

A study on descriptive plans for reusing wastewater and recycling pitch in case of discovering gas

박진희, 김동수<sup>†</sup>

이화여자대학교 환경공학과

(dongsu@ewha.ac.kr<sup>†</sup>)

The study discusses reusing wasted water and recycling pitch generated in gas production field. The wastewater generated in gas production field, which is saline and/or non-saline, includes a number of particulate matters which should be treated adequately before their disposal. The wastewater reusing treatment is also environmentally beneficial. On the other hand, when not treated, radical change of the ecosystem could occur. Moreover, it is costly to replenish and secure the water. Thus, appropriate management before the disposal is a must for the environment. The reuse of the wastewater is profitable. For the reuse, the theoretical factors regarding the coagulation of inorganic particulate matters and hydrocyclone for separating coagulated particles from the wastewater have been considered. Also, the DLVO theory and electrical double layer for aggregating particles in underwater environment and the manufacturing techniques of activated carbon using the patch have been considered. The study's outcome and proposal would be successful methods as an environment-friendly solution for water shortages and economically beneficial in producing industrial goods.