

The invention relates to the ferrous metallurgy and concerns method and apparatus for producing iron by direct reduction. For the reduction performed is heating and transformation of hydrocarbon by oxidation. The generator is disposed in the circuit of effluent gas in the reduction zone of the reactor. The unit for preparing effluent gases involves serially tied by gas outlet cyclone of gases purification, bag filter, heat exchanger and compressor which outlet is connected to gas generator plasmatrons. The technical result: increasing the reduction reaction rate, use of effluent gases for gas generator operation.