

عنوان مقاله:

Analysis of the bio-environmental advantages using two types of activated carbon at a petro-chemical water treatment plant

محل انتشار:

دومین همایش ملی مدیریت پساب و پسماند در صنایع نفت و انرژی (سال: 1390)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Amin ahmadpour - *Department of Chemical Engineering, Islamic Azad University, Omideyeh Branch, Omideyeh, Iran*

Khashayar Shakiby - *Ham Andishan Energy Company*

خلاصه مقاله:

Use of activated carbon in waste water treatment is not a new idea, therefore since 1935 experience has been gained in its use to increase the coagulation and flocculation of solids, anaerobic digestion of sludge and for removal of water from it. Experience has shown that activated carbon powder as an additive at the time of addition of hydraulic load of waste water, results in the compression of sludge and facilitates the removal of water from it. In these experiments the usefulness of Powered Activated Carbon (PAC) is determined, but due to economical and the fact that high degree of treatment was not required, this was not fully accepted. In the past use of Granular Activated Carbon (GAC) was more popular compared to its powered type, and it also had higher efficiency. In this article, initially a literature review of work done on the use of Activated Carbon Powder and the trend of growth in its use and the modifications made during last few years in the world and Iran and finally various experiments performed on activated carbon pilot unit at one of the petro-chemical units in Iran, in order to analyze the usefulness of this material in waste water treatment. In addition, two type of commercial activated carbon powder were used from two different suppliers giving different results, the reason for these different results was also analyzed and this difference in result was attributed to different constituents. For every experiment 4kg of activated carbon was used in the pilot plant column. The samples for experiment were taken from the exit stream from the clarifier. Results were obtained for effect of parameters such as inlet volumetric flow rate of waste water and activated carbon structure on its performance.

کلمات کلیدی:

Activated Carbon - WasteWater Treatment - Shahid Tondgoyan - Petro-chemical Complex

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/128435>

