ENVIRONMENTAL POLLUTION ANALYTICAL STUDY AROUND INHABITANT INDUSTRIAL AREA NEAR CAIRO, EGYPT.

A.S.Abdel- Halim, E.Metwally

Hot Laboratories Center, Atomic Energy Authority, Cairo, Egypt.

<u>ABSTRACT</u>

Neutron activation analysis, as a non-destructive technique, is one of the most extensively used methods for environmental studies because of its high sensitivity, precision, versatibilty and multielemental character. Cement production factories at Helwan, southern of Cairo, are a great source of an environmental pollution. Determination of some minors and most traces in dust particulate from cement industrial areas are necessary to assess the air quality from the environmental and healthy point of view. Dust particulates mainly from cement factory area were analyzed for minor and traces elements. Soil-7 standard reference material from IAEA, and SRM-1571 from NBS were also analyzed for analytical quality assurance testing. The data obtained have been analyzed and interpreted. According to the multielemental analysis results, potential source of danger and toxic pollution could be hazardous to people in and around the studied area.Study and environmental protection urgently required to reduce air pollutants that have the most serious impacts on human health in greater Cairo, especially suspended particulates and lead.

Key word : Neutron activation analysis, Environmental pollution, Air pollutants