

I.3: Repurposing of various R&D Lab buildings

Infrastructure for R&D sector is typically developed for achieving a particular objective. The infrastructure development plan needs to pay attention for its long-term use. The solution is repurposing of the facilities after they are declared to have served their intended purpose. Some of the major civil works completed are as follows:

Repurposing of Laser R&D Block 'C' to house High Energy Laser Lab: Laser R&D Block 'C' was constructed in the year 2000 with a high bay of dimension 38 m (length) * 12.2 m (breadth) * 8.1 m (height). The high bay had become redundant with the construction of an annex block. The same has been repurposed to house High Energy Laser Lab. The repurposing required strengthening of floor and columns. Figure I.3.1 shows the inside view of the lab after completion.



Fig. I.3.1: Inside view of the High Energy Laser Lab

Repurposing of Metrology Hall in Quality Control Lab to house high-accuracy measuring machines: For housing high accuracy measuring machines in Metrology Hall of Quality Control Lab., insulated enclosures of sizes 13.00 m * 3.95 m and 6.66 m * 2.65 m to were constructed to ensure temperature, humidity and dust control. Wall cladding and false ceiling of enclosures are finished with aluminium composite panel. Wall cladding is sandwiched with rockwool insulation and floor is finished with PVC flooring to fulfil the intended purpose of enclosures. Figure I.3.2 shows the outside view of the enclosure and Figure I.3.3 shows the inside view of the enclosure.



Fig. I.3.2: Outside view of the enclosure in Metrology Hall.



Fig. I.3.3: Inside view of the enclosure in Metrology Hall.

Repurposing of prefab shed to house Laser Additive Manufacturing (LAM) Lab: Multiple prefab sheds were constructed for development of components to be used in various R&D projects about 18 years ago. One of the shed had become redundant and is repurposed to house the activities of LAM. The civil works included commissioning of new roof metal sheets over existing roof sheets along with thermal insulation material sandwiched in between the sheets, false ceiling, partition etc. Figure I.3.4 shows the inside and outside views of the lab created by repurposing the already existing prefab shed.



Fig.1.3.4: Inside and outside views of the Laser Additive Manufacturing Lab.

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