

Effluent treatment from chemical cleaning generated in the UO₂ production process

J. G. dos Santos¹, R. A. Corrêa¹, V. H. A. Rique^{1,2},
F. L. F. dos Santos^{1,2}
e-mail: jg@ien.gov.br

¹ Division of Nuclear Engineering - IEN

² School of Chemistry - UFRJ

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Effluents from chemical cleaning processes have high pollution load and should be treated until they find the specifications required by environmental regulators. Sometimes the customer is unable to process the effluent despite the availability of sewage treatment plant because this may result in the inhibition of microorganisms possibly resulting in wastewater treatment interference or failure. It happens because a biologically adverse environment could be created by releasing toxic concentrations of substances into effluent water. In this case, it is need to be processed by commercial waste management professionals [1-2]

Wastewater generated in machining processes, and degreasing in INB fit in these cases. Usually the elements that are of the most concern are phosphorous and nitrogen, as well as the BOD of the effluent. This work contributes to the

development of a hybrid technology combining advanced oxidation process and conventional biological processes for the treatment of water containing biorecalcitrant and toxic pollutant.

In the proposed system, after emulsing breaking, in jar test, photochemical processes will be applied as pre-treatment with the aim to modify the chemical structure of the pollutants to transform them into biodegradable intermediates [3]. During this step, the partial mineralization takes place and the subsequent biological treatment is applied to complete mineralization so that effluents can be inserted or blended with conventional sewage company

References

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