

Fluor Hanford Safeguards and Security (SAS)

Approaches to Implementing Human Performance Improvement (HPI) Concepts and Tools in a Safeguards and Security Organization

Gordon Denman (SPO I)

Jim Schildknecht (Sr. Advisor)

Fluor Hanford Safeguards and Security



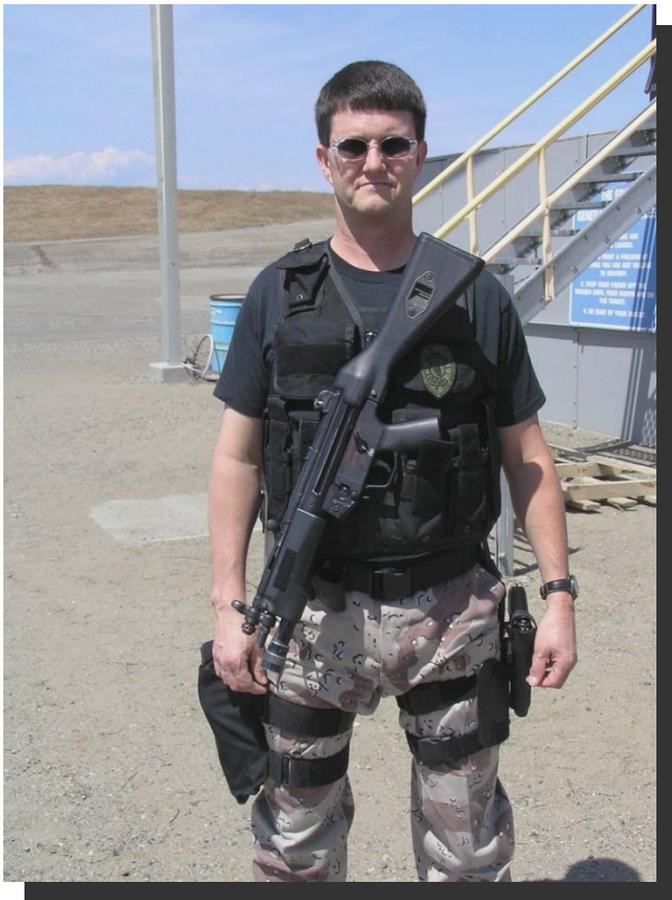
Fluor Hanford Safeguards and Security (SAS)



Operators at the K Basins
Removing Debris/Sludge

SAS SPO Weapons Training at
The Patrol Training Academy

Fluor Hanford Safeguards and Security (SAS)



Gordy Denman –
Hanford Patrol, 1990



Jim Schildknecht –
Vietnam, 1969



Fluor Hanford Safeguards and Security (SAS)

SAS Services: Serving the Entire Hanford Site (585 sq. miles)

The “stuff” we do -

- **Patrol Operations (Patrol, SRT/TRT, K9, POC)**
- **Patrol Training Academy (PTA) (10 Ranges, EVOG)**
- **Personnel Security (Central Badging, Clearances)**
- **Safeguards (Protecting Documents and Materials)**
- **Physical Security - Facilities (Locksmith Services)**
- **Technical Security (Security System Installation and Maintenance)**
- **OPSEC**
- **Information Security – Classified Matter Protection/Control**
- **Cyber Security – Classified and Unclassified**
- **Threat Vulnerability and Risk Assessment**



Fluor Hanford Safeguards and Security (SAS)

SAS: We Do Work Safely!!



Live Fire Training at the Patrol Training Academy



Fluor Hanford Safeguards and Security (SAS)



- DOE **VPP Star Site** Since Feb. 2001
- First DOE Site to implement “**Elite Force**” status -- OSHA Recordable Rate half that of average DOE armed Pro-Force
- This Year, SAS Tracked and Closed Over **260** Employee-Identified **Safety Observations**

- **Technical Security (Maintenance)** –
10,000+ Days without OSHA
Recordable Case

- **Physical Security-Locksmiths** -
9,000+ Days without OSHA
Recordable Case



Fluor Hanford Safeguards and Security (SAS)

Why HPI at SAS? **Continuous Improvement!**

- Catch a Ride on DOE and Fluor management sponsorship and support
- Connect to SAS ISM and VPP efforts and successes
- Seek Improvement opportunities in communications, leadership skills



- Create environment for “Reporting” and “Just” Cultures



Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Potential Barriers, Issues**

Recognizing and understanding important dynamics

- **Types of work**: hazards, risks, behaviors
- **Relationships**: management/labor [style]
 - Patrol personnel (Hanford Guards Union)
 - Security maintenance workers (HAMTC)
 - Locksmiths (HAMTC)
 - Leaders/Managers (lots w/ military backgrounds)
- **Perspectives** (attitudes) on **communication**, **reporting**, **investigation** and **discipline** processes...
 - Is HPI “**just another program**”?



Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Getting Started**

- **SAS management commitment**
 - **Assigned a dedicated SME to coordinate the effort**
 - **Communicated objectives, goals and vision to all**
 - **Expected an integrated HPI Implementation Plan**
 - **Integrated with the Fluor Hanford HPI Steering Team**
- (Site)
- **Activities tied to the SAS Safety Improvement**
 - **Support for employee involvement**



Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Demonstrate Integration!**

- * **Procedures** * **Supervision** * Questioning Attitude * PPE * **Error**
- * Worksite Analysis * **Situational Awareness** * **Just Culture** * STAR
- * Peer Checking * Graded Approach * **Task Preview** * Defense-in-Depth * Observations * Inspections * **SAFER Dialogue** * **Work Environment** * **Culpability** * **Individual Capabilities** * Management Commitment * **Human Nature** * Training * **Organization Weakness**
- * Error-Likely Situation * **Task Demands** * Qualification * ORR * Pre-job Brief * **Error Prevention** * **Flawed Defenses** * Feedback & Improvement * 3-way Communication * Turnover * Verification*

HPI

actions

CONOPS

tools

ISMS

mechanisms

methods



Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Getting Started**

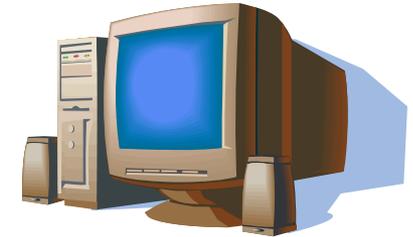
Prepared & Issued a **SAS HPI Implementation Plan**

Seven Key Elements

- **Communications**
- **Training**
- **Observations**
- **Process Evaluation Program**
- **Near-miss, Event, Incident Investigations**
- **Disciplinary Process**
- **Work Management**
 - **Work Planning and Pre-job Briefings/Line-ups**



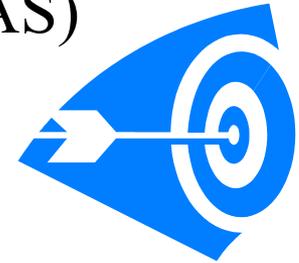
Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Our Progress****Communications**

1. SAS [HPI website on SAS ‘Safety Central’ \(Intranet\)](#)
-articles, guides, forms, plans, reports, tools, et al
2. SAS [“HPI Tidbits” articles \(weekly\)](#)
-topics from everywhere, about everything related to human performance (see Colorado FireCamp site)
3. [HPI-theme articles](#) in the weekly Fluor Hanford *FYI* newsletter
4. [HPI Topical presentations at monthly SAS EZAC meetings](#)



Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Our Progress****Training**

- ALL SAS employees attend minimum **8-hour HPI Basics course**
- Selected SAS employees attend
 - **36-hour HPI Fundamentals course** (50 %)
 - **16-hour HPI Event/Incident Analysis course** (15 %)
- ALL PTA Instructors and Staff attended **special Pro-Force 36-hour HPI Fundamentals course**
- ALL SAS Security Police Officers (SPOs) have attended specially designed **8-hour HPI Basics course** (internal design)



Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Our Progress**

Training (continued)

- SAS HPI courses have **content** based on **INPO** programs
- HPI courses for SAS PTA **Instructors** and **Security Police Officers** focused on learning **concepts** and **principles** through practical exercises (real experience)
 - **vehicle accidents** during response calls
 - **dropped weapons/discharged rounds**
 - **accidental chambering** while removing from vehicle
 - outside force **trainee wounded** by own weapon
 - **various bodily injuries** incurred during PEP



Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Our Progress**

Observations Program

- Use bank checkbook style of observation sheets
- Observation sheets list activity/error-likely situation
- Observers focus on activities/steps of work...not “areas”
- Observers record “what they see” or “what they hear”
- Observers may interface with workers, ask questions
- Observation “checks” are deposited at designated locations
- Observations collected, reviewed by OS&H personnel
- Testing with SAS OS&H team members, roll-out soon



Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Our Progress**

Process Evaluations/Reviews (Proactive)

- SAS Work Processes selected by managers for review
- Specially-designed Task/Step Review Worksheet used
- Process analyzed using Task Preview/**SAFER** principles
 - Critical Tasks/**S**teps identified
 - **A**nticipate error-likely situations (traps)
 - **F**oresee consequences (prioritized by risk)
 - **E**valuate defenses (need additional controls?)
 - **R**eview lessons (past experiences/events?)



Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Our Progress**

Work Process Evaluations/Reviews (Proactive)

- Team Reviews completed, reports issued:
 - Locksmith Services (GPFs) - Physical Security
 - Foreign National Visits and Assignments (FNVA)
 - General Range Operations – PTA
 - Classified Document Control (CDC)



Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Our Progress**

Event, Incident Investigations, Reviews

- Redesigned Procedure for **Internal Investigations and Disciplinary Action**

- > Incorporated the **Culpability Matrix**

- > Path for smoother interviews, getting “**Context**”
HPI-based questioning

- Desk Guide and Tools (checklists) for performing **HPI-based reviews**



Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Our Progress**

Work Management (Work Control)

- Work Management procedures require
 - Planners to perform **Task Preview**
Task Demands/Work Environment/Individual Capabilities/Human Nature (error-likely situations)
 - Prescribed by decision points on the **AJHA**
 - Fieldwork Supervisors conduct **Pre-job Briefings**
using PJB checklist with **SAFER dialogue questions**



Fluor Hanford Safeguards and Security (SAS)

HPI Implementation – **Path Forward**

Conclusion:

Benefits of HPI to date:

- Heightened Workforce Awareness – human condition
- Readiness to perform work has improved

More to do:

- Continue to provide training, coaching and mentoring as needed
- Strive to attain a Reporting Culture through a fair assessment of fact - get “context”

