Electrical Safety Task Group

Guide to Incorporating Compensatory Measures into Your Program When an Increase in Incidents is Identified.

ESTG Guidance-Position Paper 2021-02

HEC Sub-Group POC: Tommy R. Martinez, LANL, tmartinez@lanl.gov, (505) 664-0548

Introduction

It is important to track and trend incidents within our programs to help identify areas for improvement. Sometimes our programs will experience a cluster or an increase in the severity or frequency of incidents. This guidance provides a tool for program owners to use to establish an improvement initiative and incorporate compensatory measures into their program when an increase in incidents is identified.

Manager Engagement – Get a Champion

Identify a high-level manager who can help to lead the improvement initiative. Engaging a manager early in your initiative will ensure that your initiative has institutional support. The manager champion will promote the initiative to the other levels of management and secure resources for the initiative. Resources may include support from Subject Matter Experts, workers, institutional communication, data gathering specialists and line management.

Subject Matter Expert Engagement – Know your SMEs

It is essential to engage the subject matter expert (SME) for your improvement initiative. For many programs this may be the program manager or the program leader. Dependent on both the specific program and the institution the SME may be a single person or it may include multiple individuals. Identify the appropriate SME(s) that can help support the initiative by providing the technical expertise with knowledge of the program requirements, expectations, impacted organizations, incident familiarity, and implementation strategies.

The SME(s) will be responsible for leading an effort to perform an initial evaluation of the recent incidents. An evaluation team should be established that may include workers, supervisors, incident analysis specialists, and human performance improvement (HPI) leaders. Both ORPS reportable and Sub-ORPS reportable incidents should be evaluated for trends. The initial evaluation of the recent incidents is intended to help identify the focus areas for the improvement initiatives.

Worker Engagement and Feedback – Perform Field Evaluations

Workers are responsible for implementing the program. They have the most knowledge when it comes to implementation issues. Ask them questions, what program requirement could be improved to make your job easier? Listen and gather their feedback. Perform field evaluations of the work activities to help identify where program vulnerabilities may exist. Emphasize to the workers that these evaluations are about identifying how to make improvements to the program and not about evaluating whether they are implementing the program as expected. Participate in all three aspects of the work evolution process. Participate in the pre-job/tailboard meeting, observe the work activity, and have discussions with the workers and supervisors following the work activity. Using the information gathered from the initial evaluation of the recent incidents and the field evaluations, determine three focus areas for your improvement initiative.

Communication Plan – Get the Word Out

Develop and implement a detailed communication plan. Start with the Why? Explain to the workforce why you are establishing this improvement initiative. Tell them about the recent events and what some of the expectations are. Emphasize that the objective of the improvement initiative is to improve the program in order to ensure the safety of the workforce. Some examples of effective communications could include: Safety presentations, work pauses, safety conversations, and roles and responsibilities crucial conversations. Provide an opportunity for the workforce to give feedback so the team can gather ideas for improvement. Establish a communication liaison, someone who will develop the communication plan and ensure that the message is clear and consistent.

Human Performance Improvement Tools – Compensatory Measures

Incorporate Human Performance Improvement Principles into your initiative to help reverse the trends identified during the initial incident and field evaluations. The five basic principles of human performance are:

1. People are fallible, and even the best people make mistakes.
2. Error-likely situations are predictable, manageable, and preventable.
3. Individual behavior is influenced by organizational processes and values.
4. People achieve high levels of performance based largely on the encouragement and reinforcement received from leaders, peers, and subordinates.
5. Events can be avoided through an understanding of the reasons mistakes occur and application of the lessons learned from past events (or errors).

The strategic approach for improving performance is to reduce human error. The fundamental purpose of human performance tools is to help the worker maintain positive control of a work situation; that is, what is intended to happen is what happens, and that is all that happens. Human performance improvement tools can be incorporated into your compensatory measures from the DOE Human Performance Improvement Handbook (DOE-HDBK-1028-2009). Effective compensatory measures to consider include *Task Preview, Pre-Job Briefing, Questioning Attitude, Pause When Unsure, Validate*

Assumptions, Self-checks, Memory Requirements, Simple/Routine Communications, Job-site Review, Peer-Checking, Concurrent Verification, Signature, Flagging, Place-keeping, and Observations. Also from volume 1 of the DOE HPI Handbook, remove *memory requirements*, as limited short-term memory is an error precursor. Lastly, from volume 2 of the DOE HPI Handbook ensure *effective communications*.

Program Evaluation

After compensatory measures have been established and effectively communicated, evaluate the incidents through a form of causal analysis methodology. Evaluate the effectiveness of the compensatory measures by performing observations in the field and gathering feedback from the workers. Don't hesitate to adapt and make adjustments to the compensatory measures that have been established in order to ensure that they are truly value added. Observations could be performed by managers, program leaders, and amongst peers.

Benchmark Best Practices

Reach out to other program managers/leaders from other DOE sites. Determine best practices that have been used by other sites and incorporate those into your long-term improvement plan. Point of contacts for other sites can be found by reaching out to the EFCOG leadership team.

Continuous Program Improvement

The most important concept to keep in mind is that our programs are intended to evolve. Program requirements need to be adapted to incorporate changes to regulatory drives, incorporate lessons learned from throughout the DOE complex, and evaluate implementation improvements. Perform an effectiveness evaluation of your program to determine the impact of the revisions made to the program and share your experiences with other programs and with the complex.