

## MECHANICAL

### 1.0 GENERAL

The foundation stone of Rail Coach Factory, Kapurthala, was laid by Late Rajiv Gandhi, the then Prime Minister of India, on 17<sup>th</sup> August, 1985. Production commenced in a record time of two years and the first coach was turned out in March 1988. From its humble beginning, the factory has gone from strength to strength and has so far manufactured more than 24000 coaches of more than 35 AC and non AC design variants which are more than 50% of the total coaches running on Indian Railways.

Production of LHB type coaches was started in the year 2001-02 and up to March, 2010, 1076 LHB + 411 SS Hybrid design coaches have been manufactured. Most of these coaches are running in prestigious Rajdhani, Shatabdi and Duronto Express Trains and giving immense passenger satisfaction.

During 2010-11, RCF achieved a record production of 1576 coaches. This is highest ever production achieved since its inception. There was also a quantum jump in production of SS coaches over last year's production.

#### COACH PRODUCTION DURING 2010-11

AC(Conventional)	190	12.1%
LHB	316	20.1%
Hybrid	140	8.9%
Exports & others	18	1.1%
Non AC	912	57.9%
Total	1576	

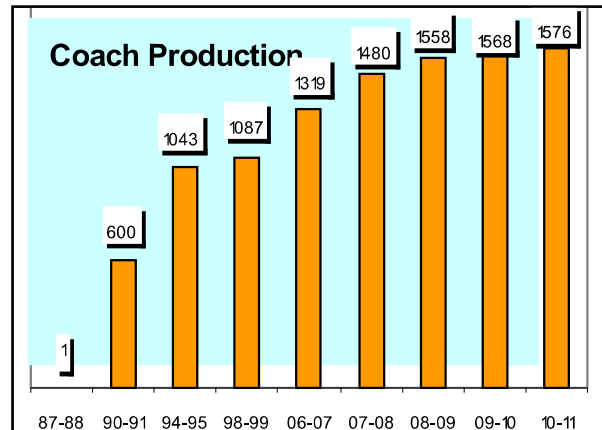
#### PRODUCTION PROGRAMME FOR 2011-12

AC(Conventional)	231	14.44%
AC (LHB)	310	19.38%
Non AC (LHB)	116	7.25%
Exports	16	1.00%
Non AC & others	927	57.93%
Total	1600	

### 2.0 DESIGN AND DEVELOPMENT

#### 2.1 Environment Friendly Green Toilets

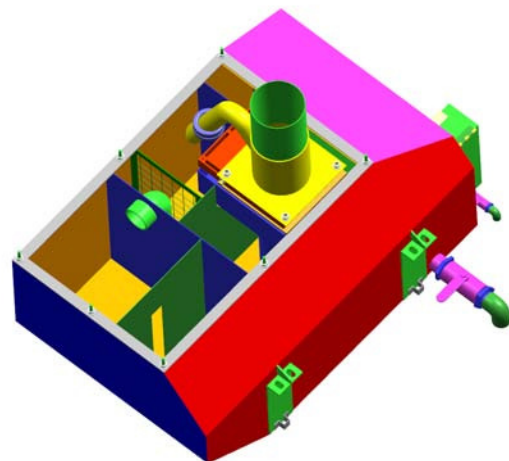
Indian Railways are making endeavours for introducing environment friendly green toilet in passenger coaches. Ministry of Rural Development has



Highest ever production of 1576 coaches in 2010- 11

announced a policy, which envisages total sanitation and elimination of open defecation all over the country. Green toilets aim at zero-defecation on the ground. Thus, not only making a clean sight at stations but also preventing damage to tracks by way of corrosion. Fecal matter on tracks is one of the biggest causes of corrosion. Green toilet will come as a succor from this nauseating problem.

IR and DRDE have signed an MoU for development of bacteria for Green toilets. This new toilet-technology also promises to keep up with not-so-disciplined Indian habits, separating non-degradable waste before disposal which passengers tend to flush in toilets. RCF has developed environmental friendly green toilets and turned out a rake of 23 coaches equipped with these toilets. These coaches are in service since 19th January 2011 in Bundelkhand Express running between Gwalior and Varanasi. The initial performance indicators are satisfactory. RCF will proliferate this technology over 5 more rakes in 2011-12.



3-D View of Bio-digester tank