

एक कदम स्वच्छता की ओर....

Radiation Technology for Cleaner and Healthier India

Chief Minister Gujarat lays foundation stone for Sludge Hygienisation Plant on 30 January, 2016, Ahmedabad.

Bhabha Atomic Research Centre signed an MoU on 21st April, 2015 with Ahmedabad Municipal Corporation (AMC) to provide all technical and scientific support for setting up a Cobalt-60 Gamma Irradiation Plant at Ahmedabad. On 30 January, 2016, Chief Minister Gujarat, Smt. Anandiben Patel laid the foundation stone for 1.5 Million Curies Cobalt-60 irradiation facility. First of its kind in India, the fully automatic facility can hygienise 100 tons of dry sludge every day. Moreover, the hygienised sludge will be inoculated with useful bacteria to improve Nitrogen, Phosphorous and Potassium contents of the sludge for agricultural use. The hygienised sludge will be marketed by Gujarat Agro Industries Corporation (GAIC) as per separate MoU between AMC and GAIC. Largely, sludge is disposed in unorganized manner resulting in environmental pollution and spread of diseases. The sludge produced carries a heavy microbiological load and therefore its disposal has been a challenge to the urban development authorities. Bacterial counts including pathogens generally observed in sludge can vary between 10^5 to 10^9 per gram. Sludge also contains worms, ova, viruses, helminthes, weeds etc. It also contains toxic heavy metals and organic pollutants like pesticides, polyaromatic hydrocarbons, drugs and other persistent pollutants. Sludge is a rich source of many macro (Nitrogen, Phosphorous, Potassium), micro nutrients (Zinc, Iron, Copper, Manganese) and organic carbon essential for soil. If the sludge can be treated in effective and economic way to meet the prescribed norms, it can be recycled by safely applying it on land for various applications including agriculture. High energy gamma radiation from Cobalt-60 can kill pathogens, reduce odours and degrade organic chemical contaminants and thus making sludge safer for use or disposal. With this initiative of Ahmedabad Municipal Corporation and Bhabha Atomic Research centre, a beginning is made to utilize advanced Radiation Technology for hygienising sludge for cleaner India (*Swachha and Swastha Bharat*). The function was attended by Dr. K.L. Ramakumar, Director, Radiochemistry and Isotope Group, Smt. D. Thara, Municipal Commissioner, Ahmedabad, Dr. Lalit Varshney, Head, Radiation Technology Development Division, Dr. BSVG Sharma, Head, TTCD, Dr. G. Ganesh, Chief Executive BRIT and other senior officials from RTDD and AMC. Dr. Lalit Varshney introduced the Radiation Technology for hygienisation of sewage sludge to the audience. He also briefed about the Textile effluent treatment technology being developed at BARC in his address. Chief Minister appreciated the work done by BARC and interacted with young scientists from RTDD. The facility is expected to be operational by end of 2017.

Pictures:

Chief Minister Gujarat Smt. Anandiben Patel during the function.

