

Graduation Celebration!

The PROACT® Lead Investigator Series of workshops and facilitations is hard work. Upon completion of all the training sessions and after the certification exams are passed there is celebration. The students deserve it and will be very proud of their accomplishment.



LEAD INVESTIGATOR

PROACT® Lead Investigator Series

Reliability Center, Inc.'s (RCI) NEW PROACT® Lead Investigator Series will provide candidates solid foundations in the mechanical reliability (fractology), electrical reliability and an in-depth understanding about the conditions that increase the risk of human error in the workplace. All of these integral skills will then be utilized within the PROACT® Root Cause Analysis framework and software to ensure that investigations are efficient and effective.

This unique series will include six individual workshops spanning over a four month period. After each workshop students will be provided assignments to conduct in their workplaces prior to attending the next scheduled workshop. Upon successful completion of a final exam, after all required workshops have been completed, successful analysts will be awarded plaques indicating their status as Certified PROACT® Lead Investigators.

Once certified, PROACT® Lead Investigators will be capable of analyzing all undesirable outcomes in a very disciplined and methodical manner. While their base expertise may lie in Reliability Engineering, they could be used as analytical resources in other areas such as Maintenance, Operations, Environmental Health and Safety (EH&S) and Human Resources.



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The Workshops Required To Meet PROACT® Lead Investigator Certification Requirements

I

PROACT® Methodology for Lead Investigator Workshop

Failure Modes and Effects Analysis (FMEA) – Facilitators will be taught the basic premiere of FMEA and its probabilistic use to determine the most critical risks in an organization. The deliverable will be a rational prioritization of the risks associated within.

Opportunity Analysis (OA) – As a value-added addition to the FMEA concept, OA facilitators will be able to lead teams to explore the opportunities that exist in any organization. OA facilitators will use historical data to identify trends over time. Opportunities will surface identifying the 20% or less of the events that are causing 80% or greater of an organization's losses.

PROACT Root Cause Analysis (RCA) – RCA facilitators will learn to lead teams to analysis why undesirable events occur, all the way down to their systems root causes. The goal is here to not pinpoint WHO makes poor decision, but WHY such decisions are made. The end result is usually deficient organizational systems that e promote poor decision-making. This methodology is applicable to anyone in EH&S, Quality, Reliability, Maintenance, Engineering and Administration.



II

Human Error Reduction Workshop

Designed to provide attendees with the requisite skills and knowledge necessary to effectively reduce human error in the workplace in a proactive manner. With fewer errors made by your staff, you will spend less time (by as much as 20 days per year) correcting human errors and responding to consequences of human errors, hence strengthening the safety culture.

This workshop provides the participants an acute awareness to the conditions that increase the risk of human error. This workshop is intended to be proactive in nature in the sense that the students will be able to identify environment health and safety conditions that are high risk, and implement countermeasures to reduce the risks.

III

Failure Scene Investigation Workshop Mechanical Reliability

This course provides an in-depth understanding of how to verify hypotheses developed in RCA. Hands on presentations are made to teach attendees how to identify mechanical failure modes by reading fracture surfaces.

This course can be customized to focus on areas of higher interest than others. For instance, the client can chose to focus on bearings, gears and fans or they may wish to focus on seals, shafts and fasteners. The client will determine the right mix.

Many of the root causes of failures and risks lie in the mechanical reliability of equipment and components. This workshop will educate the investigators with a much deeper understanding of the material sciences and their role in failure.



IV

Electrical, Instrument & Control Failures Workshop Electrical Reliability

The leading cause for repeat electrical and I&C equipment failure is the failure to thoroughly and accurately investigate and correct the cause(s) of failures. Engineers or equipment failure analysts need to evaluate all possible failure modes for electrical and I&C equipment failure.



V

PROACT SUITE Desktop Software* Workshop

Analysts require a consistent, structured approach to conducting their analyses. Including a software component in your program will guide the analyst through the process and prepare management reports of the analysis findings and recommendations. Additionally it will cut analysis time by as much as 50%. The PROACT Suite contains the following:

LEAP Software:

This software provides a disciplined approach to documenting and communicating a Failure Modes and Effects Analysis (FMEA) and an Opportunity Analysis (OA). While the FMEA allows for compliance to regulatory guidelines for FMEA, the OA provides the users expanded benefit using a variation of the FMEA approach. OA will allow the users to explore trends for chronic events that are the most prudent to conduct RCA on. LEAP also will record all of these analyses in a common database that can be searched and used for the education of others.

PROACT RCA Software:

This software guides and helps facilitate the disciplined RCA process taught in the facilitator training. This software eliminates the need for multiple programs to attain the end result. PROACT RCA software documents the RCA process all of the way while dynamically compiling the report. A built-in presentation mode also allows the ability to instantly present the status of any analysis. Lastly, PROACT RCA Software serves as a knowledge management system by storing successful RCA's and their associated logic, and allowing users to search and learn from specific analyses. Special securities allow the Analyst the ability to limit permissions to the ongoing analysis and to publish the analysis for all to see when approved by legal.

** It is required that attendees have already acquired PROACT V2 at a minimum. PROACT V3.5 upgrades are included in the training for all licensed PROACT V2 users.*

VI

Lead Investigator Facilitation & Mentoring

This session will take all the knowledge learned from the past five workshops and put them together to solve specific issues. These issues will be identified using the FMEA and OA tools learned. The most important and highest ROI events will then be analyzed using the PROACT RCA methodology and software. The result will be an instant pay back for the investment in the training itself. Average ROI's for the application of the PROACT methodology range from 3,000% to 17,900%



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