2008 Reliablity Maintenance Conference Questions

Analyzers/Electrical/Instrumentation

Electrical

1. What are the requirements of NFPA 70E (arc flash protection)? What do you do to keep your personnel safe and minimize the need for personnel protection equipment?
2. Due to the random pattern of failure of most electrical equipment, it is difficult to use preventive maintenance practices and standard p-f intervals for identifying the remaining life. How do you determine the remaining life of your electrical assets such as distribution equipment, motors, and controls?
3. High inherent reliability in electrical components and their random failure patterns make it difficult to identify a failure's specific cause. How do you determine the root causes of your electrical equipment failures?

Instrumentation

4. What applications utilize wireless to its best advantage? How do you justify installing wireless instrumentation? What applications are unsuitable for wireless?

Analyzers

5. How do manage critical analyzers such as those required by federal or state environmental regulations or process critical analyzers?

Instrumentation - SIS

6. How do you manage a SIS testing program? Have you lengthened the intervals between testing? What steps did you take to lengthen the interval and what benefits have you realized? What limits the length of the interval?
7. To what degree, if any, are you using partial stroke testing rather than full funtional testing for valves in SIS service?
8. What qualifications do you require for people doing SIS testing?
9. Have you installed smart instruments and do you actually utilize their capabilities? Please name the top three benefits of smart instruments.
10. What is your smart instrumentation philosophy regarding new installations and upgrades: Hart v. Fieldbus?

RELIABILITY

Reliability Organization

1. Where does the reliability function reside in your organization? Please share your perspectives on how this organizational structure helps you achieve your reliability objectives.

Reliability Tools

2. Discuss the criticality analysis process at your site and how it was integrated into your maintenance and reliability efforts
3. Have you utilized RCM? What did you do to make the process successful and how have you used the results to support your strategies and practices?
4. Please describe your process for capturing equipment history and how it is utilized in your reliability improvement process.
5. What KPI's have helped you succeed in driving improvement and measuring the effectiveness of your reliability program? How are you using the KPIs to improve the reliability culture and drive behaviors?
6. What is your company's RBI philosophy? What have you learned about successfully implementing RBI and what benefits have you attributed to RBI?

Proven Practices

7. What methodologies do you use to ensure reliability while expanding operating envelopes?
8. What is your company's philosophy and strategy on corrosion under insulation (CUI)?
9. Given an aging workforce, please describe your plans to retain the equipment reliability knowledge base? What training programs are you using to educate new personnel on unique equipment items?
10. How do you ensure reliability is incorporated in both large and small projects and how is life cycle cost analysis utilized?
11. What methodologies are you using to assess fired heater tube condition?

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TURNAROUND

Contracting Issues

1 What are you doing to recruit and/or train skilled craftsmen that meet your requirements?
Who do you think should be responsible for training the craftsmen? Contractors or owners?

2 How are you complying with the new background checks required by the Department of Homeland Security (e.g. the Transportation Worker Identification Credential)? Do you think these requirements will affect your turnaround schedule?

3 How do you measure turnaround productivity rate? Have you noted any productivity trends over the past several years? Do these trends vary geographically? What factors affect productivity rate?

Cost Control & Project Tracking

4 How do you manage turnaround progress and cost? What data do you use to predict turnaround completion and final costs? For past turnarounds, how accurate were the daily forecasts and what were the key pieces of information that had the most effect on the quality of each forecast?

5 What are you using to capture contractor hours accurately? Have you succeeded in automating the capture and reporting of contractor hours ? If yes, what has worked and what were the results?

6 How do you measure delays and non-productive work during turnaround execution? How is this quantified for management review?

Planning/Scheduling

7 What types of Inspection technologies are you using to develop turnaround scope? Is there a best practice for determining the inspection manpower required?

8 How do you respond once you have identified an area where a turnaround is underperforming or large out-of-scope discoveries?

9 Have you succeeded in detailed planning, subsequent execution, and progress reporting of instrumentation and electrical work? If so, what led to this success? Is it worth the effort?

10 What information from the turnaround schedule is usually given to the trades foremen?

11 What type of planning process do you use for a turnaround of approximately 40,000 man-hours (e.g. 100 people for three weeks) or less?

Pre/Post-Turnaround Reviews

12 Do you use a "step" process for turnaround readiness reviews?

13 Is contractor review a part of your post-turnaround review?

14 What are your key performance indicators (KPIs) for turnaround performance? How were these KPIs developed?