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1.0 INTRODUCTION AND TERMS OF REFERENCE

Fugro (Hong Kong) Limited were requested by the Pneumoconiosis Compensation Fund Board (PCFB), in April 1989, to submit a proposal to provide a consultancy for a research project relating to the practical application of methods to reduce the incidence of pneumoconiosis in the Hong Kong environment. After extensive discussions with the PCFB Fugro (Hong Kong) Limited submitted a proposal, reference KGH/9088/L504 dated 8 October 1990, outlining the proposed scope and method of research. This proposal was accepted by the PCFB in a letter dated 24 December 1990. A Consultancy and Research Services Agreement was signed and returned to the PCFB on 15 January 1991.

Pneumoconiosis is a disease of the lungs caused by inhalation of fine dust particles over a period of time. The most hazardous inert particulate matter constitutes particles of less than five (5) microns in size. Material composition has an important influence upon the permissible degree of exposure and the way in which the disease manifests itself. Some of the most common forms of pneumoconiosis include asbestosis and silicosis. The current study has been made with specific reference to silicosis. Conclusions and recommendations made in this report are specific to a silica rich dust and may not be applicable to other substances which have different physical and chemical characteristics. The causes, symptoms and treatment of the various forms of the disease are very well understood and are not discussed in any detail under the current agreement.

A review report constituting Phase 1 of a study to provide guidelines for the control of dust on construction and quarry sites in the Hong Kong environment was submitted in May 1991. The Phase 1 report, which was submitted under the terms of the current Consultancy Agreement, identified and briefly described existing legislation (international and local), statutory controls, existing codes of practice and common practice in Hong Kong. This report was intended to advise the Pneumoconiosis Compensation Fund Board of the status of the project and to identify areas of particular concern of the Pneumoconiosis Compensation Fund Research Committee.

The current report constitutes the final report under the existing Consultancy Agreement. This report presents a detailed summary of existing legislation, both International and Local. The various aspects of dust generation, suppression and other means of control are examined and discussed in some detail. Existing exposure limits for various countries throughout the world are listed and discussed. Consideration is given to the use of respirators and guidelines for their selection and use in the Hong Kong environment are given. Recommendations for additional research, the formation of committees or working groups, preferred or safer practice, and the adoption of standards of practice are given.