

Department Guidelines for Preparing an Engineering Analysis Report

Following is a list of the basic requirements that should be included in an Engineering Analysis Report (EAR)

1. Identification information: This should be included at the beginning of the EAR identifying the project information, the name and address of the company submitting the EAR and the name and address of the company the EAR is being prepared for.
2. Problem statement: Describe in detail the problem which required the EAR. Provide a summary of the test results (QC, IV, as applicable) and specification requirements that triggered the EAR. Provide the location within the project of the questionable material. If possible, use Global Positioning System (GPS) coordinates to identify the location of the material.
3. Testing laboratory: Identify the laboratory that will be used and discuss the laboratory's qualifications and personnel that will perform the required tests. Provide technician identification numbers (TIN).
4. Engineering: Identify the Engineer responsible for analyzing the data and making final recommendations. Include a brief résumé listing similar past work efforts.
5. Testing plan: Discuss the testing approach that will be used, including the test methods and number of test replicates. Include information on who will provide the samples for the analysis, where they will be located (within the area of the questionable material) and when they will be obtained.
6. Analysis approach: Describe the approach and reasoning that will be used to evaluate the test data and determine the quality of the questionable material.

Approval of the testing plan and analysis approach must be obtained from the Department prior to obtaining any samples and/or testing.

7. Data presentation: Present the data in a tabular and/or graphical format.
8. Statistical analysis: Conduct statistical tests, as applicable, to determine the viability of the data. The statistical analysis should also determine if the samples used in the analysis are representative of the questionable material in-place.
9. Recommendations: Based on the test data obtained and current engineering practice, provide and justify the recommendations for the disposition of the questionable material. Discuss the quantities and locations of the material determined to be questionable.
10. P.E. Seal: The Professional Engineer responsible for the EAR and its recommendations must sign and seal the EAR

11. Attachments: Present any accreditation, certification, or other supporting documents, including pictures, plant and field records, control charts, etc. that are needed for the EAR. Include a copy of the Department's correspondence to the Contractor that indicates approval to perform an EAR for this particular problem.