



Efforts to reduce Hg emission from coal combustion power plants in Korea

Yong-Chil Seo
Yonsei University

Since the electricity supplied by coal fired power plants is increasing and occupied around 46 % in 2017, the emission of Hg has been concerned for a couple of decades in South Korea. The presentation deals with the major efforts to work on Hg inventory of the country including the emission from coal power plants with the co-beneficial effect on Hg reduction by existing air pollution control devices in commercial plants. The inventory will show the total emission of Hg from other sectors as well. In order to introduce BATs on Hg emission control, several R&Ds were also conducted such as the development of a hybrid filter unit and a low-temperature SCR by a recent issue to reduce NO_x and fine particulates together with Hg in the country. Some coal power companies have recently utilized solid refuse fuel (SRF) to generate electricity, however the emission of Hg and fine particulates were concerning by the local residents and governments. So the power company conducted emission investigations for various pollutants including Hg, and the measurement results at stack of SRF power plants will be introduced as well for comparing them with those from coal power plants. During the performing a project to observe Hg behaviors in coal power plants and a SRF facility with mass balance studies, the research team could suggest the BATs and BEPs with the provision of the handling fly ash and other residual materials. The presentation may include on the Hg waste treatment for coal combustion residues as well.

