**Domain:** Reliability Engineering for Maintenance

**Project Title:** Reliability-Centered Maintenance Analysis of Air Handlers

**Submitted By:** Robert Reliability

Maintenance Planner/Scheduler

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**Initial Condition**

***Project description and how it relates to the organizational objectives or AIM.***

Air handlers in medical facilities serve to support patient comfort, safety, infection control, and at time life/safety concerns. The root causes of air handling system component failures were not being addressed in the current maintenance practices. In order to support the improvement of the patient experience, I initiated a classical RCM analysis of the PM activities assigned to each air handler in the facility. The objective was to realign maintenance practices with a reliability goal of zero unplanned downtime for ciritcal air handlers.

Since the goal of zero unplanned downtime is an on-giong measure, project success would be based on a completion rate of the RCM analysis and subsequent PMO for each critical air handler.

**My Leadership Role**

***Leadership role description: Provide a description of applicant’s hands-on performance in generating outcomes. Please include specific examples of gaining executive sponsorship, front-line buy in, cross functional collaboration, tools used, leading indicators, lagging indicators, scorecard/scoreboard examples, and other related documents.***

I proposed the effort of the RCM analysis to the Director of Plant Operations and gained approval for the project, including soliciting supporting efforts from others in Plant Operations. We determined the criticality of the air handlers and, based on risk and criticality, selected the most critical for analysis.

I led the analysis team of engineers and technicians through the classical RCM analysis for the selected air handlers. Our efforts resulted in changes to the periodic and condition-based maintenance practices for each component based on configuration, area served, and risk.

The subsequent optimized plan was uploaded into the CMMS and the new program went live in September. I provided training for in-house technicians and assisted in the procurement of outsourced condition management providers.

**Project Outcomes**

***CRL Project Outcomes: Provide a statement on the positive outcomes including but not limited to financial gains, saved cost, energy savings, material savings, workforce cultural benefits, environmental benefits, social benefits and how those outcomes support the organizational objectives or AIM.***

100% of the high-risk air handlers experienced the RCM analysis and their PM tasking, timing, and technologies were altered to reflect the outcomes of the RCM analyses. After backlog issues were resolved, patient hot/cold complaints were reduced 68% and the number of unplanned failures were reduced by 96%.