

IHSS Facilities

Chemical Laboratory

In nuclear operations commonly used chemicals include ammonia, chlorine, mercury, ozone, oxides of nitrogen, hydrazine, formaldehyde, fluoride, etc. are likely to be present in the work environment. To evaluate the concentration of these contaminants, air samples are collected in appropriate absorbing media in glass bubblers or impingers and later analysed. Monitoring of work environment ensures for providing safe work environment for the workforce. It also serves an input for implementation of effective control measures, to minimize the exposure of employees to chemical contaminants and also to maintain the concentrations within the permissible limits.

Acoustic Test Module

To test the sound attenuation offered by different ear protectors an acoustic test module was built up. The set-up comprises, an Acoustic Chamber, Acoustic Test Module with artificial head and ears and allied equipment/implements, Acoustic signal generator/receiver, etc. The complete facility has been installed and commissioned at the Modular Laboratories, BARC, Trombay



Eye Protector Testing Module

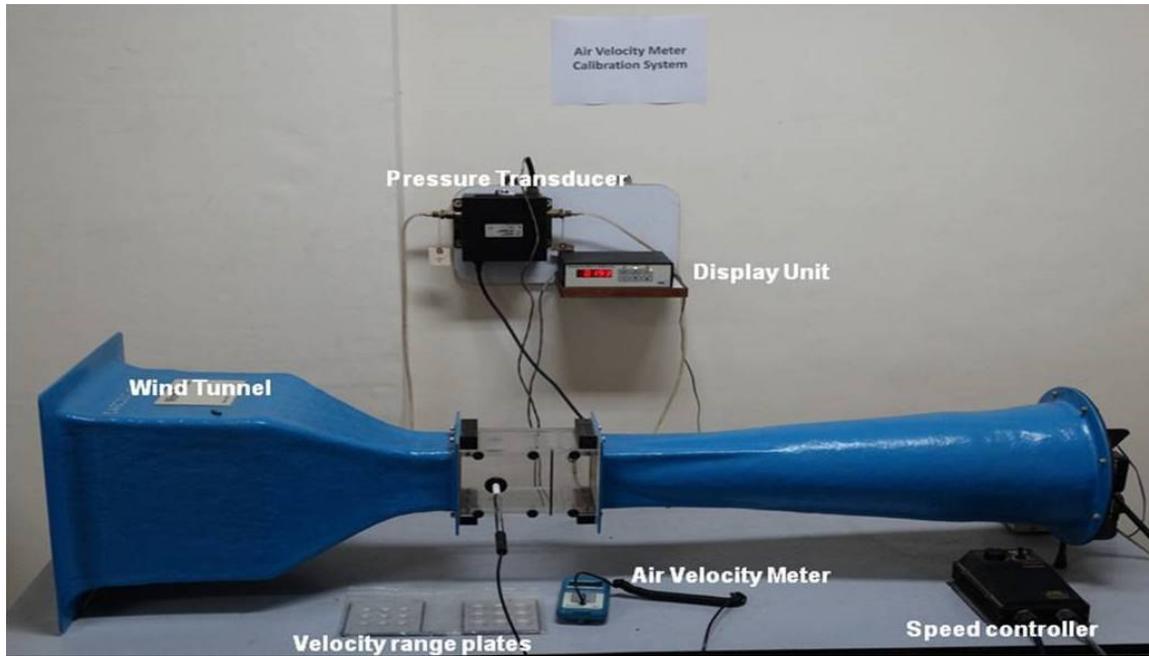
This comprises (i) percent transmittance measurement facility and (ii) glass power measurement facility.

The percent transmittance value of welder's goggles and laser goggles at various wavelengths/frequency of optical radiation in UV-Visible-Near IR regions is an important parameter for determining the shade number of the eye protector and helps in right choice of the protective device. Also an auto-lens power meter system is required to know the lens power of the eye protector glass/goggles. These facilities have been installed and are fully functional at the Common Facility Building, BARC, Trombay

Air velocity meter calibration facility

Ventilation is one of the key engineering safety features in many of our facilities. To determine available ventilation in a work area, measurement of air-velocity across the ventilation duct or port

is a requirement. For this air velocity meters are used. Calibration of such air-velocity meters is required to make the measurement true and authentic. To achieve this, an air velocity meter calibration system was built-up. This calibration system operates in the wide range of 0.15 to 45 m/s.



Laser Induced Breakdown Spectroscopy Facility

Laser Induced Breakdown Spectroscopy (LIBS) System that has been commissioned as part of this plan project will facilitate real time/near real time analysis of many elements including beryllium in work environment. This will improve capability of industrial hygiene surveillance programme.

