

P 4. MINING ACTIVITIES AND AIR POLLUTION

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ABSTRACT: The requirement of raw material and energy are increasing day by day in the world. Most of this energy and raw material are provided by the removal of mines from nature. Today, China, Russia, United States, as the country is priority of obtaining energy from coal. Coal is the most suitable fuels for its efficiency and price among fossil fuels,. There are major changes in the natural environment during the removal of coal from the mining areas. These changes can sometimes turn into areas where the environment has become completely unusable. The requirement of coal has increased the production of coal, environmental problems caused by coal mining have increased. One of these problems is air pollution. Emissions of Particulate Matter (PM) and Methane (CH₄) gases, especially in open and underground mining, are important. For this reason, it is necessary to evaluate the risk-producing emissions during the preparation phase of the mining and to develop the best technology-friendly measures for the prevention of emissions. In the cases where the amount of dust emission due to the activities of the mining operations is determined and the measurement methods can not be used, the calculation method is applied with the emission factors. Emission factors, the characteristic value of the relationship between the amount of material and the amount of leakage dust emitted to the atmosphere, have been determined within the framework of legislation and regulations. In this study, it is aimed to investigate the status, levels and precautions to be taken of the possible emissions in open and closed mines.

Keywords: air pollution, coal mine, underground mining, methane gas and particulate matter