



**MINUTES OF MEETING BETWEEN MAHANADI COALFIELDS LIMITED (MCL), ANANTA OCP TALCHER AND ABHITECH ENERGYCON LTD (AEL) FOR THERMOL-D PERFORMANCE EVALUATION REPORT**

**Dated: 11/08/2021**

Reference: PO No. MCL/GM (JA)/APC/E-Tend/Diesel Additive/2019/137/4/5 Dated: 05.03.2020		
Equipment	Without Thermol-D	With Thermol-D
Dumper-502 (CAT)	Nov-20 to Dec-20	Jan-21 to March-21
Dumper-525 (CAT)	Nov-20 to Dec-20	Jan-21 to March-21
Drill -628 (IDM)	Feb-21 to March-21	Apr-21
Drill -732 (IDM)	Feb-21 to March-21	Apr-21
Excavator: BE-1000 (BEML)	Feb-21 to March-21	Apr-21

**Basis of Evaluation:**

To qualify the diesel saving with the usage of THERMOL-D, as per following methods:

**Calculation of Specific fuel Consumption & Performance Evaluation:**

$$\text{SFC} = \frac{\text{Total Diesel Consumption}}{\text{Total Running Hours}}$$

The Saving (%) will be calculated as per the given formula:-

$$\text{Saving \%} = \frac{\text{SFC}_{\text{Pre}} - \text{SFC}_{\text{Post}}}{\text{SFC}_{\text{Pre}}} \times 100$$

Where,

SFC<sub>Pre</sub> - Specific Fuel Consumption Without Thermol-D

SFC<sub>Post</sub> - Specific Fuel Consumption With Thermol-D

**Effect of Thermol-D on Key Parameteres:**

- ❖ Reduction in Specific Fuel Consumption(SFFC)

**Data Collection**

- THERMOL-D added in the ratio of 1:2000 on v/v basis.
- The same set of parameters has recorded during the Pre and post- Trial.
- HMR data were taken from the individual equipment's on daily basis.
- All the Data were authenticated by the section engineer.

**Summary of Thermol-D Trial, M/s Mahanadi CoalFields Limited, Ananta OCP Talcher (Odisha), Thermol-D Trial Conducted by : M/s Abhitech Energycon Limited, Mumbai**

Sr No.	Equipment	Trial Base	Trial Duration	Total HSD Consumed [Liter]	Total Run [Hour]	Liter/Hour	HSD Saving (%)	Remarks
1	Dumper-502 (CAT)	Pre	Nov-20 to Dec-20	12847.00	401.00	32.04	12.91%	
		Post	Jan-21 to March-21	15266.00	583.00	27.90		
2	Dumper-525 (CAT)	Pre	Nov-20 to Dec-20	1276.00	35.00	36.46	14.02%	
		Post	Jan-21 to March-21	21847.00	697.00	31.34		
4	Drill -628 (RECP-650)	Pre	Feb-21 to March-21	10792.00	398.50	27.08	6.07%	
		Post	21-Apr-21	2900.00	114.00	25.44		
5	Drill -732 (RECP-650)	Pre	Feb-21 to March-21	10286.00	391.50	26.27	13.41%	
		Post	21-Apr-21	2400.00	105.50	22.75		
6	Excavator: BE-1000 (BENL)	Pre	Feb-21 to March-21	31223.00	521.50	59.87	6.32%	
		Post	21-Apr-21	15200.00	271.50	56.09		

**For, Mahanadi Coalfields Limited**

1. Mr. Vivek Aameria- Asst. InCh, (Excv)

2. Mr. B. K. Patra - Sr. Manager (Excv)

3. Mr. Prem Kumar P. E. Excv(Ananta OCP)

*Project Engineer(Excv)  
Ananta OCP (JA)*

**For, Abhitech Energycon Limited**

1. Mr. Paritosh Majee- Sr. Exe. Technical

2. Mr. Durgvijay Bhat - Manager Technical

