

June 4, 2013

The following tables summarize the results of comparing existing 307-08 across-wind base moments to proposed 307-XX across-wind base moments. Note that the tables are grouped in pairs, with the first table being 307-08 and the second table being 307-XX.

All tabulated moments have been multiplied by the appropriate ACI 307 LF noted below. The factored along-wind moments are provided to assist in determining when across-wind loads will control the design. Note that chimneys 7, 10, 12, 14 and 16 ~ 20 are controlled by along-wind loads.

For 307-08 I assumed the following:

- 1) V = 90
- 2) I = 1.15
- 3) LF = 1.4 for across-wind
- 4) LF = 1.6 for along-wind
- 5) Maximum damping considered at 4%, 3%, 2% and 1%

For 307-XX I assumed the following:

- 1) V = 120
- 2) I = 1.0
- 3) LF = 1.0 for across-wind
- 4) LF = 1.0 for along-wind
- 5) Maximum damping considered at 4%, 3%, 2% and 1%
- 6) Eq (4-10) has been revised to take into account the fact that we should have an effective LF of 1.4 at wind speeds less than $(1/1.30) V_{bar}(Z_{cr})$. Therefore, Eq (4-10) for ACI 307-XX is assumed to be as follows:

$$\text{Eq (4-10)} \quad [1.0 - 1.739 \{ (V_{bar} - V_{bar}(Z_{cr})) / V_{bar}(Z_{cr}) \}] \quad \text{but not } < 1.0 \text{ or } > 1.40$$

- 7) Eq (4-18) has been revised to take into account the fact that across-wind loads in the first and second modes shall be evaluated over the range of wind speeds between $0.10 V_{bar}(Z_{cr})$ and $1.0 V_{bar}(Z_{cr})$. Therefore, Eq (4-18) for ACI 307-XX is assumed to be as follows when using 2% maximum damping:

$$\text{Eq (4-18)} \quad B_s = 0.01 + 0.0435 \{ (V_{bar} - 0.77 V_{bar}(Z_{cr})) / V_{bar}(Z_{cr}) \} \quad \text{but not } < 0.01 \text{ or } > 0.02$$

ACI 307-08

Chimney No. ==>	5	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
Wind speed V (mph) ==>	90	Factored Ma	Factored Ma	Factored Ma	Factored Ma
ACI 307-08	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	115.63	58000	60673	71357	103390
MODE 2	550.54	0	0	0	0
~ 1.6 x W along	1.000	41775	41775	41775	41775

ACI 307-XX

Chimney No. ==>	5	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
Wind speed V (mph) ==>	120	Factored Ma	Factored Ma	Factored Ma	Factored Ma
ACI 307-XX	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	115.63	44688	51161	62452	92921
MODE 2	550.54	0	0	0	0
~ 1.0 x W along	1.000	41725	41725	41725	41725

ACI 307-08

<u>Chimney No. ==></u>	6	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	90	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	62.28	27576	27576	27576	27576
MODE 2	360.42	0	0	0	0
~ 1.6 x W along	1.000	23953	23953	23953	23953

ACI 307-XX

<u>Chimney No. ==></u>	6	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	120	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	62.28	27576	27576	27576	27576
MODE 2	360.42	0	0	0	0
~ 1.0 x W along	1.000	24059	24059	24059	24059

ACI 307-08

<u>Chimney No. ==></u>	7	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	90	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	28.99	2338	2338	2338	2338
MODE 2	177.31	715	829	1021	1473
~ 1.6 x W along	1.000	9452	9452	9452	9452

ACI 307-XX

<u>Chimney No. ==></u>	7	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	120	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	28.99	2338	2338	2338	2338
MODE 2	177.31	440	509	627	904
~ 1.0 x W along	1.000	9540	9540	9540	9540

ACI 307-08

<u>Chimney No. ==></u>	8	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	90	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	124.70	188793	208413	251385	385637
MODE 2	651.04	0	0	0	0
~ 1.6 x W along	1.000	138671	138671	138671	138671

ACI 307-XX

<u>Chimney No. ==></u>	8	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	120	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	124.70	153038	177018	219990	339424
MODE 2	651.04	0	0	0	0
~ 1.0 x W along	1.000	138158	138158	138158	138158

ACI 307-08

<u>Chimney No. ==></u>	<u>9</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	86.22	195071	195071	195071	195071
MODE 2	469.21	0	0	0	0
~ 1.6 x W along	1.000	93364	93364	93364	93364

ACI 307-XX

<u>Chimney No. ==></u>	<u>9</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	86.22	186469	186469	186469	191288
MODE 2	469.21	0	0	0	0
~ 1.0 x W along	1.000	93315	93315	93315	93315

ACI 307-08

<u>Chimney No. ==></u>	<u>10</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	197.70	136675	158884	197280	291421
MODE 2	949.21	0	0	0	0
~ 1.6 x W along	1.000	448380	448380	448380	448380

ACI 307-XX

<u>Chimney No. ==></u>	<u>10</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	197.70	83752	97328	120767	177990
MODE 2	949.21	0	0	0	0
~ 1.0 x W along	1.000	445051	445051	445051	445051

ACI 307-08

<u>Chimney No. ==></u>	<u>11</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	68.02	109598	109598	109598	109598
MODE 2	410.87	0	0	0	0
~ 1.6 x W along	1.000	85286	85286	85286	85286

ACI 307-XX

<u>Chimney No. ==></u>	<u>11</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	68.02	109593	109593	109593	109593
MODE 2	410.87	0	0	0	0
~ 1.0 x W along	1.000	85397	85397	85397	85397

ACI 307-08

<u>Chimney No. ==></u>	<u>12</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	48.60	76959	76959	76959	76959
MODE 2	259.40	161	187	231	337
~ 1.6 x W along	1.000	124923	124923	124923	124923

ACI 307-XX

<u>Chimney No. ==></u>	<u>12</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	48.60	76964	76964	76964	76964
MODE 2	259.40	51	60	74	107
~ 1.0 x W along	1.000	124768	124768	124768	124768

ACI 307-08

<u>Chimney No. ==></u>	<u>13</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	68.64	314113	314113	314113	314113
MODE 2	378.60	0	0	0	0
~ 1.6 x W along	1.000	252780	252780	252780	252780

ACI 307-XX

<u>Chimney No. ==></u>	<u>13</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	68.64	314110	314110	314110	314110
MODE 2	378.60	0	0	0	0
~ 1.0 x W along	1.000	252186	252186	252186	252186

ACI 307-08

<u>Chimney No. ==></u>	<u>14</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	41.62	79043	79043	79043	79043
MODE 2	249.88	599	695	862	1263
~ 1.6 x W along	1.000	171865	171865	171865	171865

ACI 307-XX

<u>Chimney No. ==></u>	<u>14</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	41.62	78802	78802	78802	78802
MODE 2	249.88	219	254	314	460
~ 1.0 x W along	1.000	171927	171927	171927	171927

ACI 307-08

<u>Chimney No. ==></u>	<u>15</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	65.23	484675	484675	484675	484675
MODE 2	401.95	0	0	0	0
~ 1.6 x W along	1.000	433624	433624	433624	433624

ACI 307-XX

<u>Chimney No. ==></u>	<u>15</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	65.23	482939	482939	482939	482939
MODE 2	401.95	0	0	0	0
~ 1.0 x W along	1.000	432451	432451	432451	432451

ACI 307-08

<u>Chimney No. ==></u>	<u>16</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	29.79	48766	48766	48766	48766
MODE 2	173.86	48030	55888	69533	103414
~ 1.6 x W along	1.000	228141	228141	228141	228141

ACI 307-XX

<u>Chimney No. ==></u>	<u>16</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	29.79	48769	48769	48769	48769
MODE 2	173.86	35112	40836	50752	75210
~ 1.0 x W along	1.000	227863	227863	227863	227863

ACI 307-08

<u>Chimney No. ==></u>	<u>17</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	30.72	124096	124096	124096	124096
MODE 2	147.11	215714	249902	311612	485226
~ 1.6 x W along	1.000	590717	590717	590717	590717

ACI 307-XX

<u>Chimney No. ==></u>	<u>17</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	30.72	124259	124259	124259	124259
MODE 2	147.11	184424	215503	270532	415421
~ 1.0 x W along	1.000	587223	587223	587223	587223

ACI 307-08

<u>Chimney No. ==></u>	<u>18</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	25.12	70038	70038	70038	70038
MODE 2	118.27	320843	320843	324625	420821
~ 1.6 x W along	1.000	528896	528896	528896	528896

ACI 307-XX

<u>Chimney No. ==></u>	<u>18</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	25.12	70043	70043	70043	70043
MODE 2	118.27	240168	240312	274093	395256
~ 1.0 x W along	1.000	525873	525873	525873	525873

ACI 307-08

<u>Chimney No. ==></u>	<u>19</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	36.26	253603	253603	253603	253603
MODE 2	187.46	155727	181515	226650	341357
~ 1.6 x W along	1.000	772885	772885	772885	772885

ACI 307-XX

<u>Chimney No. ==></u>	<u>19</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	36.26	252691	252691	252691	252691
MODE 2	187.46	110078	128229	159909	239750
~ 1.0 x W along	1.000	768559	768559	768559	768559

ACI 307-08

<u>Chimney No. ==></u>	<u>20</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	27.13	118465	118465	118465	118465
MODE 2	129.68	401900	401900	449854	660053
~ 1.6 x W along	1.000	762482	762482	762482	762482

ACI 307-XX

<u>Chimney No. ==></u>	<u>20</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	27.13	118397	118397	118397	118397
MODE 2	129.68	282682	320185	388409	613501
~ 1.0 x W along	1.000	757650	757650	757650	757650

ACI 308-98 Sample Chimneys listed on page 307R-7 of ACI 307-98

ACI 307-08

<u>Chimney No. ==></u>	<u>2-98</u>	<u>Bs 4% Max</u>	<u>Bs 3% Max</u>	<u>Bs 2% Max</u>	<u>Bs 1% Max</u>
<u>Wind speed V (mph) ==></u>	<u>90</u>	<u>Factored Ma</u>	<u>Factored Ma</u>	<u>Factored Ma</u>	<u>Factored Ma</u>
<u>ACI 307-08</u>	<u>Vcr (mph)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>
MODE 1	71.46	32737	32737	32737	32737
MODE 2	445.68	0	0	0	0
~ 1.6 x W along	1.000	21760	21760	21760	21760

ACI 307-XX

<u>Chimney No. ==></u>	<u>2-98</u>	<u>Bs 4% Max</u>	<u>Bs 3% Max</u>	<u>Bs 2% Max</u>	<u>Bs 1% Max</u>
<u>Wind speed V (mph) ==></u>	<u>120</u>	<u>Factored Ma</u>	<u>Factored Ma</u>	<u>Factored Ma</u>	<u>Factored Ma</u>
<u>ACI 307-XX</u>	<u>Vcr (mph)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>
MODE 1	71.46	32247	32247	32247	32247
MODE 2	445.68	0	0	0	0
~ 1.0 x W along	1.000	21889	21889	21889	21889

ACI 307-08

<u>Chimney No. ==></u>	<u>4-98</u>	<u>Bs 4% Max</u>	<u>Bs 3% Max</u>	<u>Bs 2% Max</u>	<u>Bs 1% Max</u>
<u>Wind speed V (mph) ==></u>	<u>90</u>	<u>Factored Ma</u>	<u>Factored Ma</u>	<u>Factored Ma</u>	<u>Factored Ma</u>
<u>ACI 307-08</u>	<u>Vcr (mph)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>
MODE 1	32.32	9709	9709	9709	9709
MODE 2	189.98	2239	2597	3211	4675
~ 1.6 x W along	1.000	33924	33924	33924	33924

ACI 307-XX

<u>Chimney No. ==></u>	<u>4-98</u>	<u>Bs 4% Max</u>	<u>Bs 3% Max</u>	<u>Bs 2% Max</u>	<u>Bs 1% Max</u>
<u>Wind speed V (mph) ==></u>	<u>120</u>	<u>Factored Ma</u>	<u>Factored Ma</u>	<u>Factored Ma</u>	<u>Factored Ma</u>
<u>ACI 307-XX</u>	<u>Vcr (mph)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>
MODE 1	32.32	9711	9711	9711	9711
MODE 2	189.98	1322	1533	1894	2755
~ 1.0 x W along	1.000	34078	34078	34078	34078

ACI 307-08

<u>Chimney No. ==></u>	<u>6-98</u>	<u>Bs 4% Max</u>	<u>Bs 3% Max</u>	<u>Bs 2% Max</u>	<u>Bs 1% Max</u>
<u>Wind speed V (mph) ==></u>	<u>90</u>	<u>Factored Ma</u>	<u>Factored Ma</u>	<u>Factored Ma</u>	<u>Factored Ma</u>
<u>ACI 307-08</u>	<u>Vcr (mph)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>
MODE 1	79.26	215136	215136	215136	215136
MODE 2	468.93	0	0	0	0
~ 1.6 x W along	1.000	123443	123443	123443	123443

ACI 307-XX

<u>Chimney No. ==></u>	<u>6-98</u>	<u>Bs 4% Max</u>	<u>Bs 3% Max</u>	<u>Bs 2% Max</u>	<u>Bs 1% Max</u>
<u>Wind speed V (mph) ==></u>	<u>120</u>	<u>Factored Ma</u>	<u>Factored Ma</u>	<u>Factored Ma</u>	<u>Factored Ma</u>
<u>ACI 307-XX</u>	<u>Vcr (mph)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>
MODE 1	79.26	214807	214807	214807	214807
MODE 2	468.93	0	0	0	0
~ 1.0 x W along	1.000	123417	123417	123417	123417

ACI 307-08

<u>Chimney No. ==></u>	<u>7-98</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	83.12	311675	311675	311675	311675
MODE 2	476.37	0	0	0	0
~ 1.6 x W along	1.000	163913	163913	163913	163913

ACI 307-XX

<u>Chimney No. ==></u>	<u>7-98</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	83.12	311415	311415	311415	311415
MODE 2	476.37	0	0	0	0
~ 1.0 x W along	1.000	163637	163637	163637	163637

ACI 307-08

<u>Chimney No. ==></u>	<u>8-98</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	49.42	81726	81726	81726	81726
MODE 2	264.67	102	119	147	215
~ 1.6 x W along	1.000	124671	124671	124671	124671

ACI 307-XX

<u>Chimney No. ==></u>	<u>8-98</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	49.42	81616	81616	81616	81616
MODE 2	264.67	31	36	44	64
~ 1.0 x W along	1.000	124498	124498	124498	124498

ACI 307-08

<u>Chimney No. ==></u>	<u>9-98</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	102.98	681033	681033	681033	783132
MODE 2	621.91	0	0	0	0
~ 1.6 x W along	1.000	297370	297370	297370	297370

ACI 307-XX

<u>Chimney No. ==></u>	<u>9-98</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	Vcr (mph)	(ft-tons)	(ft-tons)	(ft-tons)	(ft-tons)
MODE 1	102.98	539696	539696	555804	731172
MODE 2	621.91	0	0	0	0
~ 1.0 x W along	1.000	296599	296599	296599	296599

ACI 307-08

<u>Chimney No. ==></u>	<u>12-98</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>90</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-08</u>	<u>Vcr (mph)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>
MODE 1	73.44	1325747	1325747	1325747	1325747
MODE 2	382.03	0	0	0	0
~ 1.6 x W along	1.000	921981	921981	921981	921981

ACI 307-XX

<u>Chimney No. ==></u>	<u>12-98</u>	Bs 4% Max	Bs 3% Max	Bs 2% Max	Bs 1% Max
<u>Wind speed V (mph) ==></u>	<u>120</u>	Factored Ma	Factored Ma	Factored Ma	Factored Ma
<u>ACI 307-XX</u>	<u>Vcr (mph)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>	<u>(ft-tons)</u>
MODE 1	73.44	1323315	1323315	1323315	1323315
MODE 2	382.03	0	0	0	0
~ 1.0 x W along	1.000	915049	915049	915049	915049