The purpose of this study is to develop an expert system for providing knowledge of particulate control technology and appropriate technology recommendations. The Delphi version 3.0 was invited to use for this application. The System consists of 3 different parts ; knowledge base, inference engine and user interface. The user interface is separated into 2 parts ; one for general user and one for the system developer.

The system consists of 5 main particulate control equipment databases : Settling Chamber, Cyclone, Electrostatic Precipitator, Filter and Wet Scrubber. Facts concerning knowledge of particulate control, the knowledge of equipment limitations, equipment efficiency and cost of design were provided by the human expert. This knowledge was also utilized to formulate the rules for establishing the questions which will be asked by the system. The details of appropiate particulate control equipment will be shown with information of providers of such equipment. In addition, sub-programs for preliminary design of equipment were also designed and added to the expert system which can offer comparative evaluation of the particulate control equipment reliability.

The developed expert system was verified by a human expert and also tested by general users. Results indicated that the expert system can provide information and knowledge about particulate control technology at a certain level. The further development of this expert system can be done without correcting source code.