CONTRACTOR SAFETY

A Systematic Approach to Contractor Safety at a Voluntary Protection Program (VPP) Site Through the Application of Basic Process Safety Management Principles

Presented by - Wendy Benison  United Space Alliance  May 16, 2006
INTRODUCTION

The United States Space Industry is 50 years young. It has met new scientific challenges while sustaining the integrity of mature technology.

United Space Alliance is carrying the torch to the next milestone in space exploration. We welcome the task, we prepare for the risk, we anticipate our accomplishments of the future all the while questing for excellence.
Presentation History

2003- First Presentation

Lessons learned

Process Improvements
Presentation Objectives

• Co-Mingling PSM Requirements with VPP
• Company Policy/Departmental Integration
• Contractor Selection Process
• Assisting Contractors in Meeting Stringent Safety Requirements
• Holding Contractors ACCOUNTABLE
• Monitoring Contractor Jobs – Safety Perspective
• Challenges and Lessons Learned
US Rocket & Space Technology History

- Development
- Testing
- Launch Site Selection
Location, Location, Location

Citrus Groves

Birds, Wildlife, Vegetation
National Wildlife Refuge with Part of the Coastal Area National Seashore, Consisting of 140,000 Acres
KSC TODAY

- Private Industry Provides the Services
- Obtaining the Contract

Competitive price

Performance
A SINGLE PRIME CONTRACTOR

- The Reward is a substantial cost savings to the shuttle program of $400 million compared to prior costs

• UNITED SPACE ALLIANCE
  - A Prime Contractor for Space Shuttle Program
  - Contract Award
  - Contract Responsibility
  - Fixed Price Contractor Process
Being the Prime Contractor has its Challenges
USA FL VPP STAR SITE: May 2002

- Re-Certification taking place this year (2006)

- 13 USA Special Government Employees (SGEs) on Site to Support
### Application

- Contractors performing maintenance, repair, turnaround, major renovation, or specialty work on or adjacent to a covered process are covered by this standard.

### Reference

(h)(1)

Contractors providing incidental services which do not influence process safety such as janitorial work, food and drink services, laundry, delivery, or other supply are not covered by the standard.
## PSM REQUIREMENT

- **Employer Responsibility.** Obtain and evaluate information regarding the contractors’ safety performance and programs when selecting a contractor.

- **Employer Responsibility.** Inform contractors of known potential fire, explosion, or toxic release hazards related to the contractors’ work and the process.

## REFERENCE 29 CFR 1910.119

- (h)(2)(i)

- (h)(2)(ii)
PSM REQUIREMENT (CONT.)

- Employer Responsibility. Applicable provisions of the emergency action plan are explained to contract employers

- Employer Responsibility. Develop and Implement Safe Work Practices to Control Entrance, Presence, and Exit of Contract Employers and Employees

REFERENCE (CONT.)

- (h)(2)(iii)

- (h)(2)(iv)
**PSM REQUIREMENT (CONT.)**

- Employer Responsibility. Perform Periodic Evaluations of Contractor Employees to Assure They are Fulfilling Their Obligation per (h)(3)

- Employer Responsibility. Maintain a Contract Employee Injury & Illness Log Related to the Contractor’s Work in Process Areas

**REFERENCE (CONT.)**

- (h)(2)(iv)
- (h)(3)
- (h)(2)(vi)
<table>
<thead>
<tr>
<th>PSM REQUIREMENT (CONT.)</th>
<th>REFERENCE (CONT.)</th>
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<tbody>
<tr>
<td>• Employer Responsibility. Issue Hot Work Permits for Hot Work Operations on or Near a Covered Process</td>
<td>• (k)(1)</td>
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<tr>
<td>• Employer Responsibility. Develop a team that to investigate incidents which resulted in or could reasonable have resulted in, a catastrophic release of highly hazardous chemicals in the workplace.</td>
<td>• (m)(3)</td>
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<td><strong>PSM REQUIREMENT (CONT.)</strong></td>
<td><strong>REFERENCE (CONT.)</strong></td>
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<tr>
<td>• Contract Employer Responsibility. Assure that Each Contact Employee is Trained in the Work Practices Necessary to Safely perform their Job</td>
<td></td>
</tr>
<tr>
<td>• Contract Employer Responsibility. Provide instruction to each contact employee of the known potential fire, explosion, or, toxic release hazards related to their job and process and applicable provisions of the emergency action plan</td>
<td>• (h)(3)(i)</td>
</tr>
<tr>
<td></td>
<td>• (h)(3)(ii)</td>
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PSM REQUIREMENT (CONT.)

- Contract Employer Responsibility. Document that each employee has receives & understands the required training

- Contract Employer Responsibility. Prepare training records with employee identity, training date, and verification that the training is understood

REFERENCE (CONT.)

- (h)(3)(iii)
<table>
<thead>
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<th>PSM REQUIREMENT (CONT.)</th>
<th>REFERENCE (CONT.)</th>
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<tr>
<td>• Contract Employer Responsibility. Assure that each employee complies with safety rules of the facility and safe work practices per (f)(4)</td>
<td>• (h)(3)(iv)</td>
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<td>• (f)(4) –</td>
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<tr>
<td>• Contract Employer Responsibility. Advise employer of any unique hazards presented or identified by the contractor employer’s work</td>
<td>• Employer responsibility. Develop &amp; implement safe work practice to provide control of hazards during operations i.e., LOTO, Confined space entry, etc. &amp; control over entry into facility by maintenance, contractor, laboratory, or support personnel</td>
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<td>• (h)(3)(v)</td>
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Voluntary Protection Program (VPP)

- TED 8.4
- March 25, 2003, OSHA issued instruction and clarification of the overall framework of policy and procedure for administering the OSHA VPP program

- Contractor Coverage Requirements for contract worker safety and health at VPP sites have been strengthened; new requirements to report contractor illness and injury rates have been added

- Applicable Contractor – A contractor whose employees worked at least 1000 hours at the site in any calendar quarter within the last 12 months and are not directly supervised by the applicant/participant
VPP

Application

- All contractors, whether regularly involved in routine site operations or engaged in temporary projects such as construction or repair, must follow the safety and health rules of the host site.

Reference

- Chapter 3, C.c.
VPP REQUIREMENT

• Contract Work Coverage
  Contract workers must be provided with safety and health protection equal in quality to that provided to employees.

• Injury and Illness Data
  Requirements Nested contractors (such as contracted maintenance workers) and temporary employees who are supervised by host site management are governed by the site’s safety and health management system and are therefore included in the host site’s rate.

REFERENCE

• Chapter 3, C.c.
VPP REQUIREMENT (CONT.)

• VPP participants must have in place a documented oversight and management system covering applicable contractors. Such a system must:

• Ensure that the safety and health consideration are addressed during the process of selecting contractors and when contractors are onsite

• Encourage contractors to develop and operate effective safety and health management systems.

• Include a provision for removing a contractor or contractor’s employees from the site for safety and health violations.

REFERENCE

• Chapter 3, C.c.
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<th><strong>VPP</strong></th>
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<td>• Selection Process – performance &amp; programs</td>
<td>• Selection Process – Contractors Report Illness &amp; Injury Rates</td>
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<tr>
<td>• Documented Safety &amp; Health Training &amp; Retraining</td>
<td>• Prompt Correction or Process to Remove Contract Workers for Non-Compliance</td>
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<tr>
<td>• Performance is Periodically Evaluated &amp; Assurance of Safety Rule &amp; Policy Compliance</td>
<td>• Develop &amp; Operate Effective Safety &amp; Health Management Systems</td>
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<tr>
<td>• Provide information to the Host Employer of Created or Discovered Hazards</td>
<td>• Contract Employees Provided Safety &amp; Health Protection Equal to that of Regular Employees</td>
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<td>• Inform Employees of Unique Hazards/Procedures of the Facility</td>
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Service Contracts Include:

- Water Delivery Services
- Lawn Services
- Furniture Moving
- Computer Services (hardware)
- Bulk Propane
- Gas Cylinder Delivery
- Repair/Warranty
In-House Contractors Include:

- Chemical Laboratory Services
- Janitorial Services
- Life Support/Propellants
  - Respiratory Protection (SCBA, Level A)

The “In House” Contractor Fall Under the Same Requirements as the Host Employer

i.e., Process Hazard Analysis (PHA) teams, reporting of injuries
Construction Contracts Examples:

• Corrosion Control of Structures
  – Lead and other Heavy Metals, Silica
  – Asbestos

• Dredging

• Pressurized Systems- Storage Tanks, H2/HE Storage Batteries

• Piping and Tubing Replacement – Cross Country Lines
  – Fuels, Oxidizers

• Mechanical and Manual Lifting

• Communication Lines/Manhole Installation

• Fabrication/Installation
Contract Requisition System

Requisitions

Construction Contracts
Service Contracts
In-House Contracts

Safety Review Required?

Yes/No

No further Safety input
Contract Requisition System (cont.)

Documents include:
- Safety Survey form
- OSHA 200/300 logs
- Company Safety Plan

Assist Contractor to meet compliance
- Safety Plan Template
- Intervention Plan Required
  - if Injury rates higher than industry average

Collect Documents

Safety Approved/Disapproved

Concurrence to Procurement Complete requisition

Contractor Evaluation
Contract Requisition System - Summary

- Company Policy – company wide implementation
- One system for purchasing service with ES&H integration
- Education of workforce regarding responsibilities/obligations
- Automation of approval process/documentation
- Partnership with Procurement and various departments
  - Capture escapes
  - Support integrity of process
Managing Subcontractors at a PSM/VPP Site

• Contractor Classifications
  Service
  Construction
  Integrated Contractors or “In-House” Contractors

• Pre-Approval Process
  Contract Document
  Safety Plan Requirements
  Safety Performance Review
Pre-Approval Process for Subcontractors

Contract Document

Collaborate on a Document to Address Contractual Requirements Imposed on the Contractors.
Safety Plan Requirements

1. Define Management Structure and Safety Responsibility

2. Obtain Contractor Basic Safety Programs
   - Hazardous Communications
   - Respiratory Protection Program
   - Confined Space Program
   - Lockout/Tagout Program
Pre-Approval Process for Subcontractors

Safety Plan Requirements (cont.)

3. Define Specific Work Policies/Programs and Information the Contractor Provides to Their Employees

4. Address HOST Facility, Specific Safety Rules/Requirements and/or Contract Requirements…How will the Contractor Provide and Present to Employees?
Pre- Approval Process for Subcontractors

Safety Plan Requirements (cont.)

5. Contractor Disciplinary Policy

6. Contractor Safety Training/Programs are Conducted to Employees and Training Implementation.

Pre-Approval Process for Subcontractors

Safety Performance Review

1. Contractor Disclosure
   - Injury & Illness Information for the Present Year & Past 2 Years
   - OSHA Violations

2. Worksite Inspections
   - Regular & Frequent
3. Programs & Training

4. Use of sub tiers
   - Injury & Illness Information
Assisting Subcontractors in meeting Stringent Safety Requirements

- Directing subcontractor to OSHA outreach program
- Directing subcontractor to OSHA
- Providing free workshops to local subcontractors through VPPPA region meetings
Managing Contractors at PSM/VPP Sites

1. Employer Determine Health & Physical Hazards Related to Each Contract to Ensure Contractors Address and Comply to the Specific Safety Issues.

2. Annually, Ensure Contractors Submit Subcontractor Injury & Illness Rates. High Injury & Illness Rates are Addressed on an Individual Basis
   - New Contractors, Past three (3) Year Average
Managing Contractors at PSM/VPP Sites (cont.)

   - Provide an Outline Defining Plan Requirements

4. Ensure Surveillance of Contractor Work by the Contract Employer
5. Establish a System to Address Performance Discrepancies Likewise, Acknowledge Exemplary Performance

6. Develop a Grading System to Evaluate Each Construction Contract to Reflect Contractor and also Employer Performance.
Managing Contractors at PSM/VPP Sites (cont.)

7. Any Contractor Safety Performance that Falls Below Average is Not Eligible to Bid New Contracts Until an Intervention Plan is Developed & Implemented

8. Communicate Safety Commitment to Contractor – Internal/External

- Non-Compliance Will NOT Be Tolerated
9. Ensure PSM Information is Consistently & Adequately Provided to the Contract Employees
   - Address Training/Retraining
   - Address Literacy & Non-English Speaking Issues
   - Ensure Adequate Comprehension

10. Awareness of Process Changes
Construction Activities

• Pose the Largest Challenges

• Largest Budget

• Could Account for Big Liability
Providing Subcontractor Oversight

• Ensure subcontractor Accountability

• Require subcontractors to Provide Full-time Safety Coverage on Designated Contracts

• Require subcontractors to Provide Certified Industrial Hygiene expertise on designated Contracts

• Evoke a Disciplinary Notice Policy to Address Non-Compliance Issues

• Provide a Report Card System Where Both Parties Evaluate Performance
Providing Contractor Oversight (cont.)

- The “Host” Company Must Provide Continuous Safety Contract Coverage at Each Construction Project
- Approve the Contractors to Perform Work
- Statement of Work & Design Reviews
- Pre-Bid, Pre-Award, Pre-Work Meeting Support for construction projects
- Field Changes
- Ensure Mishap Investigations
- Evaluation of Safety Performance – before, during and after
Summary

- PSM Requirements Compliment the VPP Requirements
- Provide Safety Consulting
- Define the Contractor Process
- Follow the Process
- Involve Safety Oversight Throughout the Contract
- Acknowledge Great Performance as Well as Poor
- Provide a Climate Where Following Safety Requirements Is First Priority, Schedule DOES NOT Drive SAFETY PERFORMANCE
Lessons Learned

– Integrate the Process Throughout the Various Departments i.e., Procurement, Engineering, Safety, Field Engineering, Facilities Managers, etc.

– Capture the process at the beginning of the process – not when the contract is required!

– Consistency for all contracts (construction/services)

– Be prepared for push back! – Communication is critical

– Automate as much as possible – Don’t be the hold up!

– There are always escapes! – Look for them

– Always being compared to other Prime Contractors
Provide safe, high-quality, best-value space operations, services and technologies to our customers.
QUESTIONS??
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THANK YOU!