

Role of the Calculated Risk in Earthwork and Foundation Engineering

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Abstract:

The meaning of the term calculated risk is first explored and the terms unknown risk and human risk are introduced. Several case histories are then reviewed for the purpose of demonstrating the importance of risks in earthwork and foundation engineering. The final section deals with the question of how to cope with risks, with emphasis on the use and abuse of Boards of Consultants for projects involving great hazards to life and property.

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Role of the Calculated Risk in Earthwork and Foundation Engineering. Proceedings of the American Society of Civil Engineers 91(SM4):1-40. CAWMSET (Congressional Commission on the Advancement of Women and Minorities in Science, Engineering, and Technology Development). In this report, the term "geoengineering" includes all types of engineering that deal with Earth materials, such as geotechnical engineering, geological engineering, hydrological engineering, and Earth-related parts of petroleum engineering and mining engineering. The rapid expansion of nanotechnology, biotechnology, and information technology begs the question of how these new approaches might come to play in developing better solutions for geotechnological problems. 65 Survey of the Role of Uncertainty and Risk in Current Regulations. R. Wilmot (Galson Sciences Ltd., UK). 71 Management of Uncertainties and the Role of Risk in Andra's Programme. The Issue of Risk Dilution in Risk Assessments R. Wilmot (Galson Sciences Ltd., UK) and P. Robinson (Quintessa Ltd, UK) . 197. Over long enough timescales, however, even the most stable engineered materials and geological environments are subject to perturbing events and changes that are subject to uncertainties. The uncertainties associated with the evolution of the disposal system must be appropriately considered and managed throughout a repository development programme. Chapter six: measurements and earthwork calculations. An important part of the discussion of earthwork is the determination of pay quantities. In this section the following items are discussed: 1) Contract quantity payment. 2) Measured quantity to include cross sections, computations of volumes, and terms. Contract quantity payment. Where measured quantities are specified or found necessary by the check of plan quantities, the excavated quantities in each balance are computed on Form IC 401. If "excess cut" or "waste" deductions, as described later, are applicable to the roadway excavation, they are deducted from the balance totals. Measurement and earthwork calculations.