

1 Vibration & Shock Tests at Environmental Qualification Laboratory

2 Seismic Qualification of Power Plant Equipment

3 Special tests at Air Flow Laboratory

4 Swachhta Mission Programme at FCRI

1.Vibration & Shock Tests at Environmental Qualification Laboratory

a) Vibration & Shock testing of medical equipment

Vibration & shock testing of an Incubator was conducted for qualifying its structural rigidity and for functional verification. As in actual environmental condition and as per customer's specification, random vibration profile was simulated by using the electrodynamic vibration shaker available at FCRI. Testing was conducted in all three axis and in each axis test duration is 100 hrs. Before and after the testing, functionality of the unit was verified and checked for its structural damages.



Unit in horizontal direction



Unit in vertical direction

b) Vibration & Shock test for railway equipments

As part of qualifying the rail mounted equipments, the accessories and products installed in coaches has to undergo and qualify as per vibration and shock test standard IEC 61373, "Railway applications – Rolling stock equipment – Shock and vibration tests". FCRI is doing routine tests as per IEC 61373 for various suppliers of Indian railways. Such test conducted during the period is for compressor unit, air horn and wiper accessories. This test includes long life random vibration test, functional verification test and shock test.



Compressor under Test



Air horn under Test

2. Seismic Qualification of Power Plant Equipment

As part of qualifying the products for nuclear plant application, control valves has to be qualified as per standard ANSI / ASME QME-1 and Nuclear Power Corporation of India Limited's approved document, PP_P_1819. FCRI has the facility to qualify the valve for its natural frequency by Impact hammer method/ exploratory vibration method and functional qualification of rigid valve by static load test method. Photograph of Impact hammer test and static load test conducted for one of the valve manufacture is as given below.



Static load Testing of control valve



Impact Hammer Testing of control valve

3. Special Tests at Air Flow Laboratory

Calibration of Thermal Mass flow meters

Thermal Mass Flow Meters were calibrated at Air Flow Laboratory of FCRI. These meters were used for Natural Gas Domestic Metering.



Thermal Mass Flow Meter Calibration

4. Swachhta Mission Programme at FCRI

In connection with Swachhta Mission Programme of Govt. of India, Swachhta Pakhwada was organized at FCRI during December 16-31 on a grand scale. All staff members took part in the programme keeping the campus/premises of their work clean, proper re-arrangement of scattered items and to maintain a pleasant and healthy ambience in the institute. A seminar on “Principles of 5S” was conducted.



Water Flow Lab of FCRI after Swachhta Pakhwada



EQL after Swachhta Pakhwada



PAFL after Swachhta Pakhwada



Secondary Air Flow Lab of FCRI after Swachhta Pakhwada



Cleaning of Garden during Swachhta Pakhwada

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