

## **QUALITY CONTROL TO QUALITY ASSURANCE – A CHANGE IN APPROACH TO GRADATION OF MATERIAL IN HIGHWAY CONSTRUCTION**

**G.PRASANTHI, R. NARAYANA REDDY AND K.PEDDAKOTLA**

### **Abstract**

Quality Control is the most important aspect in all construction operations and manufacturing processes. Effective quality control can be implemented and desired quality in the end-product can be achieved when the quality checking procedure is simplified. Highway engineers have to deal with graded material in most of the highway construction operations. Testing of graded material for their correct gradation is very important step in quality control. When number and frequency of tests increase the time required will also increase and precision may go down. The necessity is to reduce the time and assure precision of testing. Present work aims at presenting a way in reducing skill and man-hour requirements assuring 100% precision in calculation part of the test. The gradation test example taken in the present work reduced the skill-man-hour requirement from an average of 5 to 6 minutes to an average of 5 to 6 seconds assuring 100 % correctness in calculation part. When the number of tests and frequency of testing is large the present automated gradation testing method will be of significant importance.

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