

EFCOG Best Practice #90

Best Practice Title: Addressing Short-Term Increased Training Demand – Recovery Act Training Challenges and Success at the Hanford Site

Facility: Hanford Site – Hazardous Materials Management and Emergency Response (HAMMER) Training Center

Point of Contact: Ted Giltz, 509-373-2134, theodore_p_giltz@rl.gov

Brief Description of Best Practice:

In response to the American Recovery and Reinvestment Act of 2009 (Recovery Act) a project plan and team were established to address the anticipated hiring of up to 4500 new employees. The team consisted of all site contractors and key organizations supporting the hiring and training process.

The Best Practices include the following

- Contractor commitment to maintain consistent safety and health training for Recovery Act new hires when compared to existing work force was critical. Two new courses added to address lack of industry and DOE experience.
- Maintain same curriculum while achieving a reduction in training time frame
 - Identify minimum training needs based on craft, project assignment, and previously completed training
 - Use block scheduling whenever possible
 - Scheduling of classrooms, instructors, training support, etc; coordinated with single points of contact and weekly planning and scheduling meetings
- Need for increased training facility capacity and expanded staff
 - Non training events relocated away from HAMMER Training Site to other venues
 - Identification of underutilized buildings near Hammer Training Site
- Developed software that allows supervisors to check in real time the medical, training, and qualification of an individual prior to assignment
- Contractors supported and responded to emerging needs
 - Contractor provided specialized equipment such as fall safety equipment and waste containers
 - Increased number of worker-trainers made available by individual contractors
 - Training and mentoring provided at the project level.
- Hanford safety performance has not changed as a result of the Recovery Act.

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Figure 1 - “Great work is being done by the workers here, who come to work every day at Hanford to help shrink the cleanup footprint and perform critical work for our country is so appreciated by everyone of us. Every time I’m here and I see new workers being trained, I know they are going to go out and perform critical jobs to clean up Hanford safely.” US Senator Patty Murray, during a visit to HAMMER on November 12, 2009 to observe Recovery Act training and provide a media update on the success of the Recovery Act

Why the Best Practice was used:

Participating Hanford Contractors and DOE recognized the importance of providing adequate safety and health training to new site employees, many of which had no previous nuclear or DOE experience. Safety and health courses prepared Recovery Act personnel to enter the Hanford workforce and successfully support new activities with the needed skills and safety culture.

What are the benefits of the Best Practice:

These new Recovery Act workers would encounter numerous hazards when working in the Hanford environment. Specialized training was required to equip the new workers with the knowledge and skills necessary to perform their work in a safe and effective manner. Workers successfully entered the workforce with core safety and health training completed as well as exposure to the DOE and contractor safety culture. This included introduction of key program elements such as Integrated Safety Management, Voluntary Protection Program, and the Hanford Safety Representative Program. The training was the same as that provided to the existing Hanford workforce. Two new courses were developed and implemented to address the number of new employees arriving on-site and to provide specific skill training to selected D&D workers. Improvements were made in the hiring processes and communication between participants. An integrated team approach to project and contractor training needs and priorities determined by the contractor was established. Time from on-site arrival to completed core training averaged 3 weeks.

At the end of the Recovery Act hired or retained individuals will have gained valuable transportable knowledge, skills, abilities, and DOE experience. These individuals will be prepared for continued employment, transition to other DOE and non-DOE work activities, or entry into other related industries.

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What problems/issues were associated with the Best Practice:

The largest challenge was defining the various processes used by multiple site contractors to hire or contract new hires and the differences between safety and health training between 5 contractors and 40 key Hanford projects. Existing systems were in place that supported small numbers of new hires but were not capable of processing over 300 new hires per month and provide the necessary information to successfully schedule medical evaluations and training. Contractor human resources, contracting, procurement, security, badging, the site medical provider, and training organizations were required to make improvements in communications and processes to meet hiring expectations.

Reducing the normal six to twelve month training of a new hire to a shorter time frame while maintaining the same quality and amount of training as that required for existing Hanford workers required significant effort. Processes were established to identify minimum training needed based on craft/discipline, project assignment, and previously completed training. An equivalency process for construction labor was developed that has deferred over \$1.3 million dollars in training costs. The Recovery Act Team improved coordination between schedulers, training and the site medical provider to complete pre-requisite medical certifications. Scheduling of classrooms, instructors, worker-instructor processes and contracted training provider support was coordinated through establishing single points of contact and weekly planning and scheduling meetings. Daily issues were addressed through the support of on-site training coordinators. As a result the time in training for the average craft or construction worker was reduced to 2-3 weeks, core Radiological Control Technician qualification was completed in 18 weeks, and Nuclear Chemical Operator core training was completed in 12 weeks.

The need to increase capacity of the training facility without additional new construction was a challenge. HAMMER historically provided less than 30,000 student days of training per year. In 2010 the capacity provided was ~68,000 student days. Non-training events at HAMMER were relocated to other venues. Additionally identification and use of underutilized buildings near the HAMMER training site, such as the Vitrification Plant Simulator building, and coordination with local training providers to provide additional classroom space was completed. Logistic support to maintain and equip the classrooms was a daily challenge. Where possible, high-use courses were provided dedicated training locations and props for periods of time. Additional support equipment was purchased for most courses to allow performing simultaneous training sessions. In addition, several courses were provided outside normal working hours.

How the success of the Best Practice was measured:

The primary success of the Recovery Act Training support is that the Hanford safety performance has not changed as a result of the Recovery Act. Almost \$2 billion dollars of additional work and accelerated cleanup activities were authorized and over 3000 new employees have arrived on-site to perform that work. Since April of 2009, over 450,000 individual training courses have been completed through computer, classroom, exercise or evaluations.

The Department of Energy Richland Operations Office reported in September, 2010 that Recovery Act Projects are 12 percent under budget (costing less than projected), 11 of 13

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projects are on schedule and that 2 projects behind schedule but expected to finish on schedule. This progress is due in part to the successful and timely training and qualification of the new workers to support the project targets of the Hanford Contractors.

Employees have received valuable training and skills in performing work activities in hazardous environments, often with multiple hazards, and completed that work safely. The number of skin and clothing contaminations has not changed. No individual received significant unplanned exposure to chemicals or radiation.

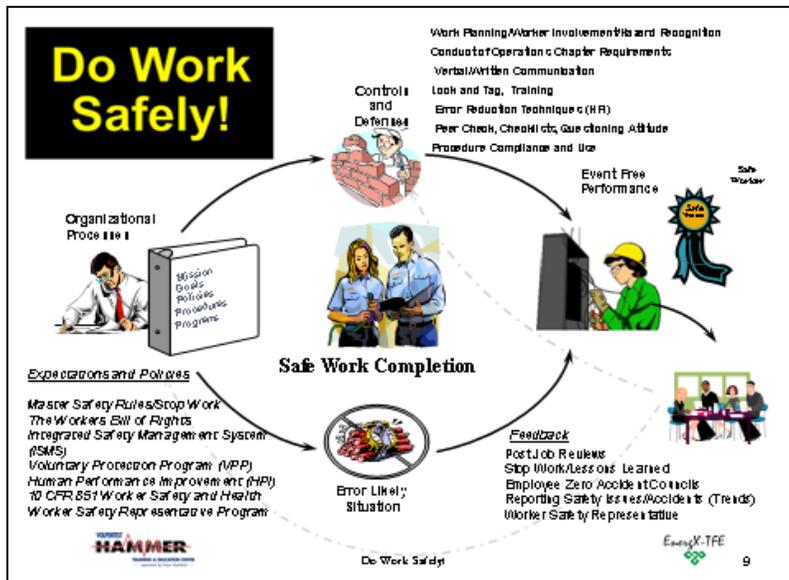


Figure 2: Business improvements were made in the training process. Increased use of electronic media to communicate data and requests occurred. For example a program was developed and implemented that allows field supervisors to check in real time the medical, training and qualification of an individual prior to assignment to a specific job. Additional process and program improvements have been initiated and will be completed prior to the end of the Recovery Act.

Description of process experience using the Best Practice:

At the beginning of the Recovery Act Hanford contractors already had established Integrated Safety Management processes. The opportunities presented by the Recovery Act provided a significant increase in project activities as well as the introduction of new workers and sub-contractors to the Hanford Site. Each project defined their core safety and health training needs for their respective work that would be performed as a part of core training based on established work planning processes. Additionally, project specific training, job/task training, and mentoring were provided at the project level to assure workers understood the hazards, the mitigation methods, and the work plans. The “Do Work Safely” course provided a foundation for safe work practices and human performance concepts that was further enhanced in other training provided to the Recovery Act workers. Human Performance concepts, such as the anatomy of an event shown in Figure 2, were presented to the new Recovery Act workers. The Hanford Worker Trainer program and Site Safety Representative Program provided other means of assuring workers received quality training and these programs were provided additional support.

Adjustments and improvements to training occurred based on lessons learned and feedback from participants. For example, the need for additional D&D worker skill training was identified. A two-day Hanford specific D&D worker fundamentals course was developed that provided additional training and experience for performing common D&D activities such as

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cutting metal in a hazardous or radiological environment and transferring items out of a radiological area or containment.

Improvements in communications and development of processes to respond to emerging priorities and requests were key to making contractor's successful in implementing their responsibilities under the Recovery Act. Management support in providing resources contributed to the ability to respond to lessons learned. For example, one contractor provided additional fall protection equipment for training use in order to accelerate implementation of improved fall protection training. Other contractors leased construction equipment or provided equipment when job specific or skill specific training was appropriate.