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## Occurrence of Acid Mine Drainage and its Treatment by Successive Alkalinity Producing System (SAPS): An Overview

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Abstract : Acid mine drainage (AMD) is one of the most important environmental problem faced by some of the coal and many metal mines which is required to be treated and managed in economical and efficient manner. The AMD is harmful for aquatic life and corrodes the pumps, pipes and machineries in the mines. The AMD problem originates from active mines, abandoned mines, coal waste spoils and stripped area. About 40% of the AMD pollution problems originates from active mines both surface and underground and rest from others. The discharged acidic water from the mines is detrimental to environment in general and water quality in particular, because if their high acidity, high metal concentration and high sulfate content. Lots of researches are going on throughout the worlds to tackle and minimize the problems of AMD in coal mines of USA, Canada, Australia and India. Therefore it requires neutralization up to acceptable limit. Now days, various treatment systems are available for treatment of AMD. Active treatment system is costly and requires continuous supervision, whereas passive treatment system is long process. The application of SAPS utilizes the advantage of active treatment system and passive treatment system. In present paper, an attempt has been made to highlight AMD generation and application of SAPS for treatment of AMD.

Keywords : AMD, SAPS, environment, sulfide, organic substrate.

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