



Environmental pollution in the petroleum refining industry

Cristina DAMIAN

*Stefan cel Mare University of Suceava, Faculty of Food Engineering, 13
Universității Street, 720229, Suceava, Romania*

Abstract The petroleum refining industry has a significant influence on the total pollution of the environment by industrial discharges and wastes. In the operation of petroleum refineries, the atmosphere is polluted with hydrogen sulfide, sulfur dioxide, nitrogen oxides, carbon monoxide, hydrocarbons, and other toxic substances. The main pollutants are sulfur dioxide and hydrocarbons. The fresh water used by refineries in product cooling is returned to the original source of water containing crude oil, petroleum products, and mineral salts as contaminants. The extent of air and water pollution depends on the particular processing technology, control measures that are employed and also on the scale of the processing. In working out these measures, the primary attention of scientific-research institutes and design and planning organizations must be directed not only towards how to reduce the contaminating and poisoning action of industrial discharges on the environment, but primarily towards preventing or minimizing these discharges in the refineries.

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