Edison Electric INSTITUTE

Power to Prevent SIF

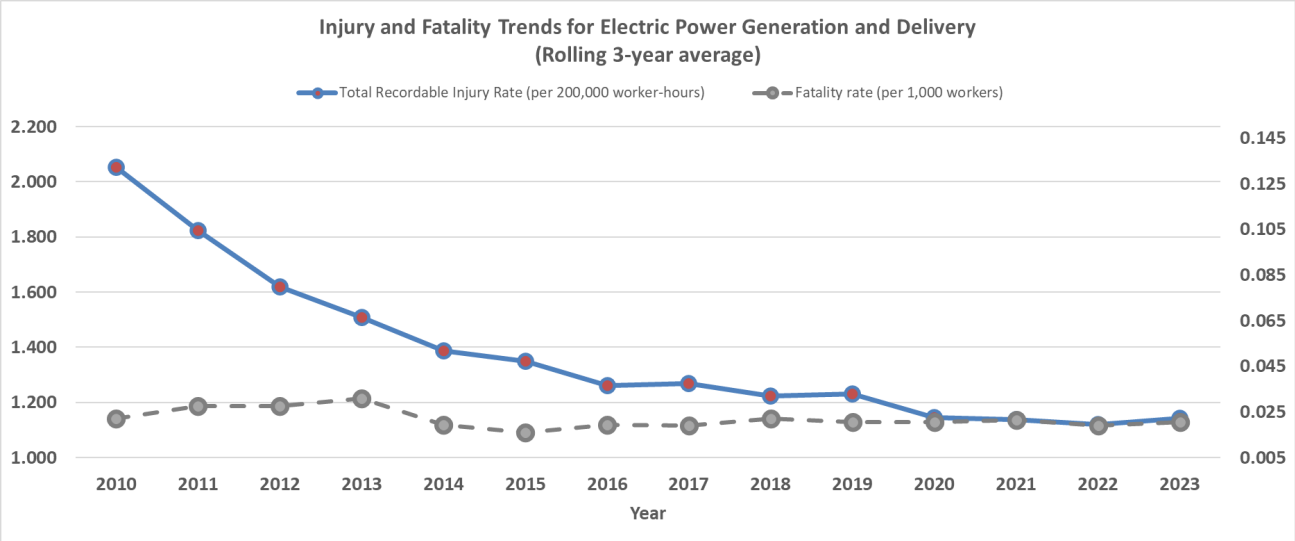
An Industry Initiative to Eliminate Serious Injuries and Fatalities

Overview

Safety is a core value of the electric power sector, and Edison Electric Institute (EEI) members are committed to protecting the safety and health of the workforce, industry contractors, and customers. Over the past 30 years, the industry's total recordable incident rate (TRIR)—a standard measurement of occupational safety—has decreased substantially. However, in the last decade, the rate of serious injury and fatality (SIF) incidents has plateaued (see Figure 1).

EEI members have prioritized SIF elimination and through collaboration across the industry are implementing a series of actions to achieve this goal through the Power to Prevent SIF Initiative.

Figure 1 – Power generation and delivery injury and fatality trends



Why is the industry focused on SIF?

Contrary to past theory, there is mounting evidence that the causes of SIFs are different from low-severity injuries and that reducing the rate of low-severity injuries may not lead to a corresponding reduction in SIFs. Thus, SIFs must be studied separately from lower-severity incidents.

From a data availability perspective, SIFs are rare and extreme events that, taken in small sample sizes, do not necessarily represent any meaningful pattern or trend. Therefore, individual organizations simply do not have enough data to fuel the learning that is needed to eliminate SIFs. Only through shared industry learning can we advance our goal.

How can this goal be achieved?

The Power to Prevent SIF initiative is changing the language of safety to help industry identify the causal factors of industry SIF incidents and providing targeted mechanisms for industry collaboration.

- **EEI SIF Criteria** – The SIF criteria was developed to better define serious injuries and fatalities. The criteria include work related fatalities and life-threatening and life-altering injuries.
- **EEI Precursor Analysis –** Leveraging precursor studies by other industries, and a vigorous scientific validation process, EEI identified 13 precursors — reasonably detectable events, conditions, or actions that serve as warning signs of a SIF event — for the electric power sector. EEI's precursor analysis protocol is a process of observing an environment and engaging with field personnel prior to beginning work to determine if known warning signs of SIF events are present. Through a brief discussion with workers and targeted observations of the work environment, an observer can help assess if conditions are sufficiently safe for work to proceed.
- **EEI Safety Classification and Learning (SCL) Model –** The SCL model is a method for consistently classifying safety incidents and observations. The model defines seven incident and observation types utilizing high-energy assessment and the identification of direct controls to determine SIF potential. The common incident classification system serves as the foundation for shared learning.
- **EEI SIF Learning Center –** The SIF Learning Center is an online resource for shared learning from industry incidents and observations that may have the potential to cause life-threatening or life-altering outcomes. EEI members can submit incidents to the database, which can be utilized to compare and analyze high-energy incidents.
- **EEI SIF Learning Community of Practice –** The SIF Learning Community of Practice is a platform for information exchange on industry SIF mitigation activities and the adoption and implementation of industry-developed SIF prevention tools. EEI holds virtual Community meetings monthly.
- **EEI Innovative Safety Metrics –** EEI has developed a suite of tools to provide insight into the effectiveness of safety programs and enable a more strategic approach to safety measurement, monitoring, and management. This system approach incorporates standardized leading indicators, a process to monitor high-energy hazards with corresponding controls, and a lagging indicator that weights injuries by severity. These new metrics place a greater emphasis on SIF prevention than existing metrics and will reveal trends that enable more strategic discussions.

Power to Prevent SIF

EEI's Power to Prevent SIF tools and resources serve as the foundation for industry learning to advance progress toward the most important goal: saving lives. For more information, visit: www.PowerToPreventSIF.com

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