

Thermal power plants cause air pollution: Study

By Akhilesh Kumar Singh/TNN

Kanpur: Research by Indian and US scientists had proved that thermal power plants (TPPs) in major cities are the key source of air pollution. The experts have proved as to how pollutants emitted by TPPS are proving hazardous for living things.

A joint study was undertaken by faculty member of the department of civil engineering, Indian Institute of Technology, Kanpur, Ramesh P Singh and his student Anup Krishna Prasad along with Menas Kafatos, director of the Centre for Space and Earth Observatory Research, George Mason University, US. The result of the study was published in the latest edition of the Geophysical Research Letters on Tuesday.

Talking to the TOI, Singh was delighted that the group has proved that the real cause of pollution is coal-based power plants. He said that IIT-K would soon take up the matter with the authorities at the National Thermal Power Corporation (NTPC) and discuss the results of the study with them. "We hope that the NTPC authorities would take up measures so that carbon emission from the coal-based power plants may be stopped," he said. The satellite survey of atmospheric conditions in Delhi, Kanpur, Kolkata, Hyderabad and Mumbai were conducted for the research paper. Singh said that India is the third largest producer of coal in the world. Howev-

er, the coal used in power plants was of poor quality (mostly of E-F grade or ignite) with high ash content.

The pollution caused by the transport sector is second to the thermal power sector.

"The coal-based power plants claim to use filter, which restricts emission of carbon particle in the atmosphere. But we are not sure if filters are used," Singh maintained.

The researchers analysed the MODIS (Moderate resolution imaging spectroradiometer) and MISR (Multiangle imaging spectroradiometer) satellite data which showed high aerosol optical depth (AOD) over major cities in India where thermal power plants (TPPs) are based. MISR and MODIS are two instruments onboard Terra satellite of NASA, US by the help of which the experts did the research work.

The density of power plants is high in the Indo-Gangetic basin. The largest basin in the world suffer with dense haze, fog and smog which has affected 600 million people living in the region.

The increasing air pollution in the Ganga basin is well-known and has attracted the attention of the national and international scientific community. About a year back, American scientists had shown pollution over Bihar and it was attributed to bio-fuel as cooking medium by people living in the region, said Singh.