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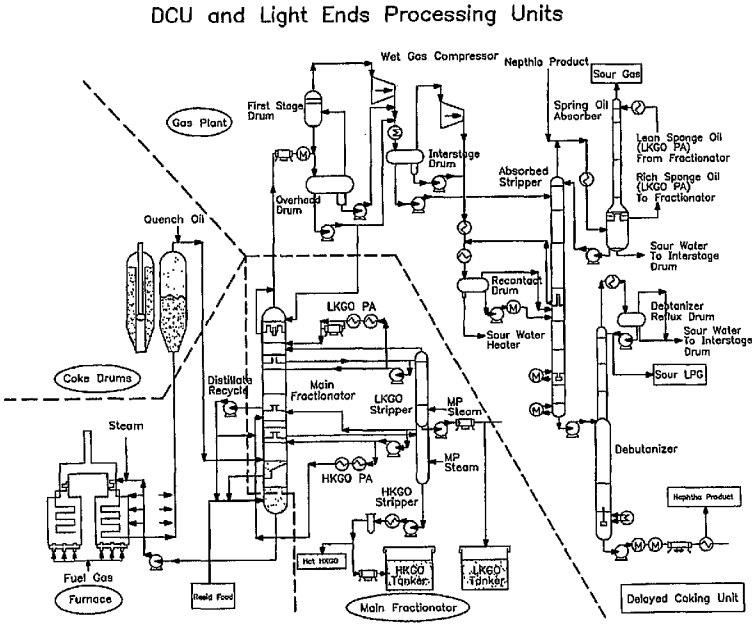
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*[Continued on next page]*

(54) Title: APPLICATION OF ABNORMAL EVENT DETECTION TECHNOLOGY TO DELAYED COKING UNIT




(57) Abstract: The present invention is a method for detecting an abnormal event for process units of a Delayed Coking Unit. The method compares the operation of the process units to statistical and engineering models. The statistical models are developed by principal components analysis of the normal operation for these units. The engineering models are based statistical and correlation analysis between variables. If the difference between the operation of a process unit and the normal model result indicates an abnormal condition, then the cause of the abnormal condition is determined and corrected.

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