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ATTACHMENT

2018 VOLUNTARY PROTECTION PROGRAM ANNUAL REPORT

Consisting of 111 pages,
including this cover page



DEPARTMENT OF ENERGY
MISSION SUPPORT CONTRACT
MISSION SUPPORT ALLIANCE
2018 VOLUNTARY PROTECTION
PROGRAM ANNUAL SELF-ASSESSMENT



1.0 SUMMARY

Mission Support Alliance (MSA) maintains three Department of Energy (DOE) Voluntary Protection Program (VPP) Stars: the Volpentest Hazardous Materials Management and Emergency Response (HAMMER) Federal Training Center, Safeguards and Security (SAS), and Mission Support Services (MSS). The 2018 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. Safety data for this report was collected from multiple sources that were monitored throughout the year. Data sources include results from Integrated Safety Management System (ISMS) Surveillance Team field observations, internal management assessments, and the Hanford General Employee Training (HGET) voluntary survey. During 2018, trimester VPP reviews were conducted, providing additional information for this report while continuously monitoring the health of VPP implementation and progress of improvements. This allows workers and managers to respond to changes within the work environment and the dynamic influences of ever-changing resources and challenges.

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

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 through meetings, safety logs, interviews, and surveys
- Issues management

- Operating Experience/Lessons Learned
- Performance measures

MSA utilizes a comprehensive contractor assurance system (CAS) that monitors areas of performance metrics 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 taken to maintain or achieve long-term performance objectives. MSA committed to and completed actions for the FY 2018 ISMS performance objectives, measures and commitments (POMCs), which are specific objectives/goals and commitments for key improvement initiatives and safety performance metrics directly supporting continuous safety improvements.

During 2018, MSA implemented the MSA Assurance Program (MAP), which is a tool for reporting CAS metrics and results to the MSA Executive Safety Review Board (ESRB) monthly and to the DOE-Richland Operations Office (DOE-RL) quarterly. MAP integrates the organization's performance processes and business practices, presenting a clear and objective view of MSA's achievement toward key deliverables and goals while facilitating informed decision making and driving continuous performance improvement. For any adverse incidents/trends or predicted areas of risk, corrective actions were developed, tracked to closure, and evaluated for effectiveness. MAP dashboards are not restricted access; metric status may be viewed by everyone with Hanford Local Area Network (HLAN) access.

SAFETY & HEALTH IMPROVEMENT PLAN (SIP)

In pursuit of 2018 MSA safety goals of zero accidents and injuries, and continuous improvement objectives, MSA developed and approved a 2018 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 in the VPP tenets to ensure the greatest impact for improving employee safety and creating safe work environments.

During 2018, progress toward meeting these continuous improvement actions was monitored monthly within individual MSA organizations and reported at company-level safety meetings. At the end of 2018, a summary report of the completed actions is reported in this VPP Annual Report to DOE as documentation of MSA's pursuit of performing work safely while providing a safe work environment through continuous improvement activities.

The 2018 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. However, 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, either

electronically or hard copy, posted on safety bulletin boards, and located on the VPP webpage.

Goals and measurements defined in the MSA 2018 SIP are listed below. Year-end status is discussed in individual annual reports for the 3 STAR Sites (Appendices A, B, and C), as applicable.

MANAGEMENT/LEADERSHIP COMMITMENT

Goal: Improve feedback on safety items through periodic communications with safety leaders.

- Action: Schedule management for safety meetings and work group activities and include on meeting agenda for discussion on safety log, safety inspections, safety campaigns, and vehicle safety.

Goal: Improve mitigation of hazards in the work area, office environment and utility vehicles.

- Action: Implement a monthly management walk-through schedule dedicated for observation of work spaces and vehicle operation and one on one interaction with assigned workers

Measurement:

- Document safety conversations, inspections, and safety log activities in the meeting minutes.
- Vice president-level staff meetings include an agenda item to discuss open safety issues and housekeeping status (Safety Log or Issues Identification Form).
- Inspection reports that indicate vice president's participation

Champions: MSA Vice Presidents, EZAC Chairpersons, Safety Leaders

EMPLOYEE INVOLVEMENT

Goal: Improve work area conditions by documentation of inspections. Increase employee participation by incorporating effective housekeeping practices as an ongoing operation.

- Action: Work with management to ensure cleaning and organizing is done on a regular basis by integrating housekeeping into daily activities.
- Action: Frequently inspect work areas to identify deficiencies that can be corrected and eliminate the hazard

Measurement:

- Inspection reports, safety log entries, inspection and housekeeping checklists, meeting minutes and emails will provide evidence of participation for these opportunities and positive outcomes.
- Communications and Monday morning Safety Starts that provide guidance and support for this action

Champions: MSA President, Vice Presidents, MSA Leadership, Safety Professionals, Bargaining Unit Safety Representatives, VPP Core Team

WORKSITE ANALYSIS

Goal: Improve overall understanding of implementation of MSC-OTHER-SP-1200369, MSA General Hazard Analysis (GHA), Craft Specific Hazard Analysis (CSHA) and Chemical Use Attachment (CUA) information.

- Action: The VPP Core Team will lead an effort to increase the knowledge of the entire hazards analysis process to include review of the GHA, CSHA and CUA's that can be shared at ZAC safety meetings and field meetings with the assistance of safety professionals who can offer practical application at the work locations.
- Action: MSA and the Hanford Site Traffic Committee will lead an effort to work toward long term sustainable improvements to site vehicle safety behaviors, education and enforcement.

Measurement:

- Required reading, EZAC meeting minutes and meeting attendance rosters.
- Third trimester interview questions that evaluate knowledge and understanding of GHA, CSHA and CUA's.
- Document MSA injury analysis' and actions.
- Develop Site Master Driving Rules, Vehicle Safety Observation worksheet and employee self-awareness driving test.

Champions: MSA Vice Presidents, VPP Core Team, EZAC Chairpersons, Safety Professionals

HAZARD PREVENTION AND CONTROL

Goal: Continue to improve knowledge and implementation of Hierarchy of Controls (HOC)

- Action: Display posters, distribute two Weekly Safety Starts, and provide HOCs as safety topics at ZAC meetings.

Goal: Improve focus on and resolution time for safety issues

- Action: Maintain strong safety log use, review and follow up on safety log entries and reduce closure time of issues.

Measurement:

- EZAC meeting minutes and meeting attendance rosters.
- Third trimester interview questions that evaluate knowledge and understanding of HOC
- Measure number of safety log entries and total time to close the issues.

Champions: MSA Vice Presidents, VPP Core Team, EZAC Chairpersons, Safety Professionals

SAFETY AND HEALTH TRAINING

Goal: Continue to increase employee awareness of the safety inspection process to improve attention to hazard identification and mitigation.

- Action: Encourage MSA employees to complete the MSA Safety Inspection Training Overview and Phase II Safety Inspection Modules.
- Action: Incorporate training modules into one Weekly Safety Start per month.

Goal: Continue to increase employee awareness of the Voluntary Protection Program through training opportunities and potential VPP outreach activities.

- Action: Encourage MSA employee participation in local and regional VPP related educational opportunities.
- Action: Incorporate VPP related training into periodic Weekly Safety Starts to keep VPP fresh.

Measurement:

- Safety inspection reports, EZAC meeting minutes and meeting attendance rosters.
- Third trimester interview questions that evaluate knowledge and understanding of Safety Inspections.

Champions: MSA Vice Presidents, VPP Core Team, EZAC Chairpersons

IMPLEMENTATION OF IMPROVEMENTS

Improvements of the SIP made 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 VPs

during VPP assessment debriefs, reported at both PZAC and EZAC meetings, and distributed via Weekly Safety Starts. All information was accessible to employees on the VPP website. A summary of actions supporting the MSA SIP are as follows:

Management Leadership – Management:

- Attended/participated in safety meetings
- Routinely reviewed safety log and action items
- Maintained communication with employees through EZAC, Email, Daily Ops publications
- Maintained strong attendance at safety lunches and EZAC activities
- Provided safety topics at meetings and encouraged open communication
- Provided weekly situational awareness email, as applicable
- Led Monday morning back to work safety briefings
- Participated in quarterly facility safety inspections
- Provided feedback and input on safety issues

Employee Involvement – Employees:

- Completed monthly inspection modules
- Focused on performing inspections and raising safety concerns
- Attended VPP Region X and National Safety Symposiums
- Supported 2018 Safety Connect Health & Safety Exposition (EXPO)
- Discussed safety log items
- Presented safety topics at various meetings
- Attended safety lunches
- Reviewed EJTA and performed worksite analysis
- Integrated housekeeping into Plan of the Week
- Attended specialized safety training

Worksite Analysis – MSA Organizations:

- Incorporated trivia questions in meetings about hazard analysis
- Reviewed trimester results and discussed acronyms and analysis tools
- Focused on performing vehicle pre-operational checks and driver awareness campaign
- Performed annual injury review for trends and opportunities for improvement (OFIs)
- Enlisted safety professionals to provide a detailed review and Q & A of GHA and CSHA process
- Discussed MSA incidents and injuries weekly at Safety Start briefings

Hazard Prevention and Control – MSA Organizations:

- Incorporated HOC into a trivia activity at meetings and handed out safety tokens for correct responses
- Discussed safety log items to determine resolution

- Focused effort to discuss HOCs and how they integrate into work activities and at home
- Focused and discussed HOCs including review of HOC poster
- Randomly conducted HOC discussions and questions at Weekly Safety Start briefings with tokens for participation
- Displayed HOC poster around facility

Safety and Health Training – MSA Organizations:

- Incorporated S&H inspection modules into EZAC meetings
- Completed VPP orientation for new employees
- Completed review of SIP and associated SIP actions
- Posted PZAC/EZAC meeting minutes on safety boards throughout MSA facilities

VPP FOCUSED PROGRAMS AND INITIATIVES

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

The ISMS Surveillance Team continued to monitor safety culture through their assessment strategy of document review, meeting attendance, field-work activity observations, and work team interviews. The schedule for the Team's field observations aligned with MSA's 2018 ISMS POMCs and emphasized work planning and control (WPC), execution, and safety practices. Additionally, the team reviewed and assessed work areas according to results of previous observations to measure improvements. During each surveillance, the Team provided immediate feedback to workers and supervisors/managers relative to identified observations and/or opportunities for improvement. The affected personnel within the organization were provided a detailed outbrief of each field observation, along with a final report. Each report was entered into the MSA Integrated Document Management System (IDMS) in accordance with document-control requirements.

The percentages of Noteworthy Practices (NP), Good Practices (GP) and Findings (FIND) were relatively equivalent from year to year (Figure 1). The percentage of satisfactory elements identified in FY 2018 did increase from FY 2017, and the percentage of OFIs identified in FY 2018 did decrease from FY 2017. However, the Team does not consider this minor shift to represent a significant improvement or decline in safety performance across the organization.

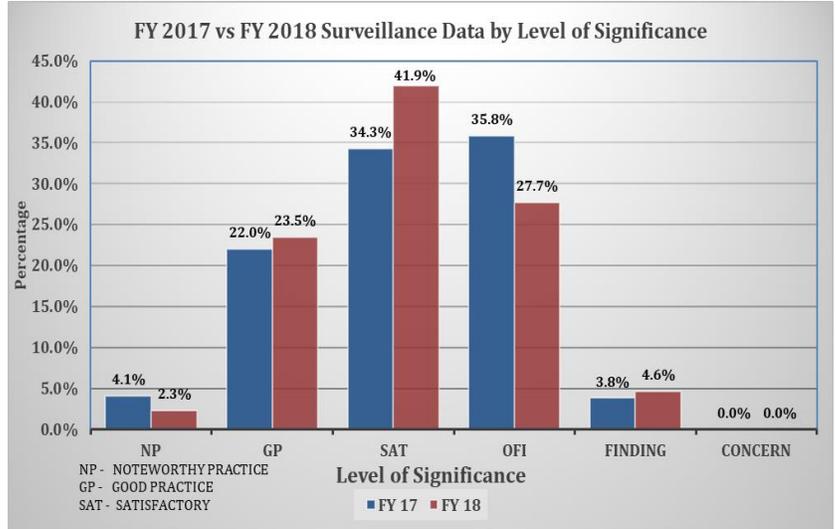


Figure 1. Surveillance Data

2018 Vehicle Safety Awareness Campaign

MSA conducted a vehicle safety awareness campaign to address the growing concern of government vehicle incidents as well as the increased reports of poor driving skills during the Hanford commute. MSA employees were challenged to complete the “What Kind of Driver are You?” survey. The goal was to increase individual self-awareness of driving behaviors in an effort for self-improvement. The increase in awareness supported a continued downward trend in onsite MSA vehicle incidents.

2018 Safety Inspection Module Campaign

In 2016, an independent VPP review identified weaknesses in the work area inspection process, consistency, and documentation. To address these, MSA developed 20 safety inspection modules that provided information to improve knowledge of MSA personnel conducting inspections. The first module was distributed in early 2017. Each month a new subject area (module) continued to build on the previous module. The final module was distributed in December 2018. To wrap up the improvement actions, MSA developed a campaign to engage personnel knowledge, complete a workplace inspection, and provide recognition of their efforts. This campaign was initiated in November 2018 and will continue into January 2019. Initial participation rates are encouraging.

Work Planning and Control (WPC) Program Improvements

Efforts to improve the WPC processes continued through the year. Based on the success of the previous year’s WPC improvements, efforts focused on refining processes that directly influence WPC efficiency and consistency. In-field reviews and observations concluded that the majority of pre-job briefings were well conducted. No issues or concerns were identified.

VPP evaluations, interviews, and meetings with bargaining unit personnel indicated that WPC processes have generally improved. However, inconsistencies in the post-job review process were identified, as well as inefficiencies in ensuring the corrections and comments added to the work package in the post-job review process are included in future work packages in a timely manner. MSA developed a 2019 ISMS POMC to focus on this area.

Safety Culture Improvement and Monitoring

In FY2018, MSA has continued to sustain and improve safety culture through surveys, self-assessments, VPP and specific leading indicator data review, and an EA-10 review of safety culture implementation. Based on the review results, MSA recognized positive safety practices and responded to negative trends through communicating with key organizational personnel, implementing safety topics, and deploying other mechanisms, such as Weekly Safety Starts, bulletins and communications designed to address these trends. Some of the ongoing data collection included:

- Continuous review and analysis of feedback information received from employees of safety culture questions included in the annual Hanford/MSA General Employee Training (HGET/MGET) survey.
- Analysis of MSA employee input derived from VPP trimester assessments, with discussions of results with individual MSA organizations.
- Field information/feedback received from continued ISMS Surveillance Team mentoring and analysis activities.

Figures 2 and 3 below show, over a period of time, improved employee willingness to report injuries. Even though the reports of injuries and first aid cases have continued to increase over the past few years of reporting, the rates of significant injuries (TRC/DART) have declined, which indicate a positive safety culture. These data suggest that MSA employees feel free to report safety incidents without fear of retaliation.

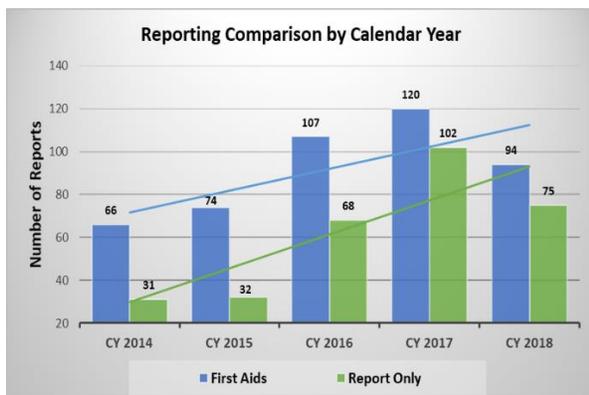


Figure 2. Reporting Comparison

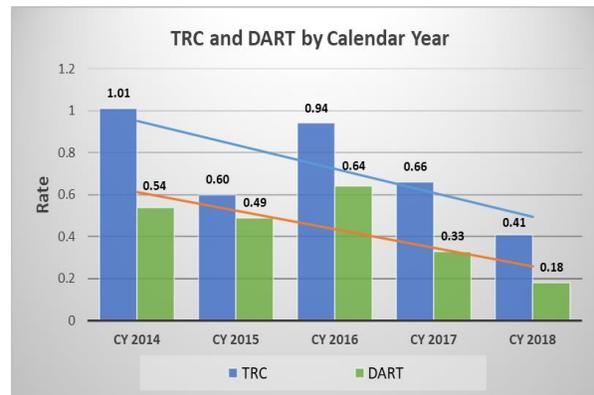


Figure 3. TRC and DART

MSA monitors metrics that demonstrate the culture of safe behaviors throughout the company and provide leading indicators of a healthy MSA safety culture.

MSA collects safety culture data through data points drawn through two different processes: (1) a voluntary annual VPP survey available to all employees at the conclusion of HGET/MGET training; and (2) a review of VPP trimester interview responses to questions that are binned to safety culture attributes.

The VPP survey consists of 17 questions that have been binned to the three safety culture focus areas, as applicable, shown in Figure 4. During the past three years, voluntary participation has steadily increased, which is a positive indicator.

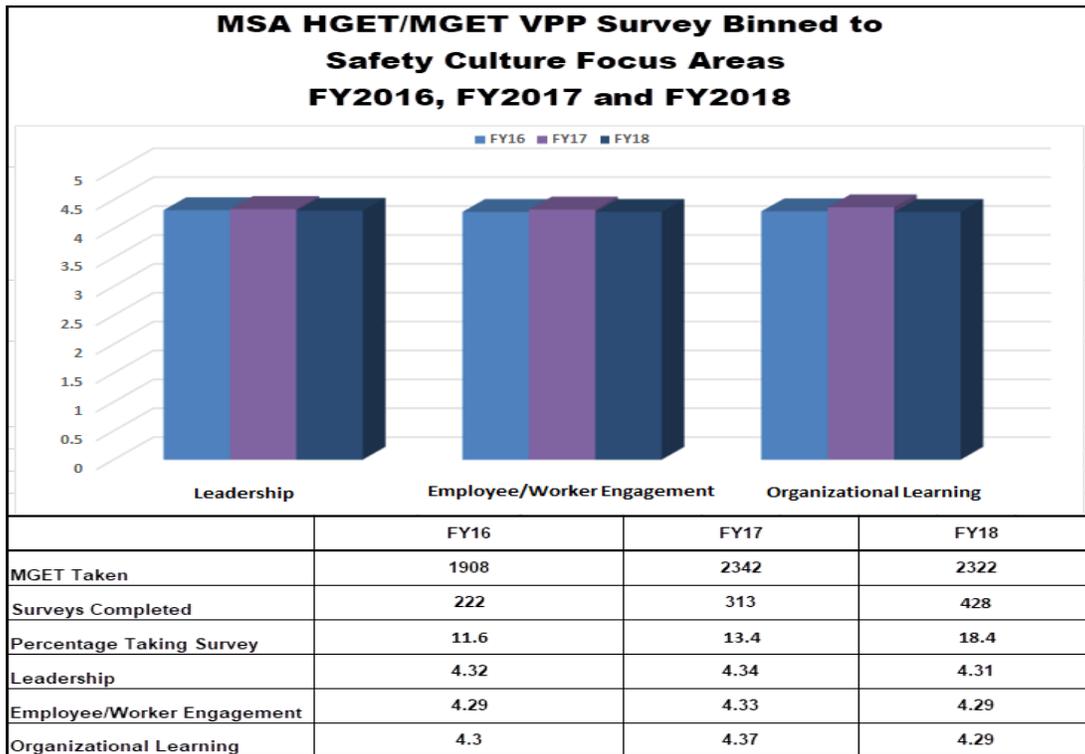


Figure 4. HGET/MGET VPP Survey Binned to Safety Culture Focus Areas

During 2018, over 600 employees provided feedback through the VPP trimester interview process. Each response was reviewed and scored by a selected panel of safety personnel to ensure consistency in scoring the responses. The interview questions were categorized into the safety culture attributes and then averaged on the following 1 to 5 scale, as shown in Figure 5.

- 5 - Highly Demonstrated
- 4 - Demonstrated
- 3 - Moderate
- 2 - Needs Improvement
- 1 - Needs Significant Improvement

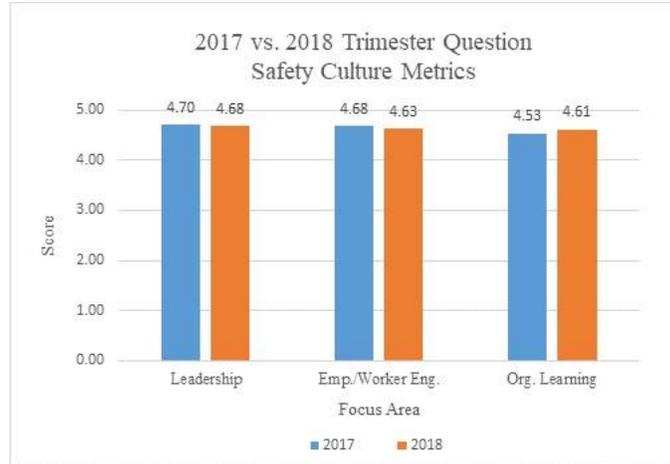


Figure 5. VPP Trimester Results Binned to Safety Culture Focus Areas

The scores for Leadership and Organizational Learning are remarkably consistent between FY 2017 and FY 2018, as shown in Figure 6.



Figure 6. ISMS Surveillance Team Observations Binned to Safety Culture Focus Areas

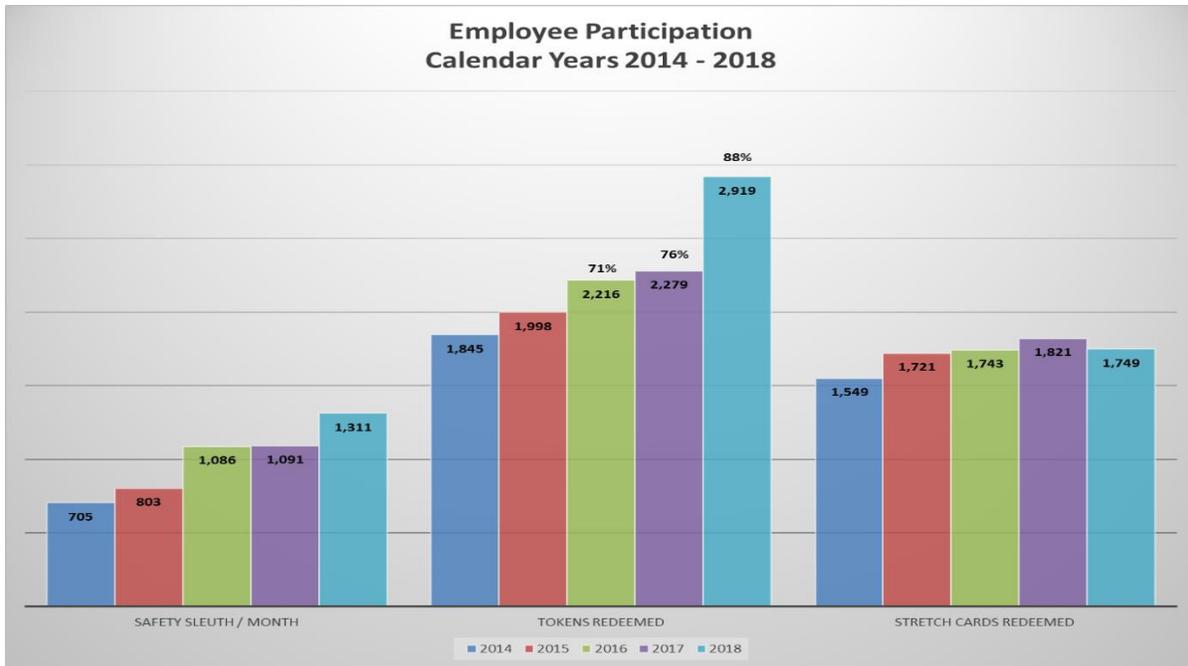


Figure 7. Trend of Employee Participation by Type of Involvement Opportunity

Voluntary participation rates are another indicator of safety culture health. In each of the previous years, MSA has provided employees many opportunities to be involved with safety, including safety recognition, safety challenges and campaigns, stretching programs, and safety log usage. Figure 7 shows the continual upward trend of participation, grouped by types of opportunity for involvement.

As mentioned earlier, voluntary participation in these activities is a positive safety culture attribute. In addition to the increases seen above in Figure 7, MSA has experienced continual participation for safety log use, as shown in Figure 8.

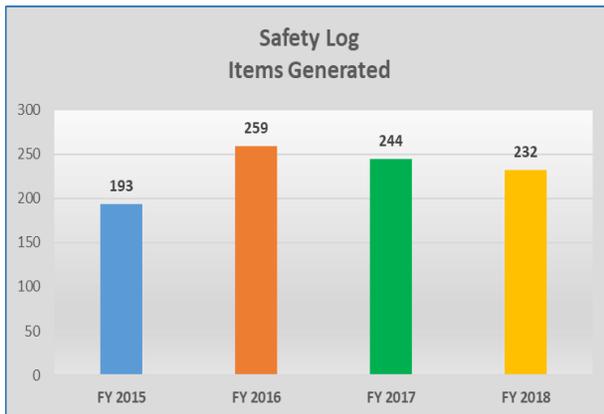


Figure 8. Safety Log Items Generated

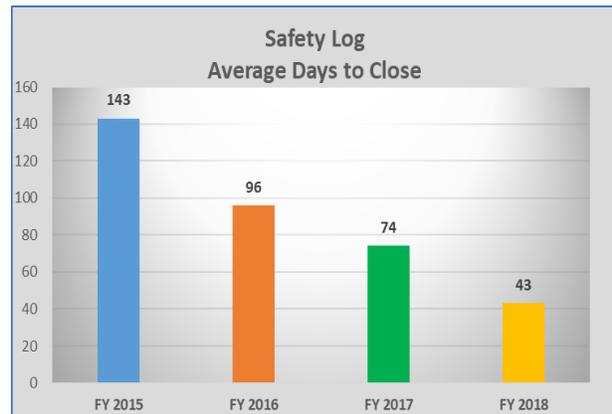


Figure 9. MSA Safety Log Completion

Safety log entries for the past two years have been slightly decreasing. This decrease coincides with the implementation of the safety inspection modules. The modules are

designed to provide information necessary to perform knowledgeable inspections while increasing consistency in performance. Implementing the modules has resulted in a succinct inspection process, providing self-correction and possibly reducing the need for entry into the safety log. During the period, the priority to address and correct safety log items continues to improve, indicated by the reduced length of time from identification to correction, as shown in Figure 9.

Management and Employee Partnership and Communication

MSA senior management commitment strengthened and matured while reinforcing the partnership with employees. MSA leadership continued to address 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

Listed below are a few 2018 highlights that were recognized at the company level:

- 61 good practices in 5 work process categories and 6 noteworthy practices were identified by the MSA ISMS Surveillance Team, based on planning stage reviews and work observations in the field
- SIPs were developed based on results of the previous year and worked through by workgroups
- MSA President's Office, bargaining unit safety representatives, and VPs (with their organizational safety team) received briefings on their trimester VPP evaluations
- 232 safety log entries were recorded and addressed throughout MSA locations
- Closing a safety log issue took an average of 43 days
- 763 safety inspections were conducted throughout MSA work locations (Figure 10)

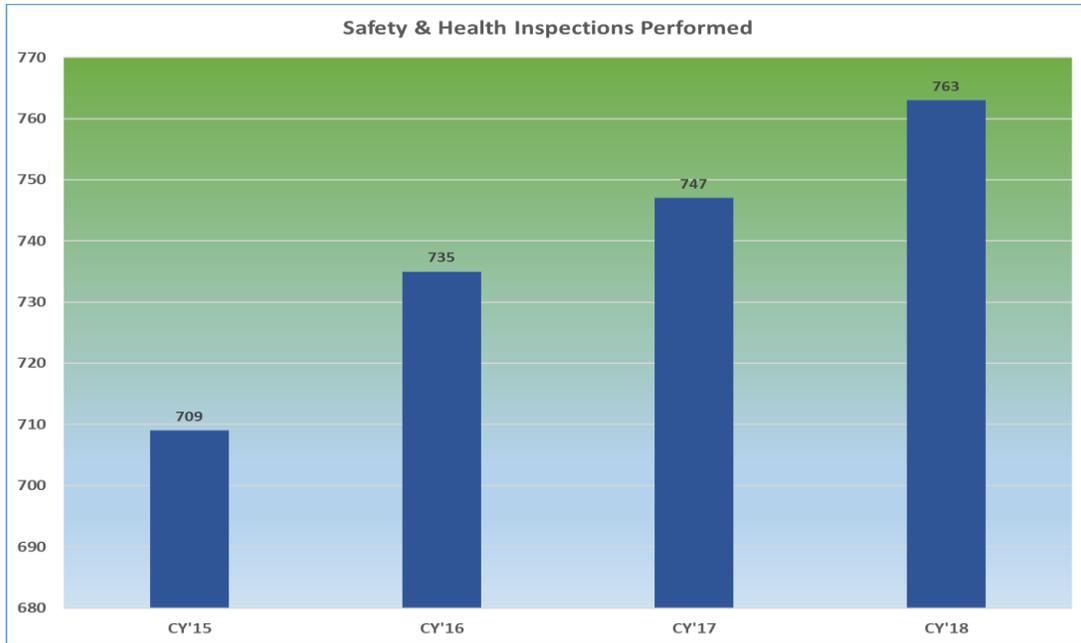


Figure 10. MSA Safety & Health Inspections, 4 -Year Performance

4.0 VPP APPLICATION

No changes or work scope revisions within MSA required revision to existing VPP Applications.

5.0 MENTORING AND OUTREACH

MSA management participated in and/or supported employee involvement in mentoring and outreach throughout the year.

MSA CARES

MSA was committed to being a good corporate citizen by supporting the Tri-Cities and surrounding region in which our employees live and work. Employees were encouraged to provide support to local causes through donations of their time or fundraising efforts. Events and activities supported by MSA Cares aligned with organizations supported by our corporate giving, those listed in the Volunteerism Policy, or those that receive approval from MSA Cares staff and executive leadership. Corporate giving was focused on the following areas: education and leadership for youth, economic development, and local quality of life.



MSA MADE YEAR-END DONATIONS TO NON-PROFITS

MSA proudly announced a series of year-end charitable contributions in support of the Tri-Cities community. MSA and parent companies, Leidos and Centerra Group, donated \$32,000 to nine organizations in December as part of our year-end giving. Additionally, donations were made to Habitat for Humanity, Domestic Violence Services and the Tri-City Union Gospel Mission.



MSA also gave employees the opportunity to direct donations through their 30 Days of Caring Program. Through this program, MSA Cares donated \$4,000 to 23 non-profit organizations selected by employees.

New Center Opened for Hanford Employees, Current and Former

The Hanford Workforce Engagement Center (HWEC) opened its doors in April 2018. The center assists current and former Hanford employees and their families navigating questions or concerns about occupational health issues. The employees at the HWEC assist with questions related to the following programs:

- Beryllium sensitization or Chronic Beryllium Disease
- State of Washington Workers' Compensation Program
- DOE's third party administration for the Worker's Compensation Program
- Energy Employees Occupational Illness Compensation Program Act (EEOICPA)
- Former workers medical screening
- Hanford contractor specific programs



Cancer Crushing Fundraising Breakfast



The Tri-Cities Cancer Center held their 18th annual Cancer Crushing Breakfast. This event is an opportunity to learn how the Foundation has expanded partnerships that help improve community health and breakthroughs in their services that are making a difference for the Tri Cities. This year's breakfast set a record high for

attendance and money raised. Fifty MSA employees helped raise \$110,421.

- **Hanford Site VPP Champions Committee**—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 safety and health, 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.

- **Habitat for Humanity**—Several MSA employees spent a number of days last year giving back by volunteering with Habitat for Humanity. Employees laid sod and painted the interior of a home that was dedicated to the family the next day.



- **2018 Safety Connect Health & Safety EXPO**—MSA led a multi-contractor team in the the planning and execution of the 2018 Safety Connect Health & Safety EXPO. Hanford workers, local community and school children experienced the science of safety, saw first responders in action and interacted with many exhibits at this year's EXPO. The



two-day event featured more than 95 displays promoting health and safety both at home and at work, as well as science,

technology, engineering and math (STEM) learning activities. One of the main attractions this year was a walking and

texting maze which demonstrated the risk of distracted walking. Chemistry and physics experiments were



performed by the Oregon Museum of Science and Industry,. Other activities included demonstrations of Hanford’s K-9 program, arc flash demonstrations, a simulated vehicle accident, and a radioactive material shipping and transportation scenario. MSA was recognized for having the “best corporate presence” by the Safety Connect Health & Safety EXPO Committee.

- **Special Government Employees (SGEs) Program**—MSA supported the SGE Program by approving SGEs to participate on non-DOE site 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. This effort 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 protection. MSA has 15 certified SGEs. During 2018, two employees provided SGE support for VPP reviews at other sites. Additionally, SGEs supported eight VPP annual assessments through independent reviews of other sites’ documents.

- **Junior Achievement (JA)**—MSA employees championed Junior Achievement (JA) during the 2018 annual bowling fundraiser. MSA teams raised \$32,000 to support JA programs and over 12,000 local 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 to provide 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 identifying, evaluating, and recommending traffic safety related improvements. MSA has provided both the leadership and administrative resources to ensure that the committee functions and remains effective.

- **After School Matters**—MSA, along with other Hanford Contractors, participated in the After School Matters Program, which assists students from families where the adults are often unemployed or underemployed and who often have limited exposure to career choices. This program emphasizes building relationships between young people and adults through academic tutoring, homework assistance, mentoring and physical fitness development. Volunteers also 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. Overall, this program provides students with a vision of new and diverse career choices beyond those they have previously been exposed to.



- **Hanford Fire Instills Safety at Local School**—In April, four Hanford firefighters participated in an outreach program at Sagebrush Montessori in Richland. Lieutenant Brett Dahl, Captain Chad Riley, firefighter Charlie Hill and firefighter/ paramedic Joel Savage conducted classroom and outdoor truck demonstrations for 52 preschool and kindergarten students.

In the classroom, one firefighter donned full bunker gear with supplied air while another explained each piece of gear to the students. Outside the firefighters showed students two types of wildland engines and helped the children spray water from the booster line, aiming at a traffic cone to simulate a fire.



- **The Second Harvest Annual Hanford Food Drive**—Boxes for the 32nd annual Hanford Food Drive were quickly filled with donations from employees across the Hanford Site in early December. Employees, contractors and unions, including MSA, CH2M Hill Plateau Remediation Company, Washington River Protection Solutions, HAMTC, Insulators Local 120, Teamsters Local 839, IBEW Local 984,



Local 598 Plumbers and Steamfitters and Local 242 Boilermakers, also made cash contributions to purchase additional food. MSA purchased more than 5,000 pounds of frozen turkeys to donate, and one generous MSA employee donated 30,000 pounds of potatoes and onions. When all of the Food Drive donations came together,

approximately 45,000 pounds of food were donated to food banks and distribution centers throughout the Tri-Cities and Yakima Valley!



- **Stack the Packs**—MSA Synergy Network and volunteers helped collect and sort supplies for 200 foster kids in the community. The kids were able to start the new school year with a new backpack and school supplies.

- **Clothing Drive**—DOE-RL, with support from MSA, donated more than 250 pieces of excess clothing to the Columbia Basin Veterans Coalition, which requested the clothing to assist local veterans in finding civilian employment. The Veterans Opportunity Center provides a variety of services to local veterans. In addition to helping veterans access benefits, they offer transitional housing, counselors and case managers, and assistance with identifying education and employment opportunities. The clothing helps local veterans when looking for civilian employment.



- **Scholarships**—Supporting education for future generations is an important part of MSA’s corporate giving program. The Columbia Basin College scholarship program awarded scholarships to 49 students.



6.0 MANAGEMENT LEADERSHIP

The MSA President and Chief Operations Officer (COO) engaged the workforce through meeting attendance and open forums, and presence at a different organization’s Monday Safety Start briefing every week. There was an emphasis on communication with all employees utilizing all-employee emails and communications, and through use of “Ask Bob,” an online platform to communicate, raise issues or deliver kudos.

MSA leadership continued to emphasize the variety of avenues available for employees to raise safety concerns and issues and ensure that employees are aware of the detection and/or prevention of retaliation actions/behaviors. Company-wide communications from the MSA Independent Oversight organization informed employees of processes available for raising issues, encouraged employees to raise issues when necessary, and affirmed MSA's commitment to a retaliation-free work environment. Weekly and monthly meetings were held where employee feedback was encouraged as an avenue to share and address safety issues before they become concerns.

Through stability and leadership, MSA has sustained a partnership with employees. Safety is dependent on all employees contributing to their own safety, as well as the safety of their coworkers, other site workers, their families, and the community. Some of the activities that support the priority of safety at MSA include:

- Conducting monthly meetings that include the MSA ES&H VP and the HAMTC shop stewards, providing a forum to listen to concerns, address emerging safety issues, and follow up on actions previously committed.
- Senior leadership including the President and COO hold monthly meetings with the Chief Stewards of HAMTC and the Hanford Guards Union (HGU) Executive Board. These meetings provide a forum for issues to be raised and an opportunity to ensure alignment between management and union leaders.
- Communicating regularly with employees via all employee meetings and messages from the MSA President, both designed to provide continuing information to employees on trends and upcoming challenges.
- Establishing and supporting 2018 MSA Values and Goals and setting expectations.
- Conducting "MSA Management Fundamentals" course for all supervisors and managers. 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.
- Conducting monthly PZAC meetings that support the following initiatives:
 - Workers partnering with management to provide the safety topic
 - Workers sharing good news stories of activities within their workgroup that were achieved safely
 - Managers sharing detailed injury reports, emphasizing actions taken to avoid future incidents

- MSA President and COO 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.
- Assessing and monitoring the management leadership by utilizing the VPP trimester review process. Employee comments and feedback resulted in effective improvement actions that are conducive to improving the partnership with all MSA employees. Monitored data included assessment reports, VPP Trimester interviews, HGET VPP survey results, and management attendance and participation in safety meetings and safety activities. Results revealed that management leadership at MSA continues to be strong—supportive of a reporting culture and stop work authority, continually encouraging employees to make safety the first priority in all work situations, and promoting a 24/7 safety culture.



- MSA continued to recognize over 100 individual worker contributions through the MSA Breakfast of Champions. The Breakfast of Champions award 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 2018. For example, managers:
 - Conducted all-employee meetings at multiple locations to accommodate workers and work schedules. The purpose of the meetings was to ensure communication of current issues and raise awareness of selected safety topics.



- 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

VPP TRIMESTER REVIEW RESULTS

Strengths

- Managers' involvement in the safety recognition program
- Managers demonstrated a high level of commitment to safety

Weaknesses

- Understanding and incorporating SIP goals

7.0 EMPLOYEE INVOLVEMENT

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

- Weekly Safety Start Monday back-to-work meetings continued to be very positive. This process allowed 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 revised the format to reduce the length of the publication and hone the focus based on input from employees. These changes have resulted in a positive impact that encouraged more interaction during the meetings.
- MSA continued to maintain over 40 EZACs to allow all employees to participate with VPP at the local group level. EZAC opportunities are open to all employees.
- MSA's safety culture would not be where it is today without the involvement of our employees. In August, EZAC chairs and co-chairs were recognized for their dedication to safety. EZAC chairs worked hard all year long (on top of their day-to-day work) to increase safety awareness through monthly safety meetings, worker involvement, participation in safety campaigns, and addressing safety concerns.



MSA employees continued to achieve company safety goals established in the annual SIP. The 2018 SIP was developed based upon results of the previous period where areas for improvement were identified. The SIP identified attainable goals while improving potential weaknesses., supporting the continuous improvement of safety for employees.



EZACs reviewed SIP status and progress toward the goals at the monthly EZAC meetings. By communicating the SIP status, all employees remained aware of activities that supported the goal as well as their own role in completing each of the goals.

Employee Participation and Recognition

Participation rates are indicators of safety culture health for an organization or company. MSA opportunities provided in 2018 include safety recognition, safety challenges and campaigns, stretching programs, and safety log usage. These processes or programs are not mandatory but strictly voluntary. Through participation, employees may gain safety information and knowledge, or they may perform an activity or action that is recognized by their peers as valuable to their safety or the safety of their coworkers. During the past three years, the percentage of tokens redeemed has increased from 71% in FY 2016 to nearly 90% in FY 2018, a continual upward trend

MSA also provides multiple opportunities to recognize and reward employees for safe behavior and actions at the both the company president’s level and within an organization. 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 award recognizes and honors 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 award recognizes and honors 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 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 (PIPS) 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 EZACs and/or management in the form of a token, which the employee may redeem at the MSA-managed Safety Store.

VPP TRIMESTER REVIEW RESULTS

Strengths

- Workers’ awareness of emergency preparedness and response to drills or real emergencies
- Workers’ recognition of hazards and hazard controls
- Workers awareness of vehicle safety practices and applications
- Workers incorporation of safety practices at home

Weaknesses

- None noted

8.0 WORK SITE ANALYSIS

MSA has several programs and procedures that provide worksite analysis. Worksite analysis, fieldwork, and pre-job briefing observations by the MSA ISMS Surveillance Team revealed the following positive attributes and weaknesses:

Positive Attributes

The following were noted across MSA work locations:

- MSA ES&H issued Special Safety Bulletins during the period, including:
 - Accidents Due to Deer and Elk on Hanford Roads



- Vehicle Accident Summary – Company Vehicle incidents
- Vehicle Ladder Rack Inspections Required
- Air Quality Alerts – Due to Wildfires
- Electrical Panel Accessibility and Hazards
- Fostering a Safe Driving Culture on the Hanford Site



- **Reliability Projects Used Creative Approach to Ensure Safety**



MSA’s Reliability Projects organization used a creative approach to the “as low as reasonably achievable” (ALARA) principle while planning multiple roof replacements on 21 buildings across the Central Plateau. During the planning and bidding process, high resolution photos were taken of the roofs using the regularly scheduled aerial photography flights, coordinated by MSA. The photos were then used to better define

the workscope and analyze for hazards. This allowed a limited number of personnel (vendors, MSA personnel and others with interest in this project) to be on the roofs.

- **B Reactor Received New Roll Up Door** – This spring, the original 1943 roll up door at the B Reactor was successfully replaced. The safe and successful completion of this project was due to diligent job hazard analysis, concise pre-jobs, and a team committed to doing the job right the first time.



- Monday back-to-work safety briefings conducted throughout the year showed improvement in consistency and content.
- The conduct of pre-job briefings has improved. The majority of pre-job briefings observed were well conducted. The Electrical Utilities linemen were recognized for conducting further tailgate work/safety briefings at the job site to identify and address localized hazards.
- Effective incorporation of lessons learned was noted in several work groups.
- Good housekeeping practices were observed in several work groups.
- Proactive internal and external safety-related communications increased in several work groups.

- Organizations routinely send staff to offsite advanced technical and vendor training classes.

Weaknesses

The following were noted across MSA work locations:

- Although MSA continued to increase the quantity of quarterly safety inspections, a number of OFIs and findings associated with inadequacies in the MSA Safety Inspection Program were identified. MSA has made it a priority to increase employee awareness of the safety inspection process to improve attention to hazard identification and mitigation by incorporating actions from the 2018 SIP. Safety inspection reports, VPP trimester interviews, and ISMS Surveillance Team observations will continue to be evaluated for demonstrated improvement in S&H inspections.
- Several forklift and man lift inspection tags exceeded their expiration dates. While the Team did not observe operation of equipment with expired inspection tags, the Hanford Site Hoisting and Rigging Manual provides no guidance on further operation of equipment after the inspection dates. MSA safety professionals conducted a follow-up assessment, and appropriate actions were taken for deficient equipment. The Team will continue to monitor this issue.
- The team found a number of extremely weathered/deteriorated wood-handled tools that presented a probable tool failure/splinter hazard. Affected work groups generated the appropriate IIFs or safety log entries to document and track their resolution.

MSA has several avenues for reporting hazards: Management Chain of Command, Open Door Policy, bargaining unit safety representatives, MSA Employees Concerns Program, DOE Employees Concerns Program, MSA organizations' S&H professionals, safety logs, and issue identification forms (IIFs).

MSA continues to publish the "MSA Daily Operations Report," which summarizes critical work-related information, injuries, weather forecast, planned work activities across the site, communications from other site contractors, and contacts for additional information.

Line management is responsible for preparing and investigating all injury case reports with the assistance of the MSA's Worker Protection and bargaining unit safety representative groups. The MSA Worker Protection department provides individual organizations with monthly safety data so that they can track occupational injuries to identify adverse trends. Types of occupational injury cases include first aid, recordable, restricted, and "days away from work." Identified trends are analyzed and are used to develop areas for increased awareness activities and to determine where an increased MSA safety and health presence may be needed.

Effectiveness of VPP is also demonstrated through trend analysis, which continually evaluates the performance of VPP. Additionally, as employees complete mandatory annual

HGET training, they can an optional VPP perception survey. Survey results are captured and monitored, and the general organizational information is shared with the VP and their safety team at the trimester debriefs.

VPP TRIMESTER REVIEW RESULTS

Strengths

- None noted

Weaknesses

- Lack of clear understanding regarding methods for hazard awareness, such as EJTA, CSHA, General Hazard Analysis GHA, work control, safety inspections, etc.

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

9.0 HAZARD PREVENTION AND CONTROL

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

- Efforts continued to ensure a robust safety and health inspection program designed to help employees identify and mitigate hazards. MSA also documented improvements and identified early trends and conditions that will allow actions to be taken before injuries to employees or damage to the environment occurred.
- The MSA Management Assessment (MA) Team performed an exhaustive review of the Worker Safety and Health Program as it pertained to the flow down of 10 CFR 851 Safety and Health requirements to MSA subcontractors. The assessment focused on process of managing subcontractors' implementation of 10 CFR 851, *Worker Safety and Health (WSH) Program*; Subpart C, specific requirements (10 CFR 851.20 – 851.27). This evaluation included the implementation of ISMS Core Function #2 "Identify and Analyze the Hazards," Core Function #3 "Develop and Implement Hazard and Environmental Controls," and Guiding Principle #6 "Hazard Controls Tailored to Work Being Performed."

The Team found a robust safety program implemented through MSC-PRO-WP-48065, *Subcontractor Safety Processes*, and integrated with Buyer Technical Representative and Statement of Work implementing procedures.

- **Parking Lot Maintenance Steps Up Safety**

The Road Maintenance organization went above and beyond this spring to ensure the safety of employees and visitors at the B Reactor. During their annual sweep of the B Reactor parking lot and paved areas to remove loose gravel, they also performed crack sealing and added asphalt in some areas to help with water drainage.



- **Engineering Out Hazards**

Many electrical components pose an arc flash danger, and motor starters for water pumps are no exception. MSA Water & Sewer Utilities put a new engineering control into place to protect workers from potential arc flashes. With new remote switch operators and actuators, operations personnel can stand outside the arc flash boundary when activating electrical breakers. With three remote actuators for the highest arc flash rated equipment at the 100B/D Area Export Facilities, Water & Sewer Utilities personnel are continuing to put safety first.

VPP TRIMESTER REVIEW RESULTS

Strengths

- Workers awareness of weather-related hazards and hazard controls as they impact assigned work

Weaknesses

- Lack of understanding regarding effectiveness of engineered controls vs. personal protective equipment (PPE)
- Understanding who is responsible to provide PPE
- Improvement needed in recognizing when workplace hazards have not been identified or conditions have changed
- Feedback indicated that a more consistent approach was needed in the post job review process

10.0 HEALTH AND SAFETY TRAINING

- **Safety Inspection Modules**—MSA addressed an ongoing weakness of inconsistency in performing safety inspections. New goals were established to fortify the importance and commitment of improving the inspection process. By improving the consistent application of safety inspections, work area safety has correspondingly improved. Potential hazards have been identified, documented, and corrected in a timely manner. MSA also developed a series of safety inspection modules and distributed them to all employees monthly for discussion at weekly Safety Start meetings. MSA has achieved

some success and improvement and has committed implement the tools provided in the inspection modules during 2019.

- **'STEPS' Leadership Training**—Sustaining Talent and Engaging Professionals for Success (STEPS) is a new development program at MSA created for employees who aspire to future leadership roles. The STEPS curriculum offers employees four offsite trainings, six group learning forums, as well as a mentorship. The program consists of learning material and activities that expand the employee's capacity to use emotional intelligence and other skills-based training for future opportunities while promoting employee engagement and company values. STEPS is one of several measures to support future initiatives for increasing productivity, talent retention and employee development.



- **MSA Safety Toolbox**—MSA provided booklets to every current MSA employee and to new employees when they hire in or transfer to MSA.
- **MSA Field Work Supervisor Program**—This program focused on providing first-line supervisors with the necessary tools and qualifications to be successful in the field.
- **Quarterly Development Classes for Field Work Supervisors**—This spring, MSA Central Training and Human Resources collaborated to present new leadership courses to MSA field work supervisors during their quarterly meeting. Materials presented were offered through Development Dimensions International (DDI), a firm offering training courses designed to help organizations meet their business goals through strategic execution and performance improvement.
- **Communicate Changes Through Required Reading**

The Required Reading Program manages required reading assignments on the Hanford Site. The program provides essential information in a timely manner to ensure work is performed properly, effectively and safely.



The initial rollout of the program (in 2016) was adopted by MSA, CHPRC, WRPS, Wastren, and their subcontractors. It now is being used by AREVA, DOE-RL, DOE-ORP, and PNNL. Since implementation, several enhancements to the program have been made to increase user compatibility.

Safety Communications

- Weekly Safety Starts are newsletters that consist of common safety topics and are distributed to employees for use in “back-to-work” meetings. The selected topics are developed by a team of SME’s, applicable to workplace or community safety and environmental issues, and timely and designed to encourage discussion.
- 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 used as a shortcut to other safety and health resources within MSA, such as the VPP website.
- Over 5,000 current and archived articles, videos and reports are available on OPEXShare from around the DOE complex and from industry that include:
 - Best practices
 - Lessons learned
 - Product recalls
 - Safety alerts, and more
- MSA personnel conducted company level new hire orientation in partnership with management and labor. Field orientation for new hire and interns was conducted by each organization’s management and EZAC Chair.

VPP TRIMESTER REVIEW RESULTS

Strengths

- General safety training appears to be well received and retained

Weaknesses

- Inconsistent understanding and use of IIF as a formal process for improvement
- Monthly inspection modules and their content were not effectively delivered and/or implemented in some organizations

11.0 AWARDS AND RECOGNITION

Kathryn A. Wheeler Safety Leadership Award

Jerry Bosley, Deputy Vice President of Site Services & Interface Management, received the 2018 Kathryn A. Wheeler Safety Leadership Award. The annual award recognizes a member of MSA who demonstrated support of safety through worker engagement and activities that are collaborative, cooperative and proactive. It highlights the importance of a safe work environment that is essential to a successful Hanford mission. The award honors Kathryn Wheeler and her dedication to safety. Kathryn passed away in 2012.



Million Safe Work Hours Achieved

MSA reached a million safe work hours twice during FY 2018. In mid-March, MSA reached 1.7 million hours. Then, in late July, MSA reached 1.5 million hours. Safe work hours are the number of hours worked without an OSHA lost-time injury —one that requires an employee to miss one or more complete days of work.

Since October 2017, MSA made a focused effort to raise awareness on improving work area conditions by conducting the following: increasing employee participation; increasing employee communications through Weekly Safety Starts, safety bulletins, videos and meetings; and, encouraging a better understanding of hazard identification and hazard controls. MSA believes these actions contributed to a decrease in reported first-aid cases.

PZAC Awards

Examples of MSA Presidential recognition of employee's safe behaviors or actions include, but is not limited to, the following:

Doreen Pullicino was awarded the Safety Honor Roll award for taking action to prevent potential injuries. High winds in West Richland caused a power line to partially fall. Doreen went out of her way to call the city, pick up and place orange buckets to warn drivers until help arrived, and notify the owners of the home the lines were attached to of the hazard.

Aracely Gomez with Portfolio Management was awarded the Presidents' Lifesaving Award for assisting an elderly man in distress during a particularly hot day. Aracely sat the man down, gave him water and waited until emergency services arrived.

Kellie Mitchell with ES&H Worker Protection was awarded the Presidents' Lifesaving Award for stopping to help a bicyclist who had been hit by a car. Kellie ensured 911 was called and kept the injured bicyclist and the driver calm until emergency services arrived.

MSA Honors Night



In May, MSA was proud to recognize the efforts of 31 individuals and 4 teams that exemplified MSA's commitment to provide the right solution at the right time for the right value.

VPP Awards



Twenty MSA employees attended the 34th annual Voluntary Protection Program Participants' Association (VPPPA) EXPO and Conference that was held in Nashville, TN, in August. Employees were recognized by the DOE Headquarters VPP team with the following prestigious awards:

MSS received a Superior Star award. Superior Star awards are given to sites that have achieved a consistently superior performance in meeting established safety and health goals by actively conducting outreach to others and achieving an illness and injury rate that is 50 percent lower than the industry average.

HAMMER received a Legacy of Stars award. The Legacy of Stars award recognizes Star sites that have held the Star of Excellence for three consecutive years.

SAS received a Star of Excellence award. Star of Excellence awards are given to sites that have an outstanding level of performance meeting established safety and health goals, have actively conducted outreach to others, and have an illness and injury rate that is 75 percent lower than industry average.

Contractor Champions Award - Rocky Simmons, HAMTC safety representative, was recognized with a Contractor Champions award. This award is for outstanding performance and leadership in furthering the advancement of the DOE VPP.

Rocky was also presented the **Special Government Employee of the Year** award at the VPPPA Region X 2018 Northwest Safety and Health Summit in Anchorage, Alaska.



Appendix A

HAMMER

VPP Annual Self-Assessment Report 2018



DEPARTMENT OF ENERGY

MISSION SUPPORT ALLIANCE, LLC

HAMMER FEDERAL TRAINING CENTER

VOLUNTARY PROTECTION PROGRAM
ANNUAL SELF-ASSESSMENT

CALENDAR YEAR 2018

HAMMER
VPP Annual Report 2018



1.0 SUMMARY

The Volpentest Hazardous Materials Management and Emergency Response (HAMMER) Federal Training Center’s mission is to save lives and avert disasters. HAMMER has achieved world-class status and is a recognized U.S. Department of Energy (DOE) resource with best practices for its expert staff, worker trainers, partnerships, and hands-on safety training. HAMMER is DOE’s premier hands-on health, safety, and emergency response training organization, offering the most realistic and comprehensive training for nuclear waste cleanup workers and emergency response personnel.

HAMMER’s model is comprised of many components including: staff, worker trainers, management, partnerships, the facility, programs; the core principles of respect, inclusivity, and collaboration; and the values of safety, integrity, teamwork, customer service, and excellence. HAMMER collaboratively solves problems with its knowledge-based pool of expertise. Last spring, Richard Trumka, AFL-CIO President, recognized HAMMER as “the single most important partnership between Labor and Management in the country.”



“HAMMER is the single most important partnership between Labor and Management in the country.”

Richard Trumka,
President, AFL-CIO

For over twenty years, HAMMER has continued its mission by providing the most advanced health and safety training possible—training that is based on HAMMER’s commitment to worker involvement, communication, and its unsurpassed safety culture.

HAMMER RECEIVES VPP STAR APPROVAL

HAMMER received approval from Matthew Moury, Associate Under Secretary for Environmental, Health, Safety and Security, to continue as a Voluntary Protection Program Star participant. A report was completed by the Department of Energy VPP Onsite Review team who visited HAMMER in November 2017. The report specifically noted, “Because of HAMMER’s mission, the HAMMER staff is among the most knowledgeable and best trained personnel at the Hanford Site.” It took tremendous teamwork and leadership to attain the highest level of safety recognition in the Department. As an opportunity for improvement, the review team recommended that HAMMER share the Hanford Integrated Technology System at the Region X and/or VPP Participants’ Association Inc. National Conference to demonstrate its unique approach to improving the training process and increasing efficiency.

48TH HAMMER STEERING COMMITTEE MEETING

The 48th HAMMER Steering Committee meeting was held at the AFL-CIO Building in Washington, D.C. on April 19, 2018. Attendees included leaders from the DOE and other federal agencies, Labor, contractors, Tribes, government, Tri-City Development Council, and HAMMER. Eric Dean, General President, International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers, chaired the meeting and discussed HAMMER's unique hands-on training as a critical component to the safe, successful cleanup at Hanford. He urged for continued support to maintain its world-class facility and enhance training methodologies and infrastructure.



DOE Under Secretary for Science Paul Dabbar, expressed his appreciation for HAMMER's unique Worker Trainer model and acknowledged the training center for its important role in "setting the standard for training and safety which has been applicable across the whole of the EM Complex." Doug Matheny, Senior Advisor for the Office of the Secretary committed to doing everything he can to support HAMMER and stated, "I truly, truly believe in the HAMMER project."

SPECIAL GUESTS AT HAMMER

Department of Energy Under Secretary for Science (S-4) Paul Dabbar toured HAMMER along with Acting Chief of Staff, Kristine Ellis; Associate Principal Deputy Assistant Secretary, Stacy Charboneau; and Associate Deputy Assistant Secretary and Chief of Nuclear Safety for Field Operations, Greg Sosson, on January 4, 2018. Staff covered HAMMER's background, partnerships, and mission to save lives and avert disasters. Additionally, presentations of



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HAMMER's Sitewide training programs were provided, including Construction Worker Safety Training, Worker Trainer, HAZWOPER, Respiratory Protection, Industrial Hygiene Technician Fundamentals, Radiological Safety Training, Lockout/Tagout, and National Programs.

HAMMER provided an in-depth tour for Brian Vance, Manager, Office of River Protection for DOE, on February 14. Vance learned about HAMMER's mission of training to save lives and avert disasters, as well as the facility's capabilities, training programs, partnerships, and commitment to prepare and protect the workforce. He was engaged throughout his visit and gained a better understanding of HAMMER's Worker Trainer, Construction Worker Safety Training, Industrial Hygiene Technician, Sitewide Training, and National programs.



HAMMER welcomed several visitors throughout the month of May. A campus tour was provided for Anne M. White, Assistant Secretary, Office of Environmental Management, U.S. Department of Energy, on May 2. Topics for discussion included HAMMER's mission, partnerships, training programs, as well as training props, practical training areas, radiological safety training, national partnerships, respiratory training, and the Worker Trainer Program.

U.S. House of Representatives, 4th District of Washington, Congressman Dan Newhouse toured HAMMER on May 3, 2018. Staff covered HAMMER's legacy, national partnerships, safety record, Construction Worker Safety Training Program, Sitewide Standards, and Worker Trainer Program along with the Radiological, Industrial Hygiene Technician, HAZWOPER, Respiratory, Lockout/Tagout, Fire, National training and response programs. Following the tour, the Congressman addressed the HAMMER staff.



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HAMMER hosted a campus tour for the Hanford Advisory Board's Health, Safety, and Environmental Protection Committee on May 9. Worker trainers provided a radiological don/doff demonstration and discussed the importance of hands-on training. The tour successfully conveyed HAMMER's capabilities to support and help solve complicated Site issues and safety concerns.

SUMMARY OF THE VPP EVALUATION AT HAMMER

HAMMER Federal Training Center used the Mission Support Alliance (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. The Mission Support Alliance's VPP Core Team provided questions for each trimester. The interview team for HAMMER consisted of members from the Director's VPP Team, Employee Zero Accident Council (EZAC), Safety, volunteers from the staff, and a volunteer from another MSA facility EZAC. 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 4.8 for the comprehensive average for all trimesters. Scores for each individual trimester and tenant are shown in the following chart.

VPP Tenet	1 st Trimester	2 nd Trimester	3 rd Trimester
Management Leadership	4.8	4.9	5.0
Employee Involvement	4.9	4.5	4.9
Work Site Analysis	4.8	5.0	5.0
Hazard Prevention & Control	4.6	4.9	4.9
Safety & Health Training	4.8	4.9	5.0
Average	4.7	4.8	4.9

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 2018 HAMMER VPP Trimester self-evaluations.

January - April 2018

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

Percent of Staff interviewed: ~18%

Total Interviewed: 19

Noteworthy Practices:

- Employees noted that the “this is not your garage” presentation was very memorable.
- All employees interviewed were able to identify hazards associated with operating a motor vehicle showing an increase in awareness from the VPP campaign.
- Employees were able to identify how SIP goals were incorporated into their work group, particularly the facility inspections.
- Management continually updates HAMMER employees on current safety issues through a variety of ways including the Monday Morning Safety Start, staff meetings, pre-job briefings, safety follow ups, safety log updates, and EZAC meetings.

Potential Improvement Opportunities

Although employees interviewed could identify multiple ways that safety issues were communicated concerning the HAMMER campus, there was little to no mention of communications or awareness of site wide issues. Having HAMMER staff more aware of site-wide safety issues could be valuable in understanding and providing enhanced training and services to Hanford site workers.

May-August 2018

The second Trimester Evaluation was completed in August.

Percent of staff interviewed: ~12%

Total Interviewed: 12

Noteworthy Practices

- All employees were very committed in the interviews to their personal responsibility to performing work safely.
- Employees are well versed in how to access weather information and identify conditions that could cause heat-related issues.

- Many of the employees interviewed identified their first-aid training as empowering them to recognize potential work hazards.
- All employees believed management values the staff by their willingness to listen and open-door policy.
- Staff identified multiple ways that safety is integrated into their work assignments.
- Staff are actively using Pre-Jobs to become aware of and gather more information about the hazards and controls of their particular work assignment.
- Staff recognized an increased presence of the new Director in different groups and staff meetings improving visibility and personal communication and interaction.

Potential Improvement Opportunities

Many employees report seeing others recognized for safety awards or some sort of acknowledgment; however, many are not sure what the criteria are for recognition or how to recognize their coworkers for safety awards or acknowledgment. Efforts can be made in two areas. The first area of effort would be for HAMMER Management to brief employees on the background and reason for the safety recognition program. The second area would be for Management to demonstrate and model the many ways staff may recognize their coworkers for safe practices, such as on-the-spot awards and safety token distribution.

September - December 2018

The third Trimester Evaluation was completed in November.

Percent of staff interviewed: ~14%

Total Interviewed: 15

Noteworthy Practices

- Staff members reported that managers and coworkers consistently respond positively and quickly to safety concerns that are reported to both work control and in the safety log.
- All employees reported being involved with and aware of the increase in quarterly campus drills and the actions that they took or are trained to take.
- Staff members reported that many of the safety messages and campaigns include important information and training that is taken home to provide a safer environment for their family and friends.
- Employees described the right to stop work in unsafe conditions, management's support of that right, and that there is no fear of repercussions. They are encouraged to exercise their rights and ensure a safe work environment.

Potential Improvement Opportunities

Some employees reported not seeing or being aware of the EZAC meeting minutes. The minutes are posted to safety boards on two different locations on the campus, but employees have not received the minutes via email on a consistent basis. Providing employees with the EZAC meeting minutes and information on a monthly basis electronically would provide helpful information and encourage continued participation in safety awareness activities.

2.0 CONTINUOUS IMPROVEMENT

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

- Certified as 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, 2016, and 2017.
- Awarded VPP Superior Star in 2009, 2010, 2011, and 2012.
- Awarded VPP Legacy of Stars in 2007 and 2017.

4.0 VPP APPLICATION

HAMMER had no scope or organizational changes; therefore, there are no changes to HAMMER's VPP application at this time.

5.0 GOALS AND OBJECTIVES

HAMMER developed a Safety Improvement Plan (SIP) with specific goals and objectives. The SIP was sent out to all employees via email to ensure that HAMMER staff understood the safety goals for the year. The following is an overview of the 2018 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 meetings with employees through the Director's calendar. Managers will have attended at least one President's Zero Accident Council (PZAC) meeting during the calendar year and the manager or representative will report to the HAMMER EZAC at the next HAMMER EZAC meeting.

Status: Complete

HAMMER management actively engages in safety leadership. All managers 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 was tracked on rosters with signatures of each attendee. All managers also attended at least one PZAC meeting.

The HAMMER Director began meeting with staff members regularly via a series of targeted employee meetings, including: The HAMMER Training Program Manager's Forum and the Mentoring Circle meeting. Each of these meetings ensures staff members have the ability and freedom to communicate issues and concerns to the Director.

- HAMMER Training Program Managers Forum: This meeting promotes professional development. Existing Program Managers have committed to meeting with newly hired Program Managers and leaders, to explain different regulations, orders, and best practices for training development and delivery. This allows Program Managers to learn from each other.
- Mentoring Circle: This meeting will begin in December of 2018 and has been planned by the new Director of HAMMER. This meeting will establish mentors and mentees from different departments and groups, and will allow all employees and Managers to discuss successes and areas for improvement that are occurring at HAMMER.

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 actively ensures the staff presenter delivers a memorable presentation that include anecdotes, lessons-learned, and/or the presenter's own safety experiences.

EMPLOYEE INVOLVEMENT

1. Promote employee involvement. Complete the quarterly Performance Incentives Program for Safety (PIPS) activities.

Measurement: HAMMER staff will complete the requirements of the MSA PIPS by the end of CY 18. Brief the PZAC Calendar dates at each EZAC meeting, and track the announcement through the EZAC meeting notes. Measure attendance through the PIPS Log.

Status: Completed

All staff members completed the requirements of the PIPS by the end of the calendar year.

Eighty-eight percent of the HAMMER staff participated in at least one facility walkthrough over the course of 2018.

Employees were encouraged to attend at least one monthly PZAC in the calendar year, and 36% have attended at least one. To increase attendance for HAMMER staff, PZAC was scheduled at HAMMER for three of the months.

In each meeting that HAMMER staff attend, they are encouraged to begin with a safety topic. Currently, 85% of the staff led a safety topic in meetings in each trimester, with many employees presenting multiple safety topics throughout the year.

WORKSITE ANALYSIS

1. Educate HAMMER staff on the practical implementation of the Hierarchy of Controls. Improve equipment and facility identification in work documents. Participate in campus wide safety and housekeeping surveillances.

Measurement: Provide a copy of the initial briefing before the checklist is handed out. A completed checklist will be recorded on the PIPS log. Provide three examples of updated work packages, which include the identification of equipment or materials. Each full-time HAMMER employee will participate in at least one monthly Safety and Housekeeping Walkthrough during the calendar year.

Status: Complete

A presentation was given on December 17 on the Hierarchy of Controls, which pertained to how to identify hazards in the home and in work.

The Operations department reviewed and updated several work packages to include proper identification of equipment and/or materials. Evidence of closure of this item is contained in work packages in the Phoenix Work Management system.

Ninety employees participated in at least one monthly safety and housekeeping walkthrough.

HAZARD PREVENTION AND CONTROL

1. Promote awareness and improve performance of housekeeping activities.

Measurement: Document discussions in the EZAC minutes. Pre-job package should show the documented briefing for each monthly walkthrough. Drills will be conducted on a quarterly basis.

Status: Complete

In 2017, it was identified that housekeeping issues should be tracked in a database by EZAC and Operations. The database was created and then transferred over to Operations during 2018. When items are identified, they are loaded into the database and tracked using the preventive maintenance activity within the work management program. Of the items identified during 2018, 96% were tracked and closed in a timely manner.

During the monthly facility walkthrough, an Operations Lead is tasked with presenting the previous month's safety module presentation to improve staff competency in the inspection process and knowledge of the inspection criteria. HAMMER was able to present the information at eleven out of the twelve months during 2018.

HAMMER expanded its ERO staff and drill team during 2018 and performed quarterly drills during the year. The team prepared and conducted the drills at multiple buildings during the year, which was a great learning experience for both the employees and the ERO drill team. The drills conducted included the following scenarios: heart attack, belligerent person, fire drill, take cover, and active shooter table-top exercise.

SAFETY AND HEALTH TRAINING

1. HAMMER will conduct a facility Safety Focus Day. HAMMER will review the Facility Orientation and VPP Orientation. HAMMER will clarify the use of the Employee Job Task Analysis.

Measurement: By the end of the third quarter, schedule and conduct a Safety Focus Day with participation by all available HAMMER staff. Provide updated material from the Orientations. Provide briefing material and rosters to EZAC Chair.

Status: Ongoing

HAMMER held its annual Safety Focus Day on August 27. The event provides an opportunity for HAMMER's entire staff to participate in activities and presentations in the continued effort to improve the overall safety performance and culture at HAMMER.

Sam Hernandez, Hanford Patrol, and Dr. Janice Kusch, HPMC, provided an "Active Shooter" presentation, followed by a table-top drill scenario facilitated by HAMMER staff members. HAMMER staff provided hands-on Lockout/Tagout, Fall Protection, Respiratory Protection, HAZWOPER, and Radiological breakout sessions and activities during the afternoon to provide deeper knowledge and understanding of key training that HAMMER provides for the Hanford Site.



HAMMER staff held a meeting to discuss the VPP Orientation form and the Facility Orientation form and identified needed changes. During the next year, the EZAC and VPP will work to combine the forms so that employees always receive the VPP orientation upon hire and are introduced to the VPP culture on the first day of employment.

The presentation will clarify the use of the Employee Job Task Analysis (EJTA), which will be carried over to the SIP for 2019.

6.0 MENTORING AND OUTREACH

HAMMER's Central Washington Building and Construction Trades Council Training Director, Steve Maki, participated in the VPP onsite review for the recertification of Fluor Idaho/Idaho Cleanup Project for continued participation in the DOE Voluntary Protection Program. A team comprised of personnel from the Office of Worker Safety and Health Assistance and subject matter experts from the DOE complex conducted observations and interviews to ensure Fluor continues to meet the tenets of VPP.

HAMMER has been requested to participate in the 2019 VPP Recertification Plan for the Pacific Northwest National Laboratory (PNNL). The field visit will occur from January 8-17, 2019, with experts from multiple industries visiting PNNL for the recertification plan.

HAMMER LOTO TRAINING RECEIVES POSITIVE BENCHMARK EVALUATION FEEDBACK

HAMMER received positive feedback from a Hanford Hazardous Energy Control benchmarking evaluation conducted by Atkins personnel last fall. The evaluation included a tabletop review of the WRPS lockout/tagout (LOTO) program, review of recent events and lessons learned across the DOE complex, the Hanford Sitewide LOTO Committee meeting, WRPS Hazardous Controls Committee meeting, observation of Authorized Worker refresher training at HAMMER, and a review of Atkins Energy America's Hazardous Energy Control Procedure. Evaluators commended HAMMER for its work in upgrading the LOTO training program to focus on practical application. The team specifically noted HAMMER's mockups, especially the mockup system used to train and qualify Controlling Organization Administrators who develop LOTOs onsite.



The evaluation team made recommendations for the facilities' processes such as: ensuring necessary training rigor, focusing on practical application with embedded errors, offering oral interviews for qualifying issuing authorities, and conducting practical exercises at the individual level.

HAMMER Hosts Visit for CRH Northwest Representative

On April 26, HAMMER hosted a visit for Bruce Wilson, a representative from CRH Northwest, to discuss the possibility of a future Voluntary Protection Program (VPP) outreach activity. A facility tour was conducted showcasing HAMMER's props and training facilities. Staff also covered HAMMER's Labor Management partnerships, Sitewide Training

Standards, safety record, as well as presentations on radiological, confined space, fall protection, Slip Simulator, lockout/tagout, respiratory, and mask fit training.

HAMMER HOSTS UNITED STEELWORKERS

HAMMER hosted the United Steel Workers' (USW) Train-the-Trainer from April 23-27, the first to be conducted at HAMMER. The Grant enhanced their HAZWOPER curriculum and strengthened instructor skills. Session topics included changes in the field, new instructional guides, and a review of the new 8-Hour Refresher. USW participants provided positive feedback, specifically relating to HAMMER's hands-on training props.

HAMMER management met with grant program managers in Washington, D.C. to discuss possible changes in the upcoming Memorandum of Understanding. Discussion topics included a potential new HAMMER HAZWOPER Train-the-Trainer course to be developed in partnership with the grants, as well as a change to the on-the-job training process to assist in the development of new instructors.



HAMMER PROVIDES RESPIRATORY PROTECTION RESOURCES AND TRAINING OUTREACH

In April, HAMMER staff worked with the Hanford Site Respiratory Protection Program (HSRPP) Committee to link new respiratory training videos to the current HSRPP website for additional access and site availability. The new videos and websites were well received by the committee who congratulated HAMMER on a wonderful product and training resource for the Hanford Site.



Additionally, HAMMER staff presented on the HAMMER Respiratory Training Program and the HSRPP-approved respiratory protection equipment at the HPMC Occupational Medical Services' nursing staff meeting on April 3. Discussion topics included: Components, configuration and equipment material, practical activities, and manufacturer specifications. HAMMER personnel fielded questions from the HPMC nurses regarding the equipment and recommendations for documented injuries and work restrictions for Site employees.

HAMMER PROVIDES CPR OUTREACH TO WRPS

HAMMER Emergency Response Training Program Manager, Brad Jackson, provided a CPR demonstration as the safety topic during a WRPS meeting on April 26. Using a CPR training mannequin and automated external defibrillator (AED), he demonstrated the correct method for responding to this type of medical emergency to 14 WRPS staff members. Most of the attendees had no formal CPR or AED training. The demonstration was well received, and WRPS sent a message thanking HAMMER.



From August 7-10, HAMMER supported an IDP in which HAMMER staff and Teamsters from across the nation tailored new training exercises to include scenarios that can occur at the Hanford Site. This effort was aligned with the HAMMER-driven Course Enhancement Initiative, which calls for more onsite occurrences and lessons learned to be included in training and updated on a two-year cycle. IBT personnel also enhanced their

8- and 40-Hour HAZWOPER curriculum and utilized HAMMER's unique props for discussion. The team also participated in Radiological Worker training to gain more knowledge in radiological fundamentals pertaining to the modules they teach in their courses.

For the first time, HAMMER supported the Rail Workers Hazardous Materials Training Program IDP on August 20-24. The group, comprised of members of nine different unions, focused on enhancing their national training curriculum. While at HAMMER, the team covered topics such as changes in the field, new accident investigative techniques, and a review of train accidents that have occurred within the last year. The team also participated in two Site tours to gain an understanding of the Hanford mission. The team plans to return to HAMMER in the near future.

7.0 MANAGEMENT LEADERSHIP

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 with 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 regularly takes the opportunity 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

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. According to HAMMER's PIPS log, 85% of the staff have shared a safety topic during a meeting.

MSA prepares a safety topic to be presented at the beginning of every workweek, 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.

The HAMMER Employee Zero Accident Council (EZAC) points of contact (POCs) conducted an initial meeting to discuss the challenges for the rest of the year, as well as receive feedback and advice from seasoned EZAC POCs. The meeting helped solidify roles and responsibilities of each POC and the VPP Champion and identify potential efficiencies in the reporting of employee safety activities. To promote learning and the sharing of ideas, the team decided to contact other Site contractor EZACs, visit their meetings, and invite them to HAMMER's EZAC meetings.

On August 27-August 30, two HAMMER staff members participated in the Voluntary Protection Programs Participants' Association (VPPPA) National Symposium in Nashville, Tennessee. HAMMER staff attended several safety-focused presentations throughout the

duration of the event such as “The Opioid Crises,” which focused on the current problems of opioid addiction in the United States, and “Top 10 Elements of A Stellar Safety And Health Management Program,” which discussed the benefits to VPP. Many presentations from the VPPPA Symposium were incorporated into EZAC meetings.

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.

9.0 WORK SITE ANALYSIS

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*. The baseline survey was reviewed and revised in August 2017. 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).

HAMMER updated the Craft Specific Hazard Analysis (CSHA) for the Electricians, Pipefitters, Teamsters, Warehousemen, and Mask Fit in accordance with MSC-PRO-079.

All training activities at HAMMER are analyzed for hazards in accordance with HHT-PRO-TQ-61051, *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.

Routine Hazard Control and Inspections

All HAMMER personnel are scheduled annually to participate in a facility walkthrough (inspection). A facility walkthrough is conducted each month and is led by a knowledgeable member of the operations staff and/or the 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 also 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 to 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 using Safety Logs. HAMMER maintains two safety log locations to ensure easy access: one at the main Administration Building and one at the Al Alm Building. Safety logs are checked once a week, and status updates are reported during the monthly EZAC meetings and weekly Monday Morning Safety meetings. Employees are reminded that if they feel uncomfortable for any reason to identify themselves as initiators 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. Safety log entries are not closed out until concurrence is obtained from the originator.

Three safety log items were carried over from 2017. Twenty safety log entries were made in 2018, with one carried over into 2019. The average safety log entry was open for 17 days. In addition, nine were closed out within 10 days, and two additional entries were closed out on the same day. Safety log use continues to be strong at HAMMER.

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*.

Trend Analysis

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

10.0 HAZARD PREVENTION AND CONTROL

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 know who they are.

The Safety Professional regularly assists HAMMER with hazard identification and control when work packages are planned. The IH support assists HAMMER managers with completion of EJTA's 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 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 policy maintains employee involvement and narrows the window for an unexpected event.

HAMMER follows MSC-POL-EI-5054, *Mission Support Alliance Environmental Policy*, and MSC-PLN-WP-003, *Mission Support Alliance Integrated Environment, Safety and Health Management System Description*. 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.

In August, the area experienced periods of extreme heat, as well as smoke from surrounding wildfires. HAMMER took actions to ensure students remained safe and moved many training sessions indoors to alleviate the physical stress caused by heat and/or smoke.

Positive Reinforcement and Discipline

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

HAMMER uses many avenues 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, 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. MSC-RD-WP-9982, *President's and Employee Zero Accident Councils*, 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 improve 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. Work planners validate and screen the work requests to determine the level of work planning (skill-based work 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 easily accessible safety log locations: one at the main administration building and one at the Al Alm building. Safety logs are checked once a week. Once safety issues are entered into the safety log, status on each item is reported to staff every month at EZAC and every week at the Monday Morning Safety Meeting.

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 employees via the HAMMER internal webpage. Emergency response information is available in each building. Additionally, HAMMER participates in a sitewide drill every year and is conducting facility-based drills on a quarterly basis.

HAMMER SUPPORTS ENERGY RESTORATION

HAMMER also supports DOE’s Office of Cybersecurity, Energy Security, and Emergency Response’s (CESER) Infrastructure Security and Energy Restoration (ISER) Division, as part of the Emergency Support Function #12 (ESF #12) team.

The Energy Response team at HAMMER develops and conducts initial and refresher training for responders to prepare for disasters throughout the nation. DOE supported multiple events throughout the year, including hurricanes, typhoons, tropical storms, a volcano, and wildfires.

On May 14, HAMMER supported response activities following the eruption of the Kilauea volcano on the Island of Hawaii. The volcano began erupting on May 3 and burned approximately 40 structures, including 27 homes, throughout the rest of the month.



EVENT	Location
Hurricane Florence	NC
Hurricane Michael	FL - Gulf
Hurricane Isaac (2018)	St. Croix / USVI
UN General Assembly #73	NY
Hurricane Lane	HI
Hurricane Olivia	HI
Alaska Earthquake	AK
Hurricane Hector	HI
Typhoon Manghkut	Am-Sam
Kilauea Volcano	HI
CAMP Wildfire	CA
Typhoon Yutu	Am-Sam
Tropical Storm Gita	Am-Sam
Carr Wildfire	CA

DOE’s ESF #12 team deployed over a dozen responders to four Atlantic and Central Pacific hurricanes and one Eastern Pacific tropical cyclone. While these storms were occurring, the ESF #12 team was also activated for Hurricane Florence. Responders were stationed at Regional Response Coordination Centers in Region II, III, and IV, as well as the State Emergency Operations Centers in North Carolina and South Carolina. HAMMER personnel staffed the Operations Section Chief position at DOE Headquarters and supported the Logistics, Finance, and Administration Section as the Deployment Coordinator. Energy

Restoration work was completed in mid-September, and support to the Hurricane Florence response was terminated. HAMMER staff continue to support ESF #12 operations through after-action meetings and by maintaining situational awareness of additional weather threats.

On November 9, the ESF #12 team was activated due to wildfires in northern and southern California. As part of ESF #12, HAMMER's Energy Response team supported deployment coordination, and two responders were deployed to the state Emergency Operations Center in Sacramento, California. The fires began on November 8, and burned tens of thousands of acres, destroyed thousands of structures, and claimed more than 80 lives.

The HAMMER team provided quick response to a 7.0 magnitude earthquake that struck north of Anchorage, Alaska on November 30. The event caused significant impacts to roads, buildings, and water lines, and shut down inspection on the 800-mile Trans Alaska Pipeline System for several hours. Responders, including Bill Edwards of the MSA/HAMMER team, were deployed to the Federal Emergency Management Agency (FEMA) Region 10 Regional Response Coordination Center in Bothell, Washington, where they supported power restoration efforts. At HAMMER, staff members provided deployment coordination throughout the event. DOE Infrastructure Security and Energy Restoration (ISER) Director, Ken Buell, praised HAMMER for their quick response to this no-notice event.

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.

11.0 HEALTH AND SAFETY TRAINING

HAMMER CONDUCTS 360-DEGREE VEHICLE INSPECTION TRAINING

HAMMER staff conducted an exercise during HAMMER's EZAC meeting in March that focused on vehicle inspections. This was in response to MSA's increase in Site vehicle accidents in 2017, primarily while driving in reverse. Staff practiced conducting 360-degree vehicle inspections in an effort to improve vehicle safety both on and off site.



HAMMER EMERGENCY RESPONSE ORGANIZATION (ERO) TRAINING

In 2018, HAMMER initiated emergency preparedness training for all staff that is tailored by office location and is designed to refresh the staff on emergency response procedures and equipment. Building-by-building, these small group safety meetings allow the staff to explore response scenarios, including building evacuations, take cover situations, lock-downs, and medical emergencies. The focus of the staff involvement is to ensure all personnel are refreshed on the available emergency equipment, responsibilities, and their interface with the more formally trained emergency response organization.

The HAMMER Emergency Response Organization (ERO) is also being provided with additional training, position-by-position, building-by-building, to ensure more effective and efficient response actions. The ERO training is focused on executing response actions, communication protocols, and coordinating actions within the ERO and extending to the First Responder community. Tailored training allows ERO members to focus on the unique needs of the facility they are assigned to serve. Exercises are being planned to evaluate the overall function of the ERO and staff once the training is completed. Emergency Preparedness and Response is an important aspect of safety for the HAMMER staff, students, and valued guests.

HAMMER HOSTS IDP FOR WORKER TRAINERS AND INSTRUCTORS

HAMMER hosted a successful Instructor Development Program (IDP) Day for worker trainers and HAMMER subject matter expert instructors on November 5.



As part of the IDP's "Team Building" theme, the day consisted of workshops facilitated by Dr. Janice Kusch (Team Building Through Effective Group Discussions), Dan Seitz (Square Wheel), Dave Riddle (Conflict in Teams), Tony Jimenez and Holly Morgen (Team Development), and Joe Estey Sr. (Team Dynamics).

Steve Gunnink, HAMMER Energy Response Program Manager; provided an update regarding emergency response on campus followed by Paul Vandervert, HAMMER Director, and Steve Maiuri, Hanford Atomic Metal Trades Council Training Director, who welcomed the participants. Bret Akers, HAMMER Operations Manager, and Stan Scott, HAMMER Industrial Health and Safety Manager, also presented during the workshop.

12.0 AWARDS AND RECOGNITION

Alan Aunspaugh received the 2017 Paul Case Award for his dedication to HAMMER's Electrical Safety Training Program. He has been a longtime pioneer in the development and delivery of outstanding electrical training for craft workers, supervisors, managers, and engineers all across the Hanford Site. Alan's knowledge and personal experiences provided over the past 20 years have greatly shaped the electrical safety culture currently shared at HAMMER and Hanford.



ENERGY RESPONSE TEAM RECEIVES SECRETARIAL AWARD



On August 30, the Department of Energy (DOE) Response Team received the Secretary of Energy Achievement Award from Secretary Rick Perry during a ceremony in Washington, D.C. The award recognized employees and contractors of the DOE who provided outstanding support to federal emergency response efforts in 2017, including the 2017 hurricane season. Individuals were recognized for their dedication and exemplary service instrumental to helping the nation respond to and recover from energy disruption emergencies impacting the United States. HAMMER's Bill Eaton attended the presentation on behalf of the HAMMER staff members who participated in the team's extensive energy response efforts. Recognized HAMMER staff members include Nicole Zawadzki, Steve Gunnink, Bill Eaton, Nancy Ness, Joe Cheevers, Brad Jackson, Gary Karnofski, Bill Edwards, Amanda Mings, and Deborah Croskrey.

HAMMER RECEIVES LEGACY OF STARS AT 2018 VPPA SYMPOSIUM

HAMMER's HAMTC Training Director, Steve Maiuri, and HAMMER VPP Champion, Joe Estey, participated in the VPP Participants' Association National Symposium in Nashville, Tennessee from August 28-31. During the event, HAMMER received the Legacy of Stars, DOE's highest level of VPP recognition awarded to participants who have achieved the VPP Star of Excellence for four consecutive years. The event focused on ways to improve safety and working relationships between management and labor, with the goal to reduce injury rates and improve work efficiency and quality. Participants were provided with opportunities to interface with contractor, general industry, and DOE federal workers to

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share best practices and influence process and policy in regards to implementing VPP, industrial, and occupational safety initiatives within MSA.

Two HAMMER staff members were recently recognized for their commitment to environmental stewardship, pollution prevention, and forward thinking during the 2018 MSA Environmental Leadership Award ceremony. HAMMER Storekeeper, Adan Garza, and HAMMER Operations Specialist, Kim Knight, were recognized for their environmental leadership throughout this past year.



HAMMER National Programs Manager, Nicole Zawadzki, was recently recognized during MSA's Breakfast of Champions celebration for successfully leading HAMMER's Energy Response team to achieve great success this year.



In September, Nicole was assigned to the FEMA National Response Coordination Center in Washington D.C. as the Energy Operations Chief. Her leadership helped to improve the Energy Assurance program and an enhanced technology platform for energy responders.

**VPP ANNUAL REPORT
SUPPLEMENTAL
WORKSHEET**

Review: 1/1/2018 –
12/31/2018

Site Contractor Name/Acronym: Mission Support Alliance / **HAMMER**

Site Name: Hanford

Company President/Manager: Bob Wilkinson

Company Address: MSA

PO Box 650

Richland, Washington 99352

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

Calendar Year	Hours Worked	TRC Cases	TRC Rate	DART*Cases	DART*Rate
(Year-1) 2016	234,256	0	0.00	0	0.00
(Year -2)2017	282,515	0	0.00	0	0.00
(Year -3)2018	252,241	0	0.00	0	0.00
3-Year Total	769,012	0	0.00	0	0.00

Injury Incidence/Lost Workdays Case Rate (subcontractors)

Calendar Year	Hours Worked	TRC Cases	TRC Rate	DART*Cases	DART*Rate
(Year-1) 2016	18,558	0	0	0	0
(Year-2) 2017	15,357	0	0	0	0
(Year-3) 2018	21,081	0	0	0	0
3-Year Total	54,996	0	0.00	0	0.00

Total Contractor & Subcontractors for 3 Years:

Hours = 824,008 TRC Cases = 0 TRC Rate = 0.00 DART Cases = 0 DART Rate = 0.00

BLS for NAICS** # 611

TRC Rate = 1.9

DART Rate = 0.8

* 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: 140

Union Representative

Email: Kenneth_W_Gray@rl.gov

Contractor VPP POC

Email: Joseph_B_Estey@rl.gov

DOE/RL VPP POC

Email: Larry.Yearsley@rl.doe.gov

Number of Subcontractor Employees: Varies

Name: Ken Gray

Contact # 509-373-4729

Name: Joe Estey

Contact # 509-376-3419

Name: Larry Yearsley

Contact # 509-376-5104

Appendix B
Safeguards and Security
VPP Annual Self-Assessment Report 2018



DEPARTMENT OF ENERGY

MISSION SUPPORT ALLIANCE, LLC

SAFEGUARDS AND SECURITY (SAS)

VOLUNTARY PROTECTION PROGRAM ANNUAL REPORT

CALENDAR-YEAR 2018



1.0 SUMMARY

The Mission Support Alliance, (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 information, government sensitive information, and government property. This organization also ensures Hanford Site quantities of special nuclear material and classified information are reduced yet 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.

- Pursuit of the MSA Goals: Target Zero and Do Work Safely through tracking and communication of safety-related metrics.
- In 2018, SAS participated in the development of and adopted the MSA Safety Improvement Plan (SIP), which 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, through the following actions:
 - 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 review by the Office of Health, Safety, and Security was conducted on May 22-25, 2017. The review reconfirmed SAS Star Status.

VALUE OF VPP AT SAS

The primary value of the SAS VPP is the ongoing partnership between management and staff, who remain committed to maintain the highest level of 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, helping 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.

2.0 INTRODUCTION

During 2018, the annual self-assessment was subdivided into three separate VPP self-assessments, referred to as “trimesters.” SAS, along with the other MSA organizations, continue to use 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 five 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 five tenets and sub elements was validated with questions or lines of inquiry that included employee interviews, and document/information reviews.

3.0 SAS VPP ACCOMPLISHMENTS

- SAS is currently meeting all Department of Energy (DOE)-VPP Star attributes.
- SAS has earned the Star of Excellence award for six consecutive years and received the Legacy of Stars award in 2016.
- Technical Security surpassed 32 years without a days away, restricted, or transferred (DART) classified injury.
- Safety and Health hazard baselines have been upgraded for all SAS facilities, using an integrated process that incorporates inputs from management assessments, Industrial Hygiene monitoring, facility inspections, arising operational events/issues, and employee/management input.
- SAS developed 20 Safety Inspection training modules to aid personnel conducting safety inspections. This SAS process was shared with MSA over the past 24 months and has been implemented for use throughout MSA.
- Conducted 2018 Hanford Patrol (HP) Safety Summit. Twelve items were raised and placed in the Emergency Services Electronic Safety Logbook as opportunities for improvement. Many other items were discussed and deemed “operational issues” and were added to the HP Steering Committee agenda.
- SAS conducted the Annual Injury Review and mentored other MSA groups to improve injury analysis meetings in 2018.
- SAS implemented a pilot program in 2018 that takes Basic Security Police Officer (SPO) students and introduces them to the managers within the SAS group. This practice aids the SPOs’ understanding of operations, auditing, safety, and other services within the group. The program introduces the working culture at Hanford while expressing the expectation of managers and employees alike, promoting SAS commitment to increased employee understanding as well as transparency and relationship building between management and the Hanford Guards Union (HGU). This program also included comprehensive meetings with SPOs to discuss all facets of ISMS, VPP, safety culture, and the MSA safety and health program.

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2018 VPP Annual Self-Assessment

- One SAS member earned the Certified Laser Safety Officer designation.
- SAS continued to mentor the Hanford Fire Department (HFD) Safety Summit.
- SAS conducted Emergency Services (ES) Safety Leadership Team monthly meetings with bargaining unit safety reps.
- SAS continued to operate three successful Employee Zero Accident Councils.
- SAS Safety continued to work with local Boy and Girl Scouts in eastern Washington to offer Safety & Health related merit badge opportunities. To date, SAS employees have worked with over 400 Boy & Girl Scouts to earn safety, health, and environmental related merit badges.
- SAS employees attended the 2018 Voluntary Protection Program Participants Association (VPPPA) National Conference and brought back information to share with all of MSA.
- SAS employees presented a “MSA Safety Inspection Module Campaign” presentation at the 2018 National VPPPA Symposium. This proved to be a very popular session with great feedback.
- 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 continued to maintain 9 employees with Special Government Employee (SGE) status.
- SAS SGEs supported two offsite Occupational Safety and Health Administrative (OSHA) VPP assessments in 2018. Two assessments were completed: US Navy Intermediate Maintenance Facility (IMF) in Silverdale, Washington, and 3M Plant in Aberdeen, South Dakota.
- SAS provided one member to the VPPPA Region X Communications Committee.
- Two SAS employees participated in the Hanford Waste Treatment Plant 2018 VPP Self Assessment.
- SAS management organized a consortium of MSA Emergency Services SGEs to evaluate the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) annual VPP report. SAS SGE colleagues included five members of MSA Emergency Services. Feedback from OSHA stated: *“We here at OSHA are very fortunate and grateful to have such quality personnel as partners in this important effort. I think this was actually a very good fit from a site-to-site standpoint. Sometimes I get concerned that a VPP nursing home, for instance, might not get as much benefit from having their report reviewed by a VPP construction company. However, in this case, it was nice to have a large DOD GOCO that deals with chemical weapons destruction get their report reviewed by a DOE VPP site that deals with nuclear waste remediation. I think the similarities are beneficial, and the narrative report the MSA reps created from PCAPP has a lot of very good recommendations.”*
- SAS arranged and hosted an OSHA Region 10 SGE training course at the Patrol Training Academy February 6-8th. Thirteen Emergency Services employees (9 SAS employees) were approved and completed the SGE course. Two SAS employees participated as instructors to support OSHA in teaching the course.

4.0 VPP APPLICATION

HP Safety Summit

SAS conducted the 2018 HP Safety Summit. Twelve safety items were brought up and entered in the Emergency Services Electronic Database (ESED). SAS mentored other Mission Support Services (MSS) groups to improve injury analysis meetings and the HFD Safety Summit. Positive notes that came from the 2018 Safety Summit include:

- Attendees continued to genuinely care about each other.
- Good communication occurred between all attendees.
- HFD attendees helped with cross cutting issues in Emergency Services.
- The Summit remained an open forum for reporting issues needing resolution, and this was done in a respectful and professional manner.
- HFD invited SAS representatives to attend the HFD Safety Summit.
- New Security Police Officers (SPOs) participated.
- HP participation was good, but more representation of exempt employees is needed.

The 12 safety items brought forth in the 2018 SAS Safety Summit are as follows:

- Barricade & Post Safety
- Post Hygiene
- On-Site Traffic
- Radio Signals & Current Radios Less Than Adequate
- Exercise Drill Safety
- SAS Security Analysis Drills Into Radiologically Controlled Area (RCA) /Radiological Buffer Area (RBA) (ALARA Entry)
- Vehicle Accidents & Injuries By Vehicles (Sitting Stationary)
- Vehicle Cab-Storage Room /Ergonomics
- Training Limitations – Safety Hinders Tactical Training
- No Procedure For Air Quality Protocol (Specific to HP Operations/PTA)
- Loading/Carrying Equipment (Required and Personal Items)
- Potential hearing issues due to training with weapons

SAS 2017 Headquarters VPP Review

The DOE-VPP Team performed an assessment from May 22-25, 2017, and SAS was approved to continue to participate in DOE-VPP at the Star level.

MSA SAS at Hanford maintains a standardized program for all Project Hanford Management contractors relating to safeguards and security function, and physical protection of special nuclear material, classified material, government property, and personnel located within the Hanford Site. The HGU represents the uniformed SPOs, although the Hanford Atomic Metal Trades Council (HAMTC) represents a few workers (i.e., locksmiths).

Since the previous assessment in 2012, MSA-SAS' total recordable case rate (TRC) and DART case rate have dropped from 3.0 and 1.6 cases per 200,000 work hours to 1.1 and 1.0 per 200,000 work hours, respectively. MSA SAS TRC and DART rates are significantly below the averages for the comparable industry.

MSA SAS managers are committed to maintaining an effective security profile for the Hanford site while minimizing or preventing injuries. Their efforts over the past year to reach out to HGU are paying dividends; however, those efforts are also causing some unintended consequences among middle managers. MSA SAS should ensure its outreach actions include middle managers and continue working with HGU personnel to establish collaborative working relationships along the entire chain of command. MSA SAS should also identify more opportunities to reinforce correct behaviors, not just punish incorrect behaviors, to foster further improvements.

MSA SAS continues to improve its employee involvement program. The MSA president and senior leaders initiated monthly meetings with the HGU Executive Board to improve communications with the HGU and directly address HGU worker concerns. MSA SAS continues to participate in the MSA Employee Zero Accident Council (EZAC) and President's Zero Accident Council (PZAC) committees. SAS has added two additional "ad hoc" committees to focus on improving communications with the Emergency Services safety representatives and administrative employees. While employees are comfortable raising safety issues, observations indicate that workers do not always recognize or question at-risk practices during their normal activities.

MSA SAS has adequate worksite analysis processes and procedures in place. Hazard identification is thorough, and exceptional housekeeping was evident throughout the facilities. The conversion from the MSA automated job hazard analysis (AJHA) to a graded work-planning process based on hazard analysis promises to produce appropriate, high-quality, detailed work plans and instructions. This move addresses the vulnerability identified in the 2012 VPP onsite evaluation.

MSA SAS follows the hierarchy of controls using engineered controls, administrative controls, and personal protective equipment (PPE) to minimize its workers' exposure to hazards. MSA SAS has implemented employees' suggestions to mitigate hazards.

SAS continues to maintain the effective Safety and Health Training Program developed and maintained by MSA. Managers and employees are properly trained and aware of the hazards present in the workplace.

MSA has concentrated on the relationship between senior managers and HGU Executive Board members in the wake of the contract negotiations. MSA senior managers' outreach efforts to the union leaders, however, have bypassed middle managers within the protective force. These middle managers remain dedicated to the mission but need additional opportunities to work with senior managers to ensure they understand the basis for decisions and can act in a manner consistent with senior managers' expectations. MSA should also work with the SAS managers to convince them that all injuries are preventable and continue seeking training methods that meet mission requirements while reducing the risk of injury.

Improvement opportunities

Opportunity for Improvement
<p><i>MSA SAS should begin holding regular face-to-face meetings between MSA SAS senior managers and uniformed middle managers on a frequency consistent with its meetings with the HGU.</i></p> <p>Update: Currently, Shift commanders (Supervisors) meet with Security Reps regarding information that is pertinent to daily operations and/or lessons learned from previous incidents. These face-to-face interactions are then communicated to first-line supervisors through written and face-to-face interaction. Since each shift commander has their own first-line supervisors, this process recurs until all shifts are informed. This face-to-face interaction is also captured in a weekly labor management meeting that occurs between the Deputy Chief and HGU business agent.</p>
<p><i>MSA SAS should identify a set of core leadership expectations and recurring training opportunities that reinforce those expectations, including approaches to identify, admit, and correct leadership errors in ways that reinforce rather than degrade the professional relationships between exempt and nonexempt personnel.</i></p> <p>Update: Hanford Patrol Management currently enrolls supervisors at Washington State Criminal Training Centers, "First Level Supervision course". In addition, Hanford Patrol has supervisors attend the HAMMER leadership course here in Richland WA, that further aids in developing and practicing useful skills that help in maturing new supervisors.</p>

MSA SAS should continue working to develop and implement tactical response training that optimizes the ability to neutralize an adversary while reinforcing behavioral actions that minimize risk of injury.

Update: PTA staff and SAS Safety review and determine Training Activity Plans (TAPS), based on Craft Specific Hazard Analysis taking into consideration mission needs while providing “real as it gets” training for the Security Police Officer. This working relationship helps in supporting a well-rounded approach of mission needs and safety protocols that may go unseen by PTA staff. This open dialog helps in furthering behavioral change that support safer methods of training versus risk attitude driven behavioral.

MSA SAS should seek an authoritative interpretation from DOE's Office of the General Counsel to validate its practice of defining mandatory versus voluntary physical training and exercise for SPOs and using that definition to exclude some injuries as "not work related."

Update: Effort is underway.

MSA SAS should review its process for reporting results of its annual assessment and ensure personnel preparing the report include recommendations for improvements and goals in the coming year.

Update: SAS utilizes the MSA Safety Improvement Plan to incorporate recommendations for improvements and goals.

MSA SAS managers should identify approaches that reinforce correct behaviors and resist normalized deviations from requirements.

Update: Effort is underway.

MSA SAS should consider formalizing the new committees and documenting the committees' purposes in a charter to ensure the continued successes of those groups.

Update: The MSA SAS “Administrative Professional Safety Meeting” now falls under the SAS EZAC Charter.

SAS VPP Trimester Process

The self-assessment for 2018 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 used, with 5 being the highest possible score.

The results were discussed with the Emergency Services Vice President and SAS Points of Contact (POCs), 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 workforce at shift change,

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safety meetings, and all-employee messages. Items of concern were incorporated into the ESED and are being worked to closure.

2018 1ST TRIMESTER - SAS TENET SCORES

Overall Average	4.6
Management Leadership	4.1
Employee Involvement	4.7
Worksite Analysis	4.8
Hazard Prevention & Control	4.6
Safety & Health Training	4.6

2018 2ND TRIMESTER - SAS TENET SCORES

Overall Average	4.6
Management Leadership	4.5
Employee Involvement	4.6
Worksite Analysis	4.7
Hazard Prevention & Control	4.8
Safety & Health Training	4.4

2018 3RD TRIMESTER - SAS TENET SCORES

Overall Average	4.5
Management Leadership	4.7
Employee Involvement	4.5
Worksite Analysis	4.8
Hazard Prevention & Control	4.4
Safety & Health Training	4.3



SAS PARTICIPATION IN MSA INITIATIVES

- Conducted Safety Focus meetings
- Led SAS, Emergency Services & 2018 MSA Annual Injury Review meetings
- Conducted Target Zero / SAS Situational Awareness Briefings
- Volunteered with Boy Scouts of America HP Explorer Post
- Organized and supported over 400 Boy and Girl Scouts in earning Safety, Health and Environmental related merit badges over the last five 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, HGU, 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
- PZAC Planning Team – 2 members
- Hanford Site Traffic Safety Committee – 4 members
- Safety Expo Planning Team – 1 member
- MSA Case Management Team -2 members

SAS employees are assigned as MSA Subject Matter Experts in the following areas:

- Adverse Weather
- Aviation Safety
- Compressed Gases
- Fall Protection
- Industrial Safety (IS)/Industrial Hygiene (IH) Selection, Qualification and Training
- Laser Safety
- Biological Hazards (Including Bloodborne Pathogens)
- First Aid and Automated External Defibrillators (AED)
- 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
- 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

SAS continues to seek opportunities for VPP mentoring and outreach. The following items summarize the activities:

In 2018, SAS participated in the Hanford VPP Champions group, which 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 other site contractors in 2018. SAS also participated in Centerra Safety monthly conference calls.



The Patrol Training Academy's staff provided 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 22nd annual Safety Connect (EXPO). Safety Connect 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 and was attended by community members of all ages. Safety Connect fosters safety as a value in employees' lives and provides ways to share safety and health related lessons learned and success stories.

6.0 MANAGEMENT LEADERSHIP

The SAS Management Team continued 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 demonstrated their commitment through recognizing employees for safe acts in daily work activities, monitoring 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

Workers and supervisors from the responsible work groups were 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 developing work instructions continues to be 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 down by the work group(s) prior to having the document approved by the hazard controls specialists.

SAS personnel were actively involved in MSA safety committees and task teams that included:

- SAS Employee Zero Accident Council
- Hanford Guards Union Zero Accident Council
- Emergency Services Safety Representative Monthly Meeting
- HP Safety Summit
- Hanford Fire Department Safety Summit
- SAS Annual Injury Review
- Presidents Zero Accident Council
- Presidents Zero Accident Council Planning Committee
- MSA VPP Core Team
- Hanford Site Respiratory Protection Program Committee
- Case Management Committee
- Hanford Site Case Management Committee
- Hanford Occupational Health Provider (HOHP) Quarterly Meeting
- Hanford Site Case Management Committee
- MSA Industrial Hygiene Huddle
- MSA All Chair Employee Zero Accident Council Meeting
- HPMC Occupational Medical Services Interface Meeting
- MSA Ergonomics Committee

SAS personnel were actively involved in Hanford site multi-contractor safety committees that included:

- 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

Analysis of new facilities and planned work

Analysis of hazards for new facilities occurred at various stages of the process. The activities were 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 and includes specific hazard analysis steps addressed in MSC-PRO-WP-079, *Job Hazard Analysis*.

Safety & Health surveys by Safety & Health professionals

SAS continued to follow established processes. The baseline surveys are updated by the SAS Safety and Health staff through annual completion of monthly hazard assessments documented in accordance with SAS-5874, *Environmental, Safety & Health Program*. 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. SAS Hazard Baselines are also utilized to create the Craft Specific Hazard Analysis (CSHA) with accompanying Chemical Use Attachments (CUA). The baseline hazard assessment is posted on the SAS Safety Central web page 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 remained available for employee reporting of hazards, including 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) that is part of MSA's corrective action management system (CAMS). SAS continued to encourage workers, including subcontractors, to implement a stop work culture reinforced by work instructions and line management. SAS management embraces DOE-0343, *Hanford Site Stop Work*, where work is stopped if an unsafe condition is discovered or an unexpected event occurs that requires personnel 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*, establishes the process for reporting, investigating, and managing Occupational Injury/Illness (OII) cases or events that have safety or health significance, as well as how to comply with U.S. DOE Directive DOE O 231.1B, *Environment, Safety and Health Reporting Requirements*. This procedure also includes documenting vehicle and

property damage incidents. Line management remains 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 to identify adverse trends. Trend analysis of the cases is used to identify areas appropriate for increased awareness activities, required Weekly Safety Start discussions, and/or increased SAS Environmental Safety & Health (ES&H) presence. Other indicators of safety and health culture strength 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.

VPP effectiveness 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 into the SIP and other corrective action plans. Use of the injury database allows SAS to analyze the group's annual injuries, as well as consider other MSA injuries that may potentially occur 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 HFD and was pushed out to other groups in MSA this year.

9.0 HAZARD PREVENTION AND CONTROL

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. Current certifications of staff directly supporting SAS include a Certified Safety Professional (CSP), Certified Industrial Hygienist (CIH), and a Certified Laser Safety Officer. 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 an 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 were discussed daily at the Line-ups and Plan of the Day meetings, and lessons learned were 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.

Procedures for positive reinforcement and disciplinary action

Positive reinforcement was 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 MSC-POL-HR-11385, *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 were 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, Preventive Maintenance (PMs) remained a schedule priority, and employees were encouraged to complete their assigned PMs each month. PMs are an essential and vital element of the maintenance program and keep equipment essential to site mission running smoothly without frequent breakdowns or 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 were 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 provided timely response

The medical program provided employee pre-employment and termination physicals, as well as annual assessments as required by job duties. The program continued 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.

10.0 SAFETY AND HEALTH TRAINING

Employees

SAS continued 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 used 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 provided opportunities to re-evaluate the adequacy of personnel training and were used to improve training packages. When necessary, briefings on specific health and safety concerns were developed and presented to the affected personnel. SAS training program for Protective Force continued to be 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 continued to receive safety, environmental safety, emergency preparedness and ISMS training as part of their Hanford General Employee Training (HGET). Other training requirements were required based on job responsibilities. SAS management also attended MSA-wide special emphasis courses on Beryllium Work Planning and Risk Communication.

**VPP ANNUAL REPORT
SUPPLEMENTAL
WORKSHEET**

Review 01/01/2017 –
12/31/2018

Site Contractor Name/Acronym: Safeguards and Security / SAS

Site Name: Hanford

Company President/Manager: Bob Wilkinson

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) 2016	612,021	5	1.63	4	1.31
(Year-2) 2017	614,135	4	1.30	1	0.33
(Year-3) 2018	637,903	0	0.00	0	0.00
3-Year Total	1,864,059	9	0.97	5	0.54
BLS for NAICS** # 92212			7.2		3.4

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-1) 2016	0	0	0	0	0
(Year-2) 2017	0	0	0	0	0
(Year-3) 2018	0	0	0	0	0

3 Year average, SAS is at 13% of the NAICS TRC rate

3 Year average, SAS is at 16% of the NAICS DART rate

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

Number of Contractor Employees:
321

Number of Subcontractor Employees: None

Union Representative

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Appendix C
Mission Support Services
VPP Annual Self-Assessment Report 2018



DEPARTMENT OF ENERGY

MISSION SUPPORT ALLIANCE, LLC

MISSION SUPPORT SERVICES

VOLUNTARY PROTECTION PROGRAM ANNUAL SELF-
ASSESSMENT

CALENDAR-YEAR 2018

1.0 SUMMARY

Mission Support Services (MSS) received Department of Energy (DOE) Voluntary Protection Program (VPP) Star recognition in September 2011.

On March 3, 2016, the DOE-VPP Team concluded a two-week onsite VPP assessment of the MSS Star site to verify the effectiveness of improvement actions. The Team recognized MSA's efforts to strengthen the partnership between managers and workers, while improving worker safety, safe work environments and communication. Therefore, the Team recommended continued participation in the DOE-VPP at the Star level, without conditions. DOE-VPP approved the VPP Star recommendation on June 16, 2016.

The MSS Star Site consists of the following MSA organizations:

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

*Organization realignments; see Section 4.0 for details

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 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.

Key statistics are shown in Table 1. For more detailed discussion of statistical information, see the *VPP MSS Annual Report Supplemental Worksheet* at the end of this report.

Table 1. Key MSS Statistics for 2018

Category	Statistic
Average number of employees during the year	1,836
Total manhours worked	3,427,261
NAICS Code / Rate for Year	561
NAICS 561 Total Recordable Case (TCR) Rate	2.1
NAICS 561 Days Away, Restricted, Transferred (DART) Rate	1.2
MSS Number of OSHA TRC Injuries in 2018	9
TRC Rate	0.53
MSS Number of DART Injuries in 2018	4
DART Rate	0.23

2.0 CONTINUOUS IMPROVEMENT

Analysis of Injuries Becomes Employee Communications

Injuries that occur within MSS organizations are analyzed, and trends are noted. Company safety performance metrics (Attachment 1) are published monthly and are accessible by all employees 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 agenda items for safety meetings. They are also posted on Employee Zero Accident Council (EZAC) safety boards located in MSA facilities.

Other means for injury/vehicle incident-related communication include the MSA Worker Alert Response Notification System (WARNS) and the MSA Daily Operations (Ops) Report; both methods are available to all employees at their request. WARNS notices are sent by text message followed up by an email, notifying subscribers of injuries and events on a real-time basis. The Ops Report provides brief details of work-related injuries/vehicle accidents that occurred the prior day, active stop works, and other Hanford contractor events that have the potential to affect onsite activities, such as planned road closures, drills, restricted access to areas, etc. This information can be shared daily at plan-of-the-day or other meetings.

Weekly Safety Starts are prepared and distributed through a general distribution message to all employees. Topics for these documents are typically derived from company safety initiatives, safety focus areas that need increased employee awareness, emerging injury trends, lessons learned, or 24/7 safety practices. The intent is to stimulate Monday morning conversations that prompt employees to refocus on situational awareness for the

upcoming week. Attachment 2 contains two examples of Weekly Safety Starts that were distributed and discussed at employee back-to-work meetings.

Safety & Health Improvement Plan (SIP)

The calendar year (CY) 2018 SIP was developed at the company level to address cross-cutting safety and health (S&H) initiatives that apply to all MSA organizations, including each MSS organization. SIP actions were developed by analyzing results of the trimester VPP self-assessments, Integrated Safety Management System (ISMS) Surveillance Team observations, S&H management assessments performed during the year, and injury trends.

Specific activities and progress toward achievement of these initiatives within MSS organizations are described below:

Management/Leadership Commitment

Improve feedback on safety items through periodic communications with safety leaders.
--

Actions: Actions were to include scheduling management to safety meetings and work group activities and include them on agenda for discussion on safety log items, safety inspections, safety campaigns and vehicle safety.

Result: This SIP goal was met within MSS organizations. The MSA Office of the President expects senior management to remain visible and regularly communicate with the workforce about safety. Management was invited to monthly safety meetings, conducted Weekly Safety Start discussions, and attended meetings with group safety leaders and EZAC chairpersons.

During the year, senior management actively participated in PZAC and organizational safety meetings, Weekly Safety Starts, work area inspections, safety lunches, Employee Job Task Analysis (EJTA) updates, and safety log status updates. Safety was a primary topic of discussion led by the MSA President and/or Chief Operations Officer (COO) at the quarterly all-manager and all-employee meetings.

MSS actions for this improvement item included, but were not limited to, the following:

- VPs and management led discussions on safety hazards in the work place (e.g., ongoing construction in Federal Building parking lot, weather related issues, office safety inspections, etc.) at safety, PZAC and EZAC, and all-employee meetings
- Managers increased participation in safety recognition events
- All Emergency Management Program (EMP) managers were scheduled to lead one quarterly safety inspection in 2018
- VPs and deputy VPs attended EZAC meetings and trimester safety luncheons
- Managers rotated group participants when conducting monthly office inspections
- EZAC Chairs and personnel performed regular safety and health inspections to mitigate hazards in the workplace and included safety professionals

- Managers ensured government vehicles were cleaned and inspected at the end of every shift

Improve mitigation of hazards in the work area, office environment and utility vehicles.

Action: Implement a monthly management walk-through schedule dedicated to observation of work sites, vehicle operation, and one-on-one interaction with workers.

Results: This SIP goal was met within MSS organizations. Monthly management 'walkthroughs' with dedicated safety professionals and EZAC personnel were scheduled and implemented. One specific example was when an office move was pending, the walkthrough team evaluated the move and ensured there were no unmitigated hazards either during the move or in the new location.

Several hazards were noted in the safety logs as a result of performing walkthroughs. In most cases, the management walkthroughs were in addition to the required safety and health inspections. During the safety inspection campaign, the Weekly Safety Start topic for the first Monday of each month focused on safety and health inspection criteria. Although an employee may not have been involved in a documented walkthrough or inspection, every employee received guidance on what to look for during walkthroughs/inspections that could be used during their everyday activities.

Employee Involvement

Improve work area conditions by documentation of inspections. Increase employee participation by incorporating effective housekeeping practices as an ongoing operation.

Action: Work with management to ensure cleaning and organizing is done regularly by integrating housekeeping into daily activities. Frequently inspect work areas to identify deficiencies that can be corrected to eliminate the hazards.

Result: This SIP goal was met within MSS organizations. In some organizations, such as Property Management, Fleet, and Portfolio Management, over 90% of the employees have participated in documented inspections. During 2018, over 600 Safety & Health inspections were documented. Organizations such as Custodial have implemented daily housekeeping activities, and Real Estate Services regularly inspects their own work areas to make sure housekeeping practices are in accordance with expectations.

Worksite Analysis

Improve overall understanding of implementation of, *MSA General Hazard Analysis (GHA)*; *Craft Specific Hazard Analysis (CSHA)* and *Chemical Use Attachment (CUA)* information.

Action: The VPP Core Team will lead an effort to increase worker knowledge of the entire hazards analysis process to facilitate review of GHA, CSHA and CUAs at safety meetings and field meetings, with the assistance of safety professionals who can offer practical application at work locations.

MSA and the Hanford Site Traffic Safety Committee will lead an effort to work toward long-term, sustainable improvements to site vehicle safety behaviors, education, and enforcement.

Results: This SIP goal was met within MSS organizations. Common actions included reviewing the GHA and CSHA to better understand the hazards and hazard controls for work assignments. Situational awareness was the focus of several communications; they encouraged employees to maintain a questioning attitude, think about the task and the hazards, and remain constantly aware of their environment and of any changes. Groups enlisted the support of safety professionals when leading discussions on hazard analysis and how to determine appropriate hazard controls. Specific actions for this improvement item included, but is not limited to, the following:

- Incorporating knowledge and understanding of GHA/CSHA/CUA lines of inquiry (LOIs) into the trimester interview questions. Results demonstrated goal achievement by improved scores during the VPP trimester evaluation.
- Completing ergonomic assessments within specific work groups and addressing concerns in a timely manner (i.e., ordering ergonomic equipment).
- Scheduling safety professional(s) to present GHA/CSHA/CUA to work groups as a safety topic.
- Initiating meetings with a 'GHA Moment.'
- Discussing GHA/CSHA/CUA during monthly EZAC meetings, which include a signed roster and meeting minutes.
- The Hanford Site Traffic Safety Committee completed the development of Site Master Driving Rules
- A Vehicle Safety Observation worksheet was developed. To date, over 350 observations were completed.
- A employee self-awareness driving campaign was implemented. Over 60% of MSA employees participated in the "What Kind of a Driver are You?" safety campaign.
- MSA initiated work with DOE to provide long-term proposals to enhance vehicle safety on the Hanford Site. This effort includes a focused strategy on parking/backing which is where the majority of vehicle incidents are occurring.

Hazard Prevention and Control:

Continue to improve knowledge and implementation of Hierarchy of Controls (HOC).

Action: Display posters, distribute two Weekly Safety Starts, and provide hierarchy of controls information as safety topics at safety meetings.

Result: This SIP goal was met within MSS organizations. A number of communications were made available and delivered to employees and EZAC chairpersons, including HOC posters, Weekly Safety Starts, Safety Sleuth challenge questions, and communications at EZAC/PZAC meetings.

MSS actions for this improvement item included the following:

- Incorporating HOC LOIs into the VPP third trimester interview questions. Results demonstrated goal achievement by improved scores during the evaluation.
- Using various techniques, such as games, during safety meetings to emphasize HOC principles.
- Distributing the HOC poster for displaying on safety boards.
- Including HOC discussions in pre-job planning and working discussions.
- Ordering ergonomic desks, mats, keyboards, and monitors, etc., when an ergonomic concern was identified.
- Implementing multiple levels of winter weather preparation using HOC principles, including purchasing PPE, generating cold-weather lanyard cards, distributing HOC posters, conducting Monday morning back-to-work discussions, and leading EZAC/PZAC discussions.
- Reviewing HOC at Monday morning back-to-work meetings and displaying posters in conference rooms to stimulate HOC conversations.

Improve focus on and resolution time for safety issues.

Action: Maintain strong safety log use, review and follow up on safety log entries, and reduce closure time of issues.

Results: This SIP goal was met within MSS organizations. Use of safety logs as a means to report a safety concern is encouraged. EZAC Chairs and management regularly reviewed safety logs, per procedure. Safety log items for an area or workgroup were reviewed and discussed at monthly EZAC meetings. Over 200 safety log items were recorded during 2018, and many were resolved within 48 hours from discovery to completion. A 60-day or greater list was generated and distributed to log item actionees and the MSA President. Aging issues that could not be resolved at the VP level were evaluated for further action, such as elevating to the PZAC action list and presenting the condition to PZAC meeting attendees for discussion.

Safety and Health Training:

Continue to increase employee awareness of the safety inspection process to improve attention to hazard identification and mitigation.

Actions: Encourage employees to complete the Safety Inspection Training including Phase II Safety Inspection Modules. Also, incorporate training modules into one Weekly Safety Start per month.

Results: This SIP goal was met within MSS organizations. MSA implemented a safety inspection initiative by developing a series of modules that describe the process for conducting safety and health inspections. Each month, an inspection topic was highlighted in the Weekly Safety Start, in conjunction with a presentation and in-depth discussion with EZAC Chairpersons at the monthly All-Chair meeting. All inspection modules are located on the VPP website for further use and distribution, as applicable.

MSS actions for this improvement item included, but were not limited to, the following:

- Ensuring personnel attended safety and health inspections presentations and participated in work group discussions
- Attending a safety and health inspection presentation for each of the twelve modules
- Incorporating knowledge and understanding of safety inspection LOIs into the third trimester interview questions. Results demonstrated goal achievement during the third VPP trimester evaluation.
- Continuing quarterly facility inspections that include employees on the inspection team.

Continue to increase employee awareness of VPP through training opportunities and potential VPP outreach activities.

Action: Encourage employee participation in local and regional VPP related educational opportunities. Also, incorporate VPP related training into periodic Safety Starts to keep VPP fresh.

Results: This SIP goal was met within MSS organizations. Management supported this effort by sending 14 MSS employees to both the Region X Northwest S&H Summit and 2018 VPPPA Safety+ Symposium. These employees provided presentations at monthly PZAC meetings to share their experience and lessons learned. Additionally, an MSS employee served as the Chairman of the Region X VPPPA. One Weekly Safety Start was dedicated to VPP and several others had embedded aspects of the VPP included. MSA new hires completed a VPP orientation checklist for new employees.

Completing all of the SIP actions may have contributed to MSS reducing its TRC rate by 12% and DART rate by 36%.

VPP Annual Self-Assessment

During CY 2018, MSS organizations performed their annual VPP self-assessment by conducting trimester evaluations. LOIs derived from the five tenets of VPP were used to

interview a cross-section of employees within all MSS organizations. Approximately 25% of the MSS employees were interviewed during the year. Documents and associated VPP activities were also reviewed to support verification of implementation of an effective VPP. An overall rate was determined based on a 0 – 5 scale, with 5 indicative of the highest level of VPP implementation. Results for the year are as shown in Table 2:

Table 2. CY 2018 VPP Trimester Evaluation Results

Trimester	Rate
First Trimester	4.7
Second Trimester	4.5
Third Trimester	4.7
AVERAGE	4.6

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 VPP elements and tenets.

Assessment data indicated excellent employee VPP participation that was sustained throughout the year. Assessment results, including “good practices” and lessons learned data, were discussed with both MSA senior leadership and the organizational vice presidents, along with their respective VPP points of contact (POCs), and EZAC leadership.

The feedback, which was provided three times during the year, allowed organizations to recognize strengths and weaknesses immediately, thus prompting revision of SIPs or development of corrective action plans, as needed. Assessment data for MSS organizations was posted on the MSA VPP website and is accessible by all employees.

3.0 MSS VPP ACCOMPLISHMENTS

The following accomplishments within MSS organizations were recognized during CY 2018:

- Over 60% employee participation in the “What Kind of a Driver are You?” safety campaign.
- Identified exceptional and good practices during ISMS Surveillances in the areas of worker involvement, feedback and improvement, worksite analysis, and work control.
- Demonstration of management’s clear understanding of staff training/qualifications requirements. Also, management ensured personnel training requirements were current.
- Maintained training records readily available for review and communication to the other Hanford contractors (OHCs).

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VPP Annual Self-Assessment 2018

- Kept training records and documentation up to date, and recognized posting information on the facility training status board as a noteworthy practice.
- Successfully implemented new technologies and engineering controls to improve safe work performance of radiological control technicians (RCTs).
- Improved the Industrial Hygiene Equipment Services Organization's recordkeeping practices, to ensure consistent retrieval of records by all personnel.
- Conducted a two-day safety summit at Hanford Fire Department, which included delivery of job-specific safety presentations, as-well-as breakout sessions to discuss potential safety improvements.
- Provided immediate feedback to senior management about VPP trimester evaluations.
- Self-identified issues and/or opportunities for improvement (OFIs) were entered and tracked until completion through MSA's corrective action management system (CAMS).
- Safety ideas/issues reporting in the safety logs remained strong throughout the MSS.
- Coordinated 600+ employees participating in 500+ S&H inspections.
- Fixed safety issues on-the-spot, either recording on the applicable safety log, or documenting on an Issue Identification Form (IIF) for further processing in CAMS.
- Sponsored 14 MSS employees' attendance at the Voluntary Protection Program Participants' Association (VPPPA) Region X Northwest S&H Summit in Anchorage, Alaska.
- Sponsored 14 MSS employees' attendance at the 2018 VPPPA Safety+ Symposium in Nashville, Tennessee
- Sponsored MSS employee presentation at the VPPPA Region X Northwest S&H Summit and at the VPPPA Safety+ Symposium.
- Sponsored an MSS Bargaining Unit individual serving as the Committee Chairman on VPPPA Region X Board.

4.0 VPP APPLICATION

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

Workgroup 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, Lockheed Martin sold managing direction to Leidos Corporation

Organizational changes that occurred during CY 2018:

- Independent Oversight groups were realigned across various organizations
 - Quality Assurance and Performance Oversight was aligned to Environmental, Safety and Health. The combined organization was named Environmental, Safety, Health and Quality
 - Risk Management was assigned to Business Services, which was renamed Business Integration and Operations
 - Employee Concerns was assigned to the President's Office, with direct reporting to the president
 - Ethics was assigned to the President's Office in the Legal Department

5.0 GOALS AND OBJECTIVES

CY 2018 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:

- The TRC and DART rates for MSS organizations continued trending downward during the past year after slightly increasing during CY 2016. The downward trend could be attributed to the following efforts:
 - Increased heat stress monitoring during record-high temperature conditions
 - Emphasized, and increased participation in, voluntary “stretch and flex” activities
 - Increased communications regarding environmental hazards and changing weather conditions
 - Increased emphasis on training prior to conducting facility inspections
 - Conducted more stringent facility inspections
 - Engaged safety professionals, Hanford Atomic Metals Trade Council (HAMTC) Safety Reps, and EZACs to evaluate and continually encourage safe work of peers in work groups
 - Conducted company-wide campaigns (organized by VPP Core Team) to increase knowledge and safety awareness of workers
- DOE/EM TRC Goal: Rate of <1.1 was achieved as MSS TRC rate for CY 2018 was 0.53
- DOE/EM DART Goal: Rate of <0.60 was achieved as the MSS DART rate for CY 2018 was 0.23
- Safety performance in all has been strong. TRC and DART rates were reduced from CY 2017 to CY2018

CY 2018 Goals and Objectives included the following:

- With the objectives of *Zero Accidents* and *Do Work Safely*, MSS organizations’ goal is to continue to reduce TRC and DART rates.
- MSA is developing CY 2019 company-level goals based on opportunities for improvement observed during the DOE-VPP Team evaluation, 2018 trimester VPP self-assessments, management assessments, and independent oversight assessments. The safety vision and goals will be applicable to all MSA organizations. MSS organizations will be encouraged to supplement any or all of the improvement actions with focus on their specific workgroups.

6.0 MENTORING AND OUTREACH

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

- Provided executive management and support of the planning and execution of 2018 Safety Connect Health & Safety EXPO, a community event held at the Trade, Recreational & Agricultural Center in Pasco, Washington. The two-day event attracted over 30,000 attendees and was comprised of community residents and Hanford contractor employees.
 - MSS employees managed the vehicle accident demonstration, bicycle rodeo, and transportation of radioactive waste demonstration.
 - MSS employees designed and manned several safety-related interactive booths.
- Served as guides for public tours of historical areas and present-day clean-up activities of the Hanford Site
- Delivered presentations and led discussions at both the Region X VPPPA Northwest S&H Summit and VPPPA Safety+ Symposium
- Sponsored an MSS employee as the VPPPA Region X Chairman
- Actively participated in the Energy Facility Contractors Group (EFCOG) Safety Culture sub workgroup
- Sponsored three special Government Employees (SGEs) from MSS organizations to assist Occupational Safety & Health Administration (OSHA) with VPP onsite reviews and three MSS SGEs to perform annual report reviews.
- Chaired and served on several Hanford site wide committees, including:
 - Traffic Safety Committee
 - Hanford Chronic Beryllium Disease Prevention Program Committee
 - Hanford Site Fall Protection Committee
 - Hanford Electrical Safety Committee
 - Hanford Case Managers' Committee
 - Hanford VPP Champions Committee
- Participated in several community activities, such as:
 - Junior Achievement Mentorship
 - Boy Scouts and Girl Scouts of America Leadership
 - 4-H Club leaders
 - March-of-Dimes fundraisers
 - United Way fundraisers team leaders
 - Presenting and conducting hands-on activities while visiting at-risk students as part of the After School Matters Program

7.0 MANAGEMENT LEADERSHIP

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-WP-5053, *Mission Support Alliance Policy for Environment, Safety, Health and Quality*
- MSC-PLN-MP-003, *Integrated Environment, Safety, and Health Management System Description*
- MSC-PLN-WP-32219, *MSA Worker Safety and Health Program*

Safety professionals, including Certified Safety Professionals (CSP) and those with Certified Industrial Hygiene (CIH) certifications, are matrixed from the central Worker Protection Group and aligned with the management teams and workgroups they support. They have been effective in providing assistance when performing safety inspections, addressing safety log and emerging safety issues in a timely manner, and maintaining a partnering relationship between workers and safety staff. Subject matter experts (SME), who serve as an authority for a particular safety area are also provided by the Worker Protection Group, as needed.

Vice Presidents and management within MSS organizations were regularly on the agenda and participated in the monthly PZAC and EZAC 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.

Various organizations within MSS conducted "safety summits" or "focus days." These forums were led by the organizations' vice president and included, at 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 items 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, as well as support of the OSHA SGE Program.

MSS organizations' management demonstrated recognition to their employees by participating in awarding of "on-the-spot" safety tokens and hosting safety lunch celebrations. Both the awarding of tokens and holding safety lunches are a means to recognize employees for safe behaviors and/or performance.

First-line supervisors 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

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

- Participating in the 2018 word-search and inspection campaign, which included questions pertaining to VPP, the SIP, and safety inspection modules.
- Participating in the “What Kind of Driver Are You?” safe driving campaign. Over 60% of the employees participated in the campaign.
- Attending Monday morning back-to-work safety briefings. 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 workweek.
- Participating in the “Safety Sleuth” challenge. This activity consisted of a weekly online safety-related quiz. Questions were typically aligned to current safety issues and answers found in MSA documents and/or procedures. On average, over 300 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 were encouraged to attend slip simulator training.
- Maintaining over 40 EZACs, led by a volunteer/elected Chair and often a Co-Chair, who are employees of that work group. EZAC meetings are open to all employees of a work group.
- 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 are discussed. Information attained during these meetings can be further distributed throughout individual workgroups. This group has grown in meeting attendance during the past year
- Engaging MSS leadership at EZAC meetings. MSS 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.

9.0 WORK SITE ANALYSIS

Baseline surveys are updated through annual completion of monthly hazard assessments by S&H staff. Data from individual area hazard assessments are entered into a site wide industrial hygiene database to ensure that baseline information is updated 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 (FWs) 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
- MSS organizations' S&H professionals
- Safety issues process (safety logs)
- Issue Identification Forms (both hard copy and electronic)
- Stop Work
- Employee Concerns Program

MSS strongly encourages employees to exercise their stop work authority per DOE-0343, *Hanford Site Stop Work Procedure*. This practice was greatly embraced and is continuously 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, case managers, and HAMTC safety representatives.

Individual organizations track occupational injuries to identify adverse trends. Types of occupational injury cases include: first aid, recordable, restricted, and "days away from work." 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 VPP performance. Additionally, as employees complete mandatory annual

Hanford General Employee Training (HGET), an optional VPP perception survey is provided. All results are captured and monitored.

10.0 HAZARD PREVENTION AND CONTROL

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, CSPs and CIHs are matrixed to MSS organizations from the central Worker Protection Group. MSS organizations continue to develop controls for hazards in the following order:

- 1 Elimination
- 2 Process *and/or* Material Substitution
- 3 Engineering Controls
- 4 Administrative Controls
- 5 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 OPEX Share (Lessons Learned) system, as well as from outside sources. Both internal lessons learned and key lessons learned from outside MSS organizations are 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.

MSC-POL-HR-11385, *Standards of Conduct*, defines the disciplinary process for employees who do not comply with safety requirements. Subcontractor documents address MSA 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 preventive maintenance is 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, physicals, termination physicals, and annual assessments as required by job duties. An EJTA for each employee is developed 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 Richland Operations Office (RL).

11.0 HEALTH AND SAFETY TRAINING

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 HGET. MSA also requires 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

The MSS Star Site has been the recipient of the DOE-VPP Superior Star Award – 2012, 2013, 2014, 2016, 2017.

Contractor Champions Award - Rocky Simmons, HAMTC safety representative, was recognized with a Contractor Champions award at the 2018 VPPPA Safety+ Symposium. This award is for outstanding performance and leadership in furthering the advancement of the DOE VPP.

Rocky was also presented the **Special Government Employee of the Year** award at the VPPPA Region X 2018 Northwest S&H Summit in Anchorage, Alaska.



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

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)
- Honors Night

VPP ANNUAL REPORT SUPPLEMENTAL WORKSHEET

Review: January 1 - December 31, 2018

Site Contractor Name/Acronym: Mission Support Services / **MSS**

Site Name: Hanford Company President/Manager: Bob Wilkinson

Company Address: MSA
PO Box 650
Richland, Washington 99352

Injury Incidence/Lost Workdays Case Rate (contractor [participant] employees and staff augments) [NOTE: This information includes all MSS work, it does not include HAMMER or SAS]

Calendar Year	Hours Worked	TRC Cases	TRC Rate	DART*Cases	DART*Rate
(Year-3) 2016	3,137,294	13	0.83	8	0.51
(Year-2) 2017	3,308,279	10	0.60	6	0.36
(Year-1) 2018	3,427,261	9	0.53	4	0.23
3-Year Total	9,872,834	32	0.65	18	0.36

Injury Incidence/Lost Workdays Case Rate (subcontractors)

Calendar Year	Hours Worked	TRC Cases	TRC Rate	DART*Cases	DART Rate
(Year-3) 2016	43,704	0	0.00	0	0.00
(Year-2) 2017	31,360	0	0.00	0	0.00
(Year-1) 2018	47,396	0	0.00	0	0.00
3-Year Total	122,460	0	0.00	0	0.00

Total Contractor & Subcontractors for 3 Years:

Hours = 9,995,294 TRC Cases = 32 TRC Rate = 0.64 DART Cases = 18 DART Rate = 0.36

BLS for NAICS** # 561 - TRC Rate = 2.1 DART Rate = 1.2

MSS is at 30% of the NAICS TRC Rate, and at 30% of the NAICS DART Rate.

Number of Contractor Employees: 1836 Number of Subcontractor Employees: Varies

Union Representative Name: Ken Gray

Email: Kenneth_W_Gray@rl.gov Contact # 509-373-4729

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

Appendix C--Mission Support Services
VPP Annual Self-Assessment 2018

<p>Objective</p> <p>Monitor the days away, restricted or transferred (DART) case rate for MSA employees and subcontractors</p>	<p>Days Away, Restricted or Transferred (DART) Case Rate</p> <p>FY19 = 0.20 CY18 = 0.18</p> <p>Legend: Monthly DART rate (blue bar), Performance (3-m Average) (orange circle), Performance (12-m Average) (orange square), DART Cases (red line)</p> <table border="1"> <thead> <tr> <th>Month</th> <th>Jan-18</th> <th>Feb-18</th> <th>Mar-18</th> <th>Apr-18</th> <th>May-18</th> <th>Jun-18</th> <th>Jul-18</th> <th>Aug-18</th> <th>Sep-18</th> <th>Oct-18</th> <th>Nov-18</th> <th>Dec-18</th> </tr> </thead> <tbody> <tr> <td>Monthly DART rate</td> <td>0.00</td> <td>0.00</td> <td>0.43</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.62</td> <td>0.00</td> <td>0.49</td> <td>0.65</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Performance (3-m Average)</td> <td>0.00</td> <td>0.00</td> <td>0.18</td> <td>0.17</td> <td>0.17</td> <td>0.00</td> <td>0.19</td> <td>0.18</td> <td>0.33</td> <td>0.34</td> <td>0.37</td> <td>0.20</td> </tr> <tr> <td>Performance (12-m Average)</td> <td>0.33</td> <td>0.28</td> <td>0.32</td> <td>0.28</td> <td>0.23</td> <td>0.23</td> <td>0.23</td> <td>0.18</td> <td>0.14</td> <td>0.18</td> <td>0.18</td> <td>0.18</td> </tr> </tbody> </table>	Month	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Monthly DART rate	0.00	0.00	0.43	0.00	0.00	0.00	0.62	0.00	0.49	0.65	0.00	0.00	Performance (3-m Average)	0.00	0.00	0.18	0.17	0.17	0.00	0.19	0.18	0.33	0.34	0.37	0.20	Performance (12-m Average)	0.33	0.28	0.32	0.28	0.23	0.23	0.23	0.18	0.14	0.18	0.18	0.18												
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<p>Specific Goal to Achieve</p> <p>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 DART rate below 0.6.</p>	<p>Analysis</p> <p>During the month of December, there were no injuries classified as DART. To date, MSA has experienced one DART injury, resulting in a case rate of 0.20.</p> <p>2018 FY DART Cases: 3 2017 FY DART Cases: 10</p>																																																																
<p>Lagging Indicator Description</p> <p>A lagging indicator is a record of past events. DART rate is a lagging indicator that may show a trend in serious injuries.</p>	<ul style="list-style-type: none"> Types of injuries MSA has experienced during FY 2019 that were classified as DART: <ul style="list-style-type: none"> - overexertion (1) Body parts that have been affected FY2019: <ul style="list-style-type: none"> - Arm (1) 																																																																
<p>Performance Indicator Information</p> <table border="1"> <tr> <td>PI Owner:</td> <td>Lanette Adams</td> </tr> <tr> <td>Data Analyst:</td> <td>Ron Wight</td> </tr> <tr> <td>Data Source:</td> <td>MSMET</td> </tr> <tr> <td>PI Basis:</td> <td>MSC-PLN-WP-003, Section 4.0</td> </tr> <tr> <td>Date</td> <td>1/4/2019</td> </tr> </table>	PI Owner:	Lanette Adams	Data Analyst:	Ron Wight	Data Source:	MSMET	PI Basis:	MSC-PLN-WP-003, Section 4.0	Date	1/4/2019	<p>Action</p> <p>Injury Prevention Actions:</p> <ul style="list-style-type: none"> All First Aid cases are closely monitored to determine emerging trends and implement awareness activities, as warranted MSA continues to emphasize the importance of timely reporting for all injuries and has realized an increase of minor injury reporting. Initiated activities, such as procurements for PPE, and awareness communications in preparation for cold weather and other seasonal changes. Launched a new campaign to increase awareness of workplace hazards and safety inspections for all employees. Issued Weekly Safety Starts which focused on winter hazards such as walking, driving, and eye care. Delivered the last inspection module in support of the safety inspection campaign that meets an MSA 2018 SIP goal of improving work area conditions and increasing employee participation in safety & health inspections. Employees are expected to perform an inspection of their work environment utilizing the tools they learned from the safety inspection modules and work group discussions. 																																																						
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<p>Additional Info</p> <p>None</p>	<p>20 Page</p>																																																																

Appendix C--Mission Support Services
VPP Annual Self-Assessment 2018

Objective		FY19 = 0.40 CY18 = 0.41											
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												
Cautionary	1.1 - 1.3												
Meets	< 1.1												
Performance Data													
		Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Monthly Recordable Cases		0	0	1	2	1	1	1	0	1	1	0	1
Monthly TRC Rate		0.00	0.00	0.43	1.17	0.53	0.61	0.62	0.00	0.49	0.65	0.00	0.60
Performance (3-m Average)		0.40	0.20	0.18	0.52	0.68	0.76	0.58	0.36	0.33	0.34	0.37	0.40
Performance (12-m Average)		0.66	0.60	0.60	0.65	0.64	0.65	0.65	0.54	0.46	0.46	0.41	0.41
Specific Goal to Achieve		Analysis											
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.		<p>During the month of December there was one injury classified as Recordable. The injury occurred when an employee was performing a work task, bent over to pick up an item and struck their head on an object when standing back up. The employee received stitches as treatment.</p> <p>2018 FY Recordable Cases: 10 (TRC = 0.46) 2017 FY Recordable Cases: 14 (TRC = 0.67)</p> <ul style="list-style-type: none"> Types of injuries MSA has experienced during FY 2019 that were classified as Recordable: <ul style="list-style-type: none"> - overexertion (1), struck against (1) Body parts that have been affected FY2019: <ul style="list-style-type: none"> - arm (1), head (1) 											
Leading Indicator Description		Action											
TRC is a lagging indicator.		<p>Injury Prevention Actions:</p> <ul style="list-style-type: none"> All First Aid cases are closely monitored to determine emerging trends and implement awareness activities, as warranted MSA continues to emphasize the importance of timely reporting for all injuries and has realized an increase of minor injury reporting. Initiated activities, such as procurements for PPE, and awareness communications in preparation for cold weather and other seasonal changes. Launched a new campaign to increase awareness of workplace hazards and safety inspections for all employees. Issued Weekly Safety Starts which focused on winter hazards such as walking, driving, and eye care. Delivered the last inspection module in support of the safety inspection campaign that meets an MSA 2018 SIP goal of improving work area conditions and increasing employee participation in safety & health inspections. Employees are expected to perform an inspection of their work environment utilizing the tools they learned from the safety inspection modules and work group discussions. 											
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Date:	1/4/2019												
Additional Info		None											

Voluntary Protection Program

The Voluntary Protection Program (VPP) goes above and beyond the minimum requirements of the Integrated Safety Management System (ISMS). As a company, MSA voluntarily participates in VPP.

What is VPP?

VPP is a tool used for promoting excellence in safety through their five tenets:

- ❑ Management Leadership
- ❑ Employee Involvement
- ❑ Worksite Analysis
- ❑ Hazard Prevention and Control
- ❑ Safety and Health Training and Education

Worksite analysis and hazard prevention and control are cornerstones of VPP. Both are critical to ensure a safer workplace and should be applied to any situation in the field, at the office or at home.

VPP requires extraordinary leadership by management in promoting a safe work environment. It also requires that employees are involved in ensuring their own safety and the safety of their co-workers.

An organization that meets all the VPP requirements can be recognized as a "VPP Star Site." **MSA proudly has three VPP Star Sites recognized by the DOE:**

- ❑ HAMMER
- ❑ Safeguards and Security
- ❑ Mission Support Services



Keep the Conversation Going...

Check out MSA's VPP webpage to learn more about the program:

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

Ask yourself the following:

- ✓ Do I participate in hazard prevention?
- ✓ Do I actively participate in correcting known hazards?
- ✓ Do I actively promote my own safety and the safety of my co-workers in day-to-day activities?

ISMS CORE FUNCTION:
All Functions

EMS is...Environmental Compliance

SAFETY AND HEALTH INSPECTIONS:

Machine Guarding

This month we'll focus on machine guarding. Please review the attachment (see below) with your staff and co-workers.

This module focuses on having one or more methods of machine guarding provided to protect the operator and others around them from hazards created when using machines.

When performing a safety and health inspection, use Section V of the checklist to ensure machine guards are in place, when warranted:

- Guards are securely installed and in place on reciprocating, rotating and transversing motion parts of equipment.
- Fixed machines are anchored to prevent movement.
- Saws and cutting blades are properly guarded and have anti-kickback devices.
- Power controls are protected from accidental contact or startup, and are within easy reach of the operator.
- Fan blades are guarded with material designed to prevent an exposure opening of greater than ½ inch.

Remember – a safety professional may be very helpful when performing a safety and health inspection.



All work areas are required to have safety and health inspections performed at least quarterly. The MSA inspection program is explained in [MSC-PRO-WP-7652](#), *Safety and Health Inspections*.

Safety inspections are not just for your work area. Conduct a safety inspection at home too.

Ask yourself the following:

- ✓ Do I understand the purpose of machine guarding?
- ✓ Do I check for proper guarding on machines I use at home and at work?

ISMS CORE FUNCTION: 5
Provide Feedback & Continuous Improvement