

<b>Rajshree cement Line III</b>	
<b>Year</b>	<b>Emission Reductions</b>
2004	12,201
2005	13,281
2006	13,281
2007	13,281
2008	13,281
2009	13,281
2010	13,281
2011	13,281
2012	13,281
2013	13,281
<b>Total</b>	<b>131,731</b>
<b>Crediting Years</b>	<b>10</b>
<b>Average Emission reduction over the crediting period</b>	<b>13,173</b>

**RAJASHREE CEMENTS : LINE-III, Clinker Cooler Modification project - Baseline data**

		For August 2002				For Sept-2002				For Oct-2002	
Parameter		5-Aug-02	10-Aug-02	18-Aug-02	25-Aug-02	03-Sep-02	12-Sep-02	19-Sep-02	28-Sep-02	04-Oct-02	11-Oct-02
1	Clinker production	tpd	4245	s/d	s/d	s/d	s/d	880	3799	4643	4667
	Inlet temperature of the clinker in cooler	C	1400					1400	1400	1400	1400
	Specific heat of clinker	kcal/kg C	0.260					0.260	0.260	0.260	0.260
	<b>Heat from clinker</b>	<b>kCal/hr</b>	<b>64363324</b>					<b>55691234</b>	<b>57601005</b>	<b>70397859</b>	<b>70761751</b>
2	Inlet temperature of the cooling air in cooler	C	31.0					33.0	31.0	30.0	31.0
	Flow rate of cooling air in cooler	m3/min	5896					5101	5276	6449	6482
	Flow rate of cooling air in cooler	kg/hr	390528					335701	349498	428553	429351
	Specific heat of cooling air	kcal/kg C	0.239					0.239	0.239	0.239	0.239
	<b>Heat from cooling air</b>	<b>kCal/hr</b>	<b>2896644</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2650986</b>	<b>2592308</b>	<b>3075933</b>
3	Power delivered by cooler fans	kWh/Day	17405					3608	15576	19036	19135
		kCal/hr	623661					539631	558136	682134	685660
1a	Temperature of cooler exhaust flue gases	C	264					264	269	261	268
	Flow rate of Cooler exhaust fan	m3/hr	380957					329628	344106	414346	421948
	Flow rate of Cooler exhaust fan	Kg/hr	238084					206006	213070	260406	261753
	Cp of Cooler Exit Air	kcal/kg/deg.C	0.244					0.244	0.244	0.244	0.244
	<b>Heat from Cooler Exit Air</b>	<b>kcal/hr</b>	<b>15321614</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13257233</b>	<b>13977768</b>	<b>16563281</b>
2a	Total Clinker from Cooler	tpd	4163					863	3725	4554	4576
	Temp. of Clinker from Cooler	Deg.C	157.0					167.0	162.0	158.0	162.0
	Cp of Clinker from Cooler	kcal/kg/deg.C	0.193	0.174	0.174	0.174	0.174	0.174	0.194	0.194	0.194
	<b>Heat from Clinker Cooler</b>	<b>kcal/hr</b>	<b>5267409</b>					<b>4874018</b>	<b>4876339</b>	<b>5801744</b>	<b>5990711</b>
3a	Total Clinker Dust from Cooler ESP	tpd	82	0	0	0	0	0	17	74	89
	Temp. of from Clinker dust to ESP	Deg.C	264.0	0.0	0.0	0.0	0.0	0.0	264.0	269.0	261.0

3a	Cp of from Clinker dust to ESP	kcal/kg/deg.C	0.204	0.174	0.174	0.174	0.174	0.174	0.204	0.204	0.203	0.204
	<b>Heat from Clinker dust to ESP</b>	<b>kcal/hr</b>	<b>184218</b>						<b>159397</b>	<b>169899</b>	<b>197840</b>	<b>207473</b>
4a	Radiation losses	kcal/hr	1061250						918261	949750	1160750	1166750
	<b>Heat Losses</b>	<b>kcal/hr</b>	<b>21834491</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19208909</b>	<b>19973755</b>	<b>23723616</b>	<b>24470999</b>
	<b>Cooler Efficiency</b>	<b>%</b>	<b>67.84</b>						<b>67.38</b>	<b>67.12</b>	<b>68.01</b>	<b>67.21</b>
	Total heat input	kCal/hr	<b>67883629</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>58881851</b>	<b>60751450</b>	<b>74155927</b>	<b>74632013</b>
	Kiln running hours	hrs	24.00	0.00	0.00	0.00	0.00	0.00	5.75	24.00	24.00	24.00
			<b>67.84%</b>				<b>67.25%</b>				<b>67.6</b>	

Heat Cap - Coefficients					
Gas/Mat	*T^0	*T^1	*T^2	*T^3	*T^4
O2	0.2130	7.796E-05	-7.563E-08	4.074E-11	-8.183E-15
CO2	0.1906	1.771E-04	-1.733E-07	9.315E-11	-1.894E-14
N2+Ar	0.2465	-3.284E-06	4.366E-08	-2.750E-11	5.504E-15
H2O,steam	0.4445	2.910E-05	6.887E-08	-3.726E-11	6.472E-15
H2O, liq.	1.0000				
Rawmeal	0.2060	1.014E-04	-3.673E-08		
Clinker	0.1742	1.414E-04	-1.283E-07	5.074E-11	

O2	mass %	23.0
CO2	mass %	0.0
N2	mass %	77.0
H2O	mass %	0.0

t-2002		For Nov-2002				For Dec-2002				For Jan-2003			
16-Oct-02	26-Oct-02	08-Nov-02	14-Nov-02	19-Nov-02	26-Nov-02	04-Dec-02	11-Dec-02	18-Dec-02	27-Dec-02	05-Jan-03	10-Jan-03	18-Jan-03	30-Jan-03
2698	4726	4548	4609	4627	4626	4728	4703	1565	4469	4737	4734	4748	4228
1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260
<b>61361218</b>	<b>71656318</b>	<b>68957455</b>	<b>69882346</b>	<b>71163413</b>	<b>70140103</b>	<b>71686642</b>	<b>71307588</b>	<b>50263930</b>	<b>67759645</b>	<b>71823101</b>	<b>71777615</b>	<b>71989885</b>	<b>68899849</b>
30.0	31.0	29.0	30.0	30.0	29.0	30.0	28.0	28.0	29.0	28.0	29.0	30.0	28.0
5621	6564	6317	6401	6519	6425	6567	6532	4604	6207	6579	6575	6594	6311
373542	434779	421174	425415	433213	428398	436398	436975	308019	413858	440134	438399	438244	422221
0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239
<b>2681090</b>	<b>3224862</b>	<b>2922008</b>	<b>3053408</b>	<b>3109383</b>	<b>2972122</b>	<b>3132245</b>	<b>2926893</b>	<b>2063135</b>	<b>2871252</b>	<b>2948053</b>	<b>3041510</b>	<b>3145494</b>	<b>2828065</b>
11062	19377	18647	18897	18971	18967	19385	19282	6417	18323	19422	19409	19467	17335
<b>594572</b>	<b>694328</b>	<b>668177</b>	<b>677139</b>	<b>689552</b>	<b>679637</b>	<b>694622</b>	<b>690949</b>	<b>487042</b>	<b>656571</b>	<b>695944</b>	<b>695504</b>	<b>697560</b>	<b>667619</b>
263	259	268	267	264	263	261	258	263	261	259	260	261	268
362511	420174	411189	415934	421205	414375	421932	417343	296950	398818	421152	421676	423717	410845
226979	265062	255078	258500	263238	259453	265174	263772	185930	250648	265679	265510	266296	254865
0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244
<b>14550344</b>	<b>16727215</b>	<b>16669892</b>	<b>16828942</b>	<b>16940368</b>	<b>16632046</b>	<b>16866507</b>	<b>16580071</b>	<b>11918888</b>	<b>15942560</b>	<b>16766149</b>	<b>16821715</b>	<b>16937855</b>	<b>16655966</b>
2646	4635	4459	4519	4537	4536	4637	4613	1535	4383	4646	4643	4656	4145
167.0	162.0	162.0	158.0	157.0	163.0	159.0	161.0	157.0	164.0	160.0	152.0	158.0	162.0
0.194	0.194	0.194	0.194	0.193	0.194	0.194	0.194	0.193	0.194	0.194	0.193	0.194	0.194
<b>5370444</b>	<b>6068455</b>	<b>5837959</b>	<b>5757987</b>	<b>5823919</b>	<b>5979032</b>	<b>5948561</b>	<b>5998649</b>	<b>4113685</b>	<b>5815077</b>	<b>6001042</b>	<b>5672451</b>	<b>5932949</b>	<b>5833082</b>
52	91	89	90	90	90	91	90	30	86	91	91	92	83
263.0	259.0	268.0	267.0	264.0	263.0	261.0	258.0	263.0	261.0	259.0	260.0	261.0	268.0

0.203	0.203	0.204	0.204	0.204	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.204
<b>174562</b>	<b>198919</b>	<b>202183</b>	<b>203669</b>	<b>203681</b>	<b>199536</b>	<b>201462</b>	<b>196733</b>	<b>142992</b>	<b>190426</b>	<b>199382</b>	<b>200485</b>	<b>202314</b>	<b>202014</b>
1011750	1181500	1137000	1152250	1173373	1156500	1182000	1175750	828773	1117250	1184250	1183500	1187000	1136050
<b>21107100</b>	<b>24176089</b>	<b>23847033</b>	<b>23942848</b>	<b>24141340</b>	<b>23967115</b>	<b>24198531</b>	<b>23951203</b>	<b>17004338</b>	<b>23065312</b>	<b>24150822</b>	<b>23878151</b>	<b>24260118</b>	<b>23827111</b>
<b>67.35</b>	<b>68.01</b>	<b>67.13</b>	<b>67.47</b>	<b>67.80</b>	<b>67.52</b>	<b>67.95</b>	<b>68.03</b>	<b>67.80</b>	<b>67.64</b>	<b>68.00</b>	<b>68.38</b>	<b>68.01</b>	<b>67.09</b>
<b>64636880</b>	<b>75575508</b>	<b>72547640</b>	<b>73612894</b>	<b>74962348</b>	<b>73791861</b>	<b>75513509</b>	<b>74925430</b>	<b>52814107</b>	<b>71287468</b>	<b>75467098</b>	<b>75514628</b>	<b>75832940</b>	<b>72395532</b>
16.00	24.00	24.00	24.00	23.66	24.00	24.00	24.00	11.33	24.00	24.00	24.00	24.00	22.33
<b>34%</b>	<b>67.48%</b>					<b>67.86%</b>					<b>67.87%</b>		

For Feb-2003				For Mar-2003				For April-2003			
04-Feb-03	12-Feb-03	21-Feb-03	28-Feb-03	05-Mar-03	11-Mar-03	19-Mar-03	27-Mar-03	03-Apr-03	12-Apr-03	19-Apr-03	28-Apr-03
4720	4671	4817	4835	4803	4829	4825	4810	4832	s/d	s/d	s/d
1400	1400	1400	1400	1400	1400	1400	1400	1400			
0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.174	0.174	0.174
<b>71565345</b>	<b>70822400</b>	<b>73036073</b>	<b>73308992</b>	<b>72823803</b>	<b>73218019</b>	<b>73157371</b>	<b>72929938</b>	<b>73263506</b>			
30.0	30.0	29.0	31.0	32.0	30.0	30.0	35.0	35.0			
6556	6488	6690	6715	6671	6707	6701	6681	6711			
435660	431137	446085	444807	440414	445721	445352	436760	438758			
0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239
<b>3126945</b>	<b>3094483</b>	<b>3094836</b>	<b>3299240</b>	<b>3372265</b>	<b>3199156</b>	<b>3196506</b>	<b>3658567</b>	<b>3675300</b>	<b>0</b>	<b>0</b>	<b>0</b>
19352	19151	19750	19824	19692	19799	19783	19721	19811			
<b>693447</b>	<b>686248</b>	<b>707698</b>	<b>710342</b>	<b>705641</b>	<b>709461</b>	<b>708873</b>	<b>706669</b>	<b>709901</b>			
263	259	268	267	264	263	261	259	261			
422795	415284	435509	436329	431033	432559	430588	427642	431213			
264725	261977	270165	271175	269380	270838	270614	269773	271007	0	0	0
0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.239	0.239	0.239
<b>16970008</b>	<b>16532548</b>	<b>17655864</b>	<b>17654141</b>	<b>17335622</b>	<b>17361900</b>	<b>17212542</b>	<b>17024525</b>	<b>17237513</b>			
4629	4581	4723	4741	4710	4736	4732	4718	4739			
167.0	162.0	162.0	158.0	157.0	163.0	159.0	156.0	164.0	163.0	167.0	162.0
0.194	0.194	0.194	0.194	0.193	0.194	0.194	0.193	0.194	0.194	0.194	0.194
<b>6263528</b>	<b>5997832</b>	<b>6183256</b>	<b>6040327</b>	<b>5959803</b>	<b>6241407</b>	<b>6070602</b>	<b>5928346</b>	<b>6287413</b>			
91	90	94	94	93	93	93	92	93	0	0	0
263.0	259.0	268.0	267.0	264.0	263.0	261.0	259.0	261.0	0.0	0.0	0.0

0.203	0.203	0.204	0.204	0.204	0.203	0.203	0.203	0.203	0.174	0.174	0.174	
<b>203591</b>	<b>196604</b>	<b>214141</b>	<b>213656</b>	<b>208433</b>	<b>208292</b>	<b>205595</b>	<b>202454</b>	<b>205894</b>				
1180000	1167750	1204250	1208750	1200750	1207250	1206250	1202500	1208000				
<b>24617127</b>	<b>23894734</b>	<b>25257511</b>	<b>25116873</b>	<b>24704608</b>	<b>25018849</b>	<b>24694990</b>	<b>24357826</b>	<b>24938820</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>67.35</b>	<b>67.97</b>	<b>67.13</b>	<b>67.52</b>	<b>67.88</b>	<b>67.56</b>	<b>67.95</b>	<b>68.49</b>	<b>67.88</b>				
<b>75385736</b>	<b>74603130</b>	<b>76838607</b>	<b>77318574</b>	<b>76901709</b>	<b>77126636</b>	<b>77062749</b>	<b>77295174</b>	<b>77648707</b>	<b>0</b>	<b>0</b>	<b>0</b>	
24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	0.00	0.00	0.00	
<b>67.49%</b>				<b>67.97%</b>				<b>67.88%</b>				<b>67.70%</b>

RAJASHREE CEMENTS : LINE-III

Clinker cooler modification Project data for FEB 2004- DEC 2004

	Parameter		For Feb-2004				For Mar-2004				03-Apr-04
			04-Feb-04	12-Feb-04	21-Feb-04	28-Feb-04	05-Mar-04	11-Mar-04	19-Mar-04	27-Mar-04	
1	Clinker production	tpd	5005	4086	4981	4854	4804	4001	4922	4755	4303
	Inlet temperature of the clinker in cooler	C	1400	1400	1400	1400	1400	1400	1400	1400	1400
	Specific heat of clinker	kcal/kg C	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260
	<b>Heat from clinker</b>	<b>kCal/hr</b>	<b>75886557</b>	<b>71655952</b>	<b>75522666</b>	<b>73597073</b>	<b>72838965</b>	<b>70573448</b>	<b>74628099</b>	<b>72096020</b>	<b>71173886</b>
2	Inlet temperature of the cooling air in cooler	C	32.0	30.0	29.0	31.0	32.0	30.0	30.0	35.0	35.0
	Flow rate of cooling air in cooler	m3/min	6951	6564	6918	6742	6672	6465	6836	6604	6520
	Flow rate of cooling air in cooler	kg/hr	458937	436212	461273	446555	440506	429622	454305	431766	426243
	Specific heat of cooling air	kcal/kg C	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239
	<b>Heat from cooling air</b>	<b>kCal/hr</b>	<b>3514093</b>	<b>3130904</b>	<b>3200203</b>	<b>3312205</b>	<b>3372967</b>	<b>3083605</b>	<b>3260767</b>	<b>3616733</b>	<b>3570473</b>
3	Power delivered by cooler fans	kWh/Day	20521	16753	20422	19901	19696	16404	20180	19496	17642
		kCal/hr	735318	694325	731792	713134	705788	683835	723124	698589	689654
1a	Temperature of cooler exhaust flue gases	C	257	258	261	267	264	269	261	268	263
	Flow rate of Cooler exhaust fan	m3/hr	387785	366857	388838	383182	377128	368391	383806	375644	367412
	Flow rate of Cooler exhaust fan	Kg/hr	245553	231863	244375	238144	235691	228107	241213	233028	230048
	Cp of Cooler Exit Air	kcal/kg/deg.C	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244
	<b>Heat from Cooler Exit Air</b>	<b>kcal/hr</b>	<b>15373686</b>	<b>14574393</b>	<b>15543607</b>	<b>15503774</b>	<b>15167618</b>	<b>14964230</b>	<b>15342445</b>	<b>15228886</b>	<b>14747053</b>
2a	Total Clinker from Cooler	tpd	4921	4017	4897	4771	4723	3933	4839	4674	4230
	Temp. of Clinker from Cooler	Deg.C	139.0	144.0	146.0	142.0	139.0	144.0	151.0	138.0	146.0
	Cp of Clinker from Cooler	kcal/kg/deg.C	0.192	0.192	0.192	0.192	0.192	0.192	0.193	0.191	0.192
	<b>Heat from Clinker Cooler</b>	<b>kcal/hr</b>	<b>5458508</b>	<b>5354507</b>	<b>5727677</b>	<b>5415520</b>	<b>5238117</b>	<b>5271856</b>	<b>5870009</b>	<b>5143904</b>	<b>5397619</b>
3a	Total Clinker Dust from Cooler ESP	tpd	84	69	84	83	81	68	83	81	73
	Temp. of from Clinker dust to ESP	Deg.C	257.0	258.0	261.0	267.0	264.0	269.0	261.0	268.0	263.0
	Cp of from Clinker dust to ESP	kcal/kg/deg.C	0.203	0.203	0.203	0.204	0.204	0.204	0.203	0.204	0.203
	<b>Heat from Clinker dust to ESP</b>	<b>kcal/hr</b>	<b>182015</b>	<b>172935</b>	<b>185661</b>	<b>187631</b>	<b>182366</b>	<b>181889</b>	<b>183258</b>	<b>184705</b>	<b>176922</b>
4a	Radiation losses	kcal/hr	1251250	1181494	1245250	1213500	1201000	1163645	1230500	1188750	1173545
	<b>Heat Losses</b>	<b>kcal/hr</b>	<b>22265459</b>	<b>21283328</b>	<b>22702194</b>	<b>22320426</b>	<b>21789102</b>	<b>21581620</b>	<b>22626213</b>	<b>21746245</b>	<b>21495140</b>



<b>Cooler Efficiency</b>	<b>%</b>	<b>72.22</b>	<b>71.80</b>	<b>71.43</b>	<b>71.24</b>	<b>71.67</b>	<b>70.97</b>	<b>71.22</b>	<b>71.54</b>	<b>71.50</b>
Total heat input	kCal/hr	80135968	75481181	79454661	77622411	76917721	74340888	78611990	76411342	75434013
Kiln running hours	hrs	24.00	20.75	24.00	24.00	24.00	20.63	24.00	24.00	22.00
		<b>71.67%</b>				<b>71.35%</b>				
Average Heat Input	kCal/hr	<b>78,173,555</b>				<b>76570485</b>				
Baseline Efficiency	<b>%</b>	67.70%				67.70%				
Increase in Cooler Efficiency	<b>%</b>	3.98%				3.65%				
<b>Saving in heat output due to increase in</b>	Kcal/hr	3,107,486				2,796,651				
<b>Saving in heat input due to increase in</b>	Kcal/hr	4,335,661				3,919,623				
<b>Working Days Per month</b>	days	27				27				
Total energy saved per month	Kcal/Month	2809508144				2539915531				
Average calorific value of fuel(Coal)	Kcal/ kg	5500				5500				
Emission Factor for Coal	Kg CO2/kg coal	2.17				2.17				
<b>Emission Reduction</b>	tCO2/month	1108				1002				
<b>Total Emission Reduction</b>	<b>t CO2</b>	<b>12201</b>								
<b>Total Heat Input for the year</b>	<b>GWh per year</b>	<b>35.91</b>								

For April-2004			For May-2004				For June-2004				For July-2004		
12-Apr-04	19-Apr-04	28-Apr-04	4-May-04	11-May-04	19-May-04	23-May-04	8-Jun-04	14-Jun-04	19-Jun-04	26-Jun-04	4-Jul-04	11-Jul-04	18-Jul-04
5004	4783	4614	4948	4800	4796	4797	3929	s/d	3408	4748	4814	4753	4758
1400	1400	1400	1400	1400	1400	1400	1400		1400	1400	1400	1400	1400
0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.174	0.260	0.260	0.260	0.260	0.260
<b>75871395</b>	<b>72520560</b>	<b>69958157</b>	<b>75022315</b>	<b>72778317</b>	<b>72717668</b>	<b>72732830</b>	<b>67535665</b>		<b>68896807</b>	<b>71989885</b>	<b>72990587</b>	<b>72065696</b>	<b>72141507</b>
32.0	35.0	32.0	34.0	38.0	35.0	38.0	38.0		34.0	33.0	30.0	31.0	32.0
6950	6643	6408	6872	6667	6661	6663	6186	#VALUE!	6311	6594	6686	6601	6608
458845	434308	423084	450754	431647	435489	431378	400553	#VALUE!	413950	433948	444336	437263	436288
0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239
<b>3513391</b>	<b>3638030</b>	<b>3239565</b>	<b>3667659</b>	<b>3926477</b>	<b>3647918</b>	<b>3924023</b>	<b>3643630</b>	#VALUE!	<b>3368197</b>	<b>3426826</b>	<b>3189219</b>	<b>3243286</b>	<b>3340670</b>
20516	19610	18917	20287	19680	19664	19668	16109		13973	19467	19737	19487	19508
<b>735171</b>	<b>702702</b>	<b>677874</b>	<b>726944</b>	<b>705200</b>	<b>704612</b>	<b>704759</b>	<b>654400</b>		<b>667589</b>	<b>697560</b>	<b>707257</b>	<b>698295</b>	<b>699030</b>
259	268	267	264	263	261	259	262		258	256	257	258	263
388739	377856	363831	388001	375694	373981	372658	347981		352340	366771	372572	368546	372407
245231	234401	226118	242487	235234	235038	235087	218288	0	222688	232685	235920	232930	233175
0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.239	0.244	0.244	0.244	0.244	0.244
<b>15475779</b>	<b>15318562</b>	<b>14720853</b>	<b>15604929</b>	<b>15079487</b>	<b>14949689</b>	<b>14835594</b>	<b>13938779</b>	<b>0</b>	<b>13997646</b>	<b>14510113</b>	<b>14770586</b>	<b>14641464</b>	<b>14947542</b>
4920	4701	4535	4864	4719	4715	4717	3863		3351	4669	4734	4673	4678
152.0	147.0	139.0	144.0	146.0	142.0	139.0	154.0		138.0	146.0	152.0	147.0	139.0
0.193	0.192	0.192	0.192	0.192	0.192	0.192	0.193	0.174	0.191	0.192	0.193	0.192	0.192
<b>6011014</b>	<b>5539612</b>	<b>5030560</b>	<b>5605086</b>	<b>5519295</b>	<b>5351944</b>	<b>5231424</b>	<b>5426426</b>		<b>4917224</b>	<b>5460729</b>	<b>5783149</b>	<b>5506633</b>	<b>5188226</b>
84	82	79	84	81	81	80	66	0	57	79	80	80	80
259.0	268.0	267.0	264.0	263.0	261.0	259.0	262.0	0.0	258.0	256.0	257.0	258.0	263.0
0.203	0.204	0.204	0.204	0.203	0.203	0.203	0.203	0.174	0.203	0.203	0.203	0.203	0.203
<b>184037</b>	<b>185793</b>	<b>178156</b>	<b>187624</b>	<b>180910</b>	<b>178567</b>	<b>176424</b>	<b>166858</b>		<b>166091</b>	<b>171409</b>	<b>174874</b>	<b>173730</b>	<b>179327</b>
1251000	1195750	1153500	1237000	1200000	1199000	1199250	1113557	#VALUE!	1136000	1187000	1203500	1188250	1189500
<b>22921830</b>	<b>22239717</b>	<b>21083069</b>	<b>22634640</b>	<b>21979692</b>	<b>21679199</b>	<b>21442691</b>	<b>20645620</b>	#VALUE!	<b>20216961</b>	<b>21329250</b>	<b>21932110</b>	<b>21510077</b>	<b>21504595</b>

71.39	71.07	71.46	71.50	71.61	71.87	72.28	71.26	#VALUE!	72.28	71.98	71.47	71.70	71.77
80119957	76861293	73875596	79416917	77409994	77070199	77361612	71833695		72932593	76114271	76887062	76007276	76181206
24.00	24.00	24.00	24.00	24.00	24.00	24.00	21.17	0.00	18.00	24.00	24.00	24.00	24.00
71.36%			71.81%				72.13%			71.65%			
76572715			77814680				73626853			76358515			
67.70%			67.70%				67.70%			67.70%			
3.66%			4.12%				4.43%			3.95%			
2,800,915			3,203,634				3,262,423			3,017,137			
3,925,299			4,460,978				4,523,063			4,211,003			
27			27				27			27			
2543593544			2890713445				2930944675			2728730111			
5500			5500				5500			5500			
2.17			2.17				2.17			2.17			
1004			1141				1156			1077			

	For August 2004				For Sept-2004				For Oct-2004				
27-Jul-04	5-Aug-04	10-Aug-04	18-Aug-04	25-Aug-04	03-Sep-04	12-Sep-04	19-Sep-04	28-Sep-04	04-Oct-04	11-Oct-04	19-Oct-04	23-Oct-04	08-Nov-04
s/d	s/d	s/d	4912	5161	4842	4883	4996	4852	2467	4832	4915	4902	4907
			1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
0.174	0.174	0.174	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260
#VALUE!	#VALUE!	#VALUE!	74476478	78251853	73415127	74036775	75750098	73566749	47248449	73263506	74521964	74324856	74400667
			32.0	31.0	30.0	32.0	33.0	31.0	30.0	31.0	30.0	31.0	29.0
#VALUE!	#VALUE!	#VALUE!	6822	7168	6725	6782	6939	6739	4328	6711	6826	6808	6815
#VALUE!	#VALUE!	#VALUE!	450409	474798	446921	447750	456614	446371	287629	444531	453659	450970	454420
0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239
#VALUE!	#VALUE!	#VALUE!	3448796	3521691	3207768	3428435	3605818	3310840	2064453	3297192	3256130	3344958	3152659
			20139	21160	19852	20020	20484	19893	10115	19811	20152	20098	20119
#DIV/0!	#DIV/0!	#DIV/0!	721655	758237	711371	717394	733996	712840	457823	709901	722095	720186	720920
			258	256	257	258	258	256	257	258	258	256	257
			380874	398674	374739	378626	387388	374805	241175	374671	381107	378667	379770
0	0	0	240723	252925	237292	239301	244839	237782	152716	236802	240870	240232	240478
0.239	0.239	0.239	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244
0	0	0	15131258	15772260	14856498	15041925	15390017	14827941	9561333	14884821	15140500	14980744	15055934
#VALUE!	#VALUE!	#VALUE!	4830	5075	4761	4801	4912	4771	2426	4751	4833	4820	4825
			139.0	144.0	151.0	138.0	146.0	152.0	147.0	139.0	144.0	146.0	142.0
0.174	0.174	0.174	0.192	0.192	0.193	0.191	0.192	0.193	0.192	0.192	0.192	0.192	0.192
#VALUE!	#VALUE!	#VALUE!	5357010	5847873	5775342	5284068	5745588	5828986	3610431	5269762	5568776	5637846	5476513
0	0	0	82	86	81	82	84	81	41	81	82	82	82
0.0	0.0	0.0	258.0	256.0	257.0	258.0	258.0	256.0	257.0	258.0	258.0	256.0	257.0
0.174	0.174	0.174	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203
#DIV/0!	#DIV/0!	#DIV/0!	179542	186319	175892	178482	182613	175164	113200	176618	179652	176969	178253
#VALUE!	#VALUE!	#VALUE!	1228000	1290250	1210500	1220750	1249000	1213000	779053	1208000	1228750	1225500	1226750
#VALUE!	#VALUE!	#VALUE!	21895810	23096702	22018231	21725224	22567218	22045091	14064016	21539201	22117677	22021058	21937450

#VALUE!	#VALUE!	#VALUE!	72.16	72.01	71.53	72.21	71.82	71.59	71.74	72.12	71.82	71.91	71.97
			78646928	82531781	77334266	78182604	80089911	77590428	49770726	77270599	78500189	78390000	78274246
0.00	0.00	0.00	24.00	24.00	24.00	24.00	24.00	24.00	19.00	24.00	24.00	24.00	24.00
	<b>72.09%</b>				<b>71.79%</b>				<b>71.90%</b>				
	<b>80589354</b>				<b>78299302</b>				<b>70982878</b>				
	67.70%				67.70%				67.70%				
	4.39%				4.09%				4.20%				
	3,537,435				3,202,593				2,983,045				
	4,907,170				4,461,193				4,148,874				
	27				27				27				
	3179846395				2890853357				2688470564				
	5500				5500				5500				
	2.17				2.17				2.17				
	1255				1141				1061				

For Nov-2004			For Dec-2004				Heat Cap - Coefficients					
14-Nov-04	19-Nov-04	26-Nov-04	04-Dec-04	11-Dec-04	18-Dec-04	27-Dec-04	Gas/Mat	*T^0	*T^1	*T^2	*T^3	*T^4
4810	4752	4944	4891	4956	4946	4892	O2	0.2130	7.796E-05	-7.563E-08	4.074E-11	-8.183E-15
1400	1400	1400	1400	1400	1400	1400	CO2	0.1906	1.771E-04	-1.733E-07	9.315E-11	-1.894E-14
0.260	0.260	0.260	0.260	0.260	0.260	0.260	N2+Ar	0.2465	-3.284E-06	4.366E-08	-2.750E-11	5.504E-15
72929938	72050534	74961666	74158072	75143612	74991991	74173235	H2O,steam	0.4445	2.910E-05	6.887E-08	-3.726E-11	6.472E-15
30.0	31.0	30.0	30.0	25.0	25.0	25.0	H2O, liq.	1.0000				
6681	6600	6867	6793	6883	6869	6794	Rawmeal	0.2060	1.014E-04	-3.673E-08		
443967	437171	456335	451444	465118	464180	459112	Clinker	0.1742	1.414E-04	-1.283E-07	5.074E-11	
0.239	0.239	0.239	0.239	0.239	0.239	0.239						
3186569	3242603	3275342	3240230	2781038	2775427	2745125	O2	mass %	23.0			
19721	19483	20270	20053	20320	20279	20057	CO2	mass %	0.0			
706669	698148	726356	718569	728119	726650	718716	N2	mass %	77.0			
258	258	256	257	258	258	256	H2O	mass %	0.0			
372965	368468	381912	378532	384286	383511	377895						
235724	232881	242291	239693	242879	242389	239742						
0.244	0.244	0.244	0.244	0.244	0.244	0.244						
14817050	14638383	15109098	15006842	15266799	15235994	14950183						
4729	4672	4862	4809	4873	4863	4810						
139.0	144.0	151.0	138.0	146.0	152.0	147.0						
0.192	0.192	0.193	0.191	0.192	0.193	0.192						
5245769	5384094	5897192	5292895	5699586	5941532	5668036						
81	80	82	82	83	83	82						
258.0	258.0	256.0	257.0	258.0	258.0	256.0						
0.203	0.203	0.203	0.203	0.203	0.203	0.203						
175814	173694	178485	177672	181150	180785	176608						
1202500	1188000	1236000	1222750	1239000	1236500	1223000						
21441134	21384171	22420775	21700158	22386535	22594811	22017827						

<b>72.09</b>	<b>71.86</b>	<b>71.61</b>	<b>72.22</b>	<b>71.54</b>	<b>71.21</b>	<b>71.64</b>
<b>76823176</b>	<b>75991285</b>	<b>78963364</b>	<b>78116872</b>	<b>78652769</b>	<b>78494067</b>	<b>77637076</b>
24.00	24.00	24.00	24.00	24.00	24.00	24.00
<b>71.88%</b>			<b>71.65%</b>			
<b>77513018</b>			<b>78225196</b>			
67.70%			67.70%			
4.18%			3.96%			
3,243,775			3,094,328			
4,512,612			4,318,473			
27			27			
2924172644			2798370734			
5500			5500			
2.17			2.17			
1154			1104			

RAJASHREE CEMENTS : LINE-III											
Cooler modification Project data for JAN 2005- DEC											
Parameter		For Jan-2005				For Feb-2005				05-Mar-05	
		05-Jan-05	09-Jan-05	18-Jan-05	25-Jan-05	04-Feb-05	12-Feb-05	21-Feb-05	28-Feb-05		
1	Clinker production	tpd	4956	4889	4861	4966	4886	4898	4943	4950	4558
	Inlet temperature of the clinker in cooler	C	1400	1400	1400	1400	1400	1400	1400	1400	1400
	Specific heat of clinker	kcal/kg C	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260
	<b>Heat from clinker</b>	<b>kCal/hr</b>	<b>75143612</b>	<b>74127748</b>	<b>73703208</b>	<b>75295234</b>	<b>75884519</b>	<b>74264207</b>	<b>74946504</b>	<b>75052639</b>	<b>69109077</b>
3	Inlet temperature of the cooling air in cooler	C	28.0	29.0	30.0	28.0	30.0	30.0	29.0	31.0	32.0
	Flow rate of cooling air in cooler	m3/min	6883	6790	6751	6897	6951	6803	6865	6875	6331
	Flow rate of cooling air in cooler	kg/hr	460483	452753	448674	461412	461953	452090	457754	455386	417949
	Specific heat of cooling air	kcal/kg C	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239
	<b>Heat from cooling air</b>	<b>kCal/hr</b>	<b>3084347</b>	<b>3141095</b>	<b>3220356</b>	<b>3090570</b>	<b>3315665</b>	<b>3244868</b>	<b>3175789</b>	<b>3377712</b>	<b>3200247</b>
4	Power delivered by cooler fans	kWh/Day	20320	20045	19930	20361	20033	20082	20266	20295	18688
		kCal/hr	728119	718276	714162	729588	735298	719598	726209	727238	669646
1a	Temperature of cooler exhaust flue gases	C	257	258	258	256	257	258	258	256	257
	Flow rate of Cooler exhaust fan	m3/hr	383562	379091	376920	383611	387344	379789	383278	382375	352760
	Flow rate of Cooler exhaust fan	Kg/hr	242879	239595	238223	243369	245274	240036	242242	242585	223374
	Cp of Cooler Exit Air	kcal/kg/deg.C	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244
	<b>Heat from Cooler Exit Air</b>	<b>kcal/hr</b>	<b>15206277</b>	<b>15060408</b>	<b>14974155</b>	<b>15176331</b>	<b>15356210</b>	<b>15088130</b>	<b>15226752</b>	<b>15127432</b>	<b>13985112</b>
2a	Total Clinker from Cooler	tpd	4873	4807	4780	4883	4804	4816	4860	4867	4482
	Temp. of Clinker from Cooler	Deg.C	139.0	144.0	146.0	142.0	139.0	144.0	151.0	138.0	146.0
	Cp of Clinker from Cooler	kcal/kg/deg.C	0.192	0.192	0.192	0.192	0.192	0.192	0.193	0.191	0.192
	<b>Heat from Clinker Cooler</b>	<b>kcal/hr</b>	<b>5405170</b>	<b>5539317</b>	<b>5590332</b>	<b>5542539</b>	<b>5458464</b>	<b>5549515</b>	<b>5895621</b>	<b>5356914</b>	<b>5242039</b>
3a	Total Clinker Dust from Cooler ESP	tpd	83	82	81	83	82	82	83	83	76
	Temp. of from Clinker dust to ESP	Deg.C	257.0	258.0	258.0	256.0	257.0	258.0	258.0	256.0	257.0
	Cp of from Clinker dust to ESP	kcal/kg/deg.C	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203
	<b>Heat from Clinker dust to ESP</b>	<b>kcal/hr</b>	<b>180033</b>	<b>178701</b>	<b>177678</b>	<b>179279</b>	<b>181808</b>	<b>179030</b>	<b>180675</b>	<b>178702</b>	<b>165575</b>
4a	Radoation Losses	kcal/hr	1239000	1222250	1215250	1241500	1251216	1224500	1235750	1237500	1139500
	<b>Heat Losses</b>	<b>kcal/hr</b>	<b>22030480</b>	<b>22000677</b>	<b>21957416</b>	<b>22139649</b>	<b>22247699</b>	<b>22041175</b>	<b>22538798</b>	<b>21900548</b>	<b>20532227</b>



<b>Cooler Efficiency</b>	<b>%</b>	<b>72.10</b>	<b>71.79</b>	<b>71.72</b>	<b>72.02</b>	<b>72.17</b>	<b>71.82</b>	<b>71.42</b>	<b>72.33</b>	<b>71.87</b>
Total heat input	kCal/hr	<b>78956078</b>	<b>77987118</b>	<b>77637725</b>	<b>79115392</b>	<b>79935482</b>	<b>78228673</b>	<b>78848502</b>	<b>79157588</b>	<b>72978970</b>
Kiln running hours	hrs	24.00	24.00	24.00	24.00	23.43	24.00	24.00	24.00	24.00
Project efficiency	<b>%</b>	<b>71.91%</b>				<b>71.94%</b>				
Average Heat Input	kCal/hr	<b>78,424,078</b>				<b>79042561</b>				
Baseline Efficiency	<b>%</b>	67.70%				67.70%				
Increase in Cooler Efficiency	<b>%</b>	4.21%				4.24%				
<b>Saving in heat output due to increase in cooler efficiency</b>	Kcal/hr	3,299,854				3,349,470				
<b>Saving in heat input due to increase in cooler efficiency</b>	Kcal/hr	4,589,166				4,656,235				
<b>Working Days Per month</b>	days	27				27				
Total energy saved per month	Kcal/Month	2973779440				3017240122				
Average calorific value of fuel(Coal)	Kcal/ kg	5500				5500				
Emission Factor for Coal	CO2/kg coal	2.17				2.17				
<b>Emission Reduction</b>	tCO2/month	1173				1190				
<b>Total Emission Reduction</b>	<b>t CO2</b>	<b>13281</b>								
<b>Total Heat Input for the year</b>	<b>GWh per year</b>	<b>39.08</b>								

For Mar-2005			For April-2005				For May-2005				For Jun	
11-Mar-05	19-Mar-05	27-Mar-05	03-Apr-05	12-Apr-05	19-Apr-05	28-Apr-05	4-May-05	11-May-05	19-May-05	23-May-05	8-Jun-05	14-Jun-05
4627	s/d	3095	4833	4734	4695	4734	4804	4651	4609	4639	4806	s/d
1400		1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	
0.260	0.174	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.174
<b>70155265</b>	<b>0</b>	<b>46926852</b>	<b>73278668</b>	<b>71777615</b>	<b>71186291</b>	<b>71777615</b>	<b>72838965</b>	<b>70519157</b>	<b>69882346</b>	<b>70337211</b>	<b>72869290</b>	<b>#VALUE!</b>
30.0		35.0	35.0	32.0	35.0	32.0	34.0	38.0	35.0	38.0	38.0	
6426	#VALUE!	4299	6713	6575	6521	6575	6672	6460	6401	6443	6675	#VALUE!
427076		281034	438848	434087	426318	434087	437636	418248	418509	417169	432187	#VALUE!
0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239
<b>3065333</b>	<b>0</b>	<b>2354109</b>	<b>3676061</b>	<b>3323819</b>	<b>3571096</b>	<b>3323819</b>	<b>3560920</b>	<b>3804593</b>	<b>3505683</b>	<b>3794776</b>	<b>3931385</b>	<b>#VALUE!</b>
18971		12690	19815	19409	19250	19409	19696	19069	18897	19020	19705	
<b>679783</b>	<b>#DIV/0!</b>	<b>454707</b>	<b>710048</b>	<b>695504</b>	<b>689774</b>	<b>695504</b>	<b>705788</b>	<b>683309</b>	<b>677139</b>	<b>681546</b>	<b>706082</b>	<b>#DIV/0!</b>
258		258	256	257	258	258	256	257	258	268	263	
358776		239985	373337	366381	364048	367072	371097	359957	357380	366480	376164	
226756	0	151677	236851	231999	230088	231999	235430	227932	225873	227344	235528	0
0.244	0.239	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.239
<b>14253324</b>	<b>0</b>	<b>9534047</b>	<b>14769877</b>	<b>14525127</b>	<b>14462796</b>	<b>14582937</b>	<b>14681251</b>	<b>14270460</b>	<b>14197876</b>	<b>14857371</b>	<b>15098337</b>	<b>0</b>
4550	#VALUE!	3043	4752	4655	4616	4655	4724	4573	4532	4560	4725	#VALUE!
152.0		139.0	144.0	146.0	142.0	139.0	144.0	151.0	138.0	146.0	152.0	
0.193	0.174	0.192	0.192	0.192	0.192	0.192	0.192	0.193	0.191	0.192	0.193	0.174
<b>5558324</b>	<b>#VALUE!</b>	<b>3375396</b>	<b>5476220</b>	<b>5444452</b>	<b>5239740</b>	<b>5162884</b>	<b>5443360</b>	<b>5547525</b>	<b>4987563</b>	<b>5333313</b>	<b>5772427</b>	<b>#VALUE!</b>
77	0	52	81	79	79	79	80	78	77	79	81	0
258.0	0.0	258.0	256.0	257.0	258.0	258.0	256.0	257.0	258.0	268.0	263.0	0.0
0.203	0.174	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.204	0.203	0.174
<b>169125</b>	<b>#DIV/0!</b>	<b>113128</b>	<b>174478</b>	<b>171968</b>	<b>171610</b>	<b>173036</b>	<b>173431</b>	<b>168953</b>	<b>168467</b>	<b>180199</b>	<b>181136</b>	<b>#DIV/0!</b>
1156750	#VALUE!	773750	1208250	1183500	1173750	1183500	1201000	1162750	1152250	1159750	1201500	#VALUE!
<b>21137523</b>	<b>#VALUE!</b>	<b>13796321</b>	<b>21628825</b>	<b>21325048</b>	<b>21047897</b>	<b>21102357</b>	<b>21499042</b>	<b>21149688</b>	<b>20506155</b>	<b>21530633</b>	<b>22253400</b>	<b>#VALUE!</b>

71.40	#VALUE!	72.26	72.15	71.87	72.10	72.16	72.12	71.80	72.31	71.22	71.29	#VALUE!
73900382		49735668	77664777	75796938	75447161	75796938	77105673	75007058	74065168	74813534	77506756	
24.00		24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	
71.84%		72.07%					71.86%				71.4	
65538340		76176453					75247858				7702	
67.70%		67.70%					67.70%				67.7	
4.14%		4.37%					4.17%				3.7	
2,715,627		3,330,432					3,134,894				2,860	
3,780,043		4,621,132					4,362,277				4,005	
27		27					27				2	
2449467825		2994493688					2826755383				25958	
5500		5500					5500				55	
2.17		2.17					2.17				2.1	
966		1181					1115				10	

e-2005		For July-2005				For August 2005				For Sept-2005		
19-Jun-05	26-Jun-05	4-Jul-05	11-Jul-05	18-Jul-05	27-Jul-05	5-Aug-05	10-Aug-05	18-Aug-05	25-Aug-05	03-Sep-05	12-Sep-05	19-Sep-05
4788	4791	4766	4637	4314	4204	4829	4705	4775	4903	4679	s/d	s/d
1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400		
0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.174	0.174
72596371	72641857	72262804	71802778	65409512	66130645	73218019	71337913	73161361	74340018	74028205		
34.0	32.0	35.0	31.0	32.0	33.0	31.0	32.0	32.0	31.0	30.0		
6650	6654	6619	6577	5992	6058	6707	6535	6702	6810	6781		
436178	439314	432765	435668	395575	398629	444255	431428	442455	451062	450653		
0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239
3549060	3363840	3625100	3231453	3028930	3147917	3295145	3303458	3387897	3345640	3234556	0	0
19631	19643	19541	19012	17687	17236	19799	19291	19578	20102	19184		
703437	703878	700205	695747	633799	640786	709461	691243	708912	720332	717311		
258	256	257	258	261	259	261	267	264	265	261		
371259	370093	368858	367201	336396	338830	376554	371007	378376	385188	380721		
234646	234793	233568	232081	211416	213747	236655	230578	236472	240281	239274	0	0
0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.239	0.239
14749280	14641523	14623312	14588046	13447239	13488920	15052554	15011188	15217842	15522962	15219116	0	0
4708	4711	4686	4559	4241	4133	4748	4625	4694	4820	4600	#VALUE!	#VALUE!
156.0	152.0	151.0	142.0	139.0	144.0	151.0	138.0	146.0	152.0	147.0		
0.193	0.193	0.193	0.192	0.192	0.192	0.193	0.191	0.192	0.193	0.192	0.174	0.174
5916004	5755703	5684692	5285117	4704381	4941562	5759097	5089978	5548166	5888555	5656046	#VALUE!	#VALUE!
80	80	80	78	73	71	81	80	81	83	79	0	0
258.0	256.0	257.0	258.0	261.0	259.0	261.0	267.0	264.0	265.0	261.0	0.0	0.0
0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.204	0.204	0.204	0.203	0.174	0.174
175010	172962	173131	173097	160621	160409	179795	181670	182970	187047	181785	#DIV/0!	#DIV/0!
1197000	1197750	1191500	1183915	1078500	1090390	1207250	1176250	1206316	1225750	1220609	#VALUE!	#VALUE!
22037294	21767938	21672634	21230175	19390740	19681282	22198696	21459085	22155294	22824314	22277556	#VALUE!	#VALUE!

71.32	71.62	71.70	71.97	71.93	71.85	71.25	71.51	71.32	70.89	71.43	#VALUE!	#VALUE!
76848868	76709575	76588108	75729978	69072241	69919349	77222625	75332613	77258169	78405991	77980072		
24.00	24.00	24.00	23.50	24.00	23.13	24.00	24.00	23.75	24.00	23.00		
11%	71.89%					71.25%					71.43%	
1733	72827419					77054850					77980072	
70%	67.70%					67.70%					67.70%	
1%	4.19%					3.55%					3.73%	
3,685	3,052,598					2,733,527					2,911,871	
5,903	4,246,257					3,836,792					4,076,439	
7	27					27					27	
25083	2751574316					2486241121					2641532728	
00	5500					5500					5500	
17	2.17					2.17					2.17	
24	1086					981					1042	

	For Oct-2005				For Nov-2005				For Dec-2005			
27-Sep-05	04-Oct-05	11-Oct-05	19-Oct-05	23-Oct-05	08-Nov-05	14-Nov-05	19-Nov-05	26-Nov-05	04-Dec-05	11-Dec-05	18-Dec-05	22-Dec-05
s/d	4912	4964	4868	4717	4943	4918	4882	4881	4879	5061	4882	5048
	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
0.174	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260	0.260
	74476478	75264909	73809343	71519858	74946504	74567450	74021613	74006451	73976127	76735638	75276217	76538530
	30.0	31.0	30.0	31.0	29.0	30.0	31.0	32.0	30.0	30.0	28.0	30.0
	6822	6894	6761	6551	6865	6831	6781	6779	6776	7029	6895	7011
	453382	456674	449321	433951	457754	453936	449131	447566	450336	467135	461295	465935
0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.239
0	3254142	3387265	3224993	3218720	3175789	3258117	3331311	3427030	3232280	3352853	3089789	3344241
	20139	20352	19959	19340	20266	20164	20016	20012	20004	20750	20016	20697
	721655	729294	715190	693006	726209	722536	717247	717100	716806	743545	729404	741635
	258	256	257	258	258	256	257	258	258	256	257	258
	380874	383457	376752	365754	383278	379903	377835	378471	378316	390950	384239	391420
0	240723	243271	238566	231166	242242	241017	239252	239203	239105	248025	243307	247388
0.239	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244	0.244
0	15131258	15170218	14936272	14530568	15226752	15029640	14979227	15035765	15029603	15466655	15233113	15550203
#VALUE!	4830	4881	4787	4638	4860	4836	4800	4799	4797	4977	4800	4963
	142.0	139.0	144.0	151.0	138.0	146.0	152.0	147.0	139.0	140.0	146.0	142.0
0.174	0.192	0.192	0.192	0.193	0.191	0.192	0.193	0.192	0.192	0.192	0.192	0.192
#VALUE!	5481918	5414069	5515701	5626066	5348996	5656247	5864839	5654928	5321020	5562726	5709827	5633697
0	82	83	81	79	83	82	82	82	82	84	82	85
0.0	258.0	256.0	257.0	258.0	258.0	256.0	257.0	258.0	258.0	256.0	257.0	258.0
0.174	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203	0.203
#DIV/0!	179542	179207	176836	172415	180675	177546	177345	178409	178336	182709	180350	184513
#VALUE!	1228000	1241000	1217000	1179250	1235750	1229500	1220500	1220250	1219750	1265250	1241186	1262000
#VALUE!	22020718	22004494	21845809	21508298	21992173	22092934	22241911	22089352	21748710	22477340	22364477	22630413

#VALUE!	71.93	72.28	71.90	71.49	72.11	71.87	71.51	71.73	72.09	72.19	71.72	71.93
	78452275	79381468	77749526	75431585	78848502	78548104	78070171	78150582	77925213	80832036	79095410	80624406
	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	23.60	24.00
	<b>71.90%</b>				<b>71.81%</b>				<b>71.98%</b>			
	<b>77753714</b>				<b>78404340</b>				<b>79619266</b>			
	67.70%				67.70%				67.70%			
	4.20%				4.11%				4.29%			
	3,267,475				3,221,731				3,413,302			
	4,544,475				4,486,670				4,741,709			
	27				27				27			
	2944819943				2907362159				3072627422			
	5500				5500				5500			
	2.17				2.17				2.17			
	1162				1147				1212			

Heat Cap - Coefficients					
Gas/Mat	*T^0	*T^1	*T^2	*T^3	*T^4
	0.2485	-3.340E-06	4.440E-08	-2.797E-11	5.597E-15
	0.1244	0.000E+00	0.000E+00	0.000E+00	0.000E+00
<b>O2</b>	0.2130	7.796E-05	-7.563E-08	4.074E-11	-8.183E-15
<b>CO2</b>	0.1906	1.771E-04	-1.733E-07	9.315E-11	-1.894E-14
<b>N2+Ar</b>	0.2465	-3.284E-06	4.366E-08	-2.750E-11	5.504E-15
<b>H2O,steam</b>	0.4445	2.910E-05	6.887E-08	-3.726E-11	6.472E-15
<b>H2O, liq.</b>	1.0000				
<b>Rawmeal</b>	0.2060	1.014E-04	-3.673E-08		
<b>Clinker</b>	0.1742	1.414E-04	-1.283E-07	5.074E-11	

O2	mass %	23.0
CO2	mass %	0.0
N2	mass %	77.0
H2O	mass %	0.0