

NPRA RMC07 Reliability Q&A Questions

1.	How does your company use equipment criticality analysis, RCM, and FMEA (failure modes and effects analysis)? How are they used to drive reliability improvement programs?
2.	What risk-based methodologies do you use to determine what equipment should be replaced or repaired?
3.	What is your procedure for entering equipment repair history into a CMMS (computerized maintenance management system)?
4.	What formula do you use to calculate mean time between failure (MTBF)? Do you track a rolling 12-month MTBF KPI (key performance indicator)? How do you define a repair for MTBF calculations? Do you consider predictive work in the MTBF calculation? For which types of equipment do you trend MTBF?
5.	What is your process to optimize reliability during the design of new capital projects?
6.	What equipment reliability responsibilities does the operations department have in your organization? Have you developed specific instructions for operators to follow when conducting equipment reliability activities and reporting or correcting deviations?
7.	What is the organizational structure of your reliability organization? What are the advantages and disadvantages of your company's structure?
8.	How is your company using API 579 (fitness for service) for remaining-life assessments?
9.	How does your company determine when to perform a RCA (root cause analysis) and how are solutions implemented to prevent reoccurrence?
10.	How does your company measure the effectiveness of its reliability programs? What metrics are most important and what levels of management are involved in monthly or quarterly reviews?

NPRA RMC07 Cultural Change Q&A Questions

1.	What do we mean when we say safety or reliability culture and how do you know if you have a good safety or reliability culture?
2.	<u>Driving Change</u> What are some of the key elements needed to drive cultural change in an organization? Why do so many change initiatives fail outright, fail over time or, at best, deliver far less than was envisioned at the outset? How do you recognize and overcome resistance to change?
3.	<u>Leadership</u> What role does leadership play in changing the organization's culture? What level in the organization needs to lead a culture change initiative? Can these events begin at the bottom or in the middle of an organization (e.g. first line supervisors)?
4.	<u>Case Studies</u> Describe some of your culture change successes and why they were successful. What are some of the real world benefits that you have seen with changing a site's reliability culture?
5.	<u>Sustainability</u> If you are successful in achieving a culture change, how do you sustain the new culture over time?

NPRA RMC07 Turnaround Q&A Questions

1.	How far in advance of a turnaround are small, medium, and large projects initiated in order to allow integration into the overall turnaround planning effort. What are the main milestones and the relative timeline for integrating capital projects into a turnaround?
2.	What is your approach on capital projects and turnaround leadership? Do you transfer leadership from one group to another? If so, when does that occur?
3.	How are you scheduling for capital work and turnarounds? When do you integrate the schedules? How are you optimizing resources?
4.	How do you budget the turnaround or capital work? Is the budget cycle at the site or corporate level? How do you track and report the cost of late scope additions?
5.	What are owner companies doing to manage labor costs in the present turnaround and capital project environment?
6.	What is earned value and what is the best practice to determine it?
7.	What successful contract strategies have you employed for pre-turnaround, turnaround, and capital work?