

The Use of Data Quality Objective Procedures: to Control Complex Inter-Related Environmental Problems for Metal Matrix Encapsulation Fly Ash Management.

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Abstract

The Data Quality Objective Procedure (DQOP) method aids implementing environmental polices, as engineering solutions. Pollution control issues identified and addressed through new environmental legislation need to be implemented. The metal matrix encapsulation (MME) treatment works as a toxicity reduction exercise that can legally control disposal of fly ashes from waste-to-energy plants. The MME process aids with the implementation of European Union (EU) legislation such as the Waste Incineration Directive by allowing fly ashes to be disposed of in landfill sites. By using the DQOP, as shown with the MME fly ash treatment, complex issues can be clearly identified and effectively controlled. The method considers various steps into which different activities can be addressed, agreed upon and allows engineering, financial and legal teams to cooperate. The EU is the world's second largest economy with many waste management requirements. The DQOP can aid entry into this complex but rich economic opportunity.

Introduction

The management of municipal solid waste incinerator residues (MSWIR) flue gas treatment residues (FGTR), fly ash is a good example of a technically solvable problem, which has been defined by environmental policy issues. The solutions for managing FGTR have become difficult to implement due to complex interrelated technological, financial and legal parameters. Environmental issues that have been translated into policies by legislators, which are then required to become engineering solutions, are extremely complex problems.

The implementation of any new solution to the waste sector requires a series of interrelating activities forming very delicate operation sequences. This delicacy opens up the opportunity for spoiling tactics to be utilised to effect large-scale industrial activities. However the management of this complex problem is greatly aided through the utilisation a Data Quality Objective Procedure (DQOP) (1).

The European Union (EU) has recently expanded considerably forming the world's second largest economy. However it is important to know that a legal decision in any one country establishes a legal precedent that can affect another state. This