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Suitableness assessment of solid fuels through the analysis for moisture and low-heating value in domestic manufactures

Jae-Hoon Lee, So-Hee Park, Ye-Seul Baek, Eun-Kyu Noh and Jin-Sik Jung
Korea Environment Corporation, South Korea

The purpose of this study is to investigate the actual use value for an alternative energy resource as analyzing the correlation between moisture and low-heating value for waste solid fuels. The types of solid fuels produced in various manufacturing facilities are divided into two categories of Bio-SRF (Solid Refuse Fuels) and SRF including in pellet and fluff type. According to the specific classification of samples, It is determined that 68 from SRF of pellet type, 53 from SRF of fluff type, 25 from Bio-SRF of pellet type and 86 from Bio-SRF of fluff type has been statistically examined at the total of 234 samples. In result of measurement on moisture and low-heating value, 7.4% SRF of the pellet type samples, 18.9% SRF of the fluff type samples, 16.0% Bio-SRF of the pellet type samples and 9.3% Bio-SRF of the fluff type samples could not meet the criteria for the quality and grade. In total, 11.6% of samples were failed. Especially, five samples out of the total 27, which was exceeding, were found to be highly affected by low-heating value due to moisture. In conclusion, we consider that the most of solid fuel, which was approximately 88.6%, is included within the standard of Korea.

Biography

Jae-Hoon Lee has completed his Masters from In-Ha University majoring Environmental Engineering. Presently, he is in charge of the analysis of waste and SRF (Solid Refuse Fuels) in Korea Environment Corporation.

ramedios@keco.or.kr

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