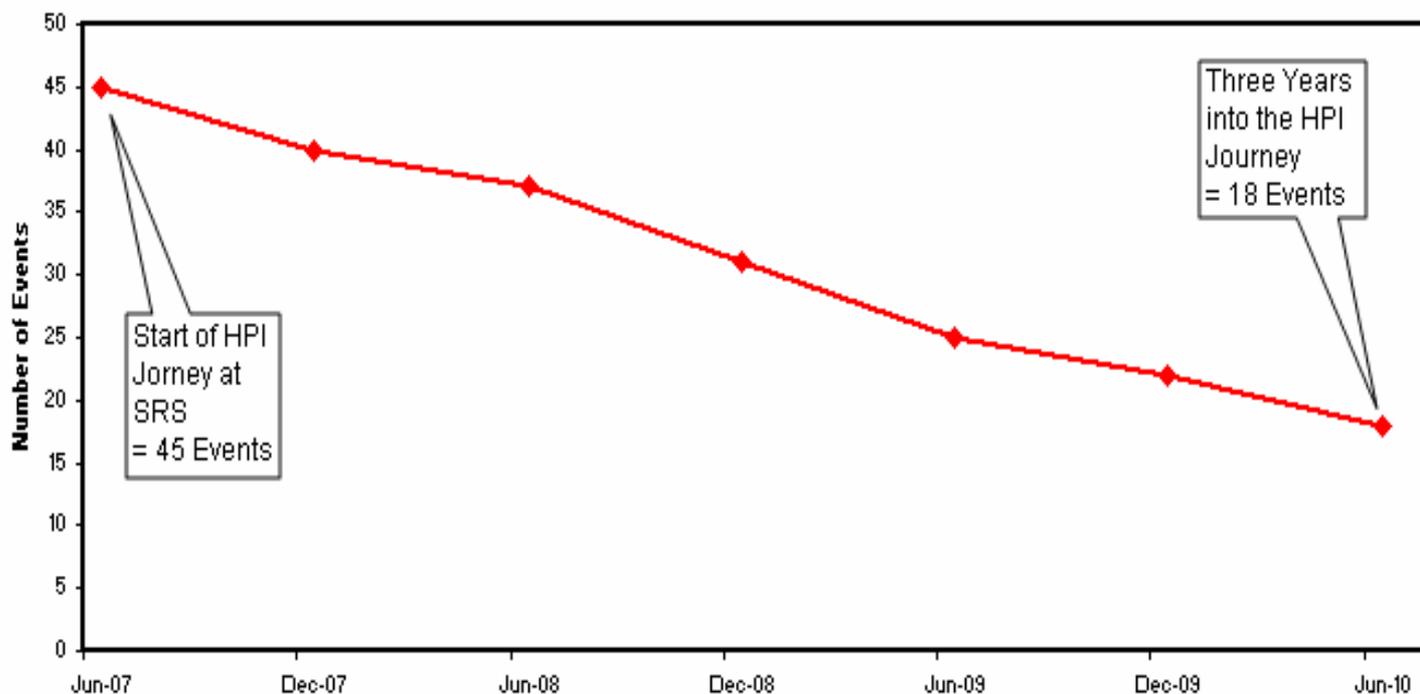
Measuring the Progress

Human Performance Improvement (HPI)

Savannah River Site (SRS)

Number of Events

June 07 thru June 10





Why an HPI Self Assessment?

- After three years of HPI implementation, it was time to take a look at our programs, learn from them, and improve our performance



Five Different Site Projects

- H-Canyon & HB-Line
- Defense Waste Processing Facility (DWPF)
- Analytical Labs
- K-Area
- Tritium



H-Canyon



The facility's operations historically recovered uranium-235 (U-235) and neptunium-237 (Np-237) from aluminum clad enriched-uranium fuel tubes from site nuclear reactors and other domestic and foreign research reactors using a chemical separations process.

Defense Waste Processing Facility (DWPF)



The largest radioactive waste glassification plant in the world, the workers there convert the liquid nuclear waste currently stored at the Savannah River Site (SRS) into a solid glass form suitable for long-term storage and disposal.



Analytical Labs



The labs perform analyses on a wide range of matrices, such as soil, water, gases, foodstuffs, decommissioning debris, waste, and process control samples. The laboratories maintain certifications and qualifications through a variety of governing bodies, which allows multiple applications of our laboratories services. Over 200,000 samples are processed yearly, producing 500,000 determinations with an error-free rate averaging 99.97 percent



K-Area Complex



The K Area Complex (KAC) provides for the handling and interim storage of our nation's excess plutonium and other special nuclear materials (SNM) in a safe and environmentally sound manner.

Tritium Facility



The Savannah River Site's (SRS) Tritium Facilities are designed and operated to supply and process tritium, a radioactive form of hydrogen gas that is a vital component of nuclear weapons.



20 Assessment Team Members

- INPO Senior Evaluator
- DOE Headquarters HPI/HRO Manager
- DOE Headquarters SME
- HPI Coach – HPI Manager/INPO
- Vogtle Nuclear Stations HPI Manager
- Vogtle Nuclear Stations HPI SME Engineering
- V.C. Summer Nuclear Station HPI SME
- 13 SRS HPI SME's



Activities:

- 5 Teams of 4 Assessors

- 130 Field Activities Observed
 - Operations
 - Maintenance
 - Construction
 - RadCon

- 100 Personnel Interviews
 - Managers
 - Engineers
 - Operators



Results:

- Generated 500 Yellow Sticky's of Data Inputs
- Developed 50 Strength & Problem Statements
- Established 100 Observation Forms

Analysis Generated:

- 10 Good Practices
- 4 Area's For Improvements (AFI's)



Some of the Good Practices

- Pre-Job Briefings
- Proactive Review of daily issues by Management Review Teams (MRT's)
- Corrective Action Review Boards (CARBs)
- Post Job Briefings
- Use of red card for timeouts
- Error Coding Trending and Analysis
- Strong Learning Culture
- Self Assessment performed
- Management Improvement



Areas For Improvements (AFI's)

1. Use of HPI Tools

- Application of some HPI tools is not engrained within worker and manager behaviors

2. Corrective Action Program

- The corrective action program is not driving the organization to achieve and sustain high levels of performance

3. Leadership/Management Reinforcement

- Managers at all levels are not effectively monitoring and reinforcing human performance error reduction tool use

4. Sustainability

- The responsibilities for programmatic support of human performance operational excellence do not reside in any staff organization or position



Summary

- Senior Management Sponsorship and Continuous Involvement
- First & Second Level Managers need to own the HPI program
- Reinforcement of Expectations Weekly
- Robust Corrective Action Program for capturing lower level issues
- Use Dynamic Learning Activities (DLA's) during training
- Reward personnel regularly



Questions?

