

1

L No 10 WS/STB/NDLS/2004

Office of the
SSE/E/PC/STB
New Delhi
Dated 08-09-04

To
Sr DEE/Chg/DLI
DRM Office
New Delhi

Sub - Performance of Fitch Fuel Catalyst Units F-1000

- Ref - 1 Your office letter No 181-Elect/TL/Performance/RMPU dated 02-09-04
- 2 M/S Altair Technologies Letter No ALTAIR/N RLY/211/04-05 dated 16-08-04

The above subjected make filters were provided in Generator Car No 98853 & 97852 and the performance was observed. The detail is given on Annexure 'A' & 'B'.

First time it was observed on the basis of fuel oil consumption per Hrs and there was saving of fuel oil of 12.30 %, the detail is given on Annexure "A".

Second time it was checked on the basis of Specific Fuel Consumption (SFC) and the saving of the fuel oil found 14.563%, the detail given on Annexure 'B'.

This Fitch Fuel Catalyst is advantageous for improving the efficiency of diesel engines and to reducing the fuel oil consumption. This is for your kind information and further action please

DA
2 No as Above

Beal's
SSE/E/PC/STB/NDLS 8/9/04

Beal's
ADEE/Chg/NDLS 8.9.04

Annexure - 'A'

Statement Showing the Consumption of fuel oil before providing and after providing the Fitch Fuel Catalyst on both the DG Set of Generator Car No 98853 (IRY) WLRM of ASR Swarn Shatabdi Express

S N	without fitch fuel catalyst							with fitch fuel catalyst							Difference of fuel oil consumption in Lts per Hrs C-D		
	Date	Time of Working Hrs of DG Sets		Total Working Hrs	Quantity of Fuel in Lts		Fuel Oil Consumption in Lts	Fuel Oil Consumption in Lts per Hr	Date	Time of Working Hrs of DG Sets		Total Working Hrs	Quantity of Fuel in Lts			Fuel Oil Consumption in Lts	Fuel Oil Consumption in Lts per Hr
		A	B		A+B	Starting time				Closing Time	C		A	B			
1	16-06-04	7:00 to 13:15	7:00 to 13:15	27:30	2831	1403	1428	51.92	14-07-04	7:00 to 13:15	7:00 to 13:15	27:30	2625	1370	1255	45.6	
		15:30 to 23:00	15:30 to 23:00							15:15 to 22:45	15:15 to 22:45						
2	29-06-04	15:30 to 18:20	15:30 to 18:20	5:40	2138	1840	298	52.58	15-07-04	7:30 to 13:15	7:30 to 13:15	27:00	2865	1617	1248	46.22	
										15:00 to 22:45	15:00 to 22:45						
3									16-07-04	7:15 to 13:00	7:15 to 13:00	24:30	2953	1865	1088	44.4	
								16:30 to 23:00		16:30 to 23:00							
4									17-07-04	7:15 to 13:00	7:15 to 13:00	26:30	2991	1744	1247	47.05	
								15:30 to 23:00		15:30 to 23:00							
Average Fuel Consumption in Lts Per Hrs								52.25	Average Fuel Consumption in Lts Per Hrs								45.8175

6.43
i.e.
12.30%

3

Annexure 'B'

Statement Showing the Consumption of fuel oil with and without Fitch Fuel Catalyst on both the DG Set of Generator Car No 97852 (IRY) WLRRM of ASR Swarn Shatabdi Express

SN	Without Fitch Fuel Catalyst									With Fitch Fuel Catalyst (Providing on 30-08-04)												
	Date	Time of Working Hrs of DG Sets		Total Working Hrs	Quantity of Fuel in Lts		Fuel Oil Consumption in Lts	Average Load in KW	Fuel Oil Consumption in Lts per Hrs	Specific Fuel Consumption	Average Specific Fuel Consumption	Date	Time of Working Hrs of DG Sets		Total Working Hrs	Quantity of Fuel in Lts		Fuel Oil Consumption in Lts	Average Load in KW	Fuel Oil Consumption in Lts per Hrs	Specific Fuel Consumption	Average Specific Fuel Consumption
		A	B		A+B	Starting time							Closing Time	C		A	B					
1	21-08-04	15:30 to 23:15	15:30 to 23:15	15:30	1654	1129	525	153.66	33.87	0.22	1.034/5 = 0.206	31-08-04	16:30 to 23:30	16:30 to 23:30	14:00	2133	1792	341	134.6	24.35	0.18	0.8827/5 = 0.1765
2	24-08-04	7:20 to 13:30	7:20 to 13:30	12:20	2210	1959	251	110	20.35	0.185		01-09-04	15:30 to 23:00	15:30 to 23:00	15:00	1723	1240	483	134.58	32.2	0.239	
3	24-08-04	15:30 to 23:00	15:30 to 23:00	15:00	1836	1508	328	121.14	21.86	0.18		02-09-04	15:30 to 23:00	15:30 to 23:00	15:00	2250	1900	350	143.87	23.33	0.162	
4	27-08-04	7:40 to 13:50	-	6:10	2245	2031	214	150	34.7	0.231		07-09-04	7:15 to 13:15	7:15 to 13:15	12:00	2328	2071	257	142.3	21.41	0.15	
5	27-08-04	15:00 to 22:50	15:00 to 22:50	15:40	2021	1536	485	142	30.95	0.218		07-09-04	15:45 to 23:00	15:45 to 23:00	14:30	1967	1629	338	153.5	23.3	0.152	

1 Difference between Average Specific Fuel Consumption is = 0.2060-0.1765= 0.0295

2 Percentage Saving of Fuel Oil = 14.32%