SLUDGE FROM WASTEWATER PLANTS TREATMENT AND THE POWER GENERATION

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Abstract. Increase for freshwater consumption results in the generation of large quantities of sludge in wastewater treatment plants. Since the 1990s the sludge disposal has become a problem for all European countries and beyond. Thus, various projects have been initiated on the generation, collection and storage of sludge and biosolids. The projects aim to solve two problems: to reduce sludge volumes produced and cover for specific energy consumption in wastewater treatment process. One possibility to solve both problems is sludge incineration in special incinerators. Investments into new incinerators are big and often not justified, because of the great costs necessarily for small quantities of sludge to be burned. The idea of adapting existing installations for combustion in power plants burning fossil fuels (coal) in combination with various amounts of dried sewage sludge, co – combustion. In this way the collected sludge is destroyed by burning and an amount of additional energy is obtained in the plant while maintaining the same level of generation of pollutants.

Keywords: wastewater, energy, sewage sludge, co-combustion.

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