

July 11, 2016

Test Your Knowledge (Part 3)

The last two tips focused on motor failure studies. Part 1 discussed the breakdown of component failure modes. In Part 2 we emphasized the importance of Quality Control (QA) as a result of a large number of the failures being linked to manufacturing or repair issues. This week our question will focus on maintenance practices surrounding the failed motors.

Approximately 1,200 motor failures were identified in the EPRI study. Some facilities experienced more failures than other facilities. Over 90% of these failures occurred in ___% of the facilities in the study?

- A. 17%
- B. 25%
- C. 38%
- D. 54%

D is correct. A very large majority of the failures (90%) occurred in just half of the facilities being studied. Not surprisingly the facilities that saw few failures had excellent maintenance practices. In fact facilities with motor maintenance frequencies of less than 12 months experienced a .0124 FPU (Failure per Unit/year) and facilities with motor maintenance frequencies greater than 12 months experienced a .0506 FPU or higher.

So it's not just QA that is important, it is also important to establish a baseline and trend to ensure an optimal electric motor reliability program.

You are invited to submit an Electric Motor Testing Tip of your own and receive a free PdMA[®] mug or hat if we publish it! Contact Lou at 813-621-6463 ext. 126 or lou@pdma.com.