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Intermech, Inc.
Waste Treatment Project
Richland, WA

Report from the DOE
Voluntary Protection Program
Onsite Review
May 1-2, 2006

U.S. Department of Energy
Office of Environment, Safety and Health
Office of Corporate Performance Assessment
Office of Quality Assurance Programs
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Foreword

THE DEPARTMENT OF ENERGY (DOE) recognizes that true excellence can be encouraged and guided but not standardized. For this reason, on January 26, 1994, the Department initiated the DOE Voluntary Protection Program (DOE-VPP) to encourage and recognize excellence in occupational safety and health protection. This program closely parallels the Occupational Safety and Health Administration's (OSHA) Voluntary Protection Programs (VPP). Since their creation by OSHA in 1982, the VPP programs have demonstrated that cooperative action among government, industry, and labor can achieve excellence in worker health and safety.

DOE-VPP outlines areas where DOE contractors and subcontractors can surpass mere compliance with DOE Orders and OSHA standards. The program encourages the creative "stretch for excellence" through systematic approaches involving everyone in the contractor or subcontractor workforce at DOE sites. DOE-VPP emphasizes creative solutions through cooperative efforts by managers, employees, and DOE.

Requirements for DOE-VPP participation are based on comprehensive management systems, with employees actively involved in assessing, preventing, and controlling the potential health and safety hazards at their sites. DOE-VPP is designed to apply to all contractors in the DOE complex and encompasses production facilities, research and development operations, and various subcontractors and support organizations.

DOE contractors are not required to apply for participation in the DOE-VPP. In keeping with OSHA's VPP philosophy, *participation is strictly voluntary*. Additionally, any participant may withdraw from the program at any time. DOE-VPP consists of three programs, with names and functions similar to those in OSHA's VPP. These programs are STAR, MERIT, and DEMONSTRATION. The STAR program is the core of DOE-VPP. This program is aimed at truly outstanding protectors of employee safety and health. The MERIT program is a steppingstone for contractors and subcontractors that have good safety and health programs but need time and DOE guidance to achieve true STAR status. The DEMONSTRATION program is expected to be used rarely; it exists to allow DOE to recognize achievements in unusual situations about which DOE needs to learn more before determining approval requirements for the STAR program.

By approving an applicant for participation in DOE-VPP, DOE recognizes that the applicant is meeting, at a minimum, the basic elements of ongoing, systematic protection of employees at the site. The symbols of this recognition provided by DOE are certificates of approval and the right to use flags showing the program in which the site is participating. The participant may also choose to use the DOE-VPP logo on letterhead or on award items for employee incentive programs. DOE will provide the opportunity for contractors to work cooperatively with the agency to resolve health and safety problems. Each approved site will have a designated DOE staff person to handle information and assistance requests from DOE contractors.

This report summarizes the team's findings from the evaluation of Intermech, Inc. activities at the Hanford Waste Treatment Project during the week of May 1-2, 2006.

The purpose of this report is to provide the Chief Health, Safety and Security Officer with the necessary information to make the final decision regarding the disposition of Intermech, Inc.'s application efforts for DOE-VPP. Included are team member review results, and the team's final recommendation for the site.

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ABBREVIATIONS AND ACRONYMS

BLS	Bureau of Labor Statistics
DART	Days Away, Restricted, or Transferred
DOE	U.S. Department of Energy
DOE-VPP	U.S. Department of Energy Voluntary Protection Program
ES&H	Environment, Safety, and Health
HGET	Hanford General Employee Training
JHA	Job Hazard Analysis
NAICS	North American Industry Classification System
OSHA	U.S. Department of Labor's Occupational Safety and Health Administration
PPE	Personal Protective Equipment
S&H	Safety and Health
SETO	Safety Education Through Observation
STARRT	Safety Task Analysis Risk Reduction Task
VPP	Voluntary Protection Program
WTP	Waste Treatment Project

EXECUTIVE SUMMARY

The U. S. Department of Energy (DOE) Voluntary Protection Program (VPP) onsite review of Intermech, Inc. was conducted May 1 and 2, 2006, in Richland, Washington. Intermech is a sub-contractor to Bechtel National Inc., the prime contractor for the Waste Treatment Plant (WTP) construction project at the DOE Hanford site in Washington. Intermech has already achieved VPP star status in the Washington State VPP program for their activities not associated with DOE. The scope of this onsite review was limited to the Intermech activities to install, test, and insulate ductwork in the WTP construction project. During the onsite review, the DOE-VPP review team (the Team) visited the worksite and observed work, interviewed managers and employees and reviewed documents**.**

The Team found strong management commitment to safety and to providing leadership and resources for employees to perform their duties in a safe manner. Managers and other supervisors perform periodic inspections to ensure safety and to identify any weaknesses in the safety programs, and establish safety improvement goals. However, since the DOE-VPP implementation is still at the initial stage, not all exempt employees are aware of the details or their responsibilities under the DOE-VPP. Senior managers need to make more frequent Construction site visits to improve communication with the workers.

Intermech employees have a very good relationship with their managers. The workers are motivated to work safely, are empowered to report unsafe work conditions and practices, and are cognizant of their "Stop Work" rights. Workers' morale is high, and managers recognize workers for safety improvements. The workers are taking a leading role in matters of safety.

Intermech has good work site analysis processes and procedures in place. Periodic inspection by safety personnel, reporting of safety concerns by employees, monitoring of work environment quality, and trending and analysis of injury and hazard related data all have been used effectively to identify and correct adverse safety conditions in the workplace. Workers routinely participate in hazard identification on a daily basis before the start of work. For new processes or product application a more detailed JHA is required, but the Team did note two instances that this process was not rigorously followed.

Intermech has demonstrated satisfactory hazard prevention and control by adopting several methods to identify and mitigate hazards at the job site. There are dedicated safety professionals both on and off-site to facilitate safety in the workplace. Strong safety and health rules are used for compliance with established policies and requirements. The Team observed that the work was conducted in accordance with established safety and health rules and safe work practices.

There is a strong management commitment to safety and health training for managers, supervisors, and the workers. They know and understand the policies, rules, and procedures established to help prevent unnecessary exposure to the hazards associated with workplace activities. Employee ownership exists throughout the worksite and is reinforced by Intermech's training program. Workers take pride in the work they are doing and believe that safety is integral to the work being done. The Team however noted that the equipment and training used for emergency response need improvement.

Conclusion

The Team found several strengths in the Intermech safety and health program. There is a strong safety culture in the work place and positive work place morale. Several safe work practices were noted by the Team. The Team also observed significant management commitment to safety including an employee recognition program for safety improvement. However, the Team also identified the following areas for improvement necessary to achieve the VPP Star status;

- Inclusion of safety and health aspects in the managers' performance elements,
- Managers and exempt employees becoming more knowledgeable about DOE-VPP and their roles and responsibilities related to the program,
- More visibility of the managers and exempt employees at the construction site,
- Ensuring that comprehensive hazard analysis are performed when needed and,
- Improving emergency communications.

Based on a review of the Intermech VPP implementation, the Team recommends that DOE award VPP Merit status to Intermech for its operation at the Waste Treatment Plant.

I. INTRODUCTION

The DOE-VPP onsite review of Intermech, Inc. was conducted May 1 and, 2006, in Richland, Washington. Intermech is a subcontractor to Bechtel National Inc., the prime contractor for the Waste Treatment Plant (WTP) being built at DOE's Hanford site.

Intermech, Inc. designs, fabricates, tests, and installs heating, ventilation, and air conditioning (HVAC) components and systems. It operates out of two locations. Intermech's engineering and fabrication activities are conducted at a facility in the city of Richland, which is located adjacent to the Hanford site. Construction activities that encompass installing, testing and insulating ductwork are carried out at the WTP project location on the Hanford site. Managers and workers are present at both locations and staffing varies with workload.

In April 2005, Intermech's fabrication shop was awarded Washington State's VPP Star . Intermech is now pursuing recognition as a DOE-VPP site for the construction activities they conduct under DOE jurisdiction. Intermech is a subcontractor to Bechtel National for construction of the Waste Treatment Plant at the Hanford Site. The scope of this onsite review was limited to the Intermech activities associated with construction at the Waste Treatment Plant only.

Recognition in the DOE-VPP requires an onsite review by the DOE VPP team (formerly from the Office of Environment, Safety, and Health, and now from the Office of the Health, Safety and Security). The onsite review verifies whether the applicant is performing at a level deserving VPP recognition. The Team evaluated Intermech's safety programs against the requirements of the DOE-VPP. The Team consisted of safety professionals with VPP experience and expertise from DOE Headquarters and other DOE sites. During the site visit, the Team evaluated relevant safety documents and procedures, and conducted interviews to assess the rigor and effectiveness of Intermech's health and safety programs. .

At the time of this onsite review, approximately 15 bargaining unit and 10 exempt staff, including managers, were working for Intermech in support of the WTP project. The Team interviewed approximately 20 employees. Most of the safety hazards associated with Intermech's work are common to general industry. These hazards include electrical, flammable and combustible materials, heavy metals, Chromium, Zinc, petroleum products, paints, welding, hoisting and rigging, work at heights greater than 6 feet, noise greater than 85 decibels, confined spaces, thermal hazards, and compressed gases.

II. INJURY INCIDENCE / LOST WORKDAYS CASE RATE

The team conducted a review of the Occupational Safety and Health Administration (OSHA) 200/300 logs. The tables below summarize the OSHA reportable data for (1) Intermech employees and (2) subcontractors supporting Intermech on the WTP project.

INTERMECH WTP CONSTRUCTION SITE
INJURY INCIDENCE / LOST WORKDAYS CASE RATE

Injury Incidence / Lost Workdays Case Rate					
Calendar Year	Hours Worked	Total Recordable Cases	Total Recordable Case Incidence Rate	DART Cases	DART Case Rate
2003	4423	0	0.0	0	0.0
2004	35986	0	0.0	0	0.0
2005	50478	1	3.9	0	0.0
3-Year Total	90887	1	2.2	0	0.0
Bureau of Labor Statistics (BLS-2005) average for NAICS Code # 23822			7.1		

Injury Incidence / Lost Workdays Case Rate (Sub-Contractor)					
Calendar Year	Hours Worked	Total Recordable Cases	Total Recordable Case Incidence Rate	DART Cases	DART Case Rate
2003	193	0	0	0	0
2004	111	0	0	0	0
2005	137	0	0	0	0
3-Year Average	147		0.0		0.0
Bureau of Labor Statistics (BLS-2005) average for NAICS Code # 23822			7.1		

Total Recordable Case Incidence Rate including subcontractors: 2.2
Lost or Restricted Workday Case Incidence Rate including subcontractors: 0.0

III. MANAGEMENT LEADERSHIP

A. Accountability

Intermech management at the site and the company president at headquarters are committed to providing the leadership, direction, training, and resources for employees to perform their duties in a safe manner. All managers and employees share responsibility for carrying out their duties safely. However, the performance requirements for managers and staff do not consistently include written expectations for meeting safety and health requirements.

Improvement needed for Star Status: Performance measures for all managers and exempt employees should include written expectations for meeting safety and health requirements as a means of ensuring accountability for safety performance.

B. Organization

The project manager has overall responsibility for the implementation of safety processes. The ES&H manager, construction manager, and field safety representatives provide oversight to ensure that work activities are being conducted safely in the field. In addition, five employees make up a safety committee that includes union members and exempt employees. The Team believes the current level of activities and management organization is sufficient to support an effective safety and health program.

The Team noted that over the last year, the ES&H Manager has been spearheading the DOE-VPP initiative and has implemented the program with senior management support. However, the Team noted that senior management and exempt employees at the downtown office had very limited knowledge of DOE-VPP.

Improvement needed for Star Status: Managers and exempt employees should be more knowledgeable about DOE-VPP and understand their roles and responsibilities.

C. Resources

Intermech has sufficient resources including safety professionals for the current level of activities. Intermech has two full-time safety professionals supporting the construction, fabrication, and work planning activities. Intermech does not have a separate budget for the ES&H program, rather they have integrated ES&H funding with other planning activities for the project. Managers ensure that even during periods of limited construction activity, sufficient budget is allocated to maintain the safety programs.

D. Responsibility

The project manager is ultimately responsible for safety and allocating sufficient resources, including trained and skilled people, to support the work activities. Employees are responsible for carrying out their work in a safe manner and complying with Master Safety Rules. Requirements for reporting unsafe work conditions and unsafe work practices, and employee "Stop Work" rights are stated in the Intermech safety procedures. These rights and requirements are also imposed on sub-contractors. The

project manager conducts monthly job site inspections, and building superintendents perform weekly job site inspections for safety within their areas of jurisdiction. Employees are trained to use proper Personal Protection Equipment (PPE), and are trained on OSHA requirements pertaining to the construction site. The Safety and Health manager conducts weekly safety and housekeeping inspections. Intermech conducts incident/accident investigations, including a root cause analysis, for all recordable injuries, near misses, and damage to property/equipment

The Team noted from employee interviews and confirmed with senior managers that their visibility at the construction site is very limited. Since few project activities are being conducted at the present time, the project manager is spending some of his time on other non-DOE corporate activities to reduce the overhead cost on the WTP project.

Improvement needed for Star Status: Managers and exempt employees need to visit the construction site more frequently and communicate with site workers to ensure that their concerns are being heard and adequately addressed.

E. Site Orientation

All employees and contract workers receive 6.5 hours of safety orientation training and an additional 35 hours of specific safety training depending upon type of work and locations.

F. Contract Workers

Intermech does not currently have any subcontractors working at the site. Their subcontractor selection process includes evaluation of the subcontractor's past safety performance. All subcontractors are required to attend Intermech's safety orientation training. Subcontractors have similar safety responsibilities as Intermech's employees including "Stop Work" authority. Additionally, Intermech's field safety representatives are required to inspect subcontractors' work areas on a daily basis.

G. Employee Notification

Employees are aware of their rights to express concerns related to safety and their authority to exercise "Stop Work" when they recognize unsafe work conditions. Employees have several ways to express any safety concerns, including talking directly to a project manager, safety manager, or the safety committee. Based on interviews, the Team confirmed that employees in general are aware of their rights, responsibilities, and authorities.

H. Program Evaluation

Intermech conducts annual self-evaluations to identify any weaknesses in its safety programs, and establishes safety improvement goals.

I. Commitment

Intermech's safety policy is based on the Zero Accident philosophy. Intermech uses JHA and hazard control processes to ensure that jobs are done safely. Every employee has the

right to "Stop Work" when they discover an unsafe work condition. Workers receive an appropriate level of training depending upon the type of work they are expected to perform and the hazards involved before they are allowed to work on the project.

J. Planning

Intermech's 2006 Safety Improvement Plan includes provisions for providing additional training to safety committee members to maintain and improve their safety competency. Generally, Intermech includes the safety budget as part of operational expenses and does not allocate a separate budget for safety.

K. Conclusion

Intermech managers at the site, including the president of the company, are committed to providing the leadership, direction, training, and resources necessary for employees to perform their duties in a safe manner. The Intermech project manager has overall responsibility for the implementation of safety programs. The Intermech environment, safety, and health (ES&H) manager, construction manager, and field safety representatives are responsible for carrying out field safety oversight. Managers and employees share the responsibilities for carrying out individual duties safely. The Team, however, noted a few areas for improvement, namely: (i) performance measures for all managers should include an evaluation of their performance in meeting the safety and health requirements; (ii) managers and exempt employees should be more knowledgeable about DOE-VPP and understand their roles and responsibilities related to the program; (iii) managers and exempt employees need to visit the construction site more often and communicate with crafts to ensure their concerns are heard and addressed.

IV. EMPLOYEE INVOLVEMENT

A. Degree and Manner and Safety and Health Committees

Over the past year, Intermech has experienced several reductions-in-force. Employees who were interviewed have worked for this organization from three months to two years. Employees are involved in a variety of safety-related programs that appear to be adequate for the size of the organization. All Bechtel National sub-contractors and their employees participate in a weekly safety meeting that is led by the prime contractor. All Intermech employees also participate in an all-employee safety meeting on a weekly basis where pertinent safety-related information is shared, including observations from the Safety Education Through Observation (SETO) program. Prior to the start of the workday, all employees participate in a stretching program to help reduce injuries.

Currently, five employees make up the safety committee. Due to reductions-in-force in Intermech's DOE operation, this committee was recently reorganized and combined with the other parts of the company that support non-DOE projects (private sector). The committee consists of three union members, one manager, and one private sector employee, who meet monthly with an established agenda. Meeting minutes are documented and shared with the workforce. Two Intermech employees participate in Bechtel National's SETO program at the Hanford site. These participants receive program training, meet twice a week, and perform two observations daily. The information gathered is tracked and trended by the prime contractor and Intermech receives this information through the SETO committee.

On a daily basis, workers are involved in a hazards identification program called STARRT. In this program, hazards are identified and documented before each work task begins. If the hazards change or a new task is going to start, additional information is added or a new STARRT card will be filled out by the workers, and then signed off by the foreman.

The morale of the workers is very high and many commented it is the safest place they have ever worked. Employees receive recognition for identifying and resolving safety concerns/issues. All employees interviewed understood their right to "Stop Work," although none have ever exercised it. Employees at Intermech have no fear of reprisal for raising safety concerns.

B. Conclusion

The employees have a very good relationship with Intermech managers. Employee morale at Intermech is high. The workers are motivated to work safely, are empowered to report unsafe work conditions and practices, and are cognizant of their "Stop Work" rights. Workers also receive recognition for identifying safety concerns/safety improvements. The workers are taking a leading role in matters of safety. This organization clearly takes employee involvement seriously to enhance workplace safety.

V. WORKSITE ANALYSIS

A. Pre-Use/Pre-Startup Analysis

Employees are not allowed to make any modifications to equipment. Instead, employees rely on vendors for equipment support. For equipment usage, the employees are given a pre-job checklist to follow and are trained to do basic troubleshooting to ensure that equipment is working properly.

B. Self-Inspections

Field safety representatives visit and observe all work areas daily and send a log of their activities and any problems they identify to the safety manager. A customer safety representative and craft leader conduct weekly inspections of the work areas as do the building superintendents. The Intermech safety manager conducts periodic inspections and the safety committee conducts a weekly safety inspection. Additionally, during weekly safety meetings, workers have opportunities to discuss any safety issues.

C. Trend Analysis

Intermech collects data on injuries, illnesses, and employee reporting of hazards. In addition, Intermech uses the SETO program to identify behavior trends and implement corrective actions. On a monthly basis, audit and surveillance reports generated by Bechtel and Intermech are reviewed to identify any adverse trends or conditions and corrective actions are implemented. Lessons learned from these activities are communicated to the employees and tracked in the minutes of safety committee meetings.

D. Routine Hazard Analyses

Intermech uses the STARRT card to identify hazards and specify required work controls including engineering controls, administrative controls, and PPE. Each work group participates in the preparation of a STARRT card for the day's activities and a safety professional is responsible for reviewing the STARRT card activities and verifying compliance with the required controls before the start of work. However, the Team noted that in some cases the workers at the job site prepare the STARRT card and proceed to work without a safety professional's approval. The procedure does not specify that a safety professional review and approve the STARRT card prior to starting of the day's work. This process, in most cases, is acceptable since the activities are routine and repetitious.

The Team noted that for welding operations where fumes could be a health hazard, the safety professionals have introduced the use of a fume extractor and have done testing to ensure that the fumes are directed away from the work area and routed through a High Efficiency Particulate Air (HEPA) filter to protect the workers. However, before adopting this new measure, the safety professionals did not perform a comprehensive JHA to determine the controls needed to mitigate the health hazard and did not update the STARRT card prior to installing the modification. The Team noted other cases wherein the hazard analysis process was not rigorously followed. For example, for work

involving the installation of insulation using glue, a complete JHA was not performed to identify potential hazards and the required controls, such as PPE, to mitigate the hazards.

Improvement needed for Star Status: Safety professionals should conduct a comprehensive JHA and complete the STARRT card for any new operation or use of new products.

E. Employee Reporting Hazards

There are several ways employees can identify safety concerns. The preferred method is to take the issue directly to the supervisor. Other methods of communication are through a union steward, safety staff member, Project Manager, Construction Manager, or the Employee Concerns Program. Employees can also take issues to Bechtel and DOE. The company bulletin board identifies the DOE and Intermech points of contact information. Moreover, every employee has the right to exercise "Stop Work" authority when imminent danger is noted.

F. Accident Investigations

The safety committee is responsible for accident investigation, root cause analysis, and corrective actions. The committee also reviews, analyzes, and develops corrective actions for near misses. For example, the safety committee was involved in a review of several incidents where the workers were getting particles in their eyes while taking off their PPE following grinding operation in spite of having safety glasses and face shields. This review resulted in prescribing safety goggles instead of safety glasses which alleviated the problem.

G. Comprehensive Surveys

Intermech utilizes various industrial measuring and monitoring instruments per nationally recognized methods and standards to monitor and analyze the work environment for air quality, noise level, etc. Intermech safety professionals review the work environment daily. Construction site hazards (which may change daily) and controls are identified on the STARRT card daily.

H. Conclusion

Intermech has good work site analysis processes and procedures in place. This includes periodic safety inspections by safety professionals, employee reporting safety concerns and trending of injury and hazard related data for analysis and generating corrective actions and lessons learned. The worksite is kept neat and clean and work environment is monitored for environmental quality. The workers are involved in hazard identification on a daily basis before the start of work. Hazards and controls associated with a day's activities are entered in a card for use at the worksite. For new processes and product application, a more detailed JHA is prepared. However, the procedures were not always followed rigorously in two instances indicating a potential lack of rigor in carrying out established processes.

VI. HAZARD PREVENTION AND CONTROLS

A. Personal Protective Equipment

Intermech provides the necessary PPE to workers when hazards cannot be eliminated or avoided by engineering or administrative controls. Intermech provided the Team with the appropriate PPE required to be at the job site. As Intermech is not currently conducting any work requiring the use of respirators, they have no one trained or fit tested, but are willing to do so if the need ever arises. They have a strong inspection program in place for safety harnesses.

B. Radiation Protection

Currently, there are no radiological hazards associated with this new construction project.

C. Methods of Prevention and Control

Intermech uses several ways to identify and mitigate hazards at their job site. These methods are the JHA process, STARRT cards, the SETO program, and the buddy system.

The SETO program and buddy system are less formal and are stand-alone ways to identify and correct any possible hazards discovered during the workday. The buddy system simply ensures that no one works alone. This increases the number of eyes watching out for each other. The SETO program consists of an individual from the safety committee walking around and observing jobs. If any weaknesses are identified, this individual may implement corrective actions immediately or make note of a problem for discussion at the next weekly safety meeting.

The use of the JHA and STARRT card is more formal and traceable. For any first time or non-routine work, a team of workers, safety associates, and managers get together to review the job scope and identify possible hazards. Once the hazards are identified, it is then determined how to mitigate the hazards through administrative procedures or the use of PPE. In some cases, engineering controls are instituted to eliminate or mitigate the hazard. The hazards and controls are documented on the JHA. When the job is considered to be routine, the hazards are documented on a STARRT card as opposed to a JHA.

This process has some improvement needed for Star Status. As noted previously, the Team identified that there was no documented JHA for applying the glue that was being used for an installation project. Apparently, a JHA was prepared by an Intermech subcontractor who parted with the JHA upon termination. A new JHA was not prepared before the work was conducted

Improvement needed for Star Status: Safety documents such as the JHA should be properly controlled.

D. Medical Programs

Intermech maintains an excellent medical service facility at the project site. All Intermech employees participate in a hearing conservation program and are evaluated annually. The construction site has a very elaborate first aid station that is well equipped with multiple treatment capabilities as well as x-ray equipment. Intermech employees do not receive an annual physical provided by the company, but in some cases the union provides them with this service on an annual basis.

E. Emergency Preparedness

Intermech does not have a stand-alone Emergency Preparedness program, but does participate in the emergency drills conducted by the site's prime contractor. Although Intermech workers were aware of what the site's emergency warning sirens meant, they had not actively participated in any emergency drills. The employees indicated that they only knew to stand by for instructions and take cover or evacuate when told to do so. The workers that were interviewed were vague on what to do in the event of an Intermech employee getting hurt. The main confusion stems from the radio communications system. Not all employees have radios and even fewer have one that can be used to contact the prime contractor in the event of an emergency.

Improvement needed for Star Status: The radio communication system to be used during an emergency and emergency preparedness training need improvement.

F. Professional Expertise

Intermech has two full-time positions dedicated to safety. Currently, one position is filled by a certified safety professional whose office is located in the downtown office complex. The other position is filled by a non-certified worker who is working on getting certified. It was noted that obtaining certification is an expectation in the individual's performance appraisal. Through interviews with workers, it was clear that the safety employee on-site is always available and visits the different job sites several times a day. The certified safety professional is not as readily available, as his office is 25 miles away from the construction site. However, workers stated that if the need were to arise, this safety professional could be on site in less the 45 minutes.

G. Preventive Maintenance

Since all the work being performed by Intermech at the WTP is new installation, the need for a preventative/predictive maintenance program is not present. Intermech abides by the tool inspection program that has been established by the site's prime contractor for hand tools, electrical cords, safety harnesses, and scaffolding. In accordance with this program, Intermech conveys effectively to the workers the correct tag color for the current month/quarter for inspected tools and equipment.

H. Safety & Health Rules

Intermech has strong safety and health rules in the hierarchy of policies and procedures. Safety and health rules are used to guide and enforce/reward compliance with policies and requirements. Intermech has a two-tier safety recognition program. The first tier consists of providing a gift to workers who identify an unsafe work practice or who recommend a process change that helps make the workplace safer and more efficient. When a recommended process change is implemented, the worker receives another, more substantial reward.

The Team observed that work was conducted in accordance with established safety and health rules, safe work practices, and PPE requirements. Material Safety Data Sheets are maintained in a central location for access by all employees.

I. Conclusion

Intermech has demonstrated satisfactory hazard prevention and control by adopting several methods to identify and mitigate hazards at the job site. These include the STARRT card, JHA process, the SETO program, and the buddy system. Since Intermech does not have its own emergency preparedness program, it participates with Bechtel in periodic emergency drills. Intermech maintains an excellent medical service facility at the project site. Intermech maintains adequate safety professional support needed for the job site, and relies on sub-contractors for equipment maintenance and repairs. Safety and health rules are strong and are used for compliance with established policies and requirements. The Team observed that the work was conducted in accordance with established safety and health rules and safe work practices.

VII. SAFETY AND HEALTH TRAINING

The S&H training programs and processes at Intermech are well structured and effectively implemented. The current programs and processes adequately train workers to recognize hazards and perform work safely. Team interviews and overall observations confirmed that the training programs and processes are used and understood by appropriate personnel throughout the organization. The Intermech Construction Manager is responsible for ensuring that the S&H training provided to the workforce remains accurate and up-to-date. The Intermech Construction Safety Manager is responsible for implementing the S&H training program.

A. Managers / Supervisors

Managers interviewed on the construction site reflected that they had been given sufficient training in proportion to and within the scope of their authority and responsibilities for employee safety. They were able to describe their S&H responsibilities, the hazards associated with jobs under their supervision, and the potential adverse effects on employees performing the jobs. They were aware of their overall responsibilities related to the general safety program.

Intermech has a safety strategy that includes its commitment to using the OSHA-VPP standards in addition to those included in its contract. Special employee safety suggestion recognition, Safety Improvement Plans, the safety committee, and making presentations to employees on the various aspects of the S&H program are examples of the safety strategy at Intermech.

Managers are provided additional training that includes such topics as accident investigations and safety assessments.

B. Employees

Employees receive the appropriate training to do their jobs. Classroom training, on-the-job training, and other less formal training ensure employee knowledge and development of safe work practices to protect themselves, co-workers, the public, and the environment.

The Team confirmed by interviews, observations, and document reviews that each employee receives adequate training to work safely, commensurate with their job description, responsibilities, and authority. Every employee interviewed reported that they are taught how to protect themselves and others from the hazards of their jobs. There was evidence from observation, documentation, and interviews that where PPE is required, employees understand the need for it and can demonstrate that they know how to use and maintain it properly.

Orientation training for new hires is performed in the offices of Intermech and Bechtel away from the construction site. There is specific site familiarization training when the employee reports for work at the construction site. New employees are escorted until they understand the layout of the site and the emergency information particular to their job location.

The orientation training includes the Intermech safety philosophy, worker responsibility for safety, "Stop Work" responsibilities, and information about the safety committee. There is also an overview of the Integrated Safety Management System and VPP. Employees receive training from Bechtel, commensurate with their job tasks, in the use of ladders, scaffolding, hoisting and rigging equipment, and fall protection. This training is required to perform these functions on the construction site.

During the new-hire orientation, the employee is required to complete the Hanford General Employee Training (HGET) course. The HGET is an interactive, computer-based course. This training satisfies requirements for employee, vendor, and long-term visitor access to the Hanford Site. For unescorted access to the Hanford Site, HGET covers basic information to enable the employee to work safely and in compliance with directives for computer and industrial security, emergency preparedness, environmental and waste management, hazard recognition, industrial safety and health, and radiological safety. The HGET course must be taken annually by every site employee.

Informal training updates the employees on day-to-day safety matters. Every morning, the entire construction group meets to discuss the day's activities. The construction manager briefs the employees on activities other groups will be performing near Intermech work sites, assigns the day's task to the employees, and asks for general questions from the employees. On Tuesday morning, the meeting has a safety training segment on subjects pertinent to the employees' jobs. There is a free flow of information exchanged during these meetings and the employees feel free to ask any type of questions of the management group. These meetings are an effective tool in getting the safety message out to the employees, thereby increasing employee knowledge of safety hazards and concerns both on and off the job.

The majority of the employees reported that the safety training they receive at work has influenced their actions at home. They reported that they use PPE and are very conscious of the environment at home because of this training and the work practices they perform every day on the job.

PPE is used when required. Intermech has a program that provides a process for identifying the need for PPE and includes responsibilities related to its selection and use. The employees experienced objects in the eye while using standard safety glasses and face shields during grinding processes. They worked with the safety manager and explored different avenues for protection. They are now using goggles to fully enclose the eye to prevent potential eye injury.

The employees participate in a program called SETO. This program has employees observing their peers performing the normal day-to-day work functions and then providing feedback to the employee on the safety of their work activities. This process has been successful at this site because the employees are gaining feedback in a manner that is not antagonistic or threatening to their job security. An interesting by-product of the SETO program is that it is not only making the workplace safer but also improving productivity because efficient work practices are being communicated to other employees through this program.

C. Conclusion

The Team found that overall there is a strong management commitment to S&H training for Intermech managers, supervisors, and the workforce. This was evidenced by the active and effective involvement of managers and employees throughout the organization to achieve an overall safe working environment at the site. Managers, supervisors, and employees sufficiently know and understand the policies, rules, and procedures established to help prevent unnecessary exposure to the hazards associated with the workplace mission. For the most part, employee ownership seemed to exist throughout the worksite as a result of the training program in place at Intermech. The training process provides an opportunity for management to create employee ownership of the program throughout the complex. Workers appeared, for the most part, to be proud of their worksite and felt that safety was integral to the work being done.

Overall, the Team did not identify any weaknesses in the area of S&H training except for the needed improvement in the emergency preparedness training as noted earlier

VIII. CONCLUSION

The Team found several strengths in the Intermech safety and health program. There is a strong safety culture in the work place as evidenced by the employees being knowledgeable about their responsibilities and authorities for safety, their support of the safety programs, and positive work place morale. Employees also indicated no hesitation or fear of reprisal in using "Stop Work" authority if it is needed to rectify a safety concern. Several safe work practices were noted by the Team including weekly safety meetings with all workers, a daily stretching program to reduce injuries, good housekeeping, and use of the STARRT card program to identify, document, and mitigate workplace hazards. The Team also observed significant management commitment to safety. The ES&H manager, with support from senior management, has successfully executed the safety programs and DOE-VPP. Management has also instituted an employee recognition program for the identification and resolution of safety concerns/issues.

However, the Team also identified some areas for improvement in order to achieve DOE-VPP Star status.

- All management and exempt employees should be accountable for ensuring safety at the workplace and their performance measure should include expectations for meeting or exceeding safety and health requirements.
- Managers and exempt employees should be more knowledgeable about DOE-VPP principles and practice and understand their roles and responsibilities. This will enhance the implementation of the VPP tenets in the work place.
- Managers and exempt employees need to visit the construction site more frequently and communicate with crafts to ensure their concerns are heard and cared for.
- Established procedures for conducting an appropriate JHA in case of a new operation and/or use of a new product, should be followed rigorously and without exception.
- Safety documents such as JHAs should be controlled

- The radio communication system to be used during an emergency and emergency preparedness training need improvement.

Based on a review of the Intermech VPP implementation, and interviews with managers and employees, the Team recommends that DOE award VPP Merit status to Intermech for its operation at the Waste Treatment Plant.

APPENDIX A: Onsite VPP Audit Team Roster

Name	**Affiliation/ Phone**	**Project/Review element**
Subir Sen	DOE/EH 301-903- 6571	Team Lead Management Leadership
Pranab Guha	DOE/EH 301-903 -7089	Worksite Analysis
Jack George	DOE/ORP 509-373-7867	Safety and Health Training
James Bears	FM&T/KC-Honeywell 816-997-5899	Employee Involvement
Jack Griffith	HAMTAC 509-373-5157	Employee Involvement
Elizabeth Norton	CH2M HILL/HAMTC 509-373-4367	Hazard Prevention and Control
Mark Brown	DOE/ORP 509-373-9150	Observer