FAILURe ANALYSIS & PREVENTION
homeworK 1

READINGS

For this assignment, I’d like you to read a few failure analysis case studies that were published in Engineering Failure Analysis. We have full-text access to this journal through our library web site, and journal articles are downloadable in pdf format. If you have trouble finding the journal, please let me know.

Please read the following failure analysis case studies:


As you read and think about the case studies, consider these questions:

1. What is the main point or points of the case study… the take-home messages?

2. Who is affected by the failure described in the case study? How are these people affected?

3. What type of physical and contextual evidence did the authors collect, analyze, and report?

4. What evidence or data are key for understanding the cause of failure? How do the authors use the evidence?

5. Did the authors present clear arguments regarding the cause of the failures? Did the authors effectively use their evidence to support their arguments?

6. Did the authors clearly communicate their conclusions?

7. Who is responsible for the failure?

8. Are there missing pieces, i.e., evidence, analyses, or rationale that should have been used but were not?

9. Are there concepts, techniques, or terms in the article that you don’t understand? Where might you find additional information to help you understand this stuff?

10. What knowledge, skills, and attitudes (or competencies, if you prefer) are required for successful failure analysis? Do you have the competencies required to conduct a failure analysis investigation and write a failure analysis case study? If not, what are you missing?