The DEKRA Event Learning Process

White Paper

Exposure is the vulnerability that occurs when people intersect with a hazard. This vulnerability surfaces for many reasons and goes well beyond standard hazard recognition that most companies already understand.

Incident investigation has been a topic of discussion and an essential safety component in organizations for many years. Unfortunately, many companies find that their investigations do not help them gain insight into the drivers of incidents or help them prevent future incidents. A long list of factors contributes to this, including focusing on a single root cause, being under pressure to produce results quickly, possessing a limited understanding of exposure and human/organizational factors, placing emphasis on finding fault vs. learning, investigators who have limited training and experience, reporting software requirements and implementing corrective actions that provide limited protection against exposure.

For these reasons, DEKRA is rethinking incident investigations with the DEKRA Event Learning process, emphasizing the role of exposure in driving incidents.

Exposure is the vulnerability that occurs when people intersect with a hazard. This vulnerability surfaces for many reasons and goes well beyond standard hazard recognition that most companies already understand.

Our approach takes a holistic look at five critical categories that drive the causes of exposure:

1. Climate, Culture, and Leadership
How is work done, and who is successful? What gets rewarded? What happens when there is a conflict between production expectations and safety expectations?

2. Systems and Processes
How do the procedures for work and the systems that govern work and safety align with reducing exposure or make it more difficult to work safely?

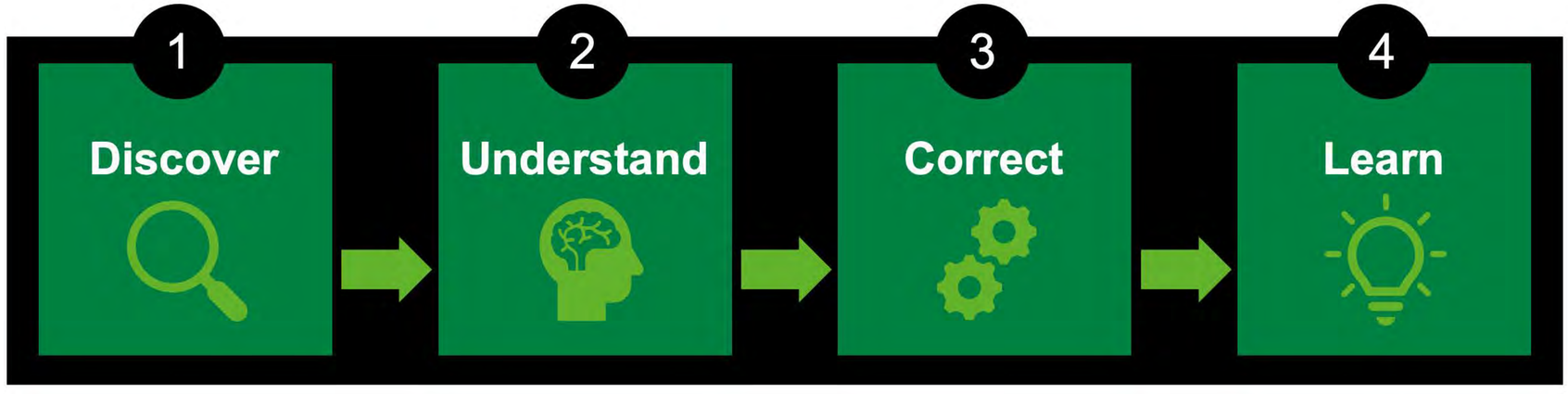
3. Facilities, Equipment, and Conditions
What is the reliability of the equipment? How do facilities and working conditions increase or reduce exposure?

4. Knowledge, Training, and Preparation
How were team members set up for success, and were they prepared with the skills and tools to do the job safely?

5. Brain-Centered Hazards™
How well does the work account for the factors that impact human error and how we operate as humans? Most investigations, or root cause methods, do not adequately or meaningfully address human performance.

DEKRA's four-step Event Learning process guides investigators from information gathering to analysis to identifying corrective actions and ultimately leveraging them for systemic learning across the organization.

Steps in the Event Learning process



Step 1: A Matter of Discovery

Step 1 in the Event Learning process is to gather all the information pertinent to the event through interviews, understanding processes and timelines, and documenting what the investigator learns. This discovery aims to understand the exposure and potential (rather than just actual) severity and determine the immediate causes of the incident. Information gathered will also be used later in the process. A key output of this step is a case narrative, which will be used for analysis and in executive summaries, reports, and any data-collection software the company uses. These activities build the foundation for further analysis, developing effective corrective actions, and accomplishing organizational learning.

Step 2: Seek to Understand

Step 2 utilizes the foundation created in Step 1 to create context, understand exposure frequency, and develop lower-level (root) causes based on our exposure categories, including brain-centered hazards, which reflect the latest thought leadership on human performance.

It can be quite easy to determine how things, like faulty equipment or poorly written procedures, can cause incidents. Understanding why individuals make mistakes is much more difficult. We take a holistic approach examining systems, culture, equipment, training, and the factors that drive human error.

It is only possible to fix something if you fully understand it. For decades, the topic of root-cause analysis has been studied, yet confusion rules the day, and common problems abound.

- Variability: Many definitions and methods of root cause analysis exist
- Stopping short: Investigators stopping at the immediate cause and calling it the root cause
- Narrow thinking: Looking for a single root cause
- Incomplete analysis: Using rule violations as a root cause without understanding why the rule was violated
- Spot fixes: Not focusing on system issues

Our point of view on root cause is that it is important to understand and address the exposures. Our exposure categories fit easily within any self-guided root cause tool (Fishbone or Ishikawa diagrams, for example). For system-guided root cause tools, the DEKRA process is a replacement that allows for a deeper analysis, especially in human performance, while being easier to use, learn, and scale.

The question "What allowed the immediate cause(s)/exposure(s) to exist or manifest into an undesired outcome?" is a powerful, yet simple, replacement for most root cause methods.

Step 3: Correct Me If I'm Wrong

Step 3 requires the investigator(s) to implement measures to prevent recurrence. All previous work before this is only worthwhile if this is done well. Some common problems with corrective actions include needing to understand the actual causes of the event, poorly written or surface fixes, short-term solutions, repeating (favorite) corrective actions, and a lack of validation or verification. The result of an investigation without concrete corrective actions means exposure will not be reduced, controlled, or eliminated.

We use tried-and-true tools, such as the hierarchy of controls, to help develop (and evaluate) fixes. However, we also focus on behavior, culture, leadership, and human performance. We close the loop through validation (Did it work?) and verification (Was it done?). Step 3 is also where reporting takes place. And a part of this is an elevation to the Learn Phase, Step 4.

Step 4: What Can We Learn From This?

Step 4 is all about learning. A common mistake organizations make is to perform investigations to correct individual events, but not take the extra step of considering the big picture or the system implications of these individual events. Many, but not all, incidents yield valuable information that can be leveraged at a higher level. However, the investigator(s) of events typically do not have the ability to correct system problems. A straightforward process of elevating incidents to a corporate team to investigate system learning and fixes ensures that people with the proper knowledge and resources study the issue and implement change if needed. A Learning Organization remains in a constant state of inquisitiveness, always aimed at achieving high performance.

The Learning Team has the following mandate:

- Calculating the size of the organizational problem
- Identifying system fixes
- Developing organizational implementation plans
- Institutionalizing changes
- Correcting system deficiencies
- Replicating learning and communicating

Some companies believe they can investigate their way to exceptional performance; however, a good return on investment can only occur if a thoughtful analysis at a systems level takes place.

The Bottom Line: Reduced exposure through better investigations

The DEKRA Event Learning process is a simple but holistic and structured way to use investigations to reduce exposure. We do this through discovery, understanding, correction, and learning. Our solution positions your organization to succeed by offering a pre-workshop evaluation, training in a facilitated workshop format, and post-workshop coaching and support.

Interested in taking your incident investigations to the next level?

Contact Us

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