

QUALITY ASSURANCE IN READY MIXED CONCRETE MANUFACTURING IN SRI LANKA

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Abstract

In Sri Lanka , concrete has become the dominant construction material for all types of buildings and other structures. Due to the significant growth in high-rise buildings, particularly in the urban and in suburban areas, the use of Ready Mixed Concrete has increased rapidly.

In this context, introduction of quality assurance is of considerable importance, such quality assurance system should be implemented in RMC industry in order to achieve high quality standards, automatically reducing the production cost long term.

In this research work presented in this report, How quality is being achieved in RMC industry in Sri Lanka. Further more recommending to implement ISO 9000 quality system for RMC industry as an entry to the quality improvement process. Since quality control is an integral part of quality assurance, a detailed literature survey is carried out to find definitions for quality, quality control, quality assurance, ISO 9000 quality standards and application to RMC industry and quality control techniques.

According to my knowledge no body has done research work on quality assurance of RMC in Sri Lanka and one research work found from Saudi Arabia.

It geared me to do further studies on this topic. Questionnaire survey is carried out to find the present production practices among RMC suppliers in Sri Lanka and it was found that they are not up to the required standards.(SLSI 1144, QSRMC 1995, BS 5328)Detailed case study is carried out for three major RMC suppliers in Sri Lanka and 28 day compressive strength data was analyzed. Results shows that the systems are not in control.

The critical areas which affect the quality of concrete where RMC suppliers most of the time try to pay less attention are identified as inspection and testing of raw materials, storage facilities and calibration of testing and measuring equipment.

Detailed comparison of ISO 9000 quality requirements and present practices among RMC suppliers also presented in this report. Based on the results obtained from this research work I have given the suggestion to implement ISO 9000 quality system to RMC industry