상압증류공정의 CCD(Corrosion Control Document) 개발

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This paper focuses on techniques of improving refinery reliability, availability and profitability. Our team developed a CCD for processing of Crude Distillation Unit(CDU). Recent study shows the loss due to corrosion in US is around $276 billion. It's a big concern for both managers and engineers of refinery industry.

The CCD consists of numerous parts namely damage mechanism(DM), design data, critical reliability variable(CRV), guidelines, etc. The first step in the development of CCD is to build Material Selection Diagram(MSD). Damage mechanisms affecting equipments and process need to be chosen carefully based on API 571. The number of selected DM from API 571 are nine. Each DM related to corrosion of CDU process was selected by design data, P&ID, PFD, corrosion loop, flow of process, equipment's history and experience. Operating variables affecting severity of DM are selected in initial stage of CRV. We propose the guidelines for reliability of equipments based on CRV. The CCD has been developed on the basis of the corrosion control in refinery industry. It also improves the safety of refinery process and reduces the cost of corrosion greatly.