

5. LEGAL COMPLIANCE:

Toyota Kirloskar Motors is committed to achieve 100% compliance with respect to all applicable legal requirements. To ensure this, internal standards which are more stringent are fixed for all the legal requirements. This initiate countermeasure in case of any abnormality, thus complying to the legal requirement.

System has been established to evaluate the status of legal compliance every month to confirm the compliance status

5.1 Wastewater Management

A well equipped Environmental Management system is in operation to oversee environmental activities and is supported by full fledged sophisticated control laboratories that have been set up to help to constantly monitor the quality of treated effluent. TKM has well operated wastewater treatment Plant (WWTP)(fig 6) with sophisticated laboratory facility. The Wastewater both domestic and industrial is treated in the Wastewater treatment plant.



Fig 6 : TKM Wastewater Treatment Plant



The discharged water analysis (Fig7)is carried out daily for COD, BOD, pH, TDS, Oil & Grease, Total Suspended Solids. Heavy metals are analyzed regularly. The analysis results are used by the Environmental dept to review the efficiency. In case of any abnormality, suitable countermeasure will be initiated and the treated wastewater will be recycled.

Fig 7 : A Lab chemist with daily analysis work

The system is established to carryout regular checks to avoid abnormality.

The tabulation below gives the actual value met after the wastewater treatment with respect to Internal and Legal standards. If the incoming waste water exceeds the design limit then suitable countermeasures are initiated to treat it to bring within the design limit like dosing of chemicals or homogenizing the effluent (pre-treatment).The final treated tabulation gives the treatment efficiency level.

Waste water treatment (Conforming to The Water (Prevention and Control of Pollution) Act)					
Parameter	Standards		Actual Measurement		
	Legal	Internal	Maximum	Minimum	Average
pH	6.5-8.5	5.8-8.6	7.2	6.4	6.8
COD mg/L (max)	250	200	30	17	23
BOD mg/L (max)	30	25	10.4	3.3	5.8
SS mg/L (max)	100	80	12	4.5	9.7
Oil & Grease mg/L (max)	10	7	0	0	0
Heavy Metals like Lead, Arsenic are negligible and undetectable					



In case there is abnormality then the treated wastewater is recycled back and then re-treated for meeting Legal limit. A bioassay test (fig 8) is carried out to confirm the quality of treated wastewater

The visualization is done through graphical representation and monitoring the trend of process to initiate suitable countermeasures. These graphs help in prior identification of normal & abnormal conditions by any person. Thus, prevent in exceeding of legal discharge standards.

Fig 8:Fish Pond for Bioassay

5.2 Air Quality Management

Stack monitoring and ambient air quality(Fig 9) monitoring are carried out once a month & results are shown below. The legal reporting is done to KSPCB, as per the requirements

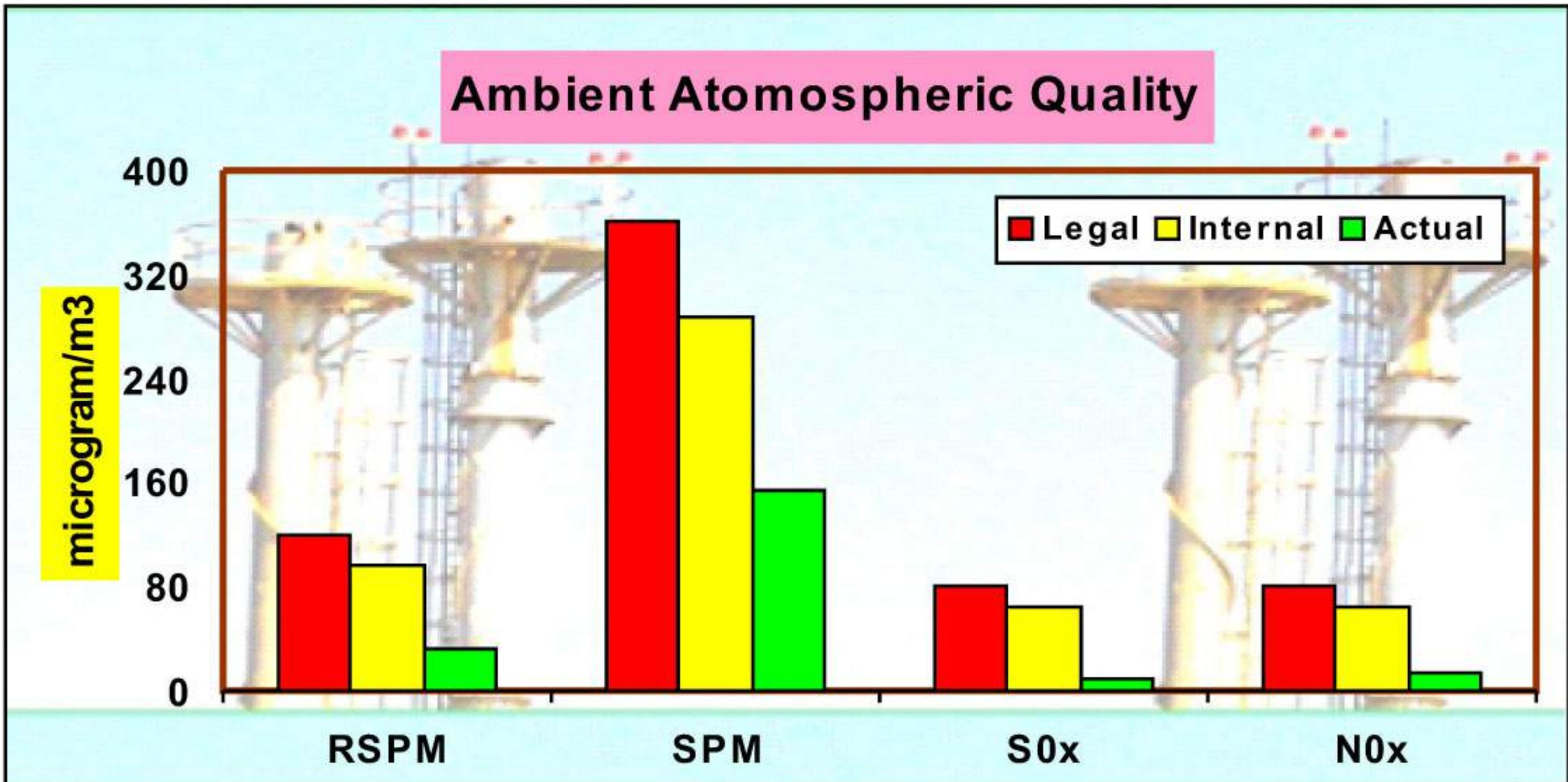


Fig 9 : Air Quality Details