

Risk Management and Site Layout Optimization of Ready Mix Concrete Plants

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Abstract

Ready Mix Concrete (RMC) industry is rapidly growing in India. With the increase in infrastructure projects the use of concrete increases exponentially and so the RMC industry. All public and government projects are going for the use of RMC rather than traditional concrete manufacturing techniques. At present, nearly 6 million cubic meter RMC per month (72 million cubic meters per year) is produced by commercial plants in India. RMC industries are subjected to many risks like other industries. Also, not much importance is given for site layout optimization of RMC plants. With tremendous increase in land cost, site layout optimization should be given prime importance. If risk and optimization in RMC plants are effectively managed then RMC industry will achieve higher profit margins. As per the ICI Journal August 2016 issue, improving the efficiency by 10% in concrete production at RMC could save approximately \$350m (Rs.2400crores) per year. This paper proposes an overall improvement of RMC industry by effectively managing risks that arises in the plants and its site layout optimization.

Keywords: Ready mix concrete, risk, site optimization, statistical tools

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