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Thorough Follow-Up to Incidents and Near Misses

One way to learn about an organization's safety culture is to review its response to electrical safety incidents and near misses. During a site safety audit, I noticed there were multiple unresolved incident investigation action items, and some were open for more than six months. Perhaps the team responsible was overloaded with other issues and couldn't get to the items, but it gave a perception that it wasn't concerned about the incident or the results of the investigation. Some of the items would require design changes and edits to procedures with the required training of the workers. These efforts can be a lot of work! Let's explore what would be a "thorough follow-up" of an electrical safety incident or near miss.

There are many different ways to define these terms, but for discussion purposes, let's keep it simple. An *incident* is an unplanned event that results in a fatality or injury. A *near miss* is an unplanned event that has the potential to result in a fatality or injury.

The investigation of the incident or near miss must be thorough; this is a whole subject in itself with many references available. A technical article by Jooma and team will get the reader started learning about incident

investigations [1]. The final output of the investigation is normally a list of tasks or improvements to the safety system that would help mitigate the hazards identified during the investigation. These results can range from engineering (design) changes through administrative (procedural) changes to updated personal protective equipment requirements. A near miss should be investigated as thoroughly as an incident. If that chain of events occurs again, an injury or fatality could result.

The list of identified action items should be completed in a timely manner. If each item has an assigned responsible person (or team) and a completion date, this can be tracked. The assigned completion date should be reasonable but should be set as soon as possible to close that identified gap in the safety system. Any action item open after the assigned completion date should be a red flag. Delayed action items are a sign that the organization may not be serious about the incident or near miss, the assigned person is overloaded with other work, or there is a barrier to the identified safety system change.

Another part of "thorough follow-up" is the final result: Were design changes made (or is a project for modification in motion)? Were the procedures edited, approved, and finalized? Are all of the workers on

all shifts trained in the changes made? If every investigation action item is completed, one hopes that the next near miss won't become an incident!

We can use a measure of timely and complete follow-up of investigation action items as a *leading indicator* of the organizational safety culture. The use of leading indicators to measure a safety culture was discussed by Floyd in the article "Considerations for a Balanced Scorecard of Leading and Lagging Indicators for Your Electrical Safety Program" [2]. A leading indicator of safety is the organization's timely response to incidents and near misses. Leading indicators can help us recognize deficiencies in the safety program, and the measure of thorough follow-up to action items could be just one of many indicators to use in determining the quality and depth of the program.

For further reading on the topic, search on IEEE *Xplore* for articles on topics such as incident investigation and leading indicators.

References

- [1] Z. Jooma, J. Hutchings, E. Hoagland, and I. R. Jandrell, "The analysis of an incident investigation system," in *Proc. IEEE IAS Elect. Saf. Workshop (ESW)*, Jacksonville, FL, USA, 2016, pp. 1–8, doi: [10.1109/ESW.2016.7499713](https://doi.org/10.1109/ESW.2016.7499713).
- [2] H. L. Floyd, "Considerations for a balanced scorecard of leading and lagging indicators for your electrical safety program," *IEEE Ind. Appl. Mag.*, vol. 28, no. 3, pp. 16–20, May/June, 2022, doi: [10.1109/MIAS.2021.3114640](https://doi.org/10.1109/MIAS.2021.3114640).

