处理 2000 肉制品屠宰废水的方案

摘 要

肉制品屠宰废水主要含有屠宰过程和加工的过程中所产生的污染废水。肉制品加工的污染废水特点主要是呈红色、含有大量的油脂质、肉屑、粪便等污染物，具有有机物浓度高、含油量高、杂质含量高、氮磷过量、生物降解性好的特殊属性。随着社会的发展，国家对环保的要求也在不断的提高，对现在肉类屠宰废水的处理也有了更高的要求。所以，对肉制品屠宰废水处理的进一步研究与探索是很有必要的，对水环境的保护和环境污染的解决具有很大的意义。

本篇文章对肉制品屠宰废水里 CODCr 和含油量高的特点，设计一个处理 2000 肉制品屠宰废水的方案。结合日处理水量和加工厂水质、运行的成本、操作性简易的要求，并且保证了工艺的稳定处理效果，最终以水解酸化——序批式活性污泥法（简称 SBR）作为本次设计的主要工艺方案，屠宰废水的出水能够达到《肉类加工工业水污染物排放标准》GB（13457-92）中的一级标准。其中 50%通过城市管网排出，另外 50%出水经曝气生物滤池——普通快滤进一步处理后重新用于冲洗地面，其水质满足《城市污水再生利用城市杂用水水质标准》（GB18920-2002）的回用要求。

水解酸化+序批式活污性泥法（简称“SBR”），该工艺对于处理、屠宰废水具有有机物浓度高，排水稳定、剩余污泥产量少、处理效果好、不需要设置二沉池，技术先进、投资和运行成本低等特点。经初步的工程预算和工厂的环境影响评价分析，本次设计的方案是可行的，其可获得一定的经济效益和具有环境保护价值。

关键词：屠宰废水；水解酸化；SBR 工艺；工艺设计

Abstract

The Great Northern Wilderness Meat Industry Co. Ltd. pig slaughtering plant slaughter 6 million pigs,The quantity of wastewaterproduced is about 2000m^3/d, the slaughter wastewater shows red brown, with an unpleasant fishy smell, which contains a large amount of blood, fat, hair, meat scraps, bone chips, visceral debris, undigested food, feces and other filth, suspended solid concentration is high and organic compounds concentration is high.,Based on slaughterhouse wastewater technology and project case at home and abroad.T he slaughter wastewater treatment can reduce the pollution of the environment, and realize the resource utilization.

Combined with domestic and foreign slaughter wastewater treatment process and engineering examples, selection of process scheme of three aspects of project investment amount and the operation management, determined by the hydrolytic acidification and sequencing batch reactor(SBR) was determined as the main process, quality of effluent after treatment can meet demand of first emission standards of "Discharge standard of water pollutants for meat packing industry".(GB13457-92).Half effluent was treated furtherly by biological aerated filter and ordinary quick filter, and the quality of its effluent can meet the demand of "The reuse of urban recycling water-Water quality standards for urban miscellanenous water consumption(GB18920-2002)",which was used for pens and ground washing.

Hydrolysis acidification SBR process in Treating Slaughterhouse Wastewater and high organic load, flexible operation and management, sludge yield, water quality stability, without setting two sedimentation tank, no sludge bulking. After the initial environmental impact of the project budget and the evaluation analysis, this design is feasible and has certain economic benefits and environmental benefits.

Key word：slaughterhouse wastewater; hydrolysis acidification; SBR process; process design