

ABSTRACT

Coal is one of the potential fuels which are used most widely in all over the world especially in cement industries. As we know that coal is a major source for the emissions of Green House Gases especially CO₂ gas. This CO₂ forms the major constituent of the Green House Gases (GHG). In my present study, I visit "Pioneer Cement Mill" & observed the excess emissions of gases, Particulate Matter & Trace elements, when they were using Coal & RDF. During the use of coal as a fuel the emissions of gases (CO₂, CO, NO₂, NO, NO_x & SO₂), Particulate Matter (PM₁₀) & Trace Elements (Pb, Cr, Ni, & Cd) were within Standard recommended limits. But, when they were using RDF mixed with Coal in different percentage (i.e. 20-30 %), then the emissions of Carbon Monoxide (CO), Particulate Matter (PM₁₀) in some areas & Trace Elements in Cement & Clinker samples were found high. The excess emission values of CO Gas were high in Electro precipitator Stack Line-1(1244.5, 1197.3 & 1229 mg/ Nm³) & Coal Mill-1(861 mg/Nm³) respectively. PM₁₀ high values were found at EP Line-1(460 & 580 mg/Nm³), EP Line-2 (454.6 mg/ Nm³), Coal Mill-1 (415.6 mg/Nm³) & Coal Mill-2 (424.3 mg/Nm³). According to my result # 01, the high concentration of Trace Elements in Cement samples were, Lead (Pb) 186.0251ppm, Cadmium (Cd) 90.0025ppm, Nickel (Ni) 75.0012ppm & Chromium (Cr) 126.0102ppm & similarly in Clinker sample were, Lead (Pb) 120.0437ppm, Cadmium (Cd) 88.0526ppm, Nickel (Ni) 90.0456ppm & Chromium (Cr) 86.6541ppm respectively. These excess emissions of Carbon Mono-oxide (CO) gas, Particulate Matter (PM₁₀) & Trace Elements are not only pollute our environment but are also hazardous for all those peoples working at their & for all those organisms living in its vicinity. By the implementation of environmental mitigation measures, proper monitoring and compliance of environmental standards /legislation will made these levels within the limits of NEQS and other prescribed limits of International Standards.