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ATTACHMENT

**VOLUNTARY PROTECTION PROGRAM ANNUAL REPORT**

Consisting of 118 pages,  
including this cover page



DEPARTMENT OF ENERGY  
MISSION SUPPORT CONTRACT  
MISSION SUPPORT ALLIANCE  
VOLUNTARY PROTECTION PROGRAM  
ANNUAL SELF-ASSESSMENT  
CALENDAR-YEAR 2016

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Mission Support Alliance  
2016 VPP Annual Report

## 1.0 SUMMARY

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Mission Support Alliance (MSA) maintains three Department of Energy (DOE) Voluntary Protection Program (VPP) Star Sites: the Volpentest Hazardous Materials Management and Emergency Response (HAMMER) Federal Training Center, Safeguards and Security (SAS), and Mission Support Services (MSS). The calendar year (CY) 2016 annual evaluation of the DOE VPP included assessing the processes and implementation of requirements for maintaining Star level participation.

The scope of the annual VPP review included all facilities and activities managed by MSA. Three trimester VPP reviews were conducted during the year. This approach provided three data points that continuously monitor the health of VPP implementation and progress of improvements while allowing workers and managers to respond accordingly to changes within the work environment and the dynamic influences of ever-changing resources. Attachment 1 contains a complete list of the Lines of Inquiry (LOIs) that was used for the three assessments. Supplemental data gathered from sources, such as results from Integrated Safety Management System (ISMS) Surveillance Team field observations, internal management assessments, Hanford General Employee Training (HGET) voluntary survey, and the DOE Headquarters (HQ) VPP recertification team evaluation was reviewed and included in this assessment, as applicable. Additionally, data and feedback from the company wide safety reset, conducted in November 2016, provided worker level content for input into the final report.

The following Appendices provide specific assessment results and detailed information for each Star Site:

- Appendix A, HAMMER
- Appendix B, SAS
- Appendix C, MSS

Total recordable case (TRC) rate and days away, restricted or transferred (DART) rates for HAMMER, SAS and MSS Star Sites, have been trending lower over the past three years, and all are below the comparison industry average. These rates, as presented in Appendices A, B and C, clearly meet the expectations for participation in the DOE-VPP.

## 2.0 CONTINUOUS IMPROVEMENT

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MSA assurance processes implement activities designed to identify deficiencies and opportunities for improvement, report deficiencies to the responsible managers, and implement effective corrective actions. In addition, these processes are designed to evaluate/assess the environment, safety, and health (including quality assurance and integrated safety management); safeguards and security; cyber security; and emergency management attributes of contractor assurance. The individual elements (processes) are:

- MSA self-assessment activities including surveillances, management and independent assessments
- Worker feedback
- Issues management
- Operating Experience/Lessons Learned
- Performance measures

MSA utilizes a comprehensive contractor assurance system (CAS) that monitors areas of performance for the elements listed above. A combination of leading (i.e., process or behavioral) and lagging (i.e., outcome or results) indicators are used to identify areas for improvements, along with specific actions that were taken to maintain or achieve long-term performance objectives. MSA committed to the FY 2016 ISMS performance objectives, measures and commitments (POMCs), which are specific objectives/goals and commitments for key improvement initiatives and safety performance metrics.

During CY 2016, the CAS was reported monthly to the MSA Executive Safety Review Board (ESRB) and to the DOE-Richland Operations Office (DOE-RL) at quarterly CAS meetings. Adverse incidents/trends or predicted areas of risk had corrective actions developed, were tracked to closure, and their effectiveness was evaluated. MSA posted monthly performance data on the CAS website that can be accessed by all MSA employees.

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### SAFETY & HEALTH IMPROVEMENT PLAN (SIP)

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In pursuit of zero accidents and injuries, as well as continuous improvement objectives in 2016, MSA developed and approved the 2016 Safety Improvement Plan (SIP). The SIP embodies the company's safety strategy and unites all the organizations and Zero Accident Council groups in a coordinated effort to achieve common safety goals. The workers — in partnership with management — committed to five areas of improvement to ensure the greatest impact for improving employee safety and creating safe work environments.

The 2016 SIP was developed based on observations and assessment results from the previous year to address cross-cutting safety and health (S&H) issues that apply to all organizations within MSA. Additionally, organizational SIPs, recognized by employees as part of their annual S&H goals, were developed in partnership with employees and managers through work group safety councils. All SIPs were accessible to employees,

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either electronically or hard copy, posted on safety bulletin boards, and located on MSA's VPP web page.

Goals and measurements defined in the MSA 2016 SIP are listed below.

### **MANAGEMENT/LEADERSHIP COMMITMENT**

Management engages in steady communications with safety leaders (ISMS and EZAC) as evident in their staff meeting agenda, minutes and/or schedule.

Measurement:

- Document the safety conversation in the meeting minutes.
- Vice president-level staff meetings include an agenda item to discuss open safety issues (Safety Log or Issues Identification Form).
- Vice presidents participate in safety inspections.

Champions: MSA vice presidents, EZAC chairpersons, and safety leaders.

### **EMPLOYEE INVOLVEMENT**

MSA employees will participate in safety recognition activities including documented work area inspections, safety campaigns, safety token use, safety log utilization, recognition, and safety luncheons.

Measurement:

- Inspection reports, Safety Store log, campaign and safety lunch participation will provide evidence of these opportunities and positive outcomes.

Champions: MSA vice presidents, EZAC chairpersons and VPP Core Team.

### **WORKSITE ANALYSIS**

The VPP Core Team will provide a review of 10 CFR 851 (*Worker Safety and Health Program*) requirements and how they are applied at MSA. Vice presidents will discuss worker rights and responsibilities with the work groups to improve understanding.

Measurement:

- The VPP Core Team will monitor the effectiveness of 10 CFR 851 presentations that were provided by the vice presidents in 2015 to their respective organizations.
- 10 CFR 851 and Hierarchy of Controls questions will be asked during the third trimester evaluations to assess employee knowledge levels. The VPP Core Team will provide feedback and further assistance to the vice presidents, as requested.

Champions: MSA vice presidents, EZAC chairpersons, VPP Core Team and safety professionals.

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## **HAZARD PREVENTION AND CONTROL**

MSA will review injuries and injury trends to raise awareness and prevent recurrence of similar injuries.

Measurement:

- Workgroups will review and document injury information on a monthly basis and conduct a review of injury trends and rates for calendar year 2016.
- Workgroups that identify negative trends will develop improvement plans and document these plans in the Safety Log.

Champions: Executive leadership, vice presidents and EZAC chairpersons.

## **SAFETY AND HEALTH TRAINING**

The “Walking Through Life” campaign promotes hazard identification and awareness. MSA will provide the tools for implementing the “Walking Through Life” campaign.

Measurement:

- Employees will engage in the “Walking Through Life” campaign by participating in a variety of opportunities: monthly presentations, Safety Starts, Safety Sleuth contest, posters and other “Walking Through Life” promotional materials.

Champions: MSA vice presidents and EZAC chairpersons.

During 2016, progress toward meeting these continuous improvement actions was monitored by individual MSA organizations and the status reported at company-level safety meetings. A summary of the completed actions are included in Appendix A, B and C of this VPP Annual Report as documentation of continuous pursuit of a safe work environment.

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## **IMPLEMENTATION OF IMPROVEMENTS**

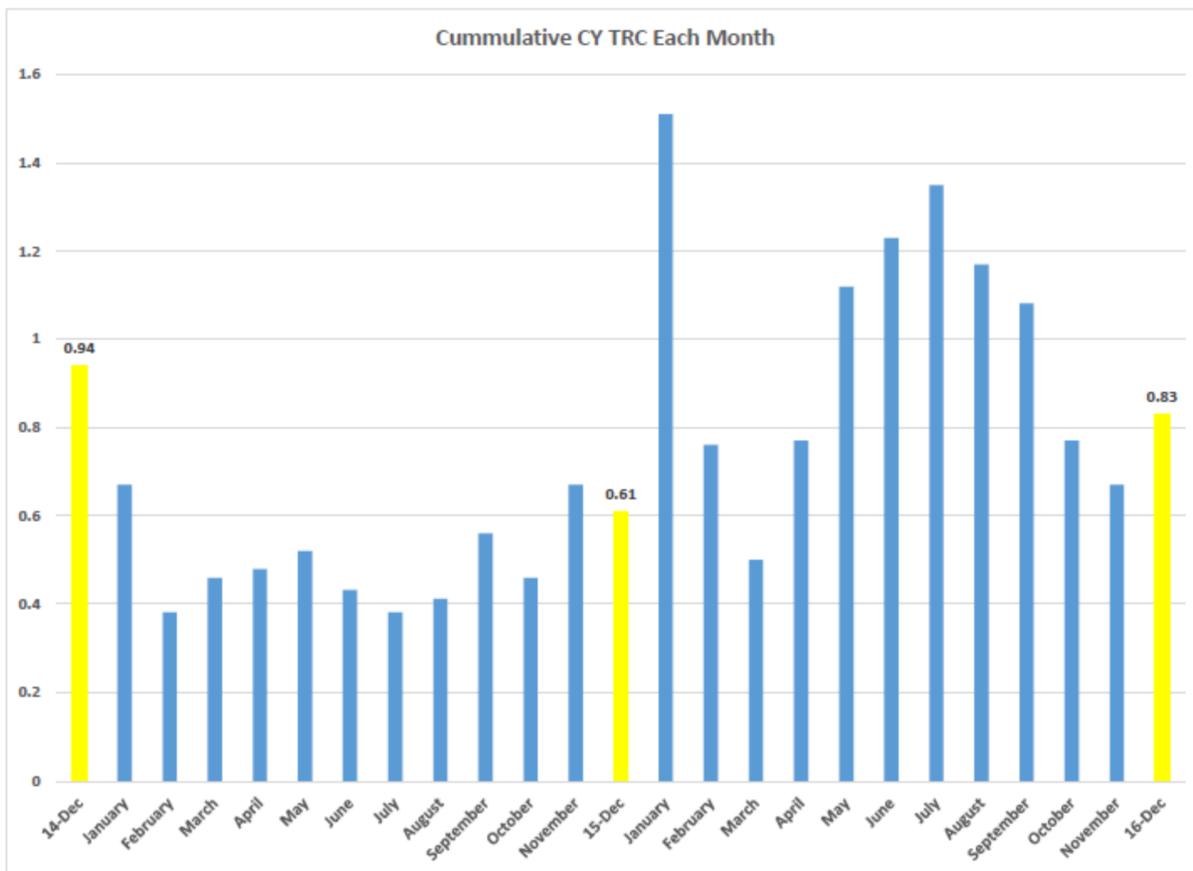
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Efforts to complete SIP improvement actions throughout the year were captured, documented, and reported on a trimester basis. Additional focus areas were incorporated to ensure continuous improvement of the S&H Program. This information was provided to the vice presidents during VPP assessment debriefs, reported at both PZAC and EZAC meetings, and distributed via Weekly Safety Starts. All information was posted and accessible to employees on the VPP website.

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Continuous Implementation, Monitoring and Improvements:

MSA has continued to monitor leading indicators including employee participation rates, safety log usage, safety lunch participation, Safety Sleuth participation, safety token use and redemption, and first aid reporting. Injury rates were steady with the three-year average for TRC and DART injury rates below the EM performance goal and well below the industry average.

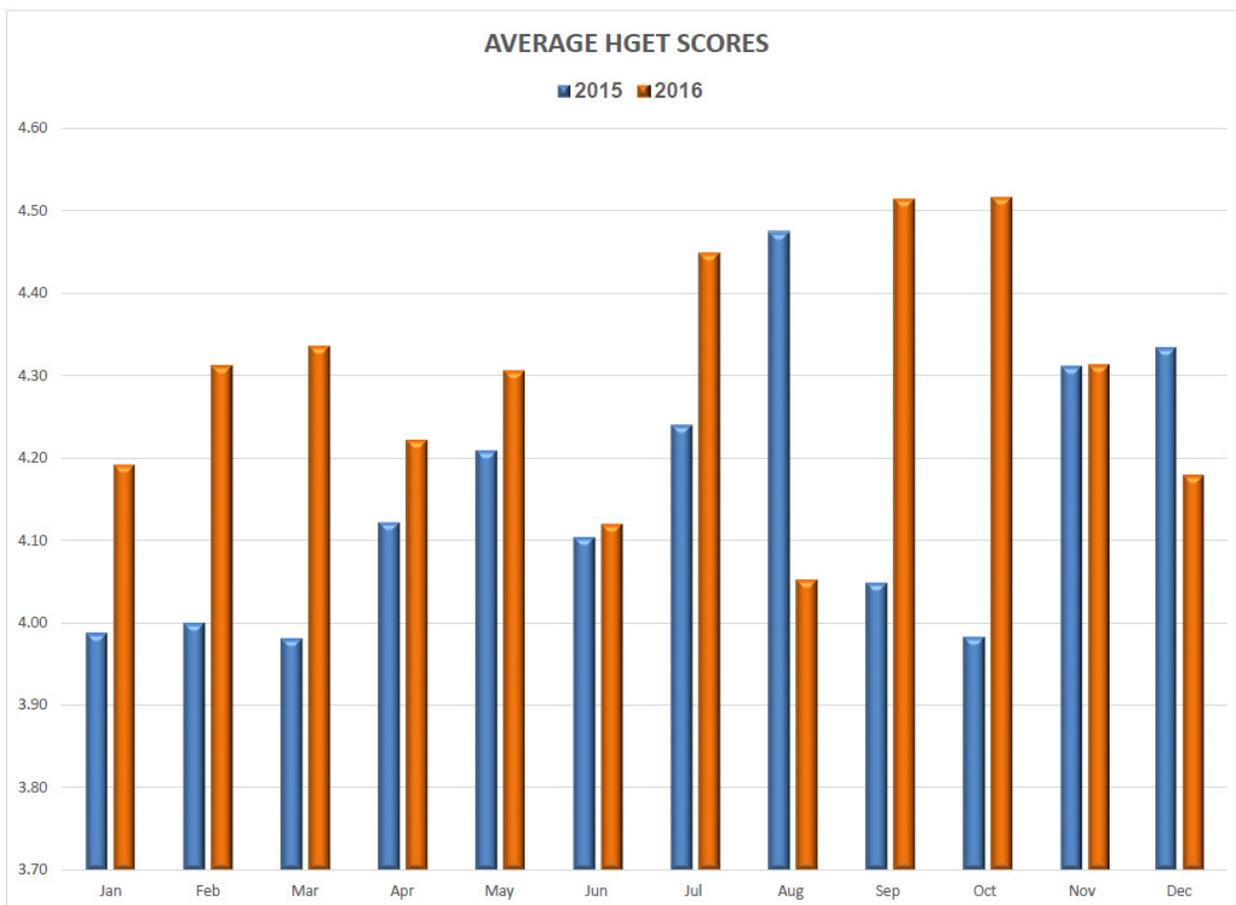


**THREE-YEAR TRC MONTHLY RATE**

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Employee perceptions and attitudes are continually monitored in the HGET Safety Survey, ISMS Team observation data, and VPP trimester interview results. MSA management has implemented corrective actions based on interview results and has collectively addressed weaknesses in Corrective Action Management System (CAMS) and 10 CFR 851, *Worker Safety Program* knowledge, which has resulted in a general improvement in understanding and practice.

The chart below depicts voluntary survey data gathered as part of the annual HGET. This data was monitored and reported monthly through the CAS. In 2016, MSA experienced a significant realignment of resources and a growth in new employees of 10%. Historically, these impacts generally have a negative impact on survey results. However, MSA experienced an overall increase in positive scores related to VPP and safety culture tenets. These results are combined with additional data points to determine leading indicators of safety attitudes and employee perceptions of a safe work environment.



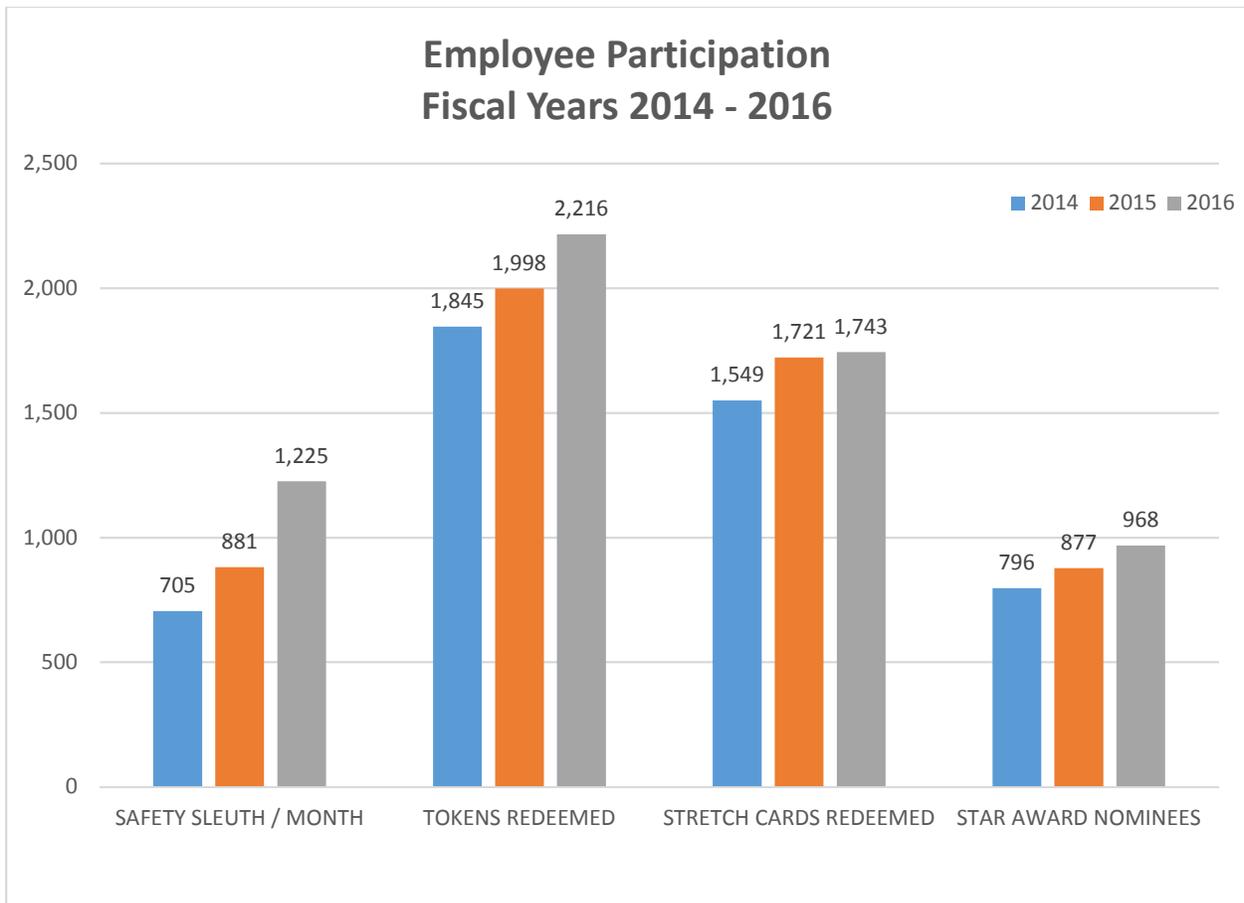
**MSA HGET AVERAGE SCORE COMPARISON**

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Employee Involvement in Safety Initiatives:

Employees continue to be involved in safety culture activities including volunteering time in support of the annual Health and Safety Exposition, performing office inspections, participating in Safety Sleuth and safety campaigns, making entries in safety logs, conducting trimester interviews, and participating in EZAC and PZAC safety meetings.

Involvement is measured through use of “safety recognition tokens”, safety lunch participation, safety log usage, safety campaign involvement, and attendance at safety meetings.



**EMPLOYEE PARTICIPATION FISCAL YEAR COMPARISON**

In the 2016 reporting period, MSA experienced an increase in voluntary participation of 11%. That is reflective of an increase in the number of employees, as well as a continued increase in the number of participants in each of the opportunities to participate. The level of employee participation steadily increased over the past three years, most notably by answering the weekly Safety Sleuth challenge question.

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Disciplinary Process for the Behavioral Expectations:

MSA distributed all employee messages focused on Employee Concerns Program and Differing Professional Opinion process in FY2016. The MSA Safety Culture survey included questions pertaining to disciplinary processes. The VPP trimester interview questions included questions relating to the same subject. Results have been generally positive for knowledge and understanding of the process.

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**VPP FOCUSED PROGRAMS AND INITIATIVES**

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MSA maintained several programs and initiatives that focused on employee participation, continuous improvement, and safety awareness. The following activities are designed to recognize and promote effective safety and health management:

ISMS Surveillance Team

MSA engaged the ISMS Surveillance Team to continually monitor safety culture through their assessment strategy (field observation, interviews, and document reviews). The Surveillance Team utilized safety culture attributes that are contained in, DOE G 450.4-1C, *Integrated Safety Management System Guide*, Attachment 10. Discrepancies were immediately identified to management and to the best extent possible, fixed on the spot. Surveillance information was captured in the surveillance database and reviewed by the VPP Core Team, MSA management, bargaining unit and exempt personnel. Results were combined with performance metrics and other assessment and survey data to determine both positive and negative trends on a monthly basis.

2016 Safety Awareness Campaign

The Safety Awareness Campaign theme for 2016 was Safety Scratch or “Just Scratch It.” The campaign was divided into four themes in Scratch Card format: Walking Through Life, ISMS, VPP, and Safety Improvement Plan. The campaign was vetted through the MSA EZAC Chairpersons, and the theme represented ISMS/VPP with the MSA goals of Target Zero and Do Work Safely, while supporting safety 24/7. A card per month was distributed for four months, promoting four opportunities for discussions on safety.

Participation in the campaign was good, with over 60% of MSA personnel turning in completed scratch cards for a campaign award.

Work Planning and Control (WPC) Program Improvement Initiative

Extensive efforts to improve the WPC processes were conducted throughout the year. Scheduled activities, developed to capture improvement objectives and commitments, were documented in CAMS and POMCs, monitored monthly, and incorporated in the CAS. The increased focus and modified WPC processes resulted in improved line management, safety professional, and worker engagement in defining work scope, identifying and

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analyzing hazards associated with work activities, implementing controls to effectively mitigate potential risks, and providing activity-level feedback to improve the work processes.

### Corrective Action Management System Awareness Activities

Improvement activities were developed pertaining to CAMS, which was identified as an area of weakness in MSA's 2015 safety culture survey and Voluntary Protection Program (VPP) trimester reviews. Continuous improvement actions to address CAMS and the Issue Identification Form (IIF) were developed. During the first quarter of the calendar year, MSA management delivered briefings to all personnel performing work under the MSC. These briefings provided general information on CAMS processes and tools, and identified subject matter experts who are available to provide coaching and mentoring, as requested. Additionally, MSA leadership issued company-wide communications emphasizing the expected use of IIFs. Worker understanding, knowledge and use of CAM systems and processes have shown some improvement since FY 2015 and continue to be measured through periodic interviews and assessments.

### Safety Culture Improvement and Monitoring

Safety culture was monitored using established measures and data points. Review of voluntary HGET VPP survey responses, safety log usage, safety meeting attendance, safety inspection performance, safety campaign and luncheon participation, and redemption rates of safety recognition tokens showed an improvement from FY 2015.

In 2016, feedback gathered from the ISMS Surveillance Team observations and VPP trimester assessments, binned into safety culture attributes, also indicated behaviors and attitudes toward safety programs and initiatives are more positive than in FY 2015.

MSA formed a safety culture focus group that was facilitated by the Director, Safety & Health Programs, and consisted of representatives from the following associations:

- Communications
- Employee Concerns Program (ECP)
- Safety Culture Subject Matter Expert (Contractor)
- Hanford Atomic Metal Trades Council/Hanford Guards Union/Central Washington Building Trades Council
- ISMS Lead

The team analyzed the 2015 safety culture survey results and determined the highest three areas of weakness were within the following areas:

- CAMS
- Leadership in the field
- Employee feels valued by MSA

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Individual organizational weaknesses were evaluated by each vice president's internal safety culture teams, and activities specific to the items were developed and status was monitored throughout the year.

MSA implemented several measures to improve employee perceptions, including the following:

- CAMS
  - Designated as one of MSA's FY 2016 POMCs and all actions were completed, on schedule
  - Senior leadership expectations of the purpose and use of IIFs communicated to all employees
- Leadership in the field
  - Expectations set by the MSA President and communicated to all managers
  - MSA Safety Improvement Plan action that was monitored throughout the FY
  - Monitored and reported through VPP trimester assessment responses
  - Monitored HGET VPP survey data
- Employee feels valued by MSA
  - Increased recognition events for employees (added Breakfast of Champions)
  - Increased scholarship awards for employees and family members
  - Implemented salary review and increased salaries, as appropriate
  - Initiated Woman's Synergy group
  - Identified mentors for high-potential employees
  - Instituted all-manager and all-employee meetings
  - Implemented the Field Work Supervisor Forum and Leadership Conferences

#### Management and Employee Partnership and Communication

MSA senior management commitment strengthened and matured while reinforcing the partnership with employees. Organizations reviewed the 2015 safety culture survey results using an organizational team to determine areas of improvement. MSA leadership addressed cross-cutting issues through communication and attention to the needs of the worker by attending onsite meetings, conducting all-employee meetings, communicating messages to the workforce, and participating in safety meetings and recognition events.

### 3.0 VPP ACCOMPLISHMENTS

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Listed below are a few 2016 highlights that were recognized at the company level:

- MSA accumulated over one million safe work hours during two separate periods during 2016
- 43 good practices in 4 categories were identified by the MSA ISMS Surveillance Team, based on planning stage reviews and work observations in the field
- SIPs were developed and actions worked within individual workgroups
- MSA Presidents Office, HAMTC /HGU safety representatives and vice presidents (with their organizational safety team) received briefings on their trimester VPP evaluations
- Maintained 45 safety logs with an average of 40 days to close a safety log issue
- Conducted 384 safety inspections throughout MSA work locations

### 4.0 VPP APPLICATION

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There were no changes or work scope revisions within MSA that required revision to existing VPP Applications.

### 5.0 MENTORING AND OUTREACH

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MSA management participated in and/or supported employee participation in mentoring and outreach throughout the year through the following activities:

- MSACares which encourages employees to provide support to local causes through donations of their time or fundraising efforts and offers a variety of resources to support employee-led volunteerism. This includes MSA's help in the following ways:
  - Finding a community project for work groups to participate in.
  - Building awareness around an approved cause or project through employee promotion.
  - Providing MSACares t-shirts, paying registration fees, or helping with other incentives or supplies for events and activities.



Events and activities supported by MSACares are to align with organizations supported by MSA's corporate giving, those listed in the Volunteerism Policy or those that receive

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approval from MSACares staff and executive leadership. Corporate giving is focused on the following areas: education and leadership for youth; economic development, and local quality of life.

- As the title sponsor for the Tri-Cities Cancer Center Foundation's annual fundraising breakfast, MSA made a huge impact for local cancer patients. In addition to sponsorship, MSA also made a donation to the capital campaign to assist with the expansion of the Tri-Cities Cancer Center. This expansion will bring new services, enhanced technology, and greater comfort for patients.



*Nearly 30 MSA employees attended the breakfast to lend their personal support to the expansion efforts at the Cancer Center. In total, the breakfast was attended by more than 750 people and raised a record total of more than \$107,000!*

- Badger Mountain Trail Volunteer Work. To celebrate Earth Day, a group of MSA employees from Environmental Integration Services, Public Safety & Resource Protection and Program Support Management spent several hours on a Friday to help clean up Badger Mountain trails.



- MSA, in partnership with the other Hanford Site Contractors and DOE, actively participated as members of the Hanford Site VPP Champions Committee. This committee is a unique mix of both contractors and DOE that work together to mentor and facilitate excellence in the S&H arena, representing over 9,000 employees across the Hanford site. Support to Hanford projects and contractors is provided as they pursue and or maintain VPP recognition. MSA supported both the Waste Treatment Plant and CHPRC by providing team members to assist in their VPP annual self-assessments. This was an example of MSA and other Hanford contractors working together to improve the S&H of the Hanford Site.

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*More than 30 MSA Employees Volunteered and spent a Friday in April working on homes for Habitat for Humanity. Led by several of MSA's more experienced colleagues, volunteers had a great time hauling materials, moving dirt, building footings, and installing windows and a roof.*

- In Mid-September, Boy Scouts Earned Merit Badges at HAMMER. MSA hosted a unique opportunity for local Boy and Girl Scouts to earn the Environmental Science, Public Health and Signs, Signals and Codes merit badges (three of approximately 130 current merit badges offered by the Boy Scouts of America) at the MSA-managed HAMMER Federal Training Center. Experts in these fields from MSA, HAMTC, Hanford Guards Union (HGU), Occupational Medical Services, McDougall's (HAMMER Café), Benton County Health Department, and the Hanford Patrol Police Explorer Post 714 mentored close to 50 participating Scouts. The experts engaged them in real life situations with hands-on activities as part of the training.



- MSA was the top fundraiser at Run for Ribbons. MSACares not only had one of the largest teams at the Tri-Cities Cancer Center's Run for Ribbons, but were also the top fundraiser in support of local cancer patients. Participants decorated blank ribbon t-shirts to honor a memory or survivor and to raise awareness, then ran or walked a 1 mile, 5k or 10k. In all, the event raised nearly \$60,000 for support services at the Tri-Cities Cancer Center.



- MSA supported the Special Government Employees (SGEs) Program by approving SGEs to participate on non-DOE VPP onsite reviews. The SGE Program was established to allow industry employees to work alongside Occupational Safety and Health Administration (OSHA) team members during VPP onsite evaluations and encompasses the spirit of VPP - industry, labor, and government cooperation. This cooperation embodies the idea of continuous improvement, which allows SGEs to bring a unique perspective to the team effort and take back to their sites ideas and best practices to further improve worker protections.

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- MSA sponsored more than 150 students from the Tri-Cities to attend *Finance Park* at the JA World facility in Yakima, where students applied budgeting concepts in a four-hour simulation. MSA employees supported the JA World experience as volunteers to assist the students.

Each year, several MSA employees also serve as JA classroom volunteers, teaching programs to energize and empower local students on subjects from budgeting to the global marketplace to business and marketing.



- The Hanford Site Traffic Safety Enhancement Committee (TSEC) served as the advisory group which provides consensus direction for Hanford Site Highway and Vehicle issues affecting the Hanford site. The DOE Richland Operations Office (RL), Office of River Protection (ORP), and affected Contractors acknowledge that a joint committee provides the best approach for identification, evaluation and recommendations for implementation of traffic safety related issues. MSA has provided both the leadership and administrative resources to ensure that the committee functions and has remained effective. The Committee has been an effective tool to promote “Safe Driving” on the Hanford site through:

- Increased driving awareness
- Gathering ideas to improve our traffic safety
- Evaluating and resolving traffic/vehicle issues affecting more than one Contractor
- Making recommendations to DOE that require Hanford Site decisions and funding

- MSA along with other Hanford Contractors participated in the After School Matters Program. The After School Matters program emphasizes building relationships between young people and adults through academic tutoring, homework assistance, mentoring and physical fitness development, and assists students from families where the adults are often unemployed or underemployed. These students often have limited exposure to career choices. Volunteers traveled to the local schools to talk about their professions and the hazards they face, and allowed the kids to experience hands-on activities related to their jobs. The program provides students with a vision of new and diverse career choices beyond those they have previously been exposed to.



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- Making health and safety a priority both at work and at home was the focus of the 22nd annual Health and Safety EXPO in May. With more than 150 booths and a new focus on Science, Technology, Engineering and Mathematics (STEM) education and how STEM complements health and safety, the 22,000 attendees were able to learn, practice and share their safety expertise with other Hanford contractors, students, and the community.

MSA was the executive sponsor and primary organizer of EXPO, which was put together by a committee of representatives from several contractors.

MSA also expanded to almost an entire row of booth space. This year, MSA was awarded three booth awards – Best STEM Mathematics, Best STEM Engineering and Best Corporate Presence.



- MSA employees supported the Annual Hanford Food Drive that began in 1986. This year's drive was held December 1-16. Collection boxes were placed across the Hanford Site, and employees gathered more than 15,000 pounds of non-perishable food items to donate.



- MSA employees collected and donated school supplies for 220 school-aged foster children as part of the “Stack the Packs” campaign. Thanks to these efforts, these children all received brand new backpacks filled with school supplies.

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- A group of MSA employees took safety to new heights – literally – by climbing mountains together. At the beginning of each year, the group puts together a schedule of training, climbs, and availability. They plan on at least five climbs a year, but some members are able to do more. The group always considers safety first. They focus on safety training throughout the year, including practicing pulley rescue - if someone falls into a crevasse, the others can safely pull him/her out.

The group also practiced safe glacier travel, where they are harnessed and roped together so if someone slips, others can “self-arrest” (stop them from sliding) and minimize the risk of uncontrollable sliding.

## 6.0 MANAGEMENT LEADERSHIP

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Based on results from various assessment reports, MSA recognized there are areas for improvement in the area of management leadership. Several IIFs have been generated to address this issue and are in the evaluation process for assignment of corrective actions. Company-level actions that support MSA’s management leadership roles include the following:

- Establishing and supporting MSA Values and Goals and setting expectations.
- “MSA Management Fundamentals” course for all supervisors and managers continued in 2016. This course addresses fundamental skills up through advanced skills that all supervisors/managers need to be successful in their roles as leaders for MSA. Topics include: labor charging, compensation essentials, purchasing, event/accident process overview, what your signature means, protecting information, investigations, etc. Supervisors, managers, and leads participated in this course during 2016.
- MSA’s ES&H vice president conducting monthly meetings with the HAMTC shop Stewards, providing an avenue to listen to concerns, address emerging safety issues, and follow up on actions previously committed.
- Establishing and implementing a quarterly communication from the MSA President designed to provide continuing information to employees on trends and upcoming challenges.
- MSA President conducting monthly PZAC meetings that support the following initiatives:

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- Workers partnering with senior management to provide the safety topic
  - Workers sharing good news stories of the execution or implementation of activities within their workgroup that were achieved safely
  - Managers sharing detailed injury reports, emphasizing actions taken to avoid future incidents
  - MSA President and Chief Operations Officer having a platform to discuss information, changes, goals, and expectations for safety
  - Creating an opportunity for workers to share ideas, make comments, and voice concerns
- Supporting/attending EZAC meetings where agendas include an “open discussion” for raising issues and concerns.



- MSA continued to recognize worker contributions through the MSA Breakfast of Champions. The Breakfast of Champions award ceremony is a recognition initiative within MSA’s GROWTH Model. The ceremony represents a commitment to recognizing the exceptional performance of employees across the company. Award recipients were recognized for outstanding achievement in one or more of several categories that reflect commitment and dedication to achieving company milestones/deliverables safely.
- MSA Management leadership continued involvement and partnership with MSA employees in 2016. For example, managers:
  - Conducted all employee meetings at multiple locations to accommodate workers and work schedules. The purpose of the



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meetings was to ensure communication of current issues and raise awareness of selected safety topics.

- Conducted Safety Reset meetings to encourage employees to share their thoughts and ideas on safety.
- Opened meetings with a safety topic
- Partnered with employees to present safety topics at PZAC meetings
- Presented recognition awards to employees
- Reviewed results of VPP trimester evaluations with designated Points of Contact (POC) and, working together, determined actions to address potential weaknesses



## 7.0 EMPLOYEE INVOLVEMENT

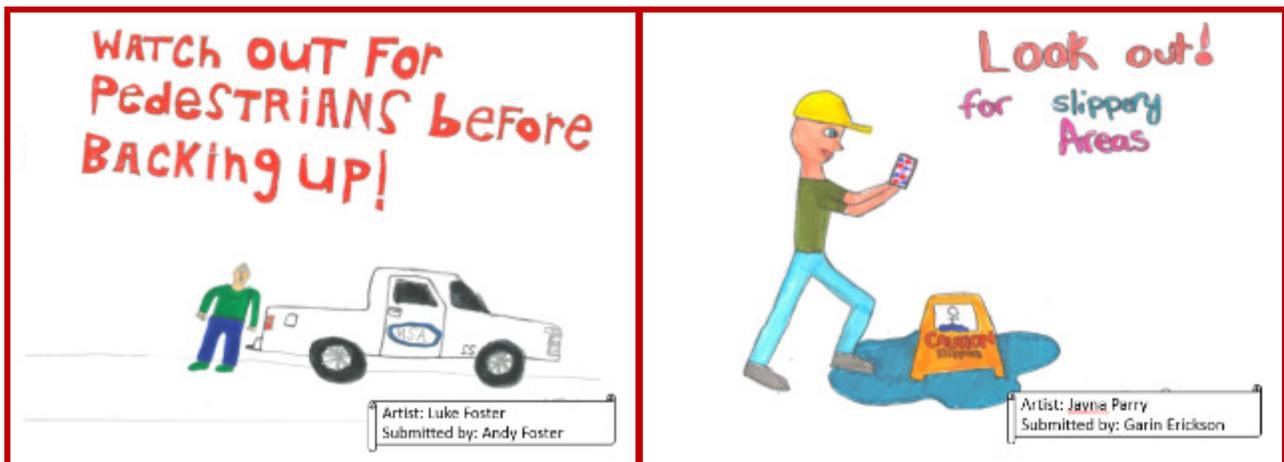
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Employees within the MSA organizations were strongly engaged in safety initiatives, such as the following:

- MSA continued with the safety slogan campaign, where many employees participated and were recognized quarterly. This campaign was fun and useful in expressing safety ideas.
- Monday morning back-to-work-meetings continue to be very positive. This process allows management the opportunity to bring the work group back to focusing on the business of the day and the upcoming week. Safety Start topics were gathered from the field from those who were interested in submitting ideas for sharing. Other topics were selected based on injury trends, seasonal injuries, and current efforts to raise awareness and reduces injuries. MSA made efforts to bolster the delivery process so everyone would have an opportunity to benefit.
- The EZAC All Chair meeting format was revamped as a result of suggestions received from EZAC field representatives. The feedback has been very positive and attendance has increased at the meeting. Meeting agendas include:
  - Current information
  - Safety topics (by attendees)
  - Activities to engage the audience
  - Workshop items that will assist the EZAC Chairpersons in the performance of their EZAC duties.
- MSA continued to maintain over 40 EZACs to allow all employees to participate with VPP at the local group level. EZACs are open to all employees.

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- Safety “Scratch” Card campaign which focused on increasing knowledge pertaining to VPP, the SIP, ISMS, and the ‘Walking Through Life’ presentations. Approximately 1,000 sets of cards were redeemed.
- ‘Safety Sleuth” challenge which consists of a weekly online safety-related quiz. Questions are typically aligned to current safety issues and answers found in MSA documents and/or procedures. On average, over 250 employees participate in the “Safety Sleuth” challenge each week.
- Including family members in the 2017 safety calendar initiative. Employees were requested to submit drawings of safety activities. Selected drawings were incorporated into a 2017 calendar and distributed to the homes of employees.



**SAMPLE CALENDAR ENTRIES**

Employee Participation and Recognition

MSA has several opportunities to recognize and reward employees for safe behavior and actions. These awards include the following:

***President's Star Award***

This award is presented to an employee who demonstrated self-sacrificing behavior in the rescue of another (specific event) or who has demonstrated a pattern of safety service to others (sustained behavior). The award may recognize a worker beyond their normal duties as a Hanford employee (e.g., community service, volunteerism). Nominations are received and evaluated by the PZAC Planning Committee, and a selection is recommended to the President's Office for concurrence.

### ***President's Lifesaving Award***

This is an award for recognizing and honoring employees who have demonstrated caring and courage by taking immediate action directly attributable to saving a life.

### ***President's Safety Team Award***

This award is designed to recognize a team that has made a significant contribution to safety. The team can be a work team, department or organizational team, committee, or an *ad hoc* team. The significant contribution can be an improved process, providing a safety model in having a high safety standard in their teaming approach, and/or being recognized for leading a safety initiative.

### ***PZAC Safety Honor Roll Award (aka "PZAC Answering the Call Award")***

This is an award for recognizing and honoring employees who have demonstrated commitment to safety through some heroic, or "safety significant" action short of actually saving a life.

### ***Kathryn Wheeler Safety Leadership Award***

The annual Kathryn Wheeler Safety Leadership award, which recognizes MSA personnel based on worker engagement and activities that are collaborative, cooperative, and proactive. Employees nominate coworkers for their contributions toward creating a safe work environment and promoting safety throughout the workplace.

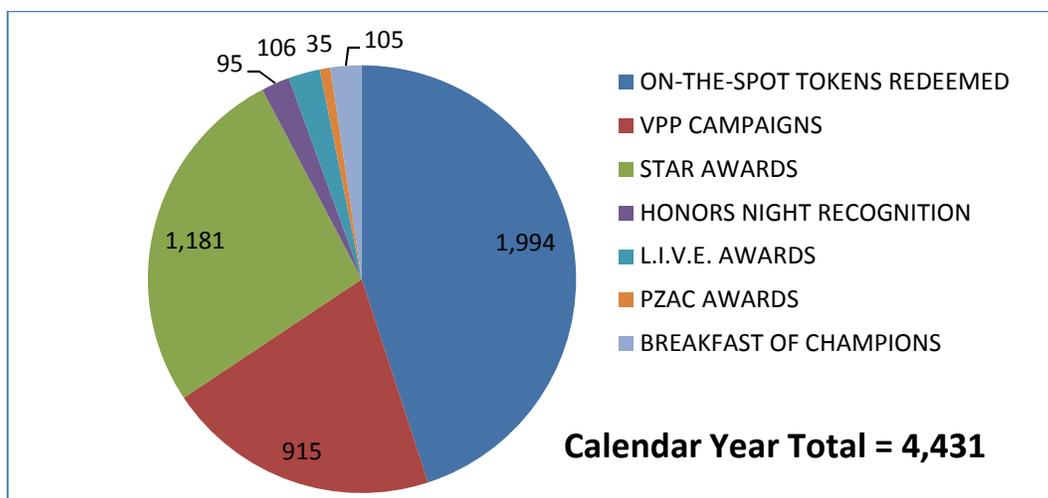
### ***Performance Incentive Programs for Safety***

The Performance Incentive Programs for Safety is designed to promote overall safety performance toward achieving the MSA's safety goals. Employees are required to attend monthly safety meetings and are encouraged to participate in at least 3 of 16 safety activities per trimester. Personnel completing the minimum number of activities are eligible to participate in a safety luncheon.

### ***On-the-Spot awards***

Awards intended for immediate recognition of safety consciousness by employees awarded from EZAC and/or Management in the form of a token, which the employee may redeem at the MSA-managed Safety Store. MSC employees are recognized for on-the-spot safety performance, participating in VPP campaigns, and as nominated by peers and/or management.

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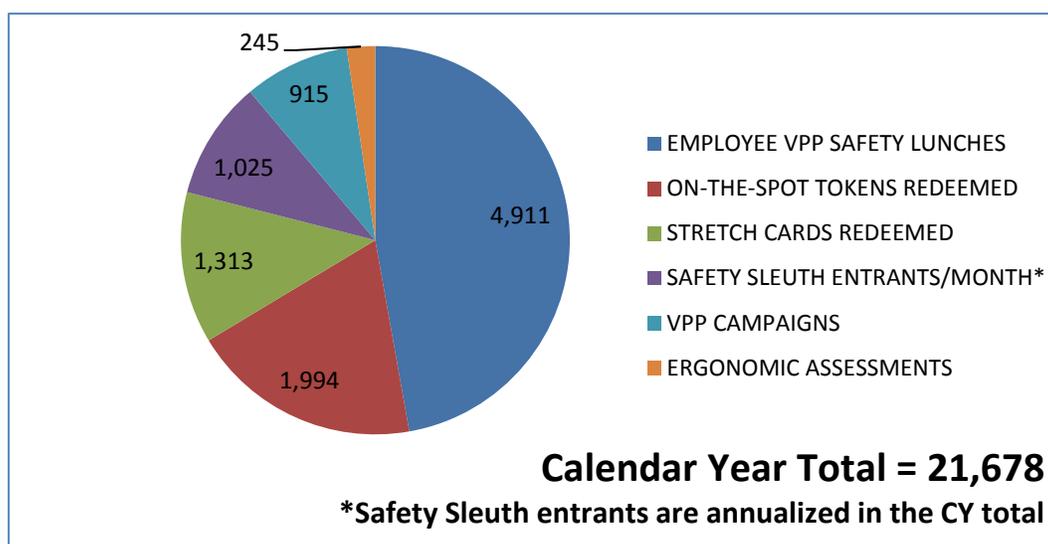


**EMPLOYEE SAFETY RECOGNITION AND AWARDS**

MSA increased recognition events and opportunities for recognition based upon feedback from the 2015 Safety Culture Survey that indicated that employees did not feel valued by MSA.

**EMPLOYEE INVOLVEMENT PERFORMANCE**

During 2016, MSA provided a number of opportunities and activities for employees to be involved with safety. The number of MSC employees who voluntarily participate in activities that promote personal safety and a safe work environment is monitored via data that indicates the health of the safety culture at MSA. Participation was steady and strong throughout the year. The chart below shows the number of MSA employees that voluntarily participated in safety initiatives or VPP campaigns.



**EMPLOYEE VOLUNTARY SAFETY PARTICIPATION**

## 8.0 WORK SITE ANALYSIS

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MSA has several programs and procedures that provide work site analysis. Worksite analysis, field work activities, and pre-job briefing observations revealed some noteworthy and good practices. The following are examples of MSA work site analysis activities:

- MSA work control is improving the hazard analysis process by engaging in a pilot program with selected groups. This effort will increase focus on the specifics of the task as it is paired with a General Hazard Analysis (GHA) and a Craft-Specific Hazard Analysis (CSHA). Changes will be captured in the revision of the screening tool as defined in MSC-PRO-WP-079, *Hazard Analysis Process*. This process was developed during fiscal year 2015, and a pilot was conducted during the first quarter of fiscal year 2016. The new process was implemented in 2016.
- Industrial Hygiene baseline Hazard Assessments are being conducted. The results are posted in an industrial hygiene database for easy access by facility personnel. Quarterly observations and walkthroughs by the MSA safety personnel yield information that continually updates the database.

MSA has several avenues for reporting hazards:

- Management Chain of Command
- Open Door Policy
- HAMTC/HGU Safety Representatives
- MSA Employees Concerns Program
- DOE Employees Concerns Program
- S&H Professionals
- Safety Logs
- IIFs
- Ask Bill email inbox
- Stop Work

MSA conducted an enterprise roll out of the STOP WORK expectations. These presentations were presented by the MSA Vice Presidents directly to the work groups. Trimester VPP data indicates this effort has increased the workers' knowledge and confidence in using this tool.

Line management is responsible for preparing and investigating all injury cases with the assistance of the MSA's Worker Protection and HAMTC Safety Representatives. The MSA safety department provides individual organizations with monthly safety data so that they can track occupational injuries, such as first aid, recordable, restricted, and any days away from work cases, to identify adverse trends. The trends are analyzed, used to develop areas for increased awareness activities, and used to assist in determining where an increased MSA safety and health presence may be needed.

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Effectiveness of VPP is also demonstrated through trend analysis, which continually evaluates the performance of VPP. Additionally, as employees complete mandatory annual HGET training, an optional VPP perception survey is available to be completed where the results are captured and monitored, and the general organizational information is shared with the vice president and safety team at the trimester debriefs.

Some specific “Good Practices” regarding Worksite Analysis were also reported in the Safety Culture Survey, including the following:

Participation in work planning and improvement initiatives, such as:

- MSA’s commitment to increase line management resources
- Line managers spend time on the floor and in employees work areas
- Workers were encouraged to provide feedback
- Lessons learned were shared and used more robustly
- Workers reported deteriorated conditions that could lead to degradation of equipment or system performance
- Employees documented problems in the work documents and identified opportunities for improvement, problems, and/or good practices that occurred during work evolutions

Refer to Appendices A, B, and C for details of work site analysis within the three MSA Star Sites.

## 9.0 HAZARD PREVENTION AND CONTROL

The following company activities were performed in support of hazard prevention and control at the Hanford Site:

### Hierarchy of Controls

MSA's VPP Core Team completed a significant effort to improve knowledge of hierarchy of controls (HOC). Information was communicated using posters, EZAC meetings, a Safety Start, and the Safety Sleuth weekly contest. Throughout 2016, safety hazard controls were emphasized and included in various employee meeting agendas, including our all employee meeting agendas.

MSA produced a company video on Hierarchy of Controls using MSA workers as actors. There is a need to continue efforts to improve the understanding of why hazard controls are critical to performance of safe work and the safety of the worker. This includes the sequential decision-making process of hierarchy of controls and determining the level of control.



- Refer to Appendices A, B, and C for details of Hazard Prevention and Control within MSA's three Star Sites.

## 10.0 SAFETY & HEALTH TRAINING

The following training activities were planned at the company level with the expectation of implementation throughout all MSA organizations:

### Campaigns

- Walking Through Life Campaign

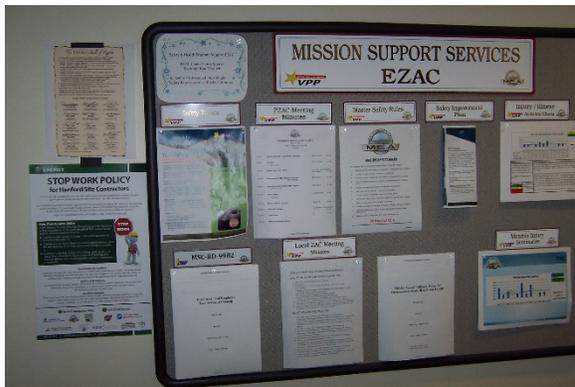
In 2015, MSA established new goals to ensure the safety of the worker through heightened awareness of potential daily hazards. As a result, a series of presentations called "Walking Through Life" were designed and developed to engage the worker and raise the awareness of obscure hazards that lead to injuries. MSA has achieved a high level of success in reducing injuries while continuing to encourage reporting, resulting in a workplace with little or no significant injuries. However, MSA strives to achieve zero injuries.

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MSA released six “Walking Through Life” modules in 2016, with senior management expectation that all MSA workers would receive these presentations. In addition, Monday morning Safety Starts kicked off each of the monthly presentation topics for continued focus.

### Safety Communications

- “Safety Starts,” which are weekly newsletters that consist of common safety topics, are distributed to employees for use in “back-to-work” meetings. The selected topics are timely and designed to encourage discussion, are developed by a team of SME’s, and applied to workplace or community safety and environmental issues.
- The MSA Integrated Management System (IMS) website contains quick-links that provide the user timely access to a large variety of webpages. The “Safety First!” link is a valuable tool that can be utilized as a shortcut to other safety and health resources, such as the VPP and Worker Protection websites, within MSA.



- EZAC/Safety Boards are maintained with current information throughout MSA facilities.
  - Safety posters are developed and provided through EZAC/PZACs, MSA general distribution messaging and the VPP website for employees to display at their work locations.
- MSA publishes the *Streamline* on a quarterly basis. This staff newsletter highlights company business, employee contributions, and progress at the Hanford Site. Readers are invited to share news events including volunteer activities, individual achievements, and program accomplishments. The publication includes a section reserved for VPP and Safety information. MSA mails the *Streamline* to the homes of MSC employees.
  - MSA accesses the DOE Operating Experience program through the OPEXShare web application. Currently there are over 3,800 articles, videos, and reports available on OPEXShare from around the DOE complex and from industry. Users range from the general employee looking for best practices in their field, to senior management, work management, and craft workers who benefit from the information that is shared. Articles are used at back-to-work and safety meetings and are systematically used in work planning to help ensure that mistakes that happened somewhere else are not repeated at Hanford.

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- Company level new hire orientation is conducted in partnership with management and labor. Field orientation for new hires and interns is being conducted by the organization's management and the local EZAC chair.
- The OSHA 300 Log is posted, as required, in all MSA-managed facilities.

## 11.0 VPP AWARDS AND RECOGNITION

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### DOE VPP Recognition

On March 3, the DOE Headquarters VPP team (Team) provided an out brief of their two-week onsite VPP assessment. MSA has achieved VPP Star status, with no conditions. "The MSA team has done an outstanding job implementing Opportunities for Improvement, the Safety Improvement Plan, and coming together as a team, whose most important work is to keep our employees safe," said Bill Johnson, MSA President.

The Team recognized MSA's significant efforts to strengthen the partnership between managers and workers, while improving worker safety, safe work environments, and communication. Much has been accomplished in the last 18 months, and the momentum that has been established through the commitment and partnership to invigorate the safety of all workers must continue as we strive to ensure continuous improvement and Target ZERO in 2016.



### MSA Honors Night

MSA hosted its 5th annual Honors Night, recognizing 29 employees and 6 teams for their outstanding achievements over the past year. One category, "Maintaining our VPP Star", is an award that recognizes those who show leadership and commitment to fostering and supporting MSA's safety culture. The award is given to employees who consistently exhibit commitment to safety and security, encourage co-workers and others to follow procedures, and promote a positive safety culture.

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VPP Awards

**VPPPA Safety and Health Outreach Award -**

Cinda Guenther and Jan Seely received the Safety and Health Outreach Award at the Region X Voluntary Protection Programs Participants' Association National Conference. Cinda noticed some suitcase-like power tool shipping containers being thrown away after the tools were unpacked at Hanford's Plutonium Finishing Plant (PFP). With the permission of PFP management and Cinda's management, she worked with her lead, Jan Seely, to recycle the containers and re-use them for emergency safety kits for each of the vehicles.



To maintain the integrity of the safety kits, they are inspected during quarterly vehicle inspections, and contents are changed out or restocked as appropriate.



MSA's Safeguards and Security received the DOE Voluntary Protection Program Participants' Association's (VPPPA) highest honor – the Legacy of Stars Award. This award is given to a site that has achieved the DOE VPP Star of Excellence Award for the fourth consecutive year.

The HAMMER Federal Training Center received the VPP Star of Excellence Award for keeping accident and injury rates significantly below comparison industries.



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MSA also received the VPPPA's Safety and Health Outreach Award for providing hands-on safety and health experience and expertise to the local boy and girl Scouts in the Tri-Cities to earn merit badges in Safety, Fire Safety, Traffic Safety, Environmental Science, Public Health, Signs, Signals, Codes, American Labor and First Aid. Over 400 local Boy and Girl Scouts earned these valuable merit badges through the efforts of MSA. This type of mentoring provides the groundwork for future safety and health leaders in the community and across the nation, reaching the families and friends of the scouts involved in this unique learning activity.



**Management Leadership:**

Regarding safety, why is it important to have management in your workplace?

How would you raise a safety concern in your group?

Provide an example of how your manager or supervisor is engaged with your safety.

How does your Manager communicate your safety performance expectations?

Describe how management communicate status when resolving safety issues.

When disagreements regarding safety issues occur, describe the resolution process.

How does your management team demonstrate a positive safety relationship with you and your co-workers?

Give an example of work or activity improvements that have occurred as a result of your management being in the field and/or work location.

How does management encourage open conversations about safety issues with the workforce?

**Employee Involvement:**

Can you tell me your rights and responsibilities according to 10 CFR 851, Worker Safety?

Describe the process you would use to call or invoke a stop work.

Name your EZAC chairperson and your safety professional.

How do you receive safety information like; safety meeting minutes, trimester evaluation results, monthly injury statistics, or other activities and information associated with safety?

Do you feel empowered to raise safety concerns and stop work without fear of retaliation?

What is your Organization's process and method for reporting issues, errors, and problems?

Describe your process for conducting work place safety inspections including checklists and how you report findings.

How are you involved in defining work, identifying hazards or providing feedback?

On a scale of 1 to 5 (1 = no trust, 5 = fully trust) what is your level of trust in your supervisor or manager decisions to support your or your coworkers safety concerns or the safe performance of work?

Mission Support Alliance - Attachment 1  
**2016 VPP Evaluation lines of Inquiry**

Provide examples of you and your co-workers' communication to and from managers and supervisors, either formally or informally about daily work or activity status and opportunities for improvement?

**Work Site Analysis:**

What processes are available to you to use as a Hazard Analysis?

How are you involved in procedure changes, reviews, or required reading?

What do you look for when you perform a walk down or inspection of your work area?

Describe how have you changed your work habits or re-arranged your work place based on the information discussed in the Walking Through Life presentations.

Describe the MSA corrective action management program including how the process is effective or ineffective in identifying and resolving issues.

Describe the MSA corrective action management program including how the process is effective or ineffective in identifying and resolving issues.

Describe one example of your involvement in continuous work improvement.

Describe how your management team ensures your input to the safe performance of your work assignment or activities are valued and incorporated.

How are work activities analyzed for potential hazards to ensure that effective hazard controls have been identified?

**Hazard Prevention & Control:**

Describe the last emergency drill that you participated in (when, where, what)?

Explain what you would do if you walked by a hazard during the course of your day.

What is the greatest hazard that you encounter as part of your normal work scope and how is that hazard controlled?

Describe how hazard controls are communicated to you.

What are the steps you take if you determine the hazard controls for the work you are performing are inadequate to control the hazard?

How do you use your safety department resources?

What process/tools do you use to make decisions to ensure safe work performance when you're faced with unexpected or uncertain hazards?

Mission Support Alliance - Attachment 1  
**2016 VPP Evaluation lines of Inquiry**

How is Hierarchy of Controls implemented in daily work activities? Provide examples.

How do you avoid complacency performing routine work during a normal work week?

Provide some examples (two) of what outcomes could result if MSA does not adequately implement 10 CFR 851 Worker Safety and Health?

**Safety and Health Training:**

What is the most important value of safety training?

How do you know that lessons learned are incorporated into your work?

Describe how you transfer your safety and training into your off work activities.

Describe how the company communicates injuries, accidents, near misses, and recognizes your participation in safety.

What are some of the safety topics that you recall from the last three meetings you attended?

How do you integrate information about injuries, near misses, and accidents into your daily work activities?

What have you learned from the “Walking Through Life” safety starts and presentations?

How is safety performance information (review of injuries, first aids) used to improve overall company performance?

Describe how training, ensures your awareness of hazards and controls for safe work performance and normal daily life.

Did you receive the presentation on Corrective Action Management? What was your take away?

# Appendix A

## HAMMER

### VPP Annual Self-Assessment Report 2016



DEPARTMENT OF ENERGY  
MISSION SUPPORT ALLIANCE, LLC  
HAMMER FEDERAL TRAINING CENTER  
VOLUNTARY PROTECTION PROGRAM  
ANNUAL SELF-ASSESSMENT  
CALENDAR YEAR 2016

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## 1.0 SUMMARY

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With its modest size and extraordinary mission to save lives and avert disasters, HAMMER's small organization leaves an enormous footprint, supporting both national and international customers, but primarily, the local Hanford Site workforce. This training organization has worked tirelessly since its inception to safeguard the lives of workers and help institutions, such as the Hanford Site, continue in their cleanup and emergency response missions.

HAMMER had the great privilege of hosting a long-awaited tour for the United States Secretary of Energy, Dr. Ernest Moniz, as well as US Senator, Maria Cantwell (WA-D). General Presidents Dean and Stepano, HAMMER Steering Committee Chairman and Vice Chairman, extended the invitation.



*Secretary Moniz and Senator Cantwell tour HAMMER.*

Secretary Moniz was pleased to tour HAMMER and learn about our rich history, subject matter experts, worker-trainers, and world-class facility. He saw the value of HAMMER's hands-on training and Sitewide Safety Standards through demonstration of several programs. Senator Cantwell was quick to recognize HAMMER's many significant contributions and accomplishments in environmental cleanup and energy emergency response.

Secretary Moniz complimented the HAMMER staff on their spirit and dedication to worker safety and explained that it was his job to spread the message. He later described HAMMER as a Best Practice for safety culture throughout the entire DOE complex, and we are extremely grateful for his recognition.

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HAMMER's significant role of fostering safety culture enterprise-wide called the Secretary to motion for more internal work to be done to promote HAMMER engagement across the complex, stating, "We are trying to propagate it [HAMMER] across our entire enterprise as best practices for safety culture." Through the Department of Energy Training Institute (DTI), the alliance between HAMMER and the National Training Center (NTC), the HAMMER model and staff expertise extends throughout the DOE complex, providing high-quality and cost-effective training, increasing worker mobility, and reducing training redundancy.

This year HAMMER has made tremendous progress in worker health and safety in collaboration with our partners. HAMMER is more than a training center; it serves as a catalyst for collaboration, innovation, and expertise and is valued for its unwavering credibility toward helping people solve complex problems regarding worker health and safety. The training at HAMMER is unsurpassed and provides the workforce with more hands-on, nonhazardous opportunities than any other provider to explore equipment, procedures, and limitations before performing actual field work.

HAMMER has had the same values of collaboration and dedication to safety for 22 years, which has propelled our success. HAMMER staff embrace the covenants of pride, family, innovation, and teamwork, which in turn motivate us to contribute our very best toward our mission of saving lives and averting disasters. HAMMER provides the best safety and health training, bar none. It is an organization founded upon the principles of safety and customer service, which go hand-in-hand, because safety is the best kind of customer service there is.

### SUMMARY OF THE VPP EVALUATION AT HAMMER

HAMMER Federal Training Center utilized the MSA Trimester VPP evaluation process to continually review and provide feedback to employees and management throughout the year. The self-evaluation was conducted through employee interviews with questions based on the five tenets of VPP. Questions for each trimester were provided by the Mission Support Alliance's VPP Core Team. The interview team for HAMMER consisted of members from the Director's VPP Team, Employee Zero Accident Council (EZAC), Safety, and volunteers from



*DTI: Propagating HAMMER's safety culture across the complex.*

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the staff. The team interviewed a representative sample of each work group and job classification at HAMMER.

For the answers received from each interview question, an overall grade was assigned a score on a 1 – 5 scale, with 5 being the best possible implementation of the VPP. Subtotals were calculated for each of the tenets within each trimester, and an overall score for each trimester was calculated from those scores.

Overall, HAMMER scored very well during each trimester. HAMMER scored a 4.3 for the comprehensive average for all trimesters. Scores for each individual trimester and tenant are shown in the following chart.

VPP Tenet	1 <sup>st</sup> Trimester	2 <sup>nd</sup> Trimester	3 <sup>rd</sup> Trimester
Management Leadership	4.5	4.1	4.4
Employee Involvement	4.7	4.4	4.6
Work Site Analysis	4.1	3.7	4.3
Hazard Prevention & Control	4.1	4.4	4.6
Safety & Health Training	4.4	4.3	4.6
<b>Average</b>	<b>4.3</b>	<b>4.2</b>	<b>4.5</b>

Areas of improvement were identified after each trimester and addressed throughout the year. Improvement opportunities were addressed by the HAMMER EZAC, the Director’s VPP Team, various safety initiatives, or the Safety Improvement Plan (SIP), as applicable.

Below is a summary from each of the three 2016 HAMMER VPP Trimester self-evaluations.

**January – April, 2016**

The first Voluntary Protection Program (VPP) Trimester Evaluation for the HAMMER Federal Training Center was conducted in March.

Percent of Staff interviewed: ~20%

Total Interviewed: 21

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Noteworthy Practices:

- Employees responded that management was present in the field and provide an avenue to report problems, a pathway for corrections and create a safe work environment.
- Management recognizes employees with safety tokens.
- Managers encourage participation in safety committees and meetings.
- Management supports ergonomic safety by supplying workers with ergonomic assessments and provides modifications of workstations to “stand up/sit down” units.
- 100% of the staff members interviewed knew their EZAC chairperson and safety professional.
- Employees reported that the Monday Morning Safety Start and EZAC were very effective in communicating safety information.
- Employees understood what to look for when participating in the facility walkthrough.
- Every employee interviewed described how they transfer the health and safety training learned at work to their activities at home.

Potential Improvement Opportunities

- Several employees had not participated in a drill or could not remember the last drill in which they participated. Drills and emergency response were selected as a focus during the 2016 Safety Focus Day. Also, HAMMER’s Emergency Preparedness (EP) organization updated the drill booklet and distributed the booklet to HAMMER management for use in facilitating tabletop discussions during staff meetings. EP orientations were also provided to new staff members by the EP manager.
- Employees would benefit from learning more about the General Hazard Analysis (GHA). As a result, HAMMER’s EZAC and VPP Team prepared learning opportunities for delivery in the second and third trimesters.

**May-August 2016**

The second Trimester Evaluation was completed in August. Sixteen questions were asked during the interviews.

Percent of staff interviewed: ~15%

Total Interviewed: 19

Noteworthy Practices

- Managers communicate safety performance expectations through Monday Morning Safety Meetings, conversations, Performance Incentives Program for Safety (PIPS) logs and associated processes, VPP safety topics and EZAC.

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- Management conducts performance appraisals. Expectations between management and employees regarding safety hold each other accountable.
- When disagreements occur, most individuals responded they knew they could involve other subject matter experts, safety professionals, and, when necessary, elevate the issue to the next level of management.
- Most employees feel empowered to raise safety concerns and stop work without the fear of retaliation as a result of the HAMMER safety culture.
- Most employees understood the methods of reporting issues, errors and problems: report to manager, report to Work Control, report in Safety Log or report on Issue Identification Form (IIF).
- All employees interviewed have been engaged in a Facility Safety Inspection/Walkthrough.
- Most employees understood how hazard controls are communicated and what to do if those controls are inadequate for the task at hand.
- Employees had a good understanding of how the company communicates injuries, accidents and near misses. Employees also have a good understanding of how the company recognizes employee participation in safety.
- Employees remember presented safety topics.

Potential Improvement Opportunities

- During the interviews, an individual stated that the communication associated with installation of the removable speed bumps was not clear and that HAMMER needs to have a better grasp on leading indicators. The same individual stated HAMMER focuses on safety during Monday Morning Safety meetings, but not throughout the week.
  - Regarding feedback associated with the failure to communicate installation of the speed bumps, management determined that some staff members are not always able to attend EZAC and/or the Monday Morning Safety meetings because they are scheduled to teach or unavailable for other reasons. Important facility information, management outlook, and the Monday Morning Safety Start Safety Topics are provided at the Monday Morning Safety Meetings. To provide an opportunity for all staff to attend, HAMMER Management has arranged for an afternoon makeup session.
  - The suggestion that HAMMER does not focus on safety throughout the week has not been echoed by others interviewed but presents the possibility of an early indicator of underlying issues. HAMMER's VPP Champion will continue to ensure that a broad, diverse population is selected for interviews to determine if other employees share that concern.
  - HAMMER is continuing to pursue development of leading indicators from results obtained from facility walkthroughs. Leading indicators will remain an objective on the 2017 SIP.
- An individual stated that the person who brings up an issue is not really involved in the resolution, and the issue may be handled by higher-level management and then

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disappear. This is troubling feedback. HAMMER management must continue to encourage use of the safety log when safety issues arise. The safety log process ensures that the individual voicing the concern has the ability to provide input on the potential resolution and must sign off on the final resolution. Additionally, open safety log items are reported on to all staff members at each Monday Morning Safety Meeting and monthly EZAC.

- During the second Trimester, there were a couple of employees who stated that some safety concerns may be threatening to management and/or highly political, resulting in hesitancy of reporting or not reporting safety concerns at all. Trimester interviews are anonymous and conducted by the Director's VPP Team, which comprises a member from each working group, EZAC leadership, and a HAMTC representative to ensure that responses are honest and respected. Receiving just a couple of negative responses surrounding the ability of a worker to raise a safety concern was immediately identified as a potential weakness and a critical area for improvement. Just days after being briefed on these responses, the Director addressed the staff at the Safety Focus Day event on this issue reinforcing the need to bring up safety concerns. The Director stated the fact that many safety concerns can be uncomfortable upon initiation, yet the Director committed that HAMMER will take any safety concern with utmost sincerity and importance. At the close of the Safety Focus Day, the Director reiterated her opening remarks on the necessity to bring safety concerns to the forefront. HAMMER's VPP Champion echoed her remarks and reminded everyone of the ability to bring issues to anyone in management, the EZAC Chairperson, the VPP Champion, the EZAC POCs and the safety log. If those avenues were not enough, safety concerns could be brought up anonymously via the safety log and Employee Concerns. During the third trimester, employees were asked again if they felt empowered to raise safety concerns and stop work without fear of reprisal. All persons interviewed stated they felt it was their responsibility to raise concerns and management supports their right to do so.
- The Walking Through Life campaign was not embraced in the safety conversation as well as hoped. Many of those interviewed stated that they were already using and living by many of the concepts presented, which suggested indifference to the presentations. HAMMER's EZAC continued to provide learning opportunities on the Walking Through Life campaign during the remainder of the year.
- Employees were asked to describe the Corrective Action Management (CAM) system. Most employees stated that they have never had to use this system because issues are reported to management or other means (safety log). There is limited experience with the CAM system among the staff members. MSA's CAM group had prepared a presentation on the CAM system that was provided to HAMMER staff during the first trimester. Unfortunately, this presentation failed to resonate with the employees. As a result, HAMMER staff conducted additional briefings on CAMs which resulted in improvement during the third trimester.

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## September – December 2016

The third Trimester Evaluation was completed in November. Eighteen questions were asked during the interviews.

Percent of staff interviewed: ~10%

Total Interviewed: 12

### Noteworthy Practices

- Staff members reported during interviews that management encourages reporting of safety concerns and open conversations about safety issues. Workers feel empowered to raise safety concerns and stop work without the fear of retaliation.
- Staff members engaged with training courses perform hazard analyses for the planned training activities.
- Interviews revealed that staff members have a very high level of trust in their supervisor or manager's decisions to support worker's safety concerns and the safe performance of work.
- Understanding of the Hierarchy of Controls (HOC) appears to be improving.
- HAMMER staff understands the consequences for improperly implementing 10 CFR 851.
- Staff members understand that training on hazards and associated controls is not only important for safe work performance, but also important for normal daily life.
- Of the twelve interviewed, eleven staff members recalled attending a presentation on Corrective Action Management. As the Corrective Action Management (CAM) system relates to safety, staff members understand that they have the ability to report their concerns in the Safety Log. The staff also appears to understand that the CAM process is a formal process to track issues to resolution.

### Potential Improvement Opportunities

- When asked how work activities are analyzed for potential hazards to ensure effective hazard controls are identified, employees stated that a hazard analysis is performed for training activities and that hazard analyses are performed for work, but there was very little reference to the General Hazard Analysis. Additional emphasis on the General Hazard Analysis would benefit HAMMER staff. The GHA will continue to be an improvement opportunity in 2017.
- When faced with unexpected or uncertain hazards, staff members stated that they would stop work and call a supervisor. While this is not a bad response, HAMMER management wants all employees to make a notification to HAMMER Work Control to ensure a coordinated response with the appropriate resources. HAMMER management has identified this as a very important opportunity for improvement and will be formally documenting this issue via the Corrective Action Management system Issue Identification Form.

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## 2.0 CONTINUOUS IMPROVEMENT

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The Mission Support Alliance (MSA) Trimester VPP self-evaluation process, conducted by representatives of the Director's VPP Team and EZAC, gathered key information on how HAMMER meets the VPP tenets. The self-evaluation is broken into a trimester review cycle to provide three data points during the year versus the single format used in the past. Evaluating VPP three times over the course of the year allows HAMMER to identify strengths and weaknesses dynamically. Early identification of strengths and weaknesses allows HAMMER to identify opportunities for improvement within a time frame that prevents potential detrimental conditions from becoming larger concerns. Opportunities for improvement identified from the self-evaluation process are tracked to resolution by the EZAC using the SIP or the Director's VPP Team action item list.

## 3.0 HAMMER VPP ACCOMPLISHMENTS

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- HAMMER/Hanford Training was certified a Star Site in September 2002.
- Re-certified as a DOE-VPP Star Site in July 2005, January 2011 and September 2014.
- Awarded VPP Star of Excellence in 2003, 2005, 2006, 2008, 2013, 2014, 2015 and 2016.
- Awarded VPP Superior Star in 2009, 2010, 2011, and 2012.
- Awarded VPP Legacy of Stars in 2007.

## 4.0 VPP APPLICATION

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HAMMER has not had any scope or organizational changes; therefore, there are no changes to HAMMER's VPP application at this time.

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## 5.0 GOALS AND OBJECTIVES

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HAMMER developed a Safety Improvement Plan (SIP) with specific goals and objectives. The SIP was sent out to all employees via email ensure that HAMMER staff understood the safety goals for the year. The following is an overview of the 2016 SIP.

### MANAGEMENT LEADERSHIP

**1. Provide visible leadership in implementing the HAMMER/Hanford Training Safety and Health Program. Continue management participation of campus initiatives, EZAC, VPP, and HAMMER Covenants. Convey safety information, issues, and concerns to staff.**

Measurement: Managers will have attended at least one safety walkthrough or EZAC meeting per quarter. Track completion of targeted Director led meetings with employees through the Director's calendar. Notes from Monday Morning Safety Starts will track the delivery of Safety Start Presentations. Managers will have attended at least one PZAC meeting during the calendar year.

Status: Complete

HAMMER management actively engages in safety leadership. All managers were confirmed to have attended at least one safety walkthrough or EZAC meeting per quarter. Attendance was verified by consulting the work packages used to track and record the safety walkthroughs. EZAC attendance is tracked on rosters with signatures of each attendee. Each manager has also attended at least one PZAC meeting.

The HAMMER Director began meeting with staff members on a regular basis via a series of targeted employee meetings: Senior Program Manager's Meeting, Culture Team Meeting, Quarterly Instructor's Meeting, and the New Generation Meeting. Each of these meetings ensures that the staff members have the ability and freedom to communicate issues and concerns to the Director. These meetings are a direct result of feedback from the 2015 third trimester interviews, which suggested that management engagement on a more routine schedule would benefit staff members.

- Senior Program Manager's Meeting: This meeting is held with the Senior Program Managers to discuss issues relevant to them. Additionally, this meeting is used by the Director to ensure that the Senior Program Managers continue to provide leadership in safety and training excellence to those supporting their programs.
- Culture Team Meeting: The Culture team addresses the HAMMER Core Covenants and evaluates areas of strengths and weaknesses within the organization.
- Quarterly Instructor's Meeting: Presentations are provided on various topics ranging from methods to engage students to generational learning to HAMMER's

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Training Hazard Analysis process. By assembling on a regular basis, the instructors are able to collaborate and learn together. This meeting promotes professional development.

- **New Generation Meeting:** A large segment of the Hanford workforce has reached the retirement age. HAMMER has already had several long-term seasoned employees retire. The New Generation will inevitably need to step up to fill these positions. This meeting seeks to prepare the younger and newer staff members to fully embrace HAMMER's mission for saving lives and averting disasters and to commit to driving HAMMER's legacy far into the future. This meeting encourages employee growth.

MSA prepares a safety topic to be presented at the beginning of every work week, the Monday Morning Safety Start. Instead of simply reading the text from the Monday Morning Safety Starts, which could result in the audience tuning out, HAMMER encourages staff members to elevate the message of the safety start into memorable presentations that include anecdotes, lessons-learned, and/or the presenter's own safety experiences.

**2. MSA SIP Goal: MSA management engages in steady communications with safety leaders (ISMS, POC and EZAC leaders), and this is evident in their staff meeting agenda, minutes and/or schedule.**

Measurement: Vice President (VP) staff meetings include an agenda item to discuss open safety issues (Safety Log or IIF). Document the safety conversation in the meeting minutes, agenda and/or schedule. VPs participate in safety inspections.

Status: Complete

The Vice President of Training and Conduct of Operations holds staff meetings and discusses open safety issues on a regular basis. The VP possesses agendas that contain discussion on Safety Log/IIF status for HAMMER. HAMMER EZAC Management Representative sends updates on the safety log to the VP on a bi-weekly basis.

The VP participated in the June 2016 safety inspection which can be verified by consulting the associated work package.

## **EMPLOYEE INVOLVMENT**

**1. Promote employee involvement. Complete the quarterly Performance Incentives Program for Safety (PIPS) activities. Participate in campus-wide safety and housekeeping surveillances.**

Measurement: Document when staff was educated on the PIPS process. HAMMER employees will complete the requirements of the MSA PIPS by the end of the CY. Each full-time HAMMER employee will participate in at least one Monthly Safety

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Walkthrough during the calendar year. Emphasize the use of safety topics at the beginning of HAMMER led meetings. Measure progress through the use of the HAMMER Trimester assessment.

Status: Complete

HAMMER staff members were briefed on the PIPS process and the activities that will satisfy the PIPS log in July. Several new staff members were brought on since July and were briefed on the PIPS log and the VPP program during the Director's New Employee Orientation.

All staff members participated in at least one Safety Walkthrough. HAMMER employees who met the annual safety goals set by the PIPS log were recognized by a safety luncheon.

Safety topics should be provided whenever there are five or more people meeting, according to MSA procedure. During the second trimester interviews, HAMMER staff members were asked to recall three recent safety topics. Each person interviewed was able to recall three topics, suggesting that safety topics are being provided at meetings and that topics are memorable enough to be recalled after a period of time has passed.

**2. MSA SIP Goal: MSA Employees will participate in safety recognition activities including documented work area inspections, safety campaigns, safety token use, safety log utilization, and safety luncheons.**

Measurement: Encourage employee participation in safety recognition activities. Inspection reports, safety store log, campaign and safety lunch participation will provide evidence of these opportunities and positive outcomes.

Status: Complete

HAMMER employees participate in safety recognition activities such as VPP campaigns, safety inspections, PIPS log activities and safety lunches. These activities are tracked by HAMMER's PIPS Coordinator. Use of the Safety Log has been promoted routinely throughout the year. Safety log status is provided to the staff at every Monday Morning Safety Meeting. Safety Log utilization has increased compared to last year.

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## **WORKSITE ANALYSIS**

### **1. Educate HAMMER staff, instructors and students regarding traffic and pedestrian safety at HAMMER.**

Measurement: Provide a summary of the findings to HAMMER management and EZAC. Produce laminated Safety Briefing and place in classrooms. Incorporate slide for HAMMER Facility Orientation.

Status: Complete

Speeding on the HAMMER campus is a concern to staff members and students. Addressing this issue is no easy task, especially since it concerns not only the HAMMER staff, but also the thousands of students who visit the campus on an infrequent basis. With work start and end times occurring while it is dark outside during the fall and winter months, traffic and pedestrian safety becomes even more critical. The campus contains many walking paths that inevitably must cross roadways. In the dark, speeders become potential threats to hard-to see-pedestrians. As a result, HAMMER Operations conducted a traffic speed review, which identified several areas where speeding was common.

To improve awareness, vehicle speed and pedestrian safety have been safety topics at Monday Morning Safety Meetings, staff meetings, and EZAC meetings. To ensure staff and visiting instructors are aware of the speed limit on campus, the Instructor Facility Orientation was updated to promote the safety message. To reach students, the facility safety briefing for students was updated to include the speed limit. Additionally, some training materials have also been updated to include a slide stating the speed limit.

### **2. Educate HAMMER staff on the Training Hazard Analysis process.**

Measurement: Provide a copy of the presentation provided to the staff members. Provide a copy of the updated facility orientation training materials.

Status: On-going

The subject matter expert on HAMMER's Training Hazard Analysis prepared a new presentation on the Training Hazard Analysis process. The presentation was planned for delivery during the 4<sup>th</sup> quarter instructor's meeting. Unfortunately, external events prevented the subject matter expert from attending the instructor's meeting. The Training Hazard Analysis presentation will be provided to the instructors during the 1<sup>st</sup> quarter of 2017.

The HAMMER Facility Orientation was updated to include information the Training Hazard Analysis process. Each staff member and regular visiting instructor is required to complete this orientation annually. The new update provides a good reminder that changes to training, especially those associated with props or hands-on training, must

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be analyzed prior to implementation to ensure that students and instructors are properly protected by the right hazard controls.

- 3. MSA SIP Goal: The VPP Core Team will provide review of the 10 CFR 851 requirements (Worker Safety and Health Program), including the hierarchy of controls, and how they are applied here at the MSA. VPs will discuss worker rights and responsibilities with the work groups to improve understanding.**

Measurement: 10 CFR 851 and Hierarchy of Controls questions to be included on the 2016 3<sup>rd</sup> trimester to evaluate effectiveness. The Worker Protection group will monitor the status of the presentations provided by the VPs. The VPP Core team will provide assistance to the VPs and work groups as needed.

Status: Complete

The VP provided a presentation on 10 CFR 851 to all HAMMER staff. Throughout the year, HAMMER staff presented several training opportunities on 10 CFR 851 and the Hierarchy of Controls. During the first and third Trimester Assessments, HAMMER scored very well when asked questions about 10 CFR 851, indicating that HAMMER employees understand their rights and responsibilities. In the third Trimester Assessment, HAMMER scored very well when asked how the Hierarchy of Controls is implemented in daily work activities.

## HAZARD PREVENTION AND CONTROL

- 1. Reduce speeding on the HAMMER campus.**

Measurement: Provide photo of the speed bumps. Improve pedestrian safety at road crossings.

Status: Complete

To slow traffic, the HAMMER Operations group worked with the Traffic Safety Committee to identify removable speed bumps as a potential solution. The facility teamsters had been consulted in the past regarding the installation of permanent speed bumps, but the feedback from the teamsters indicated that fixed speed bumps proved to be challenging for forklift use and during snow/ice removal. Removable speed bumps eliminates these problems. Removable speed bumps have been located around the campus in key areas, and can be re-deployed to areas that are of concern to employees.

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*Removable speed bumps were installed in several locations to help prevent speeding on campus.*

HAMMER Operations also installed lighted pedestrian signs at key road crossings. In the dark, as a pedestrian approaches the crossings, a sensor on the new pedestrian signs will trigger flashing lights, alerting on-coming cars of people in the walking path.



*Lighted pedestrian signs are activated by sensors when pedestrians approach.*

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**2. Improve employee knowledge of processes to emphasize hazard prevention and control.**

Measurement: Management will document discussions on hazard prevention and control including leading indicators in the EZAC minutes. Add the General Hazard Analysis as a discussion topic on the HAMMER Employee Orientation Checklist. Provide rosters, meeting minutes or agendas from the following presentations: 10 CFR 851, Corrective Action Management, Hierarchy of Controls, and General Hazard Analysis.

Status: On-going

Management is working to develop leading indicators. The primary focus for HAMMER is the housekeeping items discovered during each monthly safety walk-through. The types and number of housekeeping items are discussed at every EZAC. However, management is still working to coalesce the data into information that will reveal what must be done to prevent hazardous conditions that could potentially lead to an accident. Fortunately, when a housekeeping item is discovered during a facility walkthrough, it is quickly rectified so that personnel exposure is greatly minimized. Management will continue to work on developing useful leading indicators that are meaningful to the staff members in 2017.

The HAMMER Employee Orientation Checklist was updated to include a discussion on the General Hazard Analysis. Now, shortly after coming on board, managers will be expected to ensure new employees understand that the hazards that they may be exposed to on a daily basis have documented controls in the General Hazard Analysis.

Key safety topics on 10 CFR 851, Hierarchy of Controls, General Hazard Analysis, and Corrective Action Management were presented throughout the year. HAMMER staff scored very well and/or showed great improvement when interviewed. While these safety topics were delivered and well attended by staff, HAMMER has had several new employees come on board. Even though several of these topics are also discussed during the new employee orientations, continued conversation will be likely to benefit staff members in 2017. HAMMER continues to see a considerable number of new employee hires and changes in existing staff positions.

**3. MSA SIP Goal: MSA will review injuries and injury trends to raise awareness and prevent recurrence of similar injuries.**

Measurement: MSA Safety will provide information on injuries on a monthly basis for use in EZAC meetings. Work groups will review and document injury information on a monthly basis and conduct a review of injury trends and rates for CY 2016. Work groups that identify negative trends will develop improvement plans and document these plans in the Safety Log.

Status: Complete

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Information on injuries and injury trends are reported during each monthly EZAC meeting. HAMMER has not identified any negative injury trends but continues to be proactive in prevention of accidents and incidents that may harm employees and/or students.

## **SAFETY AND HEALTH TRAINING**

### **1. HAMMER will conduct a facility Safety Focus Day.**

Measurement: By the end of the third quarter, schedule and conduct a Safety Focus Day with participation by all available HAMMER/Hanford Training staff.

Status: Complete

HAMMER's Safety Focus Day was held on August 29, 2016 and was a huge success. The keynote speaker kicked off the day with an engaging presentation on positivity and how it affects work productivity and life balance. There were four different sessions that employees attended.

**Body Language:** This session was a great reminder that body posture sends messages to others whether you realize it or not. Being cognizant of one's body posture may help to prevent unintended signals being passed on to others and improve a teamwork atmosphere.

**Safety In Motion:** HAMMER brought in a vendor to discuss Safety In Motion. This session highlighted the risk of performing everyday tasks with body parts in extreme positions. The message and practical tips delivered during the Safety In Motion session directly focused on Overexertion injuries, one of the Walking Through Life campaign topics.

**Drills/Emergency Response Scavenger Hunt:** HAMMER's Building Warden challenged the staff to find important emergency response information that every employee must know. This session got the staff out of their chairs, on their feet, and face-to-face with critical aspects of responding to emergencies at HAMMER.

**Hierarchy of Controls Jeopardy:** Team competition is a great way to get everyone engaged and involved. This session did not disappoint. During each session four teams competed against each other over their knowledge of hierarchy of controls. Additionally, staff members faced off against questions on the Walking Through Life

*HAMMER Staff at Safety Focus Day*

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campaign and the General Hazards Analysis.



*HAMMER's Safety Focus Day was held August 29, 2016.*

**2. MSA SIP Goal: The "Walking Through Life" Campaign promotes hazard identification and awareness. MSA will provide the tools for implementing the "Walking Through Life" Campaign.**

Measurement: Employees will engage in the "Walking Through Life" campaign by participating in a variety of opportunities: monthly presentations, Safety Starts, Safety Sleuth contest, posters and other "Walking Through Life" promotional materials. Document participation by the Performance Incentives Program for Safety log.

Status: Complete

The Walking Through Life campaign messages were delivered twice during each month of the campaign: during the Monday Morning Safety Start and during EZAC. During the Second Trimester, HAMMER received a better than average score when asked about the Walking Through Life injury types. To improve understanding, the HAMMER EZAC engaged staff members with a small group activity to explore the different types of "Walking Through Life" injury types. The groups discussed each of the common injuries and developed lists of potential activities that could lead to such an injury. The groups also explained the hazard controls that could be used to prevent these types of injuries. HAMMER employees also participated in the 2016 Safety Scratch Campaign which



*Workers discuss actions that could result in a Walking Through Life injury type at EZAC.*

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included a segment on Walking Through Life. Participation in EZAC and the Safety Scratch Campaign is tracked on the PIPS log.

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## 6.0 MENTORING AND OUTREACH

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HAMMER continues to seek opportunities for VPP mentoring and outreach. The following items are a summary of the activities:

- Washington State University – Tri-Cities Campus
  - HAMMER was contacted by the Chancellor of Washington State University Tri-Cities (WSU-TC) to explore methodologies for improving safety culture. WSU-TC is a charter member of the HAMMER Steering Committee.
- A HAMMER employee assisted WAI Hanford Laboratory in conducting their annual VPP assessment.
- HAMMER’s SIP was shared with Chenega, the contractor for the DOE National Training Center, in response to their interest in learning about VPP.
- HAMMER employees assisted the VPP Core Team by submitting questions for use in the weekly MSA Safety Sleuth quiz.
- A HAMMER employee produced a card that could be provided to the MSA workforce, clarifying and explaining their rights and responsibilities in regard to 10 CFR 851.
- HAMMER’s EZAC leadership provided mentorship to the other MSA EZAC leaders regarding development and management of the Safety Improvement Plan.
- Two HAMMER staff members attended the Voluntary Protection Program Regional Conference in Boise, Idaho.
- Two HAMMER staff members attended the VPPPA National Conference in Kissimmee, Florida.
- A hands-on Self Contained Breathing Apparatus (SCBA) vendor show was held at HAMMER in August, which allowed workers to try on new equipment and evaluate new SCBAs for potential use at Washington River Protection Solutions (WRPS) tank farms.
- HAMMER’s Respiratory Protection Program coordinated the Washington River Protection Solutions (WRPS) Self-Contained Breathing Apparatus (SCBA) field equipment trial at HAMMER in late November and early December to evaluate SCBA for potential use at the tank farms.
- The second annual Trainers’ Exchange was held June 7-8, 2016, at the National Training Center (NTC) in Albuquerque, New Mexico. Approximately 130 training professionals attended the event, which was sponsored by the NTC, HAMMER, DOE Richland Operations Office, and the National Institute of Environmental Health Sciences (NIEHS) Worker-Trainer Program.
- HAMMER staff attended the 2016 NIEHS Conference in Boston, Massachusetts for the “NIH Disaster Research Response (DR2) Workshop”.

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## 7.0 MANAGEMENT LEADERSHIP

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### Commitment to Health and Safety Protection

Annually, the HAMMER Director signs and issues a commitment to maintaining an Open Door Policy. The policy is distributed to all staff members as a reminder that all personnel have the opportunity to bring forward safety issues and/or concerns without fear of reprisal. The Director commits that all issues brought forward will be taken seriously, investigated, and resolved to the employee's concurrence.

### Written Safety and Health Program

HAMMER's safety and health program is documented in MSC-PLN-WP-32219, *MSA Worker Safety and Health Program*, and identifies the implementing policies and procedures for 10 CFR 851 requirements. Additionally, HAMMER has posted the worker safety and health program requirements from 10 CFR 851 at many locations across the campus. HAMMER has taken many opportunities throughout 2016 to educate the staff on the worker rights and responsibilities provided by 10 CFR 851, and interviews with staff confirm that understanding continues to improve.

## 8.0 EMPLOYEE INVOLVEMENT

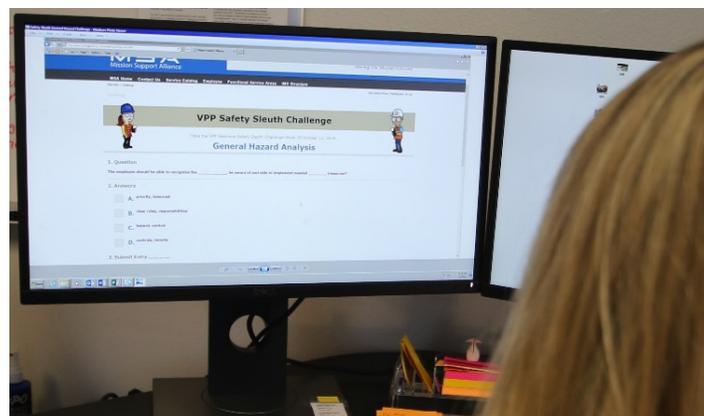
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HAMMER staff members actively participate in the delivery of safety topics. A HAMMER staff member provided a safety topic on texting and driving at PZAC, recounting a personally significant event that affected his family. Another staff member provided a discussion on the General Hazard Analysis not only to HAMMER staff, but also to MSA's EZAC All Chairperson meeting.

MSA prepares a safety topic to be presented at the beginning of every work week, the Monday Morning Safety Start. HAMMER encourages staff members to elevate the message of the safety start into memorable presentations rather than simply reading from the screen.

HAMMER employees assisted the EZAC by generating puzzles that addressed key safety knowledge topics for staff, including ISMS and the GHA. The GHA questions were also sent to the VPP Core Team for use in the Safety Sleuth program.

In collaboration with the Hanford Atomic Metal Trades Council (HAMTC) Safety Representatives and members of the Voluntary Protection



*Safety Sleuth Question on the General Hazard Analysis.*

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Program (VPP) Core Team, one of HAMMER's Mask Fit Technicians took the initiative to aid the workforce in better understanding the rights and responsibilities provided by 10 CFR 851. This federal regulation outlines the requirements for worker safety and health to ensure DOE contractors and workers operate a safe workplace. While most workers can readily identify the right to "Stop Work," they may be less likely to recall the right to "obtain reports of inspections and accident investigation results". As a solution, HAMMER's Mask Fit Technician suggested they produce a card that could be provided to the workforce, clarifying and explaining their rights and responsibilities in regard to 10 CFR 851. The Core Team agreed, and HAMMER's employee took the lead in developing the card. The 10 CFR 851 cards were passed out to all employees with the first round of VPP Scratch Cards.

The VPP Core Team recognized the strength of the HAMMER SIP. As a result, HAMMER's EZAC leadership provided mentorship to the other MSA EZAC leaders regarding development and management of their Safety Improvement Plans.

Two HAMMER staff members attended the Voluntary Protection Program Regional Conference in Boise, Idaho, in May and brought back best practices and lessons learned. While there, they learned about YouMakeADifference.com, a program that aligns with HAMMER's values. At the Monday Morning Safety Start, they shared with HAMMER staff how we each can make a difference. They gave staff blue wristbands and challenged the staff to recognize the people who make a difference in their own lives.

Several staff members, other than EZAC leadership, succeeded in leading HAMMER to meet targeted SIP goals; however, all staff members were reminded that their participation in the safety activities throughout the year was key in meeting overall SIP goals.

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## 9.0 WORK SITE ANALYSIS

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### Baseline Surveys

HAMMER's Industrial Health Professionals conduct a baseline health and safety survey approximately every 12 to 18 months in accordance with MSC-PRO-WP-17916, *Industrial Hygiene Baseline Hazard Assessments*. At the time of this report, the baseline survey was actively being reviewed and revised. HAMMER's Baseline Hazard Assessment is documented in document number BHA0259. Focus of the assessment includes sound exposure monitoring, ergonomic assessments, review of chemicals used at the facility, and evaluation of student and worker activities for potential industrial hygiene exposure.

### Pre-Use/Pre-job Planning and Hazard Identification

Work and maintenance activities at HAMMER are analyzed for hazards in accordance with MSC-PRO-WP-079, *Job Hazard Analysis*. MSA's job hazard analysis process focuses first on the general hazards that the general employee might face on a routine basis; these controls are found on the General Hazard Analysis (GHA). From that, work activities are reviewed for hazards that may be encountered on a craft-specific basis; controls for this work are included on a Craft Specific Hazard Analysis (CSHA). To complement this analysis, additional hazard specific controls may be included into work documents via forms that provide direct guidance and approvals for beyond typical hazards encountered by crafts (e.g., lockout/tagout, energized electrical work, confined space entry).

The first Trimester illuminated the fact that many staff members were not aware of the hazard controls provided to every employee by the General Hazard Analysis (GHA). During the interviews, the staff was asked specifically, "What processes are available to you to use as a Hazard Analysis?" While the interview scoring team wanted to hear "GHA" as a response, many of the respondents instead replied with Employee Job Task Analysis, Automated Job Hazard Analysis (AJHA), or safety/ergonomic inspections. This year, Mission Support Alliance has made a decision to change its methodology in applying the Hazard Analysis Process. For many years, AJHA has been the standard term used in repeated safety messages associated with hazard analysis. The new hazard analysis process focuses on the base hazards first; these are the hazards encountered by everyone on site. Controls for these hazards are found in the GHA. Once the new methodology was introduced, HAMMER began efforts to change employee's understanding. Over 80% of HAMMER's staff was able to attend a hands-on safety meeting where they were able to open up and evaluate common tasks that may be encountered at HAMMER against the controls offered in the GHA. During the third Trimester, HAMMER's EZAC presented a safety puzzle that required staff members to consult the GHA for answers.

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All training activities at HAMMER are analyzed for hazards in accordance with HM-FP-01-3.3, HAMMER/Hanford Training Hazard Analysis and Control Process. All training activities are screened to determine if they are Low, Medium or High Hazard training activities. For Low Hazard training, the controls contained in the General Hazard Analysis are employed. For Medium and High Hazard training, a training activity specific analysis is conducted.

A hands-on Self Contained Breathing Apparatus (SCBA) vendor show was held at HAMMER in August 22, which allowed workers to try on equipment and have conversations with vendor representatives to evaluate new SCBAs for potential use at Washington River Protection Solutions (WRPS). Four units were chosen by workers for additional field trials. HAMMER worked with WRPS and the vendors to ensure the equipment was safely handled during the vendor show. HAMMER provided two worker-trainers for each day the SCBA was tested, providing a 2:1 ratio of workers to worker-trainers. This ratio provided additional safety as the workers donned/doffed the new equipment and participated in hands-on activities.

#### HAMMER's Respiratory Protection Program



*Worker-Trainers show off SCBA equipment selected for field trials at the HAMMER Steering Committee.*

SCBA units from Scott Safety Equipment and Mine Safety Appliance. Each SCBA unit has features that are different from the SCBA equipment currently used on the Hanford Site, including advanced electronics, weight reduction, battery packs, and variable-fit packs.

*A worker tries on a mask at the vendor show.*

coordinated the Washington River Protection Solutions (WRPS) Self-Contained Breathing Apparatus (SCBA) field equipment trial at HAMMER in late November and early December. The field equipment trial was designed to test the use and applicability of four new



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### Routine Hazard Control and Inspections

All HAMMER personnel are scheduled to participate in a facility walkthrough (inspection) on an annual basis. A facility walkthrough is conducted each month and is led by a knowledgeable member of the operations staff and/or the Certified Safety Professional. Safety walkthroughs (inspections) follow the guidance found in MSC-PRO-WP-7652, *Safety and Health Inspections*. Written guidance on what to look for is provided on the inspection forms. Inspection forms contain tailored assessment criteria for each of the buildings on the HAMMER campus. Findings are documented on the forms. Where possible, corrections are made on the spot. If the issue cannot be immediately corrected, the issue is reported to Work Control for correction. The Employee Zero Accident Council actively reviews housekeeping items found during each monthly inspection to determine if there are negative trends that require attention.

### Employee Reports of Hazards

Employees have several ways that they may report a hazard found on campus. In addition to reporting issues to management and/or sharing concerns at EZAC, employees may also call Work Control to report safety concerns.

All employees and students at HAMMER have the opportunity to identify and document safety concerns by using the Safety Log. HAMMER maintains two safety log locations, one at the main administration building and one at the Al Alm building, to ensure that the safety log is easily accessible. Safety logs are checked once a week. Once entered into the safety log, status on the safety issues are reported to staff every month at EZAC and every week at the Monday Morning Safety Meeting. Employees are reminded that if they feel uncomfortable for any reason to identify themselves as the initiator of a safety concern, they are welcome to anonymously submit a safety log item with the assurance that it will still be addressed with utmost importance.

Twenty-six safety log items were initiated in 2016. On average, HAMMER was able to close safety log items within 15 days. The Stop Work associated with the liquefied propane gas (LPG) system was the safety log item that was open the longest (174 working days).

### Accident Investigations

Accident investigations are conducted in accordance with MSC-PRO-PA-058, *Investigation of Abnormal Events, Conditions, and Trends*. Causal analysis is conducted to determine reasons for the event in accordance with MSC-GD-PA-33900, *Causal Analysis Guidance*. Corrective actions derived from event investigations are managed using MSC-PRO-PA-052, *Corrective Action Management*.

One accident occurred at HAMMER during 2016. The event consisted of an unexpected vehicle acceleration, which resulted in a minor contusion to the driver's head. A full event investigation, root cause analysis, and corrective action plan were conducted as a result of the event. The investigation resulted in an indeterminate root cause. Neither mechanical

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failure nor human error could be confirmed with clear evidence during the investigation. However, corrective actions were developed, and the staff was briefed on the event.

### Trend Analysis

MSA safety professionals conduct injury and illness trend analysis and present this information each month at the President's Zero Accident Council. The injury information and statistics are taken from the PZAC and shared each month at HAMMER's Employee Zero Accident Council (EZAC). Injury statistics are also posted on safety information bulletin boards.

HAMMER conducted a management assessment on procedure use to determine compliance with MSC-PRO-MS-589, *Mission Support Contract Management System Documents*, and HM-FP-01-1.0, *HAMMER Management Document and Procedure System*. During this assessment, the assessment team reviewed each procedure's corresponding hazard analysis and found that all were current and up to date.

The MSA ISMS team conducted a surveillance of Stationary Operating Engineer (SOE) Support at HAMMER and documented their results in a report dated July 11, 2016. The report documented satisfactory performance regarding work release by the HAMMER Operations group and conduct of work/routines by the HAMMER SOE. The assessment identified findings and opportunities for improvement, each of which are documented in the MSA Corrective Action Management System.

Some of the opportunities for improvement involved the update of the Craft Specific Hazard Analysis (CSHA) for the SOE in accordance with the new procedure changes associated with MSC-PRO-079; implementation of this new procedure change is due by August 2017. HAMMER is actively pursuing the generation of a CSHA per the new procedure guidance for each of the craft types working at HAMMER.

During the assessment, the ISMS Team identified a concern associated with the design basis of the LPG system at HAMMER. At the time of design and construction, the design engineers did not identify the need to provide cathodic protection and instead required that the underground piping be coated for protection from corrosion based on the 1995 edition of NFPA 58; however, very little evidence regarding soil conditions was found in the design documentation. To ensure safe operations, the concern regarding the design basis was raised by the ISMS team, which was taken seriously by HAMMER, resulting in a Stop Work. Professional corrosion engineers and specialists were brought in to conduct a full evaluation of the LPG system. During the analysis, soil conditions were evaluated and classified as "slightly corrosive," the most beneficial condition for extending the lifetime of the piping. Direct observation and testing of the piping by the corrosion specialists confirmed that the LPG piping was in very good condition after 20 years of service, which allowed the Stop Work to be lifted. The specialists also suggested that the life of the LPG system could be extended by employing cathodic protection and other recommendations.

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HAMMER is working to employ the recommendations provided by the corrosion specialists and is tracking progress of these system improvements via MSA-IIF-2016-0150.

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## 10.0 HAZARD PREVENTION AND CONTROL

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### Access to Certified Safety Professionals

Certified Industrial Health Professionals (IH), Safety Professionals, Fire Protection Engineers, and an Occupational Health Provider are available to HAMMER staff when needed. A certified IH and Safety Professionals from the MSA Worker Protection group have been assigned to support HAMMER. The IH, Safety Professional and Hanford Atomic Metal Trades Council (HAMTC) Safety Representative photos are included in every Monday Morning Safety Meeting to ensure that HAMMER staff knows who they are.

The Safety Professional assists HAMMER with hazard identification and control on a regular basis when work packages are planned. The IH support assists HAMMER managers with completion of Employee Job Task Analyses (EJTA) for all HAMMER staff members.

Hanford's Occupational Health Provider is available to staff members and provides the appropriate level of medical monitoring based on the employee's EJTA. On a quarterly basis, the Occupational Health Provider conducts a Health Fair on campus for HAMMER staff.

### Methods of Hazard Prevention and Control

HAMMER uses the Hierarchy of Controls during work planning and project design to ensure facilities and conduct of work. Work packages are planned by a planner who ensures that safety requirements and worker feedback are incorporated into work documents. A questioning attitude is encouraged to ensure the pre-identified hazard control methods are understood by all prior to and during the conduct of work. This maintains employee involvement and narrows the window for an unexpected event.

HAMMER follows the Mission Support Alliance Environmental Policy (MSC-POL-EI-5054) and MSA's Integrated Environment, Safety and Health Management System Description (MSC-PLN-WP-003). Waste minimization, recycling, and substitution of less hazardous materials are important for worker safety and environmental protection at HAMMER. MSA's environmental organization assists HAMMER in screening chemicals and suggesting substitute chemicals for work evolutions and hands-on training.

Interviews and facility observations confirm that ergonomic reviews by safety professionals have been conducted. Many workstations have been improved with ergonomic desk systems designed to relieve body stress.

A member of our Operations team found a new ergonomic solution for employee workstations. This new alternative made installation easier, and this new solution was cheaper than the previous units. The set up using the new desk system is quicker and more efficient.

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*Respiratory Protection Training Area*

HAMMER's Respiratory team reorganized the training area in the Al Alm building. The area is used exclusively by the Respiratory Program worker-trainers to conduct hands-on training and for bulk equipment storage. The renovation focused on organizing a safer, more functional space by creating an open floor plan with better lighting and more efficient space for training. Designed by worker-trainers, the dividers were built on-site by carpenters and painted at the paint shop. Teamsters delivered and positioned the units, followed by the carpenters' installation. The room now provides more accessible space for training requirements.

In August, HAMMER's Hazardous Waste Operations and Emergency Response (HAZWOPER) practical portion of training was curtailed due to heat. Portable training props were moved indoors to minimize heat stress for students wearing impermeable suits.

Heat stress monitoring is used in field work at the Washington River Protection Solutions (WRPS) tank farms when wearing level A suits. The International Chemical Workers Union Council (ICWUC) grant worker-trainers have taken the lead at HAMMER to procure Polar and Bluetooth capable Heart Rate Monitors similar to those used in the field. There are plans in place to include these monitors in course curriculum to better acquaint workers with actual field requirements and equipment.

In frigid weather, HAMMER does not use the outdoor fire extinguisher prop. Instead, classes are moved indoors and students perform hands-on fire extinguisher training using a laser-based video system. The laser system allows this important training to continue through the winter months without creating an additional hazard.



*A student uses the laser based fire extinguisher training simulator.*

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### Positive Reinforcement and Discipline

HAMMER uses the MSA Standards of Conduct (MSC-POL-HR-11385), which outlines the thresholds of employee discipline. If employee performance warrants improvement, MSA Human Relations specialists will utilize Managing Employee Performance (MSC-PRO-HR-050) to develop an improvement plan. MSC-PRO-HR-050 also outlines the methodologies for the annual employee performance appraisals used by HAMMER management.

There are many options for HAMMER to recognize and reinforce good safety behavior and acts. MSC-GD-WP-40148, *Safety Awareness and Recognition Program*, outlines these options, including the On the Spot Safety Award, the Performance Incentives Program for Safety (PIPS), and Incentive Awards for Stretching. HAMMER staff regularly use On the Spot Awards to recognize fellow staff members for active engagement in contributing to a safe and healthy work place. The requirements document for President's and Employee Zero Accident Councils, MSC-RD-WP-9982, outlines awards that are available through PZAC, including the President's Star Award, President's Lifesaving Award, PZAC Safety Honor Roll Award, and President's Safety Team Award.

### Preventive/Predictive Maintenance

HAMMER is transitioning to a new Computerized Maintenance Management System. The new system is expected to provide for improvements in maintenance and resource scheduling. An interview with the maintenance engineer confirmed that HAMMER has a good history of completing maintenance work on schedule to ensure the facility and equipment is kept in a safe operating condition.

All new work requests are funneled through HAMMER's Work Control Center, where the request is recorded and then validated/screened to determine the level of work planning (skill of the craft to detailed work planning) required.

### Tracking Systems

All employees and students at HAMMER have the opportunity to identify and document safety concerns by using the Safety Log. HAMMER maintains two safety log locations, one at the main administration building and one at the Al Alm building, to ensure that the safety log is easily accessible. Safety logs are checked once a week. Once entered into the safety log, status on the safety issues are reported to staff every month at EZAC and every week at the Monday Morning Safety Meeting. If a Safety Log item is not resolved within approximately 60 days, the item is entered into the Corrective Action Management System (CAM) via the Issue Identification Form (IIF). The CAM system provides a formal tracking system that screens issues for significance, appoints responsible managers and actionees, formalizes corrective action plans, and provides methods to track and trend issues on a wide scale.

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Emergency Preparedness

HAMMER follows the Hanford Emergency Preparedness protocols outlined in DOE/RL 94-02, *Hanford Emergency Management Plan*, and DOE-0223, *Emergency Plan Implementing Procedures*, which detail the roles, responsibilities and actions to take during an emergency. HAMMER also has developed a facility-specific emergency response plan. This plan is available to all HAMMER employees via the HAMMER internal webpage. Emergency response information is available in each building at HAMMER. Additionally, HAMMER participates in a sitewide drill every year.

Emergency response actions for all employees were also highlighted during HAMMER's Safety Focus Day. The Building Warden ensured that all employees understood where to find critical emergency response information and what to do in case of an emergency.

Medical Program

An Occupational Medical Provider is available to HAMMER staff. Hanford's Occupational Health Provider is available to staff members and provides the appropriate level of medical monitoring based on the employee's EJTA. On a quarterly basis, the Occupational Health Provider conducts a Health Fair on campus for HAMMER staff. The medical provider routinely conducts on-site evaluations/surveys to ensure that they are aware of the activities and PPE used at HAMMER.

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## 11.0 HEALTH AND SAFETY TRAINING

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*Student on the Slip Simulator*

82% of HAMMER staff have completed training on the Slip Simulator. The Slip Simulator offers students a safe way to practice proper techniques when walking on slippery surfaces. It also offers a much needed awareness regarding slips, trips and falls for all seasons. Nationally, 16 percent of disabling workplace injuries are from falls on the same level, at a cost of 8 billion annually. Additionally, 16 percent of the US total occupational deaths are caused by slips, trips or falls on the same level. Trips, slips, and falls frequently happen, and this tool does help prevent them.

25% of HAMMER's employees are current in First Aid. First Aid is an optional class for most HAMMER employees.

Employee Orientations and Walk-arounds were conducted for the new employees, subcontractors and interns that were hired in 2016. The Employee Orientations are a good way for management, operations and EZAC to share about critical safety and facility information with the new workers. During the orientation, VPP is brought up as the foundation for how HAMMER works.

The second annual Trainers' Exchange was held June 7-8, 2016, at the National Training Center (NTC) in Albuquerque, New Mexico. Approximately 130 training professionals attended the event, which was sponsored by the NTC, HAMMER, DOE Richland Operations Office, and the National Institute of Environmental Health Sciences Worker-Trainer Program. Two full days of workshops were offered on topics relating to the changing face of training in the 21st century.

Several HAMMER staff and worker-trainers presented at the Trainers' Exchange. A staff member said, "The Trainer's Exchange provided an unsurpassed avenue for continued education and networking. The instructors were very knowledgeable and forthcoming. The sessions were informative, valuable, and have already contributed to my work in designing and developing high-quality training."

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In November, the 2016 Instructor Development Program Day was held at HAMMER for nearly 80 worker-trainers and subject matter expert instructors. Guest speakers included Glenn Podonsky, Director, Enterprise Assessments; Doug Shoop, Manager, DOE-RL; Joe Franco, Assistant Manager for Mission Support, DOE-RL; Glyn Trenchard, Deputy Assistant Manager for Tank Farms Project, ORP; Nick Bumpaous, Vice President, CWBCTC; and Willie Edwards, Special Projects and Training Evaluations, National Training Center; as well as HAMMER staff. The majority of the day was organized into workshops regarding classroom sensitivity, positive psychology, digital narrative and storytelling, and authentic leadership.



*Worker-Trainers at the Instructor Development Program Day*

In July, HAMMER's Instructional Design (ID) Team participated in a workshop focused on strengthening their group. Topics ranged from communication skills to the emphasis on mentoring new team members. The team is made up of instructional designers, editors, desktop publishers, training specialists, and program administrators. They work with subject matter experts, Hanford Sitewide committees, program managers, and Labor to develop innovative, safety-focused curriculum for Hanford students and external customers, which includes the newly formed DOE Training Institute (DTI).

HAMMER staff attended the 2016 National Institute of Environmental Health Sciences (NIEHS) Conference in Boston, Massachusetts for the "NIH Disaster Research Response (DR2) Workshop." Based on a fact-based disaster scenario dealing with storm surge flooding within Boston, participants engaged in developing processes to initiate and conduct post-disaster research and training. The research gained will be used to develop training for teams to improve future disaster response efforts at the local agency level to better anticipate their needs. Conference goals were aimed at "Responding to Emerging Health Threats through Research and Training". As it was the 50th anniversary of NIEHS, a participant-based timeline board of NIEHS historical milestones was projected, which included a photo and information on HAMMER's dedication and the worker-trainer program.

In September, members of the HAMMER Instructional Design Team participated in a five-day workshop called Leadership for the 21st Century: An Introduction to Personal and

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Professional Intelligence. The workshop was hosted by Washington State University Tri-Cities (WSU-TC) Leadership Academy, and was conducted by M. Semi Bird, Director of Training and Leadership Development at WSU-TC. The workshop was available to leaders at all levels, ranging from beginners to senior-level executives. Participants focused on methods for developing high performing teams, leading through operational excellence and planning, being a confident agent of change, and strategic planning. Each participant completed an EQi-2.0 leadership assessment, which measures an individual's emotional intelligence and how it impacts others. The information provided attendees with important skills to motivate and empower employees and peers, as well as instilling a foundation to establish their own style of leadership.

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## 12.0 AWARDS AND RECOGNITION

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In August 2016, HAMMER was awarded with the Voluntary Protection Programs Participants' Association (VPPPA) Star of Excellence. Two HAMMER staff members participated in the 32nd Annual National VPPPA Safety and Health Conference at the Gaylord Palms and Convention Center in Kissimmee, Florida, and accepted the award. The following month, HAMMER held a potluck, allowing all staff to celebrate this achievement.



HAMMER's EZAC chairperson received the Katheryn A. Wheeler Safety Leadership Award for their commitment to safety at HAMMER and positive influence on safety culture across the Site.

One of HAMMER's employees was recognized at MSA's Breakfast of Champions.

Over the course of 2016, HAMMER employees were awarded 15 LIVE awards and 83 STAR awards.

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**VPP ANNUAL REPORT  
SUPPLEMENTAL  
WORKSHEET**

Review: 1/1 – 12/31, 2016

Site Contractor Name/Acronym: Mission Support Alliance / HAMMER

Site Name: Hanford

Company President/Manager: Bill Johnson

Company Address:

MSA

PO Box 650

Richland, Washington 99352

**Injury Incidence/Lost Workdays Case Rate (contractor (participant) employees and staff  
augmentments)**

Calendar Year	Hours Worked	TRC Cases	TRC Rate	DART*Cases	DART*Rate
(Year-1) 2014	173,801	0	0.00	0	0.00
(Year -2)2015	211,703	0	0.00	0	0.00
(Year -3)2016	234 256	0	0.00	0	0.00
<b>3-Year Total</b>	<b>619,760</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>

**Injury Incidence/Lost Workdays Case Rate (subcontractors)**

Calendar Year	Hours Worked	TRC Cases	TRC Rate	DART*Cases	DART*Rate
(Year-1) 2014	16,459	0	0	0	0
(Year-2) 2015	30,102	0	0	0	0
(Year-3) 2016	18,558	0	0	0	0
<b>3-Year Total</b>	<b>65,119</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0.00</b>

**Total Contractor & Subcontractors for 3 Years:**

**Hours = 684,879 TRC Cases = 0 TRC Rate = 0.00 DART Cases = 0 DART Rate = 0.00**

BLS for NAICS\*\* # 611

TRC Rate = **5.00**

DART Rate = **1.90**

\* Days Away, Restricted or Transferred \*\* North American Industry Classification System

**HAMMER's TRC Rate, and DART rate is 0.00 over 3 years**

Number of Contractor Employees: 115

Number of Subcontractor Employees: Varies

Union Representative

Name: John Jeskey

Email: John\_J\_Jeskey@rl.gov

Contact # 509-376-1009

Contractor VPP POC

Name: Jenn Bilskis

Email: Jennifer\_O\_Bilskis@rl.gov

Contact # 509-373-0071

DOE/RL VPP POC

Name: Larry Yearsley

Email: Larry.Yearsley@rl.doe.gov

Contact # 509-376-5104

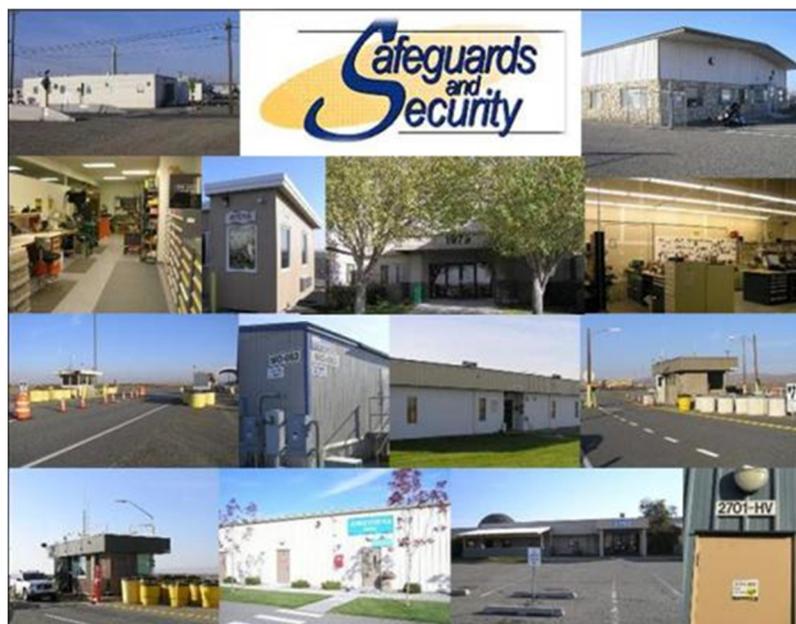
Appendix B  
Safeguards and Security  
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DEPARTMENT OF ENERGY  
MISSION SUPPORT ALLIANCE, LLC  
SAFEGUARDS AND SECURITY (SAS)  
VOLUNTARY PROTECTION PROGRAM  
ANNUAL REPORT  
CALENDAR-YEAR 2016

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Safeguards and Security  
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## 1.0 SUMMARY

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The Mission Support Alliance, LLC (MSA), Safeguards and Security (SAS) organization includes the following elements: protective forces, physical security systems, information security, personnel security, nuclear material control and accountability, cyber security, and program management. These elements ensure the safeguarding of special nuclear material, classified, government sensitive information, and government property. This organization ensures the reduction of Hanford Site quantities of special nuclear material and classified information retain the level of protection required for the remaining security interest.

Critical attributes of SAS's successful processes are as follows:

- Incorporation of Voluntary Protection Program (VPP) tenets, Human Performance Improvement (HPI) concepts, and elements of Safety Conscious Work Environment (SCWE) programs to ensure organizational and personnel aspects of safety and health performance are addressed, and a self-sustaining, just culture is fostered
- Implementation of Integrated Safety Management System (ISMS) ensures safety and health will be reflected in every plan and decision
- Elevation of assessment-driven continuous improvement in all phases of work planning and execution, ensuring weaknesses are found and fixed before problems occur

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- Pursuit of the MSA Goals: Target Zero and Do Work Safely through tracking and communication of safety-related metrics.
- In 2016, SAS bolted up to the MSA Safety Improvement Plan (SIP) which is in place and describes specific organizational and personal activities needed to meet Safety Vision and Safety Goals. The objective of the MSA SIP is to increase management and employee teaming to promote safe work conditions and practices. Increase Bargaining Unit participation in safety improvement activities. Increase attention to hazard identification and mitigation and implementation of adequate controls by utilizing MSA Annual Injury Reviews. Improve management/employee communication and feedback of safety programs, initiatives and corrective actions. Demonstrate continuous improvement of organizational practices to assure ISMS and VPP performance are adopted and utilized.

An on-site verification review by the Office of Health, Safety, and Security was conducted on August 23, 2012. The review reestablished SAS Star Status.

#### VALUE OF VPP AT SAS

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The primary value of the Safeguards and Security (SAS) Voluntary Protection Program (VPP) is the ongoing partnership between management and staff committed to maintain the highest level of the safety culture. VPP enables the SAS's safety and health program to transcend a top-down, by-the-book approach to safety, and it also raises grassroots safety consciousness by promoting a commitment to safety and health 24 hours a day, 7 days a week. The SAS VPP is a dynamic, evolving program that fosters innovative approaches to continuous improvement in safety and health performance.

VPP is not another layer of requirements of new tasks, it is an approach by which safety and health-related activities can be more efficiently promoted through the joint support of staff and management. VPP principles foster communication, creativity, and innovation and are helping to improve the way SAS employees view safety and health as an ever-present value.

Some of the benefits SAS realizes from VPP programs include:

- Fewer injuries and illnesses. In addition to the ethical and quality of life issues associated with preventing employee injuries and illnesses, maintaining injury/illness rates as low as possible results in significant savings to SAS.
- Increase in output, productivity, completed work on schedule. Occupational injuries, illnesses and other accidents can cost a substantial amount in terms of down-time and staff- management hours spent on investigation and corrective action that could have been put to more productive uses.
- Better safety performance results in greater customer satisfaction, which can bring more business to support the SAS's growth agenda.

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## 2.0 INTRODUCTION

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During 2016, the annual self-assessment was again sub divided into three separate VPP self-assessments referred to as “Trimesters”. SAS along with the other organizations within the MSA continue to utilize the trimester approach to provide three data points instead of the single annual assessment. During the self-assessments an overall grade was assigned as the 5 tenets of VPP were examined through an interview process. The overall score was on a 0 – 5 scale, with 5 being the best possible implementation of the VPP. Each of the 5 tenets and sub elements were validated with questions or lines of inquiry which included employee interviews, and document/information reviews.

## 3.0 SAS VPP ACCOMPLISHMENTS

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- SAS is currently meeting all DOE-VPP Star attributes.
- SAS has earned the Star of Excellence award for four consecutive years and received the Legacy of Stars award in 2016.
- Technical Security surpassed 31 years without a DART classified injury.
- Safety and Health Hazard Baselines have been upgraded for all SAS facilities using the integrated process that incorporates inputs from management assessments, Industrial Hygiene monitoring, facility inspections, arising operational events/issues, and employee/management input.
- Safety Inspection process utilizes a computer based training module for each section to aid those assigned to conducting the inspection. This SAS process was shared with MSA and has been implemented for use throughout MSA.
- Conducted 2016 Hanford Patrol Safety Summit. Thirty items were raised with 19 being placed in the Emergency Services Electronic Safety Logbook. Eleven items were deemed “operational issues” and were added to the Hanford Patrol Steering Committee.
- SAS conducted Annual Injury Review and mentored other MSA groups to improve injury analysis meetings.
- Continued to mentor Hanford Fire Department Safety Summit.
- Conducting Emergency Services Safety Representative monthly meetings.
- SAS is operating successful Employee Zero Accident Councils.
- SAS members were involved in the Hanford Safety Expo and Vehicle Accident Demonstration.(VAD)
- Received “Safety & Health Outreach award” from VPPPA for working with over 400 Boy & Girl Scouts to earn safety, health and environmental merit badges.
- SAS employees attended the 2016 Voluntary Protection Program Participants Association (VPPPA) National Conference and brought back information to share with all of MSA.
- A SAS employee presented the “Walking through Life” presentation at the 2016 VPPPA Conference.

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- Four SAS members attended the Voluntary Protection Program Participants Association (VPPPA) Region X Conference and brought back information to share with all MSA employees.
- SAS has two employees that maintain Special Government Employee (SGE) status.
- SAS SGE's have supported three offsite OSHA VPP assessments in past last year
- Supported VPP Self-Assessment at Hanford Waste Treatment Plant.
- SAS provides one member to the VPPPA Region X Communications Committee.
- SAS member earned the Certified Laser Safety Officer designation.

#### 4.0 IMPLEMENTED EMERGENCY SERVICES ELECTRONIC DATABASE. (ESED)CONTINUOUS IMPROVEMENT

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##### Hanford Patrol Safety Summit

SAS conducted the 2016 Hanford Patrol Safety Summit. Nineteen safety items were raised and placed in the ESED. SAS mentored other MSS groups to improve injury analysis meetings and the Hanford Fire Department Safety Summit. Positive notes that came from the 2016 Safety Summit include:

- There continues to be genuine caring about each other.
- Good communication between all attendees.
- Having two Hanford Fire Department (HFD) attendees again this year was appreciated by Hanford Patrol attendees.
- The Summit remained an open forum for reporting issues needing resolution and this was done in a respectful and professional manner.
- Hanford Fire Department (HFD) invited SAS representatives to attend the HFD Safety Summit.
- There were new Security Police Officers participating.
- Hanford Patrol participation was good but more representation by exempt employees is needed.
- Add a Fleet Maintenance representative in 2017 to attend for specific timeframe; during that timeframe HP vehicle issues will be discussed.
- Patrol Training Academy Colonel's participation was appreciated and assisted in providing details on training issues that was lacking in the past.

The 19 safety items brought forth in the SAS Safety Summit are as follows:

- Rifle Barrel Length (26 votes)
- 2<sup>nd</sup> Chance Vests (20 votes)
- Intermediate Force Tools (18 votes)
- SPV Reliability (18 votes)
- Special Response Team (SRT) Special Patrol Vehicle (SPV) Ergonomic – Static Posture (15 votes)

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- Road Condition Checks (14 votes)
- Excessive Speed at Critical Stops, Fire Station and Barricades (10 votes)
- Mitigate Vehicle Excess Heat (9 votes)
- Vehicle/Post Sanitation Conditions (8 votes)
- By Passing Non-DOT Road Closures Signs/Barricades (8 votes)
- Illuminated Stop Sign Rt. 4 & 3 [Gas Pumps 200E/W] (6 votes)
- Running Boards on Tahoe's (6 votes)
- Buzzer Tone in 2721E Locker Room Line-Up Area (4 votes)
- Sanitation Range 1 Restroom (2 votes)
- 300 Area Merge Sign (1 votes)
- Historical Data for Exposure to Trench, Dispersions, Contaminants (0 votes)
- 618-10 Drum Emergency Take Cover, Not Relayed to Patrol (0 votes)
- 2721-E Restrooms No Emergency Lighting When Power is Out (0 votes)
- Safety Gate 101-Main Gate PTA [ILA Lane] Pavement Breaking Off (0 votes).

SAS VPP Trimester Process

The self-assessment for 2016 utilized a Trimester approach to gather information. A Trimester review cycle was used to provide three data points during the year versus the single assessment used in the past. A combined team of bargaining unit, exempt and management employees conducted interviews with a cross-section of SAS personnel at remote work locations. During this year's evaluations, the team made an effort to focus heavily on comments from the employees rather than solely concentrate on grading numbers. A 1-5 scale is utilized with 5 being a positive response.

The results were discussed with the Emergency Services Vice President and SAS Points of Contact (POC's) which consisted of a team of bargaining unit workers and management. This team determined the significance of the results and documented opportunities for improvement. Opportunities for improvement were communicated to the work force at shift change, safety meetings and all employee messages. Items of concern were incorporated into the ESED and are being worked to closure.

**2016 1ST TRIMESTER - SAS TENET SCORES**

Overall Average	4.50
Management Leadership	4.46
Employee Involvement	4.50
Worksite Analysis	4.43
Hazard Prevention & Control	4.93
Safety & Health Training	4.50

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2016 2ND TRIMESTER - SAS TENET SCORES

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Overall Average	4.20
Management Leadership	4.20
Employee Involvement	4.47
Worksite Analysis	3.63
Hazard Prevention & Control	4.10
Safety & Health Training	4.50

2016 3RD TRIMESTER - SAS TENET SCORES

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Overall Average	4.50
Management Leadership	4.60
Employee Involvement	4.70
Worksite Analysis	4.60
Hazard Prevention & Control	4.80
Safety & Health Training	4.00

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## SAS PARTICIPATION IN MSA INITIATIVES

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- Safety Focus meetings
- Led SAS, Emergency Services & MSA Annual Injury Review meetings
- Target Zero / SAS Situational Awareness Briefings
- Boy Scouts of America Hanford Patrol Explorer Post
- SAS staff organized and supported over 400 Boy and Girl Scouts in earning Safety, Health and Environmental related merit badges over the last three years. *Safety, Traffic Safety, Fire Safety, Public Health, Environmental Science, Signs Signals and Codes, American Labor and First Aid* merit badges were offered and completed. This was a collaborative effort with MSS, Emergency Services, SAS, Hanford Guards Union (HGU) and the Hanford Atomic Metal Trades Council. (HAMTC), Kennewick Police Department and the Benton Franklin Health District.

SAS employees were key participants in the following MSA/Hanford committees

- Hanford Site-wide Fall Protection Standards Committee – 1 member
- MSA VPP Core Team – 2 members
- Presidents' Zero Accident Council (PZAC) Planning Team – 2 members
- Hanford Site Traffic Safety Committee – 4 members
- Safety Expo Planning Team – 1 member
- MSA Case Management Team -2 members

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## SAS employees assigned as MSA Subject Matter Experts

- Adverse Weather
- Aviation Safety
- Compressed Gases
- Fall Protection
- IS/IH Selection, Qualification and Training
- Laser Safety
- Biological Hazards (Including Bloodborne Pathogens)
- First Aid and Automated External Defibrillators
- MSA Expectations for Worker Involvement
- Mission Support Alliance Policy for Environment, Safety, Health and Quality
- Safety and Health Compliance
- Selection, Training, and Qualification of Industrial Safety and Industrial Hygiene Professionals
- Storing, Using and Handling Compressed Gases
- Steam Generation and Distribution System Safety
- Occupational Medical Qualification and Monitoring using EJTA
- Industrial Hygiene Baseline Hazard Assessments
- Safety Inspection Program
- Industrial Hygiene Baseline Hazards Analysis
- Recreation Policy
- Radiofrequency (RF) Radiation Safety
- Control of Working Hours
- Portable and Fixed Ladders
- Motor Vehicle Safety
- Hanford Site Respiratory Protection Program (HSRPP)
- Working Alone

## 5.0 VPP OUTREACH

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SAS continues to seek opportunities for VPP mentoring and outreach. The following items are a summary of the activities:

In 2016, SAS participated in the Hanford VPP Champions that represents every major Hanford contractor and several sub-contractors. The purpose of the group is to share and help each other plan and conduct activities supporting VPP. Several safety program and practices in regard to Chemical Management and implementation of the Global Harmonization Initiative were shared with Nevada Nuclear Security Site (NNSS) contractor Centerra. SAS continues to work with NNSS to enhance mentoring and learning opportunities between our two sites. SAS participates in Centerra Safety monthly conference calls.

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The Patrol Training Academy's staff is providing specialized driver safety training on the Emergency Vehicle Operations Course (EVOC) to CH2M Hill Plateau Remediation Company (CHPRC), Washington River Protection Solutions (WRPS) and Pacific Northwest National Laboratory (PNNL) personnel and others who drive government vehicles as part of a Hanford Traffic Safety Committee initiative.

SAS was involved in the planning and conduct of the 20<sup>th</sup> annual Health and Safety Exposition (EXPO). EXPO is an exhibition of information, equipment, supplies, and success stories from vendors and organizations that promote the health and safety of workers both at home and at work, which was attended by over 35,000 people of all ages. EXPO is one way to foster safety as a value in employees' lives is to provide ways to share safety and health related lessons learned and success stories.

## 6.0 MANAGEMENT LEADERSHIP

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The SAS Management Team continues to emphasize that work must be performed safely and that there is no need to hurry to complete a task. This is further emphasized through MSA-wide goals *Zero Accidents* and *Do Work Safely*.

The MSA commitment to safety is set forth in [MSC-PLN-WP-003](#), *Integrated Environment, Safety Management System Description* and [MSC-PLN-WP-32219](#), *10CFR851 Worker Safety and Health Program Description*. SAS management formally set forth safety expectations in SAS-5874, *Environmental, Safety, and Health Program* and HNF-IP-1292, Section 1.14 *Patrol Safety*. Management demonstrates their commitment through recognition of employees for safe acts in daily work activities, monitoring of site safety performance, and committing resources to safety committees. Above all, management empowers employees with Stop Work responsibility when a question is raised prior to or during work activities regarding safety. Every Stop Work event resulted in improvements to the activities/processes where the concerns were raised.

## 7.0 EMPLOYEE INVOLVEMENT

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Workers and supervisors from the responsible work groups are actively involved in the development and review of work packages, Standard Operating Procedures, etc. As part of the enhanced work planning process, line personnel involvement in development of work instructions is essential to ensure that work can be performed as written and performed safely. In accordance with MSC-PRO-WC-12115, *Work Management*, jobs must be walked

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down by the work group(s) prior to having the document approved by the hazard controls specialists.

SAS personnel are actively involved in MSA safety committees and task teams that include:

- SAS Employee Zero Accident Council
- Hanford Guards Union (HGU) Zero Accident Council
- Emergency Services Safety Representative Monthly Meeting
- Hanford Patrol Safety Summit
- Hanford Fire Department Safety Summit
- SAS Annual Injury Review
- Presidents Zero Accident Council
- PZAC Planning Committee
- MSA VPP Core Team
- Hanford Site Respiratory Protection Program Committee
- Automated Job Hazard Analysis (AJHA) Users Group
- Case Management Committee
- Hanford Site Case Management Committee
- MSA Industrial Hygiene Huddle
- MSA All Chair EZAC Meeting
- HPMC Occupational Medicine Interface meeting
- MSA Ergonomics Committee

SAS personnel are actively involved in Hanford site multi-contractor safety committees that include:

- Hanford VPP Champions
- Hanford Traffic Safety Committee
- Hanford Aviation Safety Committee
- Chronic Beryllium Disease Prevention Program (CBDPP)
- Hanford Site Fall Protection Committee
- Hanford EXPO Development Team
- Hazardous Energy Control Board

## 8.0 WORKSITE ANALYSIS

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### **Analysis of new facilities and planned work**

Analysis of hazards for new facilities occur at various stages of the process. The activities are driven by the following procedures: MSC-PRO-SEC-396, *Planning Construction Projects in Security Areas*, and MSC-PRO-CONST-14990, *Construction Management*.

MSC-PRO-WC-12115, *Work Management* continues to be used for planned work which includes specific hazard analysis steps addressed in [MSC-PRO-WP-079](#), *Job Hazard Analysis*.

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## **Safety & Health surveys by Safety & Health professionals**

The baseline surveys are updated through annual completion of monthly hazard assessments documented in accordance with SAS-5874, *Environmental, Safety & Health Program* by the SAS Safety and Health staff. MSC-PRO-WP-17916, *Industrial Hygiene Baseline Hazard Assessments* documents the process used for identifying potential hazards, analyzing these hazards, and implementing hazard mitigation. Data from individual area hazard assessments is entered into both the SAS Hazard Baselines, and a site-wide industrial hygiene database to ensure that baseline information is maintained current to area conditions and/or operations. The baseline hazard assessment is posted on the SAS Safety Central for easy access by facility management in establishing hazard control measures for hazards identified.

## **System for employee to give notification of hazards to management**

A number of avenues are available for employee reporting of hazards which include the management chain of command, open door policy, HGU Safety Representatives, the formal Employee Concerns Program, SAS ES&H group, and the Issue Identification Form (IIF) which is part of MSA's corrective action management system (CAMS). SAS encourages workers including subcontractors to implement a stop work culture which is reinforced by work instructions and line management. SAS management embraces the site-wide [DOE-0343](#), *Stop Work* procedure where work is stopped when there is an unsafe condition or unexpected event occurs that requires the need to step back, re-evaluate the situation, and make necessary adjustments.

## **Accident/incident investigation**

MSC-PRO-WP-077, *Reporting, Investigating, and Managing Health, Safety and Property/Vehicle Events* is in place and guides us through the process for reporting, investigating, and managing Occupational Injury/Illness (OII) cases or events that have safety or health significance and for complying with U.S. Department of Energy (DOE) Directive DOE O 231.1B, *Environment, Safety and Health Reporting Requirements*. This procedure also includes documenting vehicle and property damage incidents. Line management is responsible for preparing and investigating all injury, vehicle accident and property damage case reports. Corrective actions based on injury/accident investigations are tracked and discussed at the Safety Council meeting. Feedback is provided to employees through EZAC meetings, Annual injury reviews and Safety Start meetings.

## **Trend Analysis**

MSA Safety Culture and Analysis tracks occupational injury cases, such as first aid, recordable, restricted, and day's away injury cases, in order to identify adverse trends. Trend analysis of the cases are used to develop areas for increased awareness activities, required Weekly Safety Start discussions, and determine where an increased SAS ES&H

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presence may be appropriate. Other indicators as to the strength of the safety and health culture are also tracked, such as employee achievements in completing voluntary safety training courses or certifications, number of and types of first aid injuries, and number of safe work hours achieved.

Effectiveness of VPP is also demonstrated through trend analysis which continually evaluates the performance of the VPP and ISMS Programs. Safety performance is also discussed at the quarterly MSA Safety, Security & Emergency Board of Directors meeting.

SAS also utilizes a process for analyzing injury & vehicle accident data to incorporate in the Safety Improvement Plan and other corrective action plans. The injury database is utilized and allows SAS to perform an analysis on the group's annual injuries and also allows us to consider other MSA injuries that may have a potential of occurring within SAS. The annual injury review occurs in January of each year and allows SAS to tap into front-line employees' field experience to develop new or improve existing safety initiatives and controls. This approach fosters authentic involvement through employees' creation of an action plan to eliminate injuries. This process has worked very well and is now utilized by the Hanford Fire Department and was pushed out to other groups in MSA this year.

## 9.0 HAZARD PREVENTION AND CONTROL

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### **Access to Certified Professionals**

SAS has a broad range of professional expertise, both full-time and contract resources, to draw upon within the support and operations organizations. Continuing professional development is supported to maintain areas of expertise. Currently there is a Certified Safety Professional (CSP), Certified Industrial Hygienist (CIH) and a Certified Laser Safety Officer directly supporting SAS. Other Certified Safety Professionals and Certified Industrial Hygienists are readily available within other MSA organizations. In addition, 24 HGU Safety Council members completed the OSHA 511 Safety course and one member maintains their Occupational Safety and Health Administration (OSHA) 10 Hour Trainer Certification.

### **Eliminating/controlling hazards**

SAS continues to develop controls for hazards in the following order:

- Elimination of process *and/or* material substitution
- Engineering controls
- Administrative controls
- Personal Protective Equipment

Internal lessons learned are discussed daily at the Line-ups, Plan of the Day meetings and lessons learned are disseminated across operational and support organizations. External lessons learned are regularly received from both the DOE Lessons Learned system, as well as from outside sources. Both internal lessons learned and key lessons learned from outside the SAS were evaluated and discussed at all-hands meetings.

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### **Procedures for positive reinforcement and disciplinary action**

Positive reinforcement is provided through department celebrations of achieving project performance based incentives, the Safety Recognition Award program and site safety goal achievements. Employees who do not comply with safety requirements are disciplined based on a graded approach as defined in MSA Standards of Conduct. Subcontract documents address SAS oversight and requirements when non-compliances are identified. Formal actions taken to enforce subcontractor compliance to MSA and SAS safety and health requirements are fully documented by SAS.

### **Preventive Maintenance**

SAS equipment is cataloged in an electronic database and preventive maintenance is conducted and tracked on a monthly trend chart which is reviewed monthly by management.

Based on a review of the metrics maintained by Maintenance, it is evident that Preventive Maintenance (PMs) has a scheduling priority and employees are encouraged to complete their assigned PMs each month. PMs are an essential and vital element of the maintenance program and keeps equipment that is essential to site mission running smoothly without frequent breakdowns and catastrophic failures. No major changes have occurred in the program this past year.

### **Emergency Response Procedures**

Drills and exercises continued to focus on demonstrating the readiness of Emergency and Protective Force Response Teams. A debriefing followed each event, drill or exercise to verify that the objectives were met and to identify any issues that need to be addressed. Quarterly emergency exercises have been conducted for personnel who staff the Emergency Operations and Technical Support Centers during emergency events.

Other organizations within MSA ensure the site hazards survey and hazards assessments are updated annually to reflect changes in the sites operations and hazards. Associated site procedures are modified accordingly.

### **Medical Program that provided timely response**

The medical program provides employee pre-employment and termination physicals and annual assessments as required by job duties. The program continues to be effective in noting tasks or conditions where there is a risk of injury and providing mechanisms for employees to improve their working conditions. The medical program is performed by HPMC, under a separate contract with DOE-RL.

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## 10.0 SAFETY AND HEALTH TRAINING

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### **Employees**

SAS continues to require employees and subcontractor personnel to complete training requirements commensurate with their positions or work activities and as required by contract and regulatory requirements. SAS utilizes the Enterprise Learning Management (ELM) system to notify managers and employees when refresher and requalification training is due. Lessons learned from internal and external events or issues typically provide opportunities to re-evaluate the adequacy of personnel training and are used to improve training packages. When necessary, briefings on specific health and safety concerns are developed and presented to the affected personnel. SAS training program for Protective Force is governed by the DOE National Training Center to ensure that the level of training and the necessary peer-mentoring in the field is implemented to ensure work can be performed safely.

### **Supervisors/Manager**

SAS managers and supervisors continue to receive safety, environmental safety, emergency preparedness and Integrated Safety Management System (ISMS) training as part of their Hanford General Employee Training (HGET). Other training requirements may be required based on their responsibilities. MSA-wide special emphasis courses were attended by SAS management on Beryllium Work Planning and Risk Communication.

**VPP ANNUAL REPORT  
SUPPLEMENTAL  
WORKSHEET**

Review: January 1 -  
December 31, 2016

Site Contractor Name/Acronym: Safeguards and Security / SAS

Site Name: Hanford

Company President/Manager: Bill Johnson

Company Address:

MSA

PO Box 650

Richland, Washington

99352

**Injury Incidence/Lost Workdays Case Rate (contractor (participant) employees and staff  
augmentments)**

Calendar Year	Hours Worked	TRC Cases	TRC Rate	DART*Cases	DART*Rate
(Year-1) 2014	585,620	2	0.68	1	0.34
(Year-2) 2015	603,494	2	0.66	2	0.66
(Year-3) 2016	612,021	5	1.63	4	1.31
<b>3-Year Total</b>	<b>1,801,135</b>	<b>9</b>	<b>1.00</b>	<b>7</b>	<b>0.78</b>
BLS for NAICS** # 92212			6.9		3.3

**Injury Incidence/Lost Workdays Case Rate (subcontractors) [No. injuries, hours included in  
total above]**

Calendar Year	Hours Worked	TRC Cases	TRC Rate	DART*Cases	DART*Rate
(Year-2) 2014	0	0	0	0	0
(Year-1) 2015	0	0	0	0	0
(Year - ) 2016	0	0	0	0	0

**3 Year average, SAS is at 15% of the NAICS TRC rate**

**3 Year average, SAS is at 24% of the NAICS DART rate**

\* Days Away, Restricted or Transferred \*\* North American Industry Classification System

Number of Contractor Employees: 335  
Number of Subcontractor Employees: None

Union Representative

Email: Gordon\_W\_Gordy@rl.gov

Contractor VPP POC

Email: Andrew\_L\_Foster@rl.gov

DOE/RL VPP POC

Email:Larry.Yearsley@rl.doe.gov

Name: Gordon Denman

Contact # 509-373-2020

Name: Andy Foster

Contact # 509-376-4313

Name: Larry Yearsly

Contact # 509-376-5104

Appendix C  
Mission Support Services  
VPP Annual Self-Assessment Report 2016



DEPARTMENT OF ENERGY  
MISSION SUPPORT ALLIANCE, LLC  
MISSION SUPPORT SERVICES  
VOLUNTARY PROTECTION PROGRAM  
ANNUAL SELF-ASSESSMENT  
CALENDAR-YEAR 2016

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Mission Support Services  
2016 VPP Annual Report

## 1.0 SUMMARY

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Mission Support Services (MSS) received DOE VPP Star recognition in September 2011. Upon recertification review performed in September 2014, the Office of Environment, Health, Safety and Security (AU) Department of Energy (DOE) Voluntary Protection Program (VPP) Team (Team) recommended that MSS continue in the DOE-VPP as a *conditional* Star participant as it worked to address significant relationship issues between MSA managers and its workers. The Team conducted a follow-up assessment in February 2016 to evaluate the actions taken to address the previously identified issues. After performing work observations and interviewing workers to determine the effectiveness of the actions, the Team recommended that MSA continue participating in DOE-VPP at the Star level, without condition.

The Mission Support Services (MSS) Star Site consists of the following MSA organizations:

- MSA President's Office
- Independent Oversight
- Communications & External Affairs
- Legal
- Human Resources
- Environmental, Safety, & Health
- Fire Protection Program
- Emergency Management Program
- Information Management
- Portfolio Management
- Business Operations
- Site Services & Interface Management
- Public Works
- Conduct of Operations
- MSA Engineering

Critical attributes of MSS's successful processes are as follows:

- Incorporation of VPP tenets to ensure organizational and personnel aspects of safety and health performance are addressed.
- Implementation of an Integrated Safety Management System (ISMS) that ensures safety and health will be reflected in every plan and decision.
- Assessment-driven continuous improvement in all phases of work planning and

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- execution, ensuring weaknesses are found and fixed before problems occur.
- Pursuit of the MSA goals *Target Zero* and *Do Work Safely* through tracking and communication of safety-related metrics.

**AVERAGE NUMBER OF EMPLOYEES DURING THE YEAR: 1750**

**TOTAL MAN HOURS: 3,137,294**

**NAICS CODE/AVERAGE FOR YEAR: 561/TRC 2.3, DART 1.2**

**MSS NUMBER OF OSHA TOTAL RECORDABLE CASE (TRC) INJURIES: 13 injuries; TRC Rate 0.83**

**MSS NUMBER OF DAYS AWAY, RESTRICTED, TRANSFERRED (DART) INJURIES: 8 injuries; DART Rate 0.51.**

Refer to the VPP ANNUAL REPORT SUPPLEMENTAL WORKSHEET at the end of this report for discussion of statistical information.

## 2.0 CONTINUOUS IMPROVEMENT

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### **Analysis of injuries becomes employee communications**

Injuries that occur within MSS organizations are analyzed, and trends are noted. Safety performance metrics Attachment 1 are published monthly and available for all employees to access through MSA's online Contractor Assurance System (CAS), Conduct of Operations' dashboard, and Presidents' Zero Accident Council (PZAC) meeting minutes. These statistical charts are often topics for Monday morning back-to-work safety discussions and as agenda items for monthly safety meetings. They are also posted on Employee Zero Accident Council (EZAC) safety boards, which are located throughout MSA facilities.

Other means for injury/vehicle incident-related communication include the MSA Notification System (MSANS) and the Daily Ops Report; both methods are available to employees at their request. MSANS sends a text message and email notifying subscribers of injuries and events on a real-time basis. The Daily Ops Report provides brief details of injuries/vehicle accidents that occurred the prior day, other contractor events that have the potential to affect MSA activities, planned road closures, drills and other activities that are planned. This real-time information are intended to be shared daily at plan of the day meetings or other meetings.

Weekly Safety Starts are prepared and distributed through a general distribution message to all employees. These documents are intended to facilitate Monday morning conversations pertaining to the safety topic with the goal to refocus on situational awareness for the upcoming week. Monday morning discussions are typically led by the

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EZAC Chairperson, safety professional, or supervisor. Organizations often tailor the conversations to address emerging safety issues pertinent to their specific workscope or environmental conditions.

Attachment 2 contains two examples of Weekly Safety Starts that were created and distributed after an adverse injury trend was noted.

### **Safety & Health Improvement Plan (SIP)**

The calendar year (CY) 2016 Safety Improvement Plan (SIP) was developed at the company level to address cross-cutting safety and health (S&H) issues that apply to all MSA organizations. These global items were identified as weaknesses through various avenues, such as VPP trimester review results, management assessments, etc. At a minimum, MSS organizations were expected to participate in MSA S&H program activities that concentrated on improvement in these areas.

Some work groups expanded the scope of the SIP and developed additional goals and initiatives established by analyzing results of their trimester VPP self-assessments, Integrated Safety Management System (ISMS) Surveillance Team observations, S&H management assessments performed during the year, and injury data trends. There were four workgroups within the MSS Star Site that added their own safety improvement actions.

MSA 2016 SIP goals, including yearend status, are listed below:

- 1. Management engages in steady communications with safety leaders (ISMS and EZAC), as evident in their staff meeting agenda, minutes and/or schedule.**

#### **Measurement:**

- Document safety conversation in meeting minutes.
- Vice president-level staff meetings include an agenda item to discuss open safety issues (Safety Log or Issues Identification Form).
- Vice presidents participate in safety inspections

This goal was a carryover from the 2015 SIP and observations and responses obtained during 2015 VPP trimester assessments, which indicated that employees felt managers should be more engaged and active in safety communications.

**Result:** This SIP goal was met within the MSS. The MSA Office of the President established expectations in 2015 that committed to increased senior management visibility and safety communications within the workforce. During CY 2016, vice presidents' attendance at safety meetings (including EZAC and PZAC) increased. Safety conversations were encouraged during open forum at EZAC, PZAC, and all-manager and all-employee meetings, as reflected by the associated agendas, meeting minutes, and presentations. Monthly meetings between union stewards and senior leadership provided opportunity for safety

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discussions. The ES&H vice president facilitated a monthly meeting with the union stewards that focused on emerging safety issues and concerns. The ES&H vice president and management also maintained a weekly open communication meeting with the Hanford Metals Trade Council (HAMTC) and Hanford Guards Union (HGU) Safety Representatives.

Safety Log issues that are not resolved within 60 days are addressed at senior leadership meetings and further discussed at vice president-level meetings, as applicable.

**2. MSA employees will participate in safety recognition activities including documented work area inspections, safety campaigns, safety token use, safety log utilization, recognition, and safety luncheons.**

**Measurement:**

- Inspection reports, Safety Store log, campaign, and safety lunch participation will provide evidence of these opportunities and positive outcomes.

**Result:** This SIP goal was met. MSS employee involvement in campaigns and recognition activities was at the highest level since these activities have been tracked. It should be noted that MSS employees participated in the recognition programs over 3,000 times. Safety lunches were earned and taken by most organizations, and safety log entries were consistent with previous years.

The trimester assessments found this area to be 4.4/5.0 positive response during the year, which also indicates an improvement.

**3. The VPP Core Team will provide a review of 10 CFR 851 (*Worker Safety and Health Program*) requirements and how they are applied at MSA. Vice presidents will discuss worker rights and responsibilities with the work groups to improve understanding.**

**Measurement:**

- The VPP Core Team will monitor the effectiveness of 10 CFR 851 presentations that were provided by the vice presidents in 2015 to their respective organizations.
- 10 CFR 851 and Hierarchy of Controls (HOC) questions will be asked during the third trimester evaluations to assess employee knowledge levels. The VPP Core Team will provide feedback and further assistance to the vice presidents, as requested.

**Result:** This SIP goal was partially met. MSA modified the new hire orientation process to include a briefing on 10 CFR 851 requirements. Additionally, lanyard cards that provide a quick review of the basic principles of 10 CFR 851 were distributed to MSS employees.

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During the third trimester VPP evaluation, the employees' knowledge and understanding of 10 CFR 851 requirements was evaluated. The results were generally positive with a total score of 4.6/5; however, there were a few groups that still indicated a weakness in knowledge of 10 CFR 851. Knowledge of Hierarchy of Controls continues to be an area for needed improvement. Employees generally know the definition of HOC, but they do not seem to understand how HOCs are implemented as it pertains to their workscope or work environment.

**4. MSA will review injuries and injury trends to raise awareness and prevent recurrence of similar injuries.**

**Measurement:**

- Workgroups will review and document injury information on a monthly basis and conduct a review of injury trends and rates for calendar year 2016.
- Workgroups that identify negative trends will develop improvement plans and document these plans in the Safety Log.

**Result:** This company goal was met. Injury information was included in agendas, shared at PZAC and/or EZAC meetings, and captured in the meeting minutes that are available to all employees. Communications to employees, at their request, have expanded to include MSANS messages and delivery of Daily Ops reports. MSA injury charts were posted on individual groups' safety and/or EZAC boards. Weekly Safety Starts discussed emerging safety issues and lessons learned, as appropriate. Additionally, each vice president was provided with their groups' summary safety chart on a monthly basis for use when discussing their injury trends (Attachment 3).

**5. The "Walking Through Life" campaign promotes hazard identification and awareness. MSA will provide the tools for implementing the "Walking Through Life" campaign.**

**Measurement:**

- Employees will engage in the "Walking Through Life" campaign by participating in a variety of opportunities: monthly presentations, Safety Starts, Safety Sleuth contest, posters and other "Walking Through Life" promotional materials.

**Result:** The "Walking through Life" campaign was introduced in January 2016 (Attachment 4). For the next several months, Weekly Safety Starts, posters, "Safety Sleuth" questions, etc., focused on the series of everyday types of hazards that are common to everyone. The Weekly Safety Start scheduled for the first Monday of each month introduced a hazard recognition module that would be the focus topic for the month. Presentations relating to the subject hazard were available on the VPP website, provided

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through safety professionals, and included on the PZAC agenda/meeting minutes. The MSA Safety Puzzle campaign also included “Walking Through Life” questions.

Although the intentions of the goal and measurement were met, feedback from the third trimester VPP evaluation indicated there were isolated instances of employees who had not received all of the presentations. This was addressed with the applicable VPs during the VPP trimester out-briefs.

## VOLUNTARY PROTECTION PROGRAM (VPP) ANNUAL SELF-ASSESSMENT

During CY 2016, organizations within MSS performed their annual VPP self-assessments by conducting three trimester evaluations. Lines of inquiry (LOIs) derived from the five tenets of VPP were used to interview a cross section of employees within all organizations of MSS. Approximately 24% of the MSS employees were interviewed. Documents and associated information were also reviewed to support verification of the implementation of VPP. An overall rate was determined based on a 0 – 5 scale, with 5 indicative of the highest level of implementation of the VPP. Results for the year are as follows:

- First Trimester: 4.5/5.0
- Second Trimester: 4.4/5.0
- Third Trimester: 4.6/5.0
- **CY 2016 Average: 4.5/5.0**

The scope of the annual VPP review included all functions, facilities, and activities managed by MSS organizations. The set of tailored criteria included SIP action items and the MSA integrated evaluation plan (IEP) schedule, which were used to evaluate the S&H system and effectively assess the elements and tenets of VPP. Assessment data indicated excellent employee participation in VPP that was sustained throughout the year. Assessment results, including "good practices" and lessons learned data, were discussed with both MSA Senior Leadership and the individual vice presidents with their respective VPP points of contact (POCs) and EZAC leadership. The feedback provided three times during the year allowed organizations to recognize strengths and weaknesses immediately, thus prompting revision of safety improvement plans or development of corrective action plans as needed for sustainability or enhancement of program implementation. Assessment data for MSS organizations was posted on the MSA VPP website and accessible to all employees.

### **DOE-HQ VPP Team Onsite Recertification Review**

The Office of Environment, Health, Safety and Security (AU) DOE-VPP Team performed an onsite evaluation of MSS in February 2016. The Team had contact with over 200 personnel, either through work observations, walk downs, or formal interviews. The review concluded with the Team recommending that MSA retain DOE-VPP Star status for MSS and that the STAR site *conditional* status be lifted. The Team’s report identified the following Opportunity for Improvement (OFI) that MSS organizations are addressing.

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**Opportunity for Improvement:** MSA should continue to encourage workers to bring issues occurring in their work environments to their leaders, EZAC, or use other means of communications, and persist until those issues are resolved.

An Issue Identification Form (IIF) has been generated to document the improvement item. To date, MSA has implemented the following actions in response to the identified weakness:

- Expectation set and communicated by the Office of the President to “shake the tree” and exercise a questioning attitude, stop work, etc.
- Increased field presence of senior leadership at Monday morning back-to-work meetings
- Increased presence of management at EZAC all-chair meetings
- Communication to employees that encourages the use of the “^Ask Bill” email inbox to address issues
- Monthly discussion and status of 60-day or older safety log items at senior leadership level, which includes a detailed justification from the vice president as to why an issue may be aging
- Inclusion of safety log items on vice president staff agendas
- Increased all manager and all employee meetings that include open forum opportunities for safety discussions

The following is the VPP Team’s concluding remark from the February 2016 on-site review:

“Conclusions: MSA has made excellent efforts to reach out to workers, regain trust, improve communications between managers and workers, and ensure it addresses identified issues in a timely manner. Many workers were openly complimentary toward managers' and supervisors' efforts to reach out and listen to workers’ issues, and ensure safety. MSA still has additional opportunities to identify and address longstanding issues or conditions. Fortunately, the relationship between workers and managers has created an atmosphere that is conducive to the effective resolution of issues. MSA managers believe the current relationship helps MSA perform its fundamental mission and achieve long-term success. The Team recommends that MSA continue participating in DOE-VPP at the Star level, without condition.”

### 3.0 MSS VPP ACCOMPLISHMENTS

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During CY 2016, the following accomplishments within MSS organizations were recognized:

- 43 exceptional and good practices in the following 4 areas were identified by the ISMS Surveillance Team: Worker involvement, feedback and improvement, worksite analysis, and work control.

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- 4 SIPs for individual workgroups and the MSA SIP were completed and/or implemented.
- Hanford Fire Department conducted a two-day safety summit, which included delivery of job-specific safety presentations, as well as breakout sessions to discuss potential safety improvements.
- Senior Management received immediate feedback of VPP trimester evaluations.
- 716 issues and/or OFIs were self-identified and tracked through MSA's Corrective Action Management System (CAMS)
- 242 safety ideas/issues were reported in the "Safety Logs"
- 10% improvement to address, resolve, and close safety log items. Time to close log items averages 40 days.
- 600+ employees participated in 516 S&H inspections. Safety issues were either fixed-on-the-spot, recorded on the applicable safety log, or documented on an Issue Identification Form (IIF) for further processing in CAMS.

## 4.0 VPP APPLICATION

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Work scope changes since the submittal of the original VPP application includes the following:

- Two work groups added in 2011 – 2012
  - Public Safety and Resource Protection
    - Meteorology & Climatology Services
    - Seismic
    - Ecological Monitoring
    - Environmental Surveillance
    - Cultural & Historic Resource Program
  - Radiological Site Services
- One workgroup eliminated during CY 2014
  - Waste Sampling and Characterization Facility (WSCF)
    - Sample analysis scope removed from MSC
    - Closure transition plan initiated April 2014
    - 60 subcontracted staff augmentation (RJ Lee) bargaining unit personnel dispositioned
    - Effective September 30, 2014

Organizational changes that occurred during CY 2016:

- Work scope Realignment
  - Reorganization of workgroups at the Senior Leadership level
    - EZACs realigned, as applicable
    - Effective October 1, 2016

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- Information Management
  - Lockheed Martin Services, Incorporated (LMSI) Contract workscope realigned
    - MSA self-perform
      - 250+ former LMSI employees transitioned to MSA
    - Subcontract
      - Contract award to offsite contractor

## 5.0 GOALS AND OBJECTIVES

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CY 2016 goals and objectives were developed to continuously improve programs and foster new initiatives for both management and employees to achieve the desired goal of zero injuries and illnesses and continuously improve the safety culture. The following is a brief summary of each goal and the results obtained:

- DOE/EM TRC Goal: Rate of  $\leq 1.1$  was achieved as the TRC rate for 2016 was 0.83
- DOE/EM DART Goal: Rate of  $\leq 0.60$  was achieved as DART rate for 2016 was 0.51

MSS organizations were successful in achieving the above goals established for 2016, and safety performance within most of the areas was strong.

Efforts to reduce injury rates and achieve the goal of “Target Zero” included the following:

- Increased heat stress monitoring during record-high temperature conditions
- Emphasized the importance of, and increased participation in, voluntary “stretch and flex” activities
- Increased communications regarding environmental hazards and changing weather conditions
- Included lessons learned in safety communications
- Incorporated emergent safety topics in meeting agendas, which resulted in the opportunity for open discussion and communication between management and employees
- Increased focus on training prior to conducting facility inspections
- Performed more rigorous facility inspections
- Increased engagement with Safety Professionals and EZACs to evaluate and continually encourage safe work of peers in organizations
- Conducted company-wide campaigns (VPP Core Team) to increase knowledge and safety awareness of employees.

### **CY2017 Goals and Objectives include:**

With the objective of “Zero Accidents” and “Do Work Safely”, MSA’s goal is to continue to reduce TRC and DART rates.

MSA developed a CY 2017 company-level SIP based on opportunities for improvements observed during the DOE VPP Team evaluation, trimester VPP self-assessments,

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management assessments, and independent oversight assessments. The safety vision and goals, along with the SIP actions, are applicable to all MSA organizations. MSA organizations are encouraged to supplement any or all of the improvement actions with focus on their specific workgroups.

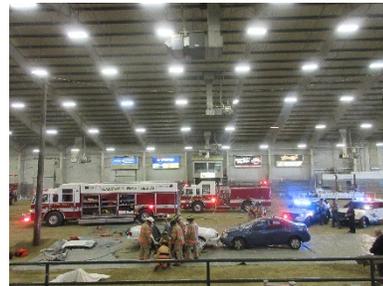
Refer to the MSA VPP annual report, Section 5.0 “Goals and Objectives.”

## 6.0 MENTORING AND OUTREACH

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Employees within MSS organizations participated in the following mentoring and outreach activities throughout the year:

- MSA provided executive management and support of the planning and execution of the Health & Safety Exposition (EXPO), which is a community event held at the Trade, Recreational & Agricultural Center in Pasco, Washington. The two-day event attracted over 35,000 attendees and was comprised of community residents and Hanford contractor employees
- MSS organizations coordinated the Vehicle Accident Demonstration and children’s bicycle rodeo, which are popular attractions of EXPO
- MSS employees designed and manned several booths during the EXPO
- Developed and delivered the ‘American Labor’ Merit Badge class to local youth from the Boy Scouts of America
- Acted as guides for public tours of historical areas and present day clean-up activities of the Hanford Site
- Attended the Region X and National VPPPA Conferences (8 employees to Region X, 7 at National)
- Functioning as the VPPPA Region X Chairman
- Serving on the VPPPA Region X Board of Directors
- Actively participated in the Energy Facility Contractors Group (EFCOG) Safety Culture workgroup
- Volunteered to arrive early to the VPP Conferences to assist the VPPPA with conference preparations
- Maintained involvement in VPP assessments as loaned assessors, which benefited the OSHA VPP, as well as the DOE VPP.
  - Two Special Government Employees (SGEs) from MSS organizations assisted OSHA with the VPP Region VIII review of Hunter Douglas Window Fashions in Broomfield, Colorado. See Attachment 5 for a thank you letter from OSHA.
- Delivered three presentations and leading discussions at VPP Conferences



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- Provided employees to lead and assist the WAI Hanford Laboratory with their annual VPP self-assessment
- Chaired and served on several Hanford sitewide committees:
  - Traffic Safety Committee
  - Hanford Chronic Beryllium Disease Prevention Program Committee
  - Hanford Site Fall Protection Committee
  - Hanford Electrical Safety Committee
  - Hanford Ergonomics Committee
  - Hanford VPP Champions Committee
- Participated in several community activities such as:
  - Junior Achievement Mentorship
  - 4-H
  - Boy & Girl Scouts Leadership
  - March-of-Dimes fundraisers
  - United Way
  - Strides for Cancer
- Presented and conducted hands-on activities while visiting at-risk students as part of the After School Matters Program

## 7.0 MANAGEMENT LEADERSHIP

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The management team within MSS organizations continues to emphasize that work must be performed safely by placing emphasis on meeting the primary goals of *Zero Accidents* and *Do Work Safely*. Their commitment to safety is set forth in multiple documents including: MSC-POL-5053, *Mission Support Alliance Policy for Environment, Safety, Health and Quality*; MSC-MP-003, *Integrated Environment, Safety, and Health Management System Description*; and MSC-MP-32219, *10 CFR 851 Worker Safety and Health Program Description*. Safety professionals deployed from the central Worker Protection Organization are dedicated to the management teams and workgroups they support and request additional subject matter expertise (SME) guidance from the central Worker Protection Organization, as needed. Safety professionals have been effective in providing timely support to address emerging issues, and a strong working relationship exists between workers and safety staff.

VPs and management within MSS organizations were regularly on the agenda and participated in the monthly PZAC and EZAC Chair meetings by presenting safety topics, reporting on their organizations' safety efforts, sharing "good news" stories, and/or leading discussions on injuries and subsequent lessons learned to prevent recurrence.

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Various organizations within MSS conducted “safety summits” or “focus days.” These forums were led by the organizations’ vice president and included, at a minimum, employees from the bargaining unit, safety professionals aligned with the organization, HAMTC safety representatives, supervisors, and the ES&H vice president. Emerging safety concerns, injury rates and trends, and aging safety log issues were among some of the topics discussed. Actions and/or resolutions were collectively determined during these 1 to 2 day events.

MSS organizations’ management encouraged and allowed employees to participate in various safety-focused activities, such as safety committees, safety meetings, and safety training/assessments in support of the OSHA SGE Program.

MSS organizations’ management demonstrated recognition to their employees by participating in MSA’s Performance Incentive Programs for Safety luncheons (PIPS), awarding of “on-the-spot” safety tokens, and hosting safety lunch celebrations. Both the awarding of tokens and holding safety lunches are a means for employees to receive recognition of safe behaviors and/or performance.

First-line managers maintain the responsibility for conducting pre-job briefings to ensure those involved with a work activity are aware of the hazards and the controls required to prevent or mitigate the hazards. Facility managers are responsible for the safety of work in their facilities and are accountable for investigation of events and development of corrective actions aimed at preventing recurrence.

## 8.0 EMPLOYEE INVOLVEMENT

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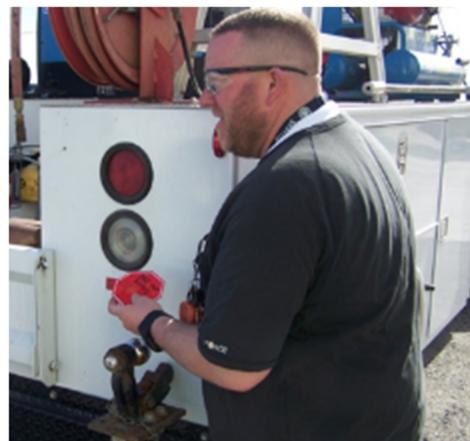
Employees within MSS organizations were strongly engaged in VPP and safety initiatives, such as:

- Scratch Card Campaign. For this campaign, four scratch cards were issued to every employee over a 6 month period. Each of the cards had six questions pertaining to VPP, the SIP, ISMS, and the ‘Walking Through Life’ presentations. Completed cards were reviewed and signed by the employees’ EZAC Chairperson. Employees could redeem a set of four completed cards for a pre-determined campaign item in the Safety Store. Approximately 1,000 sets of cards were redeemed.
- Attending Monday morning back-to-work safety briefings. MSA develops and distributes weekly “Safety Starts” for use and discussion. All employees were expected to attend a back-to-work meeting to discuss a specific safety topic selected to promote safety awareness and encourage employees to refocus their efforts of safety consciousness for the upcoming work week.
- Participating in the “Safety Sleuth” challenge. This activity consisted of a weekly online safety-related quiz. Questions are typically aligned to current safety issues and answers

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found in MSA documents and/or procedures. On average, over 250 employees participate in the “Safety Sleuth” challenge each week.

- Reducing slips, trips and falls by using company-supplied ice and snow foot-traction devices (e.g., Yak Traks and Spare Spikes). Additionally, employees have been encouraged to attend slip simulator training.
- Maintaining over 40 EZACs, led by a volunteer Chair and often a Co-Chair, which are employees of that work group. EZAC meetings are open to all employees of a work group. The Information Management group was reorganized this year, and as a result, three new EZACs were formed, staffed, and trained.
- Attending the monthly EZAC Chair meetings. EZAC Chairpersons and Co-Chairs are invited to attend meetings where roles and responsibilities, lessons learned and general safety information is discussed. Information attained during these meetings can be further distributed throughout individual workgroups. This group has grown in meeting attendance during the past year.
- Including family members in the 2017 safety calendar initiative. Employees were requested to submit drawings of safety activities. Selected drawings were incorporated into a 2017 calendar and distributed to the homes of employees.
- Engaging MSA Leadership at EZAC meetings. MSA vice presidents were regularly on the agenda to discuss their organization, interfaces within MSA and other Hanford contractors, structure and operation of their EZAC(s), their safety statistics, and what safety improvements and initiatives they have undertaken during the past year.
- Presenting safety topics at PZAC and EZAC Chair meetings throughout the year.
- Fleet Maintenance recognized the potential for vehicle accidents and implemented a safety initiative that involved performing a 360° walk-around prior to getting into a government vehicle. With a recent uptick of vehicle accidents at MSA, the Fleet Maintenance Services Zero Accident Council (ZAC) came up with a unique campaign for their group. Reminders were posted on the vehicle windows to help enforce this safety policy. Fleet’s ZAC chairs had magnets made to put on one of Fleet’s vehicles each morning. If the person driving that vehicle that day turns the magnet in to the ZAC chair, he receives a safety token. If the magnet is not turned in, it becomes an opportunity to remind the person of the 360° policy. Using positive reinforcement through a teaching opportunity, the Fleet team hopes to continue to bring more awareness to the 360° walk-around.



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- The director of Environmental Integration Services (EIS) is always keeping an eye out for innovative ways to keep the morale high amongst her staff of 33. She ran across a little bendy, yellow stick figure that reminded her of someone throwing his arms up yelling “YAY!” – hence the “YAY” Award. She thought “the little guy looks like he is screaming ‘YAY,’ and that may be a good, goofy award to pass around to staff.” Each week, the YAY award is passed on (in person) to a new recipient within EIS. A picture and a brief write-up about why the person is receiving the award is sent out to the staff and posted on their bulletin board.



## 9.0 WORK SITE ANALYSIS

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Baseline surveys are updated through annual completion of monthly hazard assessments by S&H staff. Data from individual area hazard assessments is entered into a site wide industrial hygiene database to ensure that baseline information is maintained current to area conditions and/or operations. The baseline hazard assessment is posted for easy access by facility management in establishing hazard control measures for hazards identified.

The Work Management organization has added resources to work planning and control, releasing work documents at least a week prior to scheduling the work. Field work supervisors (FWSs) and workers have time to review and understand the instructions in the work documents.

Several mechanisms for routine hazard assessment continue to be maintained by MSS organizations. The S&H Worker Protection organization performs quarterly site walkthrough inspections and annual hazard assessments, which are used to update the hazard assessment database.

The following are a number of avenues and processes that are available to employees for reporting hazards:

- Management chain-of-command
- Open Door Policy
- HAMTC Safety Representatives
- MSA or MSS Organizations' S&H Professionals
- Safety idea and issues process (safety logs)
- Issue Identification Forms
- “^Ask Bill” email inbox
- Stop Work
- MSA Employee Concerns Program
- DOE Employee Concerns Program

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MSA strongly encourages employees to exercise their right to stop work per the approved Hanford Site Stop Work Procedure. This practice was greatly embraced and is practiced throughout MSS work groups.

Line management is responsible for preparing and investigating all injury case reports with the assistance of Worker Protection safety professionals and HAMTC Safety Representatives.

Individual organizations track occupational injuries, such as first aid, recordable, restricted, and days away from work injury cases, to identify adverse trends. Trend analyses of the cases are used to develop areas for increased awareness activities, for recommended Weekly Safety Start discussions, and to determine where an increased safety and health presence may be appropriate.

Effectiveness of VPP is also demonstrated through trend analysis, which continually evaluates the performance of VPP. Additionally, as employees complete mandatory annual HGET training, an optional VPP perception survey is available to be completed, where the results are captured and monitored.

## 10.0 HAZARD PREVENTION AND CONTROL

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MSS organizations have a broad range of professional expertise, both full-time and contract resources within the support and operations organizations. Continuing professional development is supported to maintain areas of expertise. Currently, Certified Safety Professionals (CSP), and Certified Industrial Hygienists (CIH) are assigned to MSS organizations from the central Worker Protection Organization.

MSS organizations continue to develop controls for hazards in the following order:

- Elimination
- Process *and/or* Material Substitution
- Engineering Controls
- Administrative Controls
- Personal Protective Equipment

Internal lessons learned are discussed at Plan of the Day meetings, Monday morning back-to-work meetings, staff meetings, etc. Lessons learned are also disseminated across operational and support organizations. External lessons learned are regularly received from the DOE OPEXShare (Lessons Learned) system, as well as from outside sources. Both internal lessons learned and key lessons learned from outside MSS organizations were evaluated and discussed at all-hands meetings.

Positive reinforcement is provided through celebrations of achieving organizational performance based incentives, the Safety Recognition and Awareness Program, and site safety goal achievements.

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MSC-POL-11385, *MSA Standards of Conduct*, defines the disciplinary process for employees who do not comply with safety requirements. Subcontractor documents address MSS oversight and requirements when instances of non-compliance are identified. Formal actions taken to enforce subcontractor compliance to MSA safety and health requirements are fully documented.

MSS organizations' equipment is cataloged in an electronic database, and PMs are conducted and tracked on a trending chart which is reviewed monthly by management. Preventive Maintenance is an essential and vital element of the maintenance program and keeps equipment that is essential to the site mission running smoothly to avoid frequent breakdowns and catastrophic failures. No major changes have occurred in the program this past year.

Drills and exercises continue to focus on demonstrating the readiness of Emergency and Protective Force Response Teams. A debriefing follows each drill or exercise to verify that the objectives have been met and to identify issues that need to be addressed. Quarterly emergency exercises have been conducted for personnel who staff the Emergency Operations and Technical Support Centers during emergency events.

The medical monitoring program provides employee pre-employment and termination physicals, and annual assessments as required by job duties. The program continues to be effective by completion of an employee job task analysis (EJTA) that notes tasks or conditions where there is a risk of injury and provides mechanisms for employees to improve their working conditions. The medical monitoring program is managed by HPMC, under a separate contract with DOE-RL.

### Good Practices

Of the 43 Noteworthy and Good Practices identified by the ISMS Surveillance Team, specific 'Good Practices' regarding Hazard Prevention and Control were recognized and reported and included the following:

- The Carpenter Shop recycles all possible wood scrap to help the environment, minimize waste, and reduce potential hazards.
- Crane & Rigging utilized two trained and dedicated power line spotters during all crane movements.
- The Teamsters were observed to excel at planning, organizing, and communicating with other organizations.
- The Move Team worked at a controlled, steady pace and continuously demonstrated a high level of situational awareness.
- Based on feedback and improvement input from the Locksmiths, the Planner revised the MSA Service Catalog Request Form. This resulted in the Locksmiths having an increased awareness of the workplace hazards and a questioning attitude.
- Biological Controls began using their new Miller Nitro sprayer, which allows them to conduct herbicide spraying in huge burial grounds. This new machine allows the crew to work in the hot months and drive over vegetation without the risk of

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touching the vegetation, which is important for fire prevention. Prior to the purchase of the new sprayer, members of the Biological Controls team brought safety concerns to the attention of management regarding the age and reliability of the existing equipment. Upon approval by management, the Biological Control team worked together to find the most appropriate and cost effective sprayer for their needs.

## 11.0 HEALTH AND SAFETY TRAINING

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MSS organizations continue to require employees and subcontractor personnel to complete training requirements commensurate with their positions or work activities and as required by contractual and regulatory requirements. Managers and employees are notified by training coordinators when refresher and requalification training is due. Lessons learned from internal and external events or issues typically provide opportunities to re-evaluate the adequacy of personnel training and are used to improve training packages. When necessary, briefings on specific health and safety concerns are developed and presented to the affected personnel.

Managers and supervisors continue to receive safety, environmental, emergency management, and ISMS training as part of their annual Hanford General Employee Training (HGET). MSA implemented mandatory manager and supervisor training requirements on beryllium work planning and risk communication.

MSS organizations regularly use the “New Employee Orientation Checklist.” The checklist provides an introduction of safety culture, VPP, ISMS, and EZAC structure to new employees and informs them of safety expectations within the company.

## 12.0 AWARDS AND RECOGNITION

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MSS Star Site was the recipient of the DOE VPP Superior Star Award – 2012, 2013, and 2014. Employees within MSS organizations received awards during PZAC meetings. These awards consisted of the following:

- Kathryn Wheeler Safety Leadership Award
- President’s Life Saving Award
- Safety Honor Roll Award
- President’s Safety Team Award
- Best Safety Message at EXPO

Employees within MSS organizations also received various individual and group awards for their safety efforts throughout the year. These awards consisted of the following:

- On-the-Spot awards
- Group safety breakfasts/luncheons (PIPS awards)

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- Participation in the VPP awareness campaigns.
- MSA recognized all employees (2000+) for their efforts in achieving VPP Star Status by distributing an appreciation gift as a thank you for their participation in VPP activities throughout the year
- Honors Night
- L.I.V.E. awards
- S.T.A.R awards

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<b>VPP ANNUAL REPORT SUPPLEMENTAL WORKSHEET</b>					
Review: January 1 - December 31, 2016					
Site Contractor Name/Acronym: Mission Support Services / MSS					
Site Name: Hanford Company President/Manager: Bill Johnson					
Company Address:					
MSA					
PO BOX 650					
Richland, WA 99352					
Injury Incidence/Lost Workdays Case Rate (contractor [participant] employees and staff augments) [NOTE: This information does not include HAMMER or SAS]					
Calendar Year	Hours Worked	TRC Cases	TRC Rate	DART*Cases	DART*Rate
(Year-3) 2014	2,981,889	14	0.94	8	0.54
(Year-2) 2015	2,965,517	9	0.61	7	0.47
(Year-1) 2016	3,137,294	13	0.83	8	0.51
3-Year Total	9,084,700	36	0.79	23	0.51
Injury Incidence/Lost Workdays Case Rate (subcontractors)					
Calendar Year	Hours Worked	TRC Cases	TRC Rate	DART*Cases	DART*Rate
(Year-3) 2014	31,318	0	0.00	0	0.00
(Year-2) 2015	20,155	0	0.00	0	0.00
(Year-1) 2016	43,704	0	0.00	0	0.00
3-Year Total	95,177	0	0.00	0	0.00
Total Contractor & Subcontractors for 3 Years:					
Hours = 9,179,877 TRC Cases = 36 TRC Rate = 0.78 DART Cases = 23 DART Rate = 0.50					
BLS for NAICS** # 561 TRC Rate = 2.30 DART Rate = 1.20					
MSS is at 34% of the NAICS TRC Rate, and at 42% of the NAICS DART Rate					
Number of Contractor Employees: 1750 Number of Subcontractor Employees: Varies					
Union Representative Name: John Jeskey					
Email: John_J_Jeskey@rl.gov Contact # 509-376-1009					
Contractor VPP POC Name: Lanette Adams					
Email: Lanette_K_Adams@rl.gov Contact # 509-373-9669					
DOE VPP POC Name: Larry Yearsley					
Email:Larry.Yearsley@rl.doe.gov Contact # 509-376-5104					
* Days Away, Restricted or Transferred ** North American Industry Classification System					

**Objective**

To monitor the Total Recordable Case (TRC) rate for MSA employees and subcontractors (Note: does not include independent subcontractors)

**Measure**

The TRC is measured in accordance with OSHA guidelines for reporting and calculating. The rate is calculated by multiplying the number of Recordable cases by 200,000 and dividing by the total number of work hours.

**Performance Thresholds**

Adverse	> 1.3
Declining	1.1 - 1.3
Meets	< 1.1

**Performance Data**

	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
Monthly Recordable Cases	3	0	0	2	4	3	2	1	1	0	0	2
Monthly TRC Rate	2.11	0.00	0.00	1.31	2.57	1.94	1.20	0.63	0.49	0.00	0.00	1.11
Performance (3-m Average)	1.13	0.70	0.61	0.40	1.17	1.94	1.88	1.25	0.76	0.37	0.18	0.37
Performance (12-m Average)	0.71	0.70	0.63	0.70	0.85	1.01	1.11	1.10	1.04	0.92	0.80	0.89

**Specific Goal to Achieve**

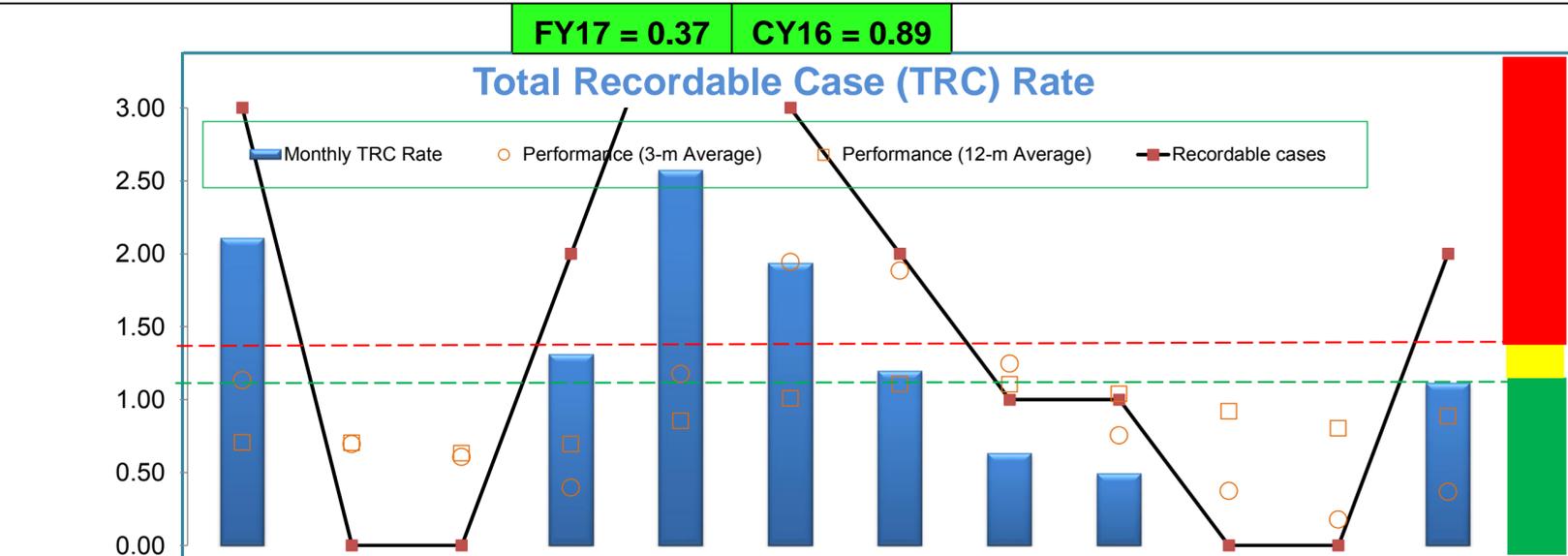
The MSA goal is to "do work safely" and achieve target zero by reducing injuries, accidents and incidents. The DOE-EM goal is to maintain a TRC rate below 1.1.

**Leading Indicator Description**

TRC is a lagging indicator.

**Performance Indicator Information**

PI Owner:	Lanette Adams
Data Analyst:	Ron Wight
Data Source:	MSMET
	MSC-MP-003, Sect. 4.0
Date:	1/11/2017



**Analysis**

During the month of December, there were two injuries classified as "recordable". One employee slipped on ice and hit their head. The other employee stepped onto asphalt and twisted their knee.

2017 FYTD Recordable Cases: 2  
2016 FY Recordable Cases: 20  
2015 FY Recordable cases: 10

Types of injuries MSA has experienced during FY 2017 that were classified as Recordable:

- 1 caused by a slip/trip/fall; 1 caused by body motion
- 2 different body parts have been affected: head; knee

**Action**

Injury Prevention Actions:

- Due to hazardous weather conditions, several work delays were exercised. Therefore, safety meetings have been focusing on safe driving and walking in slippery conditions.
- MSA has concluded a safety awareness campaign that focuses on SIP initiatives, VPP, 10CFR851 and "walking through life" injuries. VPP trimester questions will measure employee knowledge of these focus areas.
- Increased distribution and discussion on safety incidents and Lessons Learned at PZAC/EZAC meetings, as applicable..
- Recent Back-to-Work meetings have discussed the following safety topics: health & wellness - winter eye protection; cold, snow and ice hazards; and, potential carbon monoxide poisoning

**Additional Info**

None

## Driving and Working in High Wind Conditions

*Bad hair day? Don't let the wind ruin more than just your hair.*

**High winds can adversely affect your safety. When working or driving in windy conditions, use extra caution in order to safely reach your destination.**



### Driving in High Winds

- Watch for blowing debris and sudden reductions in visibility caused by blowing dust.
- Do not over steer your vehicle to avoid tumbleweeds and other blowing debris.
- Be prepared to change your steering if wind speeds change velocity or direction.
- Reduce speed to minimize the wind's effect on your vehicle and when you are approaching larger vehicles in an adjacent lane.
- Center your vehicle in a parking spot or park away from other vehicles to reduce the chance of the door coming in contact with other vehicles.
- Park facing into the wind but remain alert in case the wind causes the door to suddenly jerk causing 'strike against' or strain-type injuries.
- Monitor local weather broadcasts for adverse weather conditions and special advisories.

### Working in High Winds

Blowing dust increases the potential for eye injuries from airborne dust, dirt and other particles.

- **Wear goggles for the best protection.**

High winds can cause material to become airborne, placing people at risk of being struck by flying objects.

- **Remain on the lookout for hazards and report them promptly to your manager or supervisor.**

Work activities performed at above-ground elevations may pose unstable working conditions.

- **Ensure stable footing and be aware of changing conditions and surroundings.**

## Supervisor Briefing Points

High winds are defined as sustained winds of 25 mph or greater.

The Columbia Basin is prone to high winds. It is not uncommon to have wind gusts of 30-40 miles per hour. Workers on the Hanford Site should use extreme caution during windy conditions.

- Blowing dust and materials can pose a sudden threat to those on the road and around job sites.
- Workers should remain on the lookout for hazards created by high winds and promptly report them to management so they are quickly addressed.
- Individuals operating high-profile vehicles and equipment-in-tow should exercise extreme caution. Strong winds can affect the weight and configuration of these vehicles, posing a hazard to the operator and others nearby.

Implement safe work measures when high wind conditions are reported or detected. For more information, please review:

MSC-PRO-WP-28034, *Adverse Weather*.



## Ask yourself the following:

- ✓ Do I know what hazards are
- ✓ Do I know how to access weather advisory information?
- ✓ Do I know how to protect myself against blowing dust?
- ✓ Do I know what to do if I am caught in a dust storm or high winds?

## EMS TIP:

***An environmental aspect associated with Hanford work is dust creation. Washington state law requires that we take reasonable precautions to prevent fugitive dust from becoming airborne and to minimize dust generation. Activities involving soil disturbance must utilize dust suppression as necessary.***



CORE FUNCTION: 2  
*Identify & Analyze Hazards*



# Weekly Safety Start



## Safety Improvement Plan

Safety Improvement Plans (SIP) are a requirement of the Voluntary Protection Program and an important tool to use as we continue to improve our workplace safety.

### Who do Safety Improvement Plans apply to?

Every MSA and subcontractor employee.

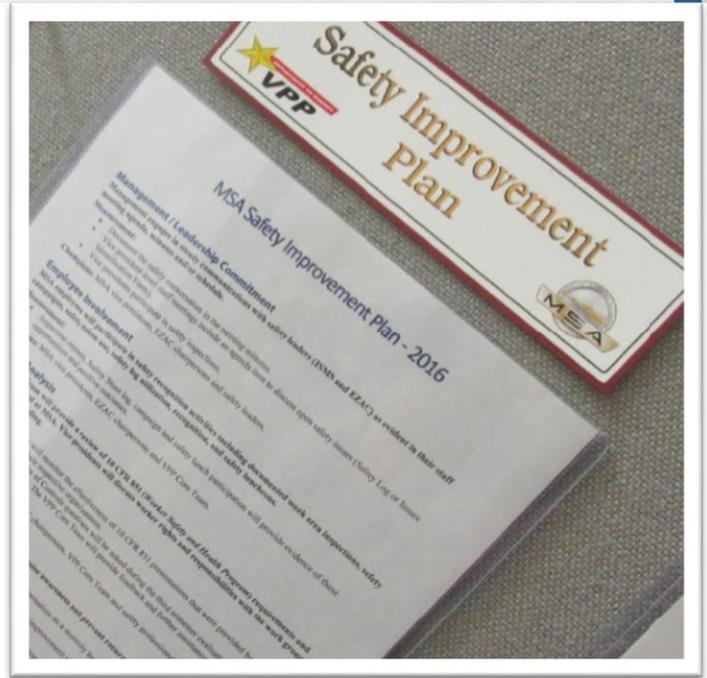
### How are the goals established?

Annually, information is gathered from assessments, events, injuries, inspections, etc. This information is then used by EZAC chairs and management to determine specific actions MSA can take over the next year that will assist in achieving fewer accidents and injuries.

### The Voluntary Program Participants (VPP) handbook states:

- Participants are expected to be on the leading edge of hazard prevention technology.
- Participants are expected to exceed 10 CFR 851 requirements and industry safety and health standards and **work for continuous improvement.**
- Star sites must provide an annual report with recommendations for improvement and documented follow up.

The VPP program is a living, continuous improvement program.



**Shurlee Be Safe says...**

*“Keep a copy of your Safety Improvement Plan visible in your work place.”*



## Supervisor Briefing Points

Every MSA employee has a SIP — one that is either tailored to their own work group, or one that is general to MSA. Below are a few of the items listed in the *2016 MSA Safety Improvement Plan*:

- Management engages in steady communications with safety leaders (ISMS and EZAC) as evident in their staff meeting agenda, minutes and/or schedule.
- MSA employees will participate in safety recognition activities including documented work area inspections, safety campaigns, safety token use, safety log utilization, recognition and safety luncheons.
- The VPP Core Team will provide a review of 10 CFR 851 (*Worker Safety and Health Program*) requirements and how they are applied at MSA. Vice presidents will discuss worker rights and responsibilities with the work groups to improve understanding.
- MSA will review injuries and injury trends to raise awareness and prevent recurrence of similar injuries.
- The *Walking Through Life* campaign promotes hazard identification and awareness. MSA will provide the tools for implementing the *Walking Through Life* campaign.

All SIPs can be found on MSA's VPP Web page or at the following link:

<http://msc.ms.rl.gov/ims/page.cfm/VPP/ContinuousImprovement>

## Ask yourself the following:

- ✓ Am I aware of the goals and objectives included in my SIP?
- ✓ Do I know where to locate my SIP?
- ✓ Do I and others in my work group discuss our efforts regarding our SIP?
- ✓ Is my work group making progress on our SIP?

## EMS TIP:

**Consider the environment in everything you do.**

At work, think about opportunities to reuse products after the initial use. Recycle as many materials from a job as possible. At home, conserve energy by turning off lights and appliances when not in use.



**CORE FUNCTION: 5**  
*Feedback & Continuous Improvement*

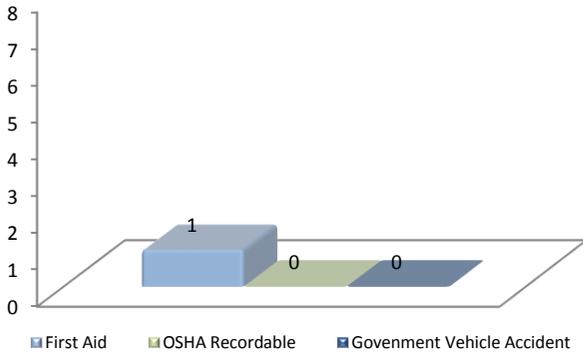


# ES&H - Summary Safety Charts

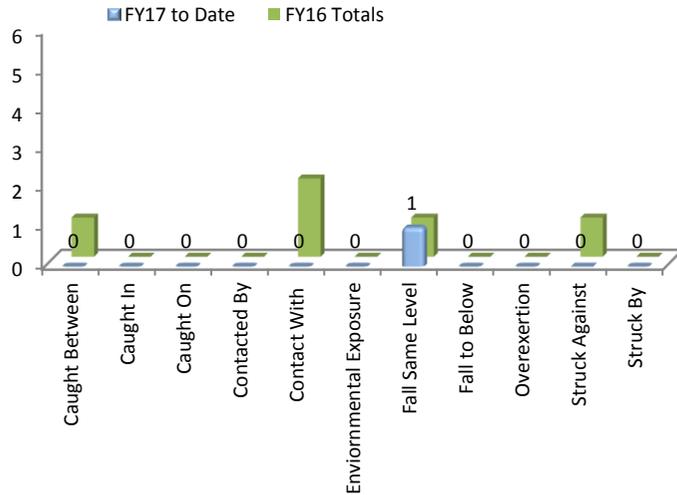
MSC TRC Rate through 12/31/2016      FY17 = 0.37      CY16 = 0.89

	Fiscal Year					Calendar Year
	Work Related First Aids	Recordable Injuries	DART	Vehicle Accidents	Recordable Injury Rate	Recordable Injury Rate
2013	na	na	na	na	na	na
2014 (from March)	9	1	0	0	0.72	0.72
FY2015 (ESH&T)	6	1	0	0	0.53	1.22
<b>Fy 2016 (ES&amp;H)</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0.58</b>	<b>0</b>
<b>FY 2017 to Date</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>
Current Month (December)	1	0	0	0	0	0
December 2015	0	0	0	0		

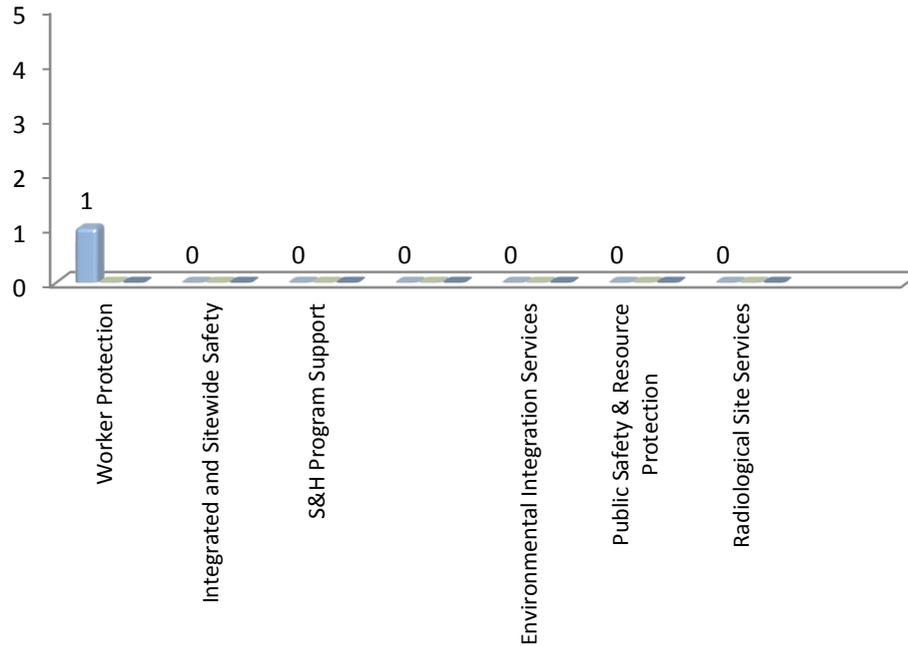
**Event Type**



**Injury Source**



**Events by Work Group**



Legend: First Aid (blue), OSHA Recordable (green), Government Vehicle Accident (dark blue)

Current as of: Wednesday, January 25, 2017

## Walking Through Life Series...

'Sharks' are unpredictable hazards that may wait, lurk and strike in any situation, even when someone is least expecting it.

### "Environmental Exposure" Injuries

The next 'shark' we need to learn to avoid as we walk through life is *environmental exposure* injuries.

**Environmental exposures** involve exposure to radiation, fumes, gases, mists, dusts, temperature extremes, oxygen deficiency and noise. These exposures do not include direct contact with liquid chemicals. Exposures can come from (but aren't limited to) welding fumes, carbon monoxide gas, paint thinner vapors, asbestos, working in the heat/cold or exposure to ionizing radiation.

#### Specific examples include:

- A forklift operator driving a propane-powered machine develops a severe headache and a feeling of nausea. It is discovered that his forklift was emitting high levels of carbon monoxide and he had been affected by the gas.



- A worker conducting environmental remediation work becomes ill after wearing Level B personal protective equipment (PPE) for 35 minutes. The temperature is 85 degrees F.



### Environmental Exposure Hazard?

At home, a worker thinks it may be a good idea to mix cleaning chemicals to get the best component from each.

#### Could this be a problem?



## Supervisor Briefing Points

### Preventive Measures for *Environmental Exposure Injuries*

- Use engineering controls to minimize exposure to harmful chemicals, dust, fumes, etc.
- Understand the hazards of the chemicals you use by reading the MSDS/SDS, and using the proper PPE.
- Isolate and separate chemicals to prevent reactions. Store chemicals and evaluate them the manufacturer's recommendations.
- Substitute harmful chemicals with safer chemicals, where possible.
- Use signs and warnings to instruct and guide workers.
- Contact an industrial hygienist or safety professional to perform air and/or noise monitoring.

Do you see any potential concerns with the work going on in the photo below?



## Ask yourself the following:

- ✓ Do I know what potential **environmental exposures** I face at work or home?
- ✓ Do I look for **environmental exposures** that others may face throughout the day?
- ✓ Do I know how to control **environmental exposures**?

## EMS TIP:

The potential for environmental exposure to chemicals can be reduced by replacing toxic and hazardous materials with non-hazardous materials.



CORE FUNCTION: 3  
*Hazard Prevention & Control*



December 16, 2016

Mr. Rocky J. Simmons  
Special Government Employee  
Mission Support Alliance - HAMTC  
Post Office Box 650  
Richland, Washington 99352

Dear Mr. Simmons:

I want to express my sincere gratitude to you and to Mission Support Alliance for your support of the Voluntary Protection Program (VPP) and the Special Government Employee (SGE) program. You participated in OSHA Region VIII's on-site VPP evaluation at Hunter Douglas Window Fashions in Broomfield, Colorado in August 2016. I especially want to recognize your efforts during this comprehensive evaluation.

According to Brad Baptiste, Regional VPP Manager, you were an excellent addition to the team. He was very impressed with your assessment of the employer's worksite analysis program. Mr. Baptiste also appreciated your hazard identification skills during the site visit. He indicated you have a very detailed understanding of the OSHA VPP model, and he applauded your ability to identify opportunities for improvement at the site. You proved to be an excellent auditor and we are looking forward to working with you again in the future.

Your experience working in a VPP-level organization was also very helpful on this audit. Your fellow audit team members were highly complimentary of your overall efforts, professionalism, knowledge, and pleasant demeanor. You were truly a "value-added" member of the team. With employees of such high quality, it is easy to understand why Mission Support Alliance is a recognized leader in employee safety and health.

I thank you again for your support and eagerly look forward to future opportunities to work together to improve employee safety and health.

Sincerely,

Gregory J. Baxter  
Regional Administrator, VIII