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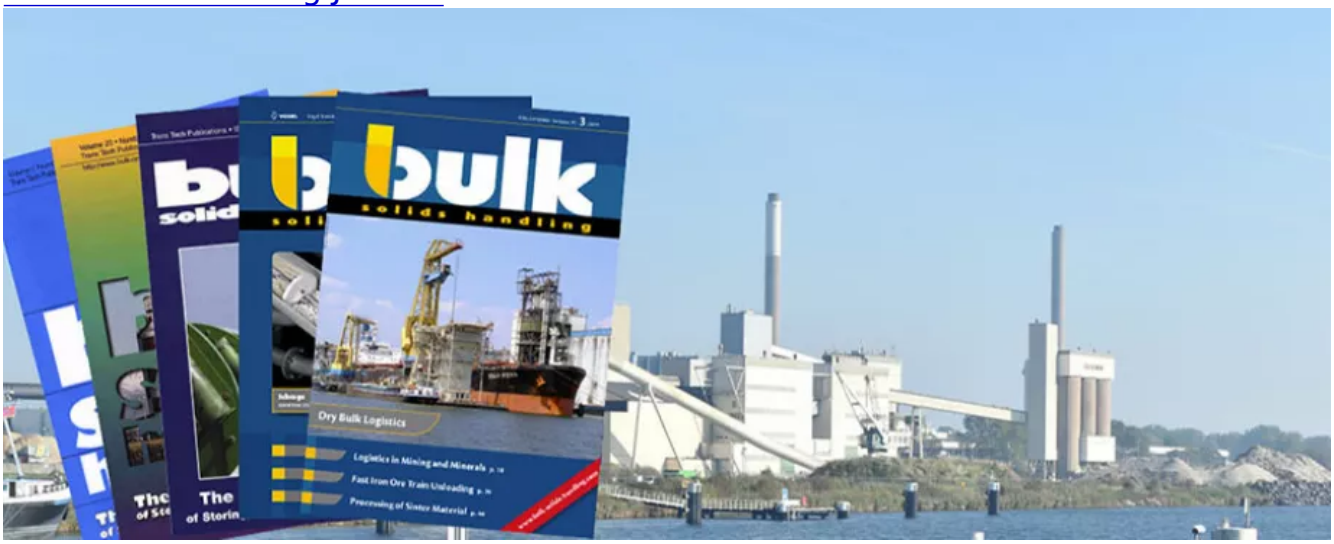

Whitepaper

Design and Operation of Coal Storage and Homogenisation Systems

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The planning of coal storage plants should always commence with the basic question and decision relating to the desirable method of material reclamation. This paper highlights the various methods available for stockpile stacking and reclamation indicating the basic advantages and disadvantages of each for particular applications and offers system design guidelines with particular reference to coal storage systems.

What are the basic requirements and desirable functions of the typical coal storage plant?.

Naturally there are many, especially if not only the present process operational circumstances and requirements are to be considered but also perhaps foreseeable or possible future developments.

A selection of the possible functions that the storage plant can fulfil are, of course, always absolutely necessary. However, only seldom is it possible to satisfy all requirements simultaneously.

When therefore, is a coal storage plant a highly efficient one?.

Generally speaking, only when it consists of all the absolutely necessary functions and has as many of the desirable features as possible taking account of the future.

When a coal storage plant is planned, it is of course necessary to investigate completely the given basic operational situation. At the same time the required functions and characteristics of the plant must be determined. Then, of course, the real engineering planning commences involving a basic search for the most favourable means to achieve an optimum cost effective design and operational system. It is usually difficult especially for the non-specialist, to keep in mind all the important points of view and to meet all requirements simultaneously. Therefore, the planning engineer generally works step by step in sequence.

What therefore is the optimum sequence of steps at the process plant design and specification stage?