LAN based RADIATION DATA LOGGER SYSTEM

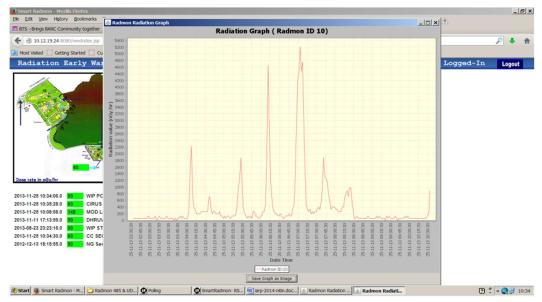
The Local Area Network (LAN) based RADIATION DATA LOGGER SYSTEM for Emergency Preparedness for BARC site uses GM detector and operates in two different modes i.e., routine and emergency mode. In the routine mode the most important objective is to assess the normal radiation levels and to provide prompt warning in abnormal situations. The main feature of the system is provision of transmitting the data to the Integrated Centre for Crisis Management (ICCM) / Emergency Preparedness and Response Centre (EPARC) in case of alarm and online data stored in the Access database can be retrieved at user's request to track down the history of events leading to an emergency. The monitors placed at the strategic locations around the BARC site can also help in detecting any attempt of unauthorized trafficking of the radioactive sources leading to increase in background radiation level.

The scenarios to be covered by this type of Radiation Early Warning system are

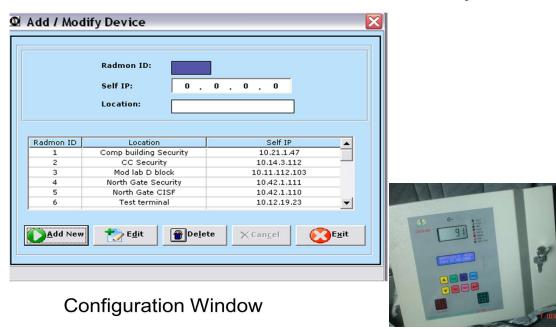
- Incidents / accidents near or within the site leading to increase in radiation background.
- Elevated atmospheric releases through the stack of the nuclear facilities.
- Detection of any unauthorised movement of radioactive material from the site
- Transport accidents involving radioactive material.
- Any other incident involving radioactivity

The devices with inbuilt LAN interface provide LAN connector for communication. It automatically dumps log every after two minute of acquisition, if there are logs to be sent to the HOST. The log needs to be acknowledged or retransmission will be done after two minutes. The HOST shall acknowledge the LOG packet, by sending back the sequence number, else the unit sends the same packet again and again.

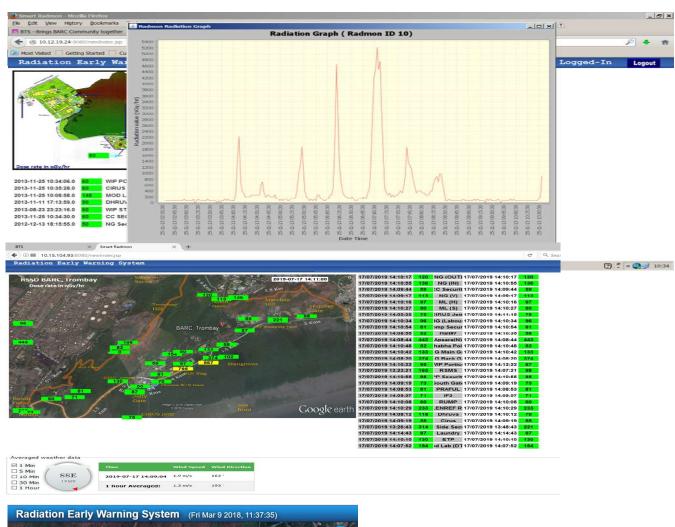
It is deployed at following locations: North Gate Security, Central complex, WIP, South gate, Cirus Jetty, Bhabha point, Modular labs, New Computer building, EPARC, Cirus, Dhruva, ETP, RLG, Hall 7, Critical Facility.



High dose rates detected by system when Ar-41 plume direction matched with the location of the system



LAN based Radiation Early Warning System





Web view of LAN based Radiation Early Warning System