EFCOG Best Practice 135

Best Practice Title: The Learning Team Approach – When Thinking Together Finds More Possible Solutions

Facility: Los Alamos National Laboratory (Los Alamos National Security, LLC)

Point of Contact: Tom Courtney, (505) 699-4769, tomcourtney@lanl.gov

Brief Description of Best Practice: Learning Teams are based on the collaborative process model used in Team-Based Learning. The objective behind a Learning Team approach is to transfer useful information about every incident as a form of operational feedback—and then use a collaborative learning model to effect improvements. Our Learning Teams at LANL consist of four or five members who begin with a free-flowing dialogue that stimulates "thinking together". But Learning Teams are far more rigorous than the phrase suggests. Learning Team members challenge each other and test the benefit of potential improvements. Asking four key questions gets a Learning Team moving in the right direction:

- What's important for us to know about the event?
- What systems failed, and which worked?
- How is the organization managing the risk?
- What surprised us?

Why the best practice was used: People working for improvement-based organizations know that when small things go wrong, they may well be early warning signals of deepening trouble. They also know that when they are able to extract as much understanding as possible from those events, it can lead to a tremendous amount of insight into the well-being of the whole system. That insight allows us to understand if processes really work, or don't work.

It's easy for people to judge other people's instinctive decisions, rather than exploring the context in which those decisions were made. We tend to stop digging when we arrived at "who did it" and judge that person's decisions as unfortunate or wrong.

What are the benefits of the best practice: The Learning Team approach redefined the way LANL "investigated" events and how we started "learning" from them. Challenging each other with this question - Are we accurately able to understand judgments, decisions, and outcomes with a stronger responsibility to act?

What problems/issues were associated with the best practice: In any collaborative process, it's more about managing the personalities in the framework of the discussion. A good facilitator is able to, as Dale Carnegie Training teaches, to "try honestly to see things from the other person's point of view." Controlling the emotional aspect of the dialogue, particularly when there are team members jumping right to the elements of fault and blame, allows for acceptance and agreeable outcomes.

How the success of the Best Practice was measured: Since incorporating the Learning Team Approach, organizations across the Laboratory have been able to treat near-misses and close calls as significantly useful information about the health of their systems and are able to extract as much information as possible to understand those events.

Description of process experience using the Best Practice: In the two years since we started using the Learning Team approach within one of our Directorates, I have seen an

incredible change in how our organization reacts to safety and security events. When we learn as a team, we end up with more possible solutions, which are beneficial to workers and position the organization to positively influence systems, people and outcomes.

As an example, I have provided one of our Learning Team reports for a relatively minor event yet the learning from this event was significant.

ISR Learning Team Review
Team Members: Brandy Putt-ISR-2, Rick Ortiz-ISR-5, Tanner Trujillo-ISR-4

A learning team was established by ISR-5 to review an incident in which a spool of wire fell on an employee's hand/wrist, resulting in a visit to LANL's Occupational Medicine. The learning team's purpose, as directed by the ADTIR learning team coordinator, was to evaluate how and why the failed equipment resulted in the event that transpired.

On February 2nd, 2012 an ISR-5 employee received a minor injury while trying to unwind cables from a spool that was suspended with a wooden dowel. The ISR Fabrication Shop is responsible for building electronic cables and wire harnesses for multiple space flight instruments, for this a supply of various cable sizes and types are kept on hand. Storage of these cables consisted of placing 3 to 4 spools on a wooden dowel, which was placed in "holding brackets" within a wall mounted cabinet. The injury occurred when the employee started to pull a length of cable from the spool, when all of a sudden the three spools came out of the cabinet towards the employee. One of the spools struck the employee on the wrist, resulting in an abrasion and swelling. The employee at that point reported the incident to group management, and then reported to Occupational Medicine.

As a result of the incident described above, the learning team has been tasked with determining the following:

1. What's important for us to know? How did this happen?

2. How was the organization managing the hazard?

3. What improvement actions can/should be communicated to management?

What's important for us to know? How did this happen?
The following existing conditions were all contributing factors to the incident:

- o   Use of wooden dowels has been in place for years, to the point that both of the current employees do not remember anything else being used/replaced to suspend spools. Equipment fatigue finally happened.

- o   Three of the larger (5-7 lbs) spools were placed on 1 wooden dowel.

- o   Cramped conditions contributed to the fact that, multiple spools were placed on single dowels. Lack of suitable storage space for spools also resulted in stacks of spools which were unsecured and left on the floor.

How was the organization managing the hazard?

The organization was not managing the hazard, because one was not evident until the accident occurred. Once the incident took place the employees and group management removed all wooden dowels and replaced with metal conduit to ensure safe use. Additionally, a learning team was assembled to review the incident to better understand the cause and possible solutions.

What improvement actions can/should be communicated to management?

Replacement of wooden dowels with metal conduit to ensure safe future use has already been completed. Additionally, the learning team has identified the following plan, which will help to improve working conditions within the ISR-5 Fab Shop:

- o   Perform an Inventory of wire spools to determine:

    - o   What is present?

    - o   What needs to be kept on hand, based on frequency of use?

    - o   What can be kept in a satellite storage area (to help reduce the amount of clutter).

    - o   What can be salvaged?

The results of this inventory will help to identify opportunities to improve the efficiency of how ISR is utilizing space within the Fab Shop. For the spools that are needed but their frequency of use is not very high, the following spool holder has been identified to allow for storage in a satellite area yet can also be accessed and utilized at a moment's notice.

The "Wire Reel Caddy" provides safe mobile storage for wire spools, which will increase space usage efficiency along with worker safety.

Inventory/reorganization should be lead by key personnel (people who work in the shop on a daily basis) to ensure usability in the future.

The incident that took place, while unfortunate, was something that was bound to happen based on the material (wood) that was bearing the weight of multiple spools. Based upon the learning team's review, if the corrections and actions mentioned above are addressed then space usage within the Fabrication shop will be vastly improved.

In this simple yet information rich example, the Learning Team used a collaborative process to transfer useful information about their event into operational feedback to effect improvements.

Conclusion: It's easy for people to judge other people's instinctive decisions, rather than exploring the context in which those decisions were made. So why would we want to stop digging when we arrive at "who did it" and judge that person's decisions as unfortunate or wrong? Using the Learning Team approach redefines the way we "investigate" events and focuses the organization to learn from them.

"Insight is not a light bulb that goes off inside our heads. It is a flickering candle that can easily be snuffed out." — Malcolm Gladwell