



CSI Key Performance Indices (Cement Operation Only)

	KPI	FY 2008-09	FY 2009-10
A	Climate Protection - Excludes Captive Power		
i	CO ₂ emissions – Gross (Tonnes)	23,546,758	25,950,920
ii	CO ₂ emissions – Net (Tonnes)	23,520,455	25,923,100
iii	Specific CO ₂ emissions – Net (kg/tonne cementitious material)	654.7	636.5
iv	Target reduction for CO ₂	Reduction in CO ₂ emission intensity @ 0.5% annually upto 2015 – 16 with baseline year as 2009-10 resulting in the reduction of 2.96 % over 6 years. This will also include CO ₂ emission from recently acquired ETA Star Cement and upcoming projects.	
v	Independently verified CO ₂ data	External verification	External verification
B	Fuels and Raw Materials		
i	Specific heat consumption of clinker production (MJ/ton clinker)	3,063	2,998
ii	Alternative Fuel Rate (% of thermal energy consumption)	0.36	0.37
iii	Biomass Fuel Rate (% of thermal energy consumption)	0.55	0.47
iv	Alternative Raw Materials Rate (% total raw materials for cement production)	13.56	14.64
v	Clinker/Cement Ratio (%)	77.39	75.85
C	Health and Safety		
i	No. of fatalities (directly employed)	1	0
ii	No. of fatalities (indirectly employed)	20	10
iii	No. of fatalities (involving 3rd parties)	0	1
iv	No. of fatalities per 10,000 directly employed	1.48	0
v	No. of Lost Time Injuries (LTIs) per 1m man-hours (directly employed)	1.88	1.57
D	Emissions Reduction		
i	NO _x emissions (tonnes/year)	8,225 (7 out of 19 kilns)	37,069 (21 out of 21 kilns)
ii	SO _x emissions (tonnes/year)	5,314 (9 out of 19 kilns)	5,253 (21 out of 21 kilns)
iii	Dust emissions (tonnes/year)	7,011	7,381
iv	Specific NO _x emissions (g/ton clinker)		1,173
v	Specific SO _x emissions (g/ton clinker)		166
vi	Specific Dust emissions (g/ton clinker)	234	220
vii	Target reduction for NO _x	To be fixed after the installation of continuous monitoring system in all kilns and the release of SO _x / NO _x emission limits by regulatory authorities.	
viii	Target reduction for SO _x		
ix	Target reduction for Dust		

x	% Clinker produced with monitoring of major and minor emissions	-	Major emissions – as in the next row. Minor emissions – measured only on sample basis if hazardous wastes are used as fuel.
xi	% Clinker produced with continuous monitoring of major emissions - NOx, SOx, Dust	-	Dust – 80.95% NOx, SOx – 19.05%
E	Local Impact	Total	Plants Reported
i	% of sites with quarry rehabilitation plans in place		100% Integrated sites
ii	% of sites with community engagement plans in place		100% Integrated sites
iii	No. of active sites where biodiversity issues are addressed	2	1.Kovaya, Gujarat 2.Jaffarabad, Gujarat