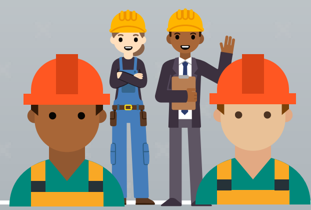

Preparing for a Root Cause Analysis

A thorough preliminary investigation, identifying the right team members, and anticipating problems at the analysis meeting could mean the difference between a highly reliable asset and recurring failures.

Collecting Evidence - Strike While the Fire is Hot

There is critical evidence that must be collected in a timely manner, and you should "strike while the fire is hot". These actions will help you collect the necessary evidence:

- Take pictures of the asset before, during and after repairs are complete.
- Evaluate failed components and send them to applicable SMEs for analysis.
- Mine your CMMS for equipment history of repair, preventive, and predictive maintenance.
- Search the equipment library for installation documentation, operational and maintenance manuals, drawings, and records of the asset life cycle.
- Review operational logbooks for additional details of long-term and short-term history.
- Include standard operating procedures for the asset and ancillary equipment
- Record a snapshot of process control screens that reveal the failure through key parameters. This will be the basis for developing the timeline of events, a prerequisite for the subsequent analysis.

The RCA Team – Identifying Key Players

Building an RCA team consisting of the right people is critical to the outcome of the analysis. The absence of key players will likely result in a stalled or ineffective analysis. Communicate the importance of attending team meetings to each team member. The RCA team should consist of:

- a trained and unbiased facilitator
- those directly involved in the incident
- equipment and process specialists
- operators and maintenance craft
- maintenance and reliability engineer
- possibly an environmental and safety specialist

RCA Meeting Logistics – Prepare for the Unexpected

Don't invest precious time and resources preparing a thorough preliminary investigation and forming an RCA team only to have the analysis fail because of poor planning of meeting logistics. Here are some tips:

- Develop and stick to an agenda that doesn't last more than two hours.
- Reserve a centrally located meeting room with sufficient seating and IT equipment. Provide conference call numbers and on-line meeting information for remote attendees.
- Schedule the RCA at a time when attendees are free or flexible. Team members on shift may need to come in on overtime to accommodate the majority of schedules and others may need to reschedule lower priority meetings.
- Send an email a few days prior emphasizing the importance of attending the meeting.
- If a follow-up meeting is required, schedule it at the end of this meeting.

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Thorough preparation for the unexpected will set the stage for success. For more information on Life Cycle Institute's Root Cause Analysis training, please visit our website or contact education@LCE.com.