OSWAL ONLINE BULK SAMPLING SYSTEM

In the present scenario, Cement Plants are installed with very big capacities to the tune of 3000 to 7000 TPD. A small variation in raw material quality even for small duration may results in big variation of cement quality. To reduce the variation in cement quality, various efforts are being made right from mining to cement grinding. For consistent quality, the foremost requirement is consistent quality of raw mix, which can be achieved by proper formation of raw material stockpile.

Now it is being controlled by installation of CROSS BELT ANALYSER on feeding belt of raw material stockpile, which gives continuous feed back about the quality of limestone stockpile being formed. Since this is very costly equipment, costing around Rs. 2.35 crores and the regular replacement cost is also around Rs. 7.00 to 10.00 lacs per annum, as an alternative we have developed BULK SAMPLING SYSTEM, which takes the sample of limestone being fed to stockpile at an interval of 0-10 minutes and in a hour 12 to 20 samples are being collected and they are further sub-divided, crushed and found in powder formation. The final sample weighing around 2 to 5 kgs. Which gives the complete representative sample of material being fed to stockpile during last one hour.

The sample is collected and tested in Laboratory on the same XRF, where raw mill/ kiln feed material and clinker are being tested. So, there are no chances of difference in calibration, as it can happen in case of CROSS BELT ANALYSER, where sources of analysis is different and there may be some difference in analysis. On the basis of required quality and quantity, stockpile can be formed, which will reduce the variation in raw material, fluctuation in process and quality of clinker. The purpose of bulk sampling system is same as CROSS BELT ANALYSER.

The operation of bulk sampling system being very simple, it can be adopted easily even in the existing system without incurring heavy cost. The tentative cost of this system is Rs. 7.00 to 10.00 Lacs depending upon the layout and equipments and there is no recurring cost.

SAMPLING QUESTIONNAIRE

CUSTOMER		DATE	
ADDRESS		Tel.No.	
		Contact	
Customer Ref.		Contract Ref.	

FOR GRANULAR FEEDS:

Feed Material		Bulk Density (Te/m^3)	
Throughput (Te/PH)		Consignment (Te)	
Moisture (%)		Maximum Particle size (mm)	

FOR SLURRY FEEDS:

Feed Volume (Ltrs/Sec)		Nature of solids	
% Of solids (w/w)		Solids Bulk Density (Te/M^3)	

FOR BELTS:

Belt Width (mm)		Belt Speed (mps)	
Belt Slope (deg.)		Head drum dia (mm)	

FOR CHUTES:

Chute Dia (mm)		Slope (deg.)	

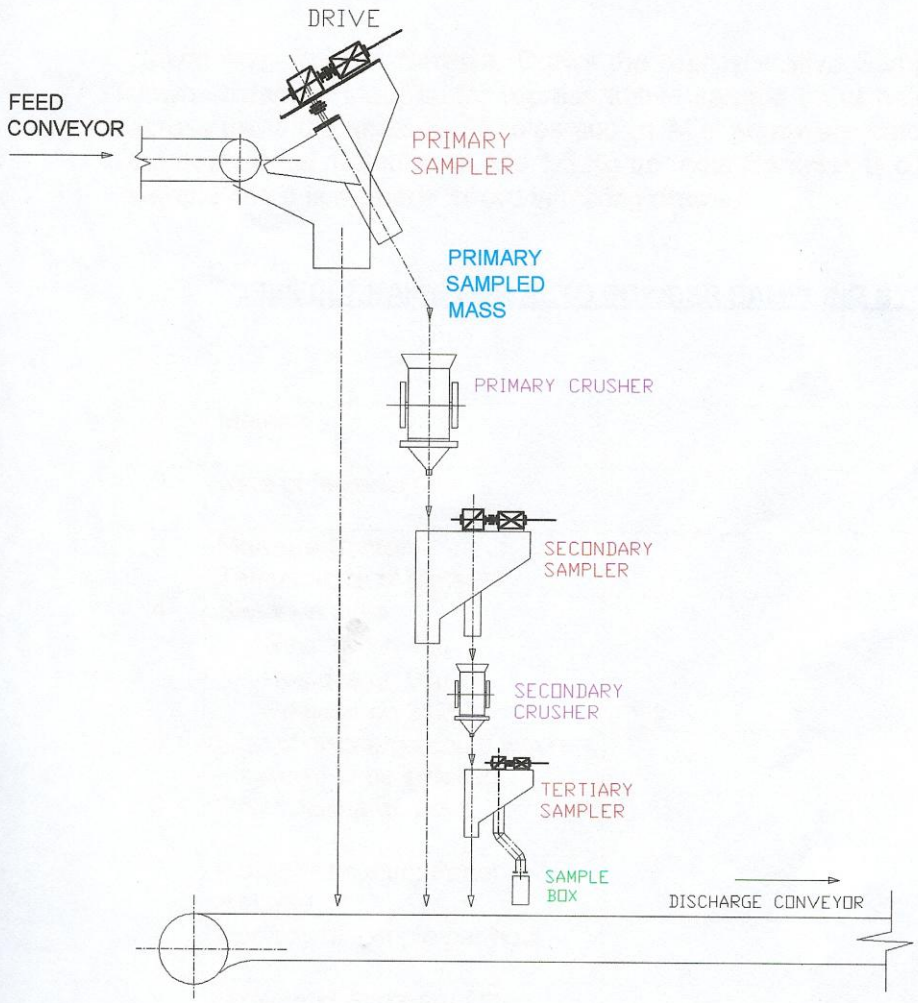
Required Sample Mass (kg/ltr)		Frequency of Sampling (per hr)	

ELECTRICITY SUPPLY:

Volt		Phase		Frequency (Hz)	

Sketch of Site/Position
(Use overleaf if necessary)

CONTROL VOLTAGE: …….



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DRAWN	SOGRA A.K.	TITLE:- FLOW DIAGRAM OF ON LINE BULK SAMPLING SYSTEM (Coal Sampling System)
CHKD	Sujan	
APPD.	Sujan	
DATE	JULY, 2000	**TYPICAL LAYOUT OF SAMPLER**
SCALE	N.T.S.	DRG. NO. - OS - SAM - 0010