

# **Environmental Practices Adopted for Control of Pollution in DRI Plants of Orissa, India**

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## **Abstract**

Industrialisation followed by fast depletion of natural resources like minerals, water, forest etc. with consequent generation of wastes and pollutants is a concern all over the world. This has serious consequences on the human health and the environment. The tremendous demand for steel and shortage of steel scrap in the world market boost the efforts to develop alternative iron making process other than the conventional Blast Furnace (BF) giving birth to Directly Reduced Iron (DRI/Sponge iron) process during eighties. DRI has been proved to be the prime feed stock to replace scrap in Electric Arc furnace/induction furnaces for manufacturing of steel. Due to boom in steel market, during the last 8 years, there has been rapid growth of coal based sponge iron plants and integrated steel plants (DRI route) in iron and coal rich states like Orissa, Jharkhand, Chhatisgarh, West Bengal and Andhra Pradesh of India. A large number of iron ore crushers, ingot plants, Ferro alloy plants and coal washeries have been established and mining activities have been intensified. The sudden boom in the industrial scenario has increased environmental burden and it is required to combat pollution problems in proper manner. This paper deals with various pollution problems encountered, control measures, best practices and enforcement mechanism adopted in DRI Steel/ Sponge iron plants of Orissa for control of pollution and protection of environment.