

## **Mark-ups to COLA ER Section 2.7**

BBNPP RAI 101,  
Question 11.03-2

0-5 mi (0 to 8 km) and from 0-50 mi (0 to 80 km), respectively, from BBNPP. Terrain heights were determined using U.S. Geologic Survey topographic maps. The following 7.5 minute series maps were used for the 0 to 5 mi (0 to 8 km) terrain heights: ~~Benton, Stillwater, Shickshinny, Nanticoke, Wilkes-Barre West, Bloomsburg, Mifflinville, Berwick, Sybertsville, Freeland, Catawissa, Shumans, Nuremberg, Conyngham, Hazleton.~~ The following 1:100,000 scale maps were used for the 5 to 50 mi (8 to 80 km) terrain heights: Wellsboro, Towanda, Honesdale, Williamsport West, Williamsport East, Scranton, State College, Sunbury, Allentown, Harrisburg, Reading. For points that fell between distances at which terrain heights were determined, the maximum of the values was used.

Figure 2.7-94 and Figure 2.7-95 present detailed topographic features on a large scale within an 5 mi (8 km) radius of the station and a smaller scale map showing topography within a 50 mi (80 km) radius of the station, respectively.

These figures indicate that the highest terrain in the vicinity of the site (within 1 mi (1.6 km)) is in the north and north-northeast where a hill rises to approximately 1,050 ft (320 m). The Susquehanna River runs from northeast of the site to southwest of the site, with a pronounced bend (Bell Bend) in the river southeast of the site. The site is relatively level to the east and southeast. A hill rises to 750 ft (229 m) within one mile south of the site. The terrain to the northwest rises to approximately 1,600 ft (488 m) on top of Lee Mountain (approximately 5.5 mi (8.8 km) from the site).

BBNPP will be west and south of the existing Susquehanna Steam Electric Station (SSES) Units 1 and 2. Some portions of the site will be cleared of existing vegetation and graded to accommodate the nuclear island and its ancillary structures. These terrain modifications would be limited to the BBNPP site and the immediately surrounding area and, therefore, will not represent a significant alteration to the topographic character of the region around the BBNPP site.

## 2.7.6 Atmospheric Dispersion Factors

### 2.7.6.1 Long-Term Routine Effluent Atmospheric Dispersion and Deposition Values

Normal effluent atmospheric dispersion and deposition factors were determined using the methodologies from Regulatory Guide 1.111, Revision 1 (NRC, 1977), and seven years of SSES onsite meteorological data (2001-2007). The data recovery goal of 90% was met for each of the seven years of data.

The following assumptions were made in the analysis of long-term routine effluent atmospheric dispersion and deposition factors:

- ◆ Releases from the Stack for normal effluent analyses are at a height that is less than 2 times the height of adjacent solid structures and are assumed to be ground level releases (except for the mixed mode case described in the next two bullet items).
- ◆ No building wake credit is taken for the normal effluent ground level release. This is a conservative assumption selected to bound elevated releases at sites with high terrain features (i.e., cases where the terrain heights exceed the release height). Building wake credit is taken for the normal effluent mixed mode release.
- ◆ Stack releases are from the base of the stack; however, stack release was from 62 m above grade for the mixed mode release case (2 meters above Reactor Building).

**Table 2.7-129— Design Input for AEOLUS3 Normal Effluent x/Q Runs**  
(Page 1 of 8)

Parameter	Value(s)
Wind speed group upper limits for AEOLUS3	0.224, 0.5, 1.0, 1.5, 2.0, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0, 50.0 meters/second
AEOLUS3 wind speed assigned to calms	0.25 miles per hour
Anemometer starting speed	0.5 miles per hour
The annual average mixing layer height at SSES	900 meters (Conservative, low value)
Temperature sensor separation for SSES	60m - 10m or 50 meters
Wind instrument heights for SSES	10m, 60m
SSES meteorological channel units of measure	Wind speed miles per hour Wind direction degrees from True North Delta-Temperature degrees Fahrenheit per sensor separation in feet
Order of data channels in met data	Wind speed (10m, 60m), wind direction (10m, 60m), temperature, dew point temperature, delta temperature(60m-10m), precipitation
Finished floor grade	720 feet
<p>Owner Controlled Area (OCA) boundary (conservatively used instead of the site boundary)</p> <p>Site boundary distances, terrain heights, and recirculation correction factors (RCF's)(in meters, meters above finished floor grade, and dimensionless, respectively)</p>	sector
	distance
	height
	RCF's
	N
	418.4
	73.2
	1.05
	NNE
	425.5
	73.2
	1.37
	NE
	506.8
	42.7
	1.44
	ENE
	518.8
	12.2
	1.47
	E
	478.1
	0.0
	1.55
	ESE
	322.7
	0.0
	1.43
	SE
	270.1
	0.0
	1.09
	SSE
	263.0
	0.0
	1.32
	S
	263.0
	0.0
	1.00
	SSW
	267.7
	0.0
	1.33
	SW
	267.7
	0.0
	1.00
	WSW
	251.0
	18.3
	1.00
	W
	239.1
	36.6
	1.01
	WNW
	239.1
	36.6
	1.19
	NW
	243.8
	61.0
	1.00
	NNW
	358.6
	73.2
	1.00
Stack flow rate for normal operations	242,458 cfm This is a conservative value; the actual flow rate for normal operations will be higher. Flow rates from the references are for the two largest contributors to the flow and total more than 242,458 cfm.
Stack inner diameter	3.8 meters Note that this is listed as the outside diameter of the stack and so the inner diameter should be somewhat smaller; a test run was made in another calculation using an inner diameter of 3.7 meters and was found to produce lower x/Q's. Thus, using 3.8 meters as the stack inner diameter produces conservative x/Q's.
Stack height	62 meters (2 meters above assumed Reactor Building)



**Table 2.7-129— Design Input for AEOLUS3 Normal Effluent x/Q Runs**  
(Page 2 of 8)

Parameter	Value(s)																																																			
Reactor Building height and cross sectional area	60 meters (used for cross sectional area for building wake - smaller height gives a lower credit for building wake; actual = 62.3 meter) 2940m2 (60m X 49m)																																																			
Maximum Terrain Heights and Recirculation Correction Factors (RCF's) 0.5miles	Values in meters above finished floor grade and dimensionless, respectively. <table><tr><td>Sector</td><td>Height</td><td>RCF's</td></tr><tr><td>N</td><td><del>73.2</del></td><td>1.05</td></tr><tr><td>NNE</td><td><del>73.2</del></td><td>1.37</td></tr><tr><td>NE</td><td><del>42.7</del></td><td>1.44</td></tr><tr><td>ENE</td><td><del>12.2</del></td><td>1.47</td></tr><tr><td>E</td><td>0.0</td><td>1.55</td></tr><tr><td>ESE</td><td>0.0</td><td>1.43</td></tr><tr><td>SE</td><td>0.0</td><td>1.09</td></tr><tr><td>SSE</td><td>0.0</td><td>1.32</td></tr><tr><td>S</td><td>0.0</td><td>1</td></tr><tr><td>SSW</td><td><del>0.0</del></td><td>1.33</td></tr><tr><td>SW</td><td>0.0</td><td>1</td></tr><tr><td>WSW</td><td><del>18.3</del></td><td>1</td></tr><tr><td>W</td><td><del>36.6</del></td><td>1.01</td></tr><tr><td>WNW</td><td><del>36.6</del></td><td>1.19</td></tr><tr><td>NW</td><td><del>61.0</del></td><td>1</td></tr><tr><td>NNW</td><td><del>73.2</del></td><td>1</td></tr></table>	Sector	Height	RCF's	N	<del>73.2</del>	1.05	NNE	<del>73.2</del>	1.37	NE	<del>42.7</del>	1.44	ENE	<del>12.2</del>	1.47	E	0.0	1.55	ESE	0.0	1.43	SE	0.0	1.09	SSE	0.0	1.32	S	0.0	1	SSW	<del>0.0</del>	1.33	SW	0.0	1	WSW	<del>18.3</del>	1	W	<del>36.6</del>	1.01	WNW	<del>36.6</del>	1.19	NW	<del>61.0</del>	1	NNW	<del>73.2</del>	1
Sector	Height	RCF's																																																		
N	<del>73.2</del>	1.05																																																		
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NW	<del>61.0</del>	1																																																		
NNW	<del>73.2</del>	1																																																		
1.0 mile	Values in meters above finished floor grade and dimensionless, respectively. <table><tr><td>Sector</td><td>Height</td><td>RCF's</td></tr><tr><td>N</td><td><del>109.7</del></td><td>1.12</td></tr><tr><td>NNE</td><td>109.7</td><td>1.32</td></tr><tr><td>NE</td><td>103.6</td><td>1.31</td></tr><tr><td>ENE</td><td><del>54.9</del></td><td>1.07</td></tr><tr><td>E</td><td>0.0</td><td>1.21</td></tr><tr><td>ESE</td><td>0.0</td><td>1.37</td></tr><tr><td>SE</td><td>0.0</td><td>1</td></tr><tr><td>SSE</td><td>0.0</td><td>1.32</td></tr><tr><td>S</td><td>18.3</td><td>1</td></tr><tr><td>SSW</td><td>18.3</td><td>1.21</td></tr><tr><td>SW</td><td><del>18.3</del></td><td>1</td></tr><tr><td>WSW</td><td><del>36.6</del></td><td>1</td></tr><tr><td>W</td><td><del>115.8</del></td><td>1.07</td></tr><tr><td>WNW</td><td>115.8</td><td>1.24</td></tr><tr><td>NW</td><td>85.3</td><td>1</td></tr><tr><td>NNW</td><td><del>103.6</del></td><td>1</td></tr></table>	Sector	Height	RCF's	N	<del>109.7</del>	1.12	NNE	109.7	1.32	NE	103.6	1.31	ENE	<del>54.9</del>	1.07	E	0.0	1.21	ESE	0.0	1.37	SE	0.0	1	SSE	0.0	1.32	S	18.3	1	SSW	18.3	1.21	SW	<del>18.3</del>	1	WSW	<del>36.6</del>	1	W	<del>115.8</del>	1.07	WNW	115.8	1.24	NW	85.3	1	NNW	<del>103.6</del>	1
Sector	Height	RCF's																																																		
N	<del>109.7</del>	1.12																																																		
NNE	109.7	1.32																																																		
NE	103.6	1.31																																																		
ENE	<del>54.9</del>	1.07																																																		
E	0.0	1.21																																																		
ESE	0.0	1.37																																																		
SE	0.0	1																																																		
SSE	0.0	1.32																																																		
S	18.3	1																																																		
SSW	18.3	1.21																																																		
SW	<del>18.3</del>	1																																																		
WSW	<del>36.6</del>	1																																																		
W	<del>115.8</del>	1.07																																																		
WNW	115.8	1.24																																																		
NW	85.3	1																																																		
NNW	<del>103.6</del>	1																																																		

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BBNPP RAI 101,  
Question  
11.02-3(2)



**Table 2.7-129— Design Input for AEOLUS3 Normal Effluent x/Q Runs**  
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Parameter	Value(s)		
2.0 miles	Values in meters above finished floor grade and dimensionless, respectively.		
	Sector	Height	RCF's
	N	121.9	1.32
	NNE	109.7	1.21
	NE	103.6	1.17
	ENE	54.9	1.06
	E	0.0	1.08
	ESE	<del>30.5</del>	1.17
	SE	<del>36.6</del>	1
	SSE	<del>36.6</del>	1.12
	S	18.3	1
	SSW	<del>30.5</del>	1.12
	SW	<del>18.3</del>	1
	WSW	<del>79.2</del>	1
	W	<del>121.9</del>	1
	WNW	134.1	1
	NW	134.1	1
	NNW	<del>121.9</del>	1
3.0 miles	Values in meters above finished floor grade and dimensionless, respectively.		
	Sector	Height	RCF's
	N	<del>225.6</del>	1.2
	NNE	<del>225.6</del>	1.27
	NE	103.6	1.06
	ENE	<del>103.6</del>	1.03
	E	<del>152.4</del>	1.05
	ESE	<del>152.4</del>	1.11
	SE	<del>109.7</del>	1
	SSE	<del>85.3</del>	1.19
	S	<del>85.3</del>	1
	SSW	<del>73.2</del>	1.09
	SW	<del>42.7</del>	1
	WSW	<del>158.5</del>	1
	W	<del>158.5</del>	1
	WNW	134.1	1
	NW	237.7	1.01
	NNW	<del>237.7</del>	1

**Table 2.7-129— Design Input for AEOLUS3 Normal Effluent x/Q Runs**  
(Page 4 of 8)

Parameter	Value(s)		
4.0 miles	Values in meters above finished floor grade and dimensionless, respectively.		
	Sector	Height	RCF's
	N	<del>225.6</del>	1.08
	NNE	<del>225.6</del>	1.18
	NE	<del>195.1</del>	1.13
	ENE	<del>152.4</del>	1.05
	E	<del>170.7</del>	1.11
	ESE	<del>170.7</del>	1.33
	SE	<del>109.7</del>	1
	SSE	<del>97.5</del>	1.02
	S	<del>91.4</del>	1
	SSW	<del>79.2</del>	1.1
	SW	73.2	1
	WSW	<del>158.5</del>	1
	W	<del>158.5</del>	1
	WNW	<del>249.9</del>	1
	NW	<del>249.9</del>	1
	NNW	<del>237.7</del>	1
5.0 miles	Values in meters above finished floor grade and dimensionless, respectively.		
	Sector	Height	RCF's
	N	243.8	1
	NNE	<del>225.6</del>	1.08
	NE	<del>207.3</del>	1
	ENE	<del>170.7</del>	1
	E	170.7	1.01
	ESE	<del>213.4</del>	1.18
	SE	<del>317.0</del>	1
	SSE	<del>317.0</del>	1.06
	S	<del>292.6</del>	1
	SSW	<del>207.3</del>	1
	SW	73.2	1
	WSW	<del>158.5</del>	1
	W	<del>256.0</del>	1
	WNW	<del>280.4</del>	1
	NW	280.4	1
	NNW	<del>280.4</del>	1

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Maximum Terrain Heights	Values in meters above finished floor grade.																																
0.5 mile	<table><tr><td>N</td><td><u>61.0</u></td></tr><tr><td>NNE</td><td><u>61.0</u></td></tr><tr><td>NE</td><td><u>30.5</u></td></tr><tr><td>ENE</td><td><u>0.0</u></td></tr><tr><td>E</td><td>0.0</td></tr><tr><td>ESE</td><td>0.0</td></tr><tr><td>SE</td><td>0.0</td></tr><tr><td>SSE</td><td>0.0</td></tr><tr><td>S</td><td>0.0</td></tr><tr><td>SSW</td><td><u>1.5</u></td></tr><tr><td>SW</td><td>0.0</td></tr><tr><td>WSW</td><td><u>6.1</u></td></tr><tr><td>W</td><td><u>18.3</u></td></tr><tr><td>WNW</td><td><u>24.4</u></td></tr><tr><td>NW</td><td><u>54.9</u></td></tr><tr><td>NNW</td><td><u>61.0</u></td></tr></table>	N	<u>61.0</u>	NNE	<u>61.0</u>	NE	<u>30.5</u>	ENE	<u>0.0</u>	E	0.0	ESE	0.0	SE	0.0	SSE	0.0	S	0.0	SSW	<u>1.5</u>	SW	0.0	WSW	<u>6.1</u>	W	<u>18.3</u>	WNW	<u>24.4</u>	NW	<u>54.9</u>	NNW	<u>61.0</u>
N	<u>61.0</u>																																
NNE	<u>61.0</u>																																
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ENE	<u>0.0</u>																																
E	0.0																																
ESE	0.0																																
SE	0.0																																
SSE	0.0																																
S	0.0																																
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SW	0.0																																
WSW	<u>6.1</u>																																
W	<u>18.3</u>																																
WNW	<u>24.4</u>																																
NW	<u>54.9</u>																																
NNW	<u>61.0</u>																																



## Insert A (cont'd)

<u>0.75 mile</u>	<u>Values in meters above finished floor grade and dimensionless, respectively.</u>		
	<u>Sector</u>	<u>Height</u>	<u>RCF's</u>
	<u>N</u>	<u>91.4</u>	<u>1.05</u>
	<u>NNE</u>	<u>93.0</u>	<u>1.37</u>
	<u>NE</u>	<u>80.8</u>	<u>1.44</u>
	<u>ENE</u>	<u>0.0</u>	<u>1.47</u>
	<u>E</u>	<u>0.0</u>	<u>1.55</u>
	<u>ESE</u>	<u>0.0</u>	<u>1.43</u>
	<u>SE</u>	<u>0.0</u>	<u>1.09</u>
	<u>SSE</u>	<u>0.0</u>	<u>1.32</u>
	<u>S</u>	<u>18.3</u>	<u>1</u>
	<u>SSW</u>	<u>18.3</u>	<u>1.33</u>
	<u>SW</u>	<u>0.0</u>	<u>1</u>
	<u>WSW</u>	<u>12.2</u>	<u>1</u>
	<u>W</u>	<u>54.9</u>	<u>1.01</u>
	<u>WNW</u>	<u>91.4</u>	<u>1.19</u>
	<u>NW</u>	<u>85.3</u>	<u>1</u>
	<u>NNW</u>	<u>61.0</u>	<u>1</u>

## Insert A (cont'd)

1.0 mile	Values in meters above finished floor grade.	
	N	<u>97.5</u>
	NNE	109.7
	NE	103.6
	ENE	<u>42.7</u>
	E	0.0
	ESE	0.0
	SE	0.0
	SSE	0.0
	S	18.3
	SSW	18.3
	SW	<u>12.2</u>
	WSW	<u>24.4</u>
	W	<u>79.2</u>
	WNW	115.8
	NW	85.3
	NNW	<u>85.3</u>

## Insert A (cont'd)

<u>1.5 miles</u>	<u>Values in meters above finished floor grade and dimensionless, respectively.</u>		
	<u>Sector</u>	<u>Height</u>	<u>RCF's</u>
	<u>N</u>	<u>121.9</u>	<u>1.12</u>
	<u>NNE</u>	<u>109.7</u>	<u>1.32</u>
	<u>NE</u>	<u>103.6</u>	<u>1.31</u>
	<u>ENE</u>	<u>54.9</u>	<u>1.07</u>
	<u>E</u>	<u>0.0</u>	<u>1.21</u>
	<u>ESE</u>	<u>0.0</u>	<u>1.37</u>
	<u>SE</u>	<u>0.0</u>	<u>1</u>
	<u>SSE</u>	<u>0.0</u>	<u>1.32</u>
	<u>S</u>	<u>18.3</u>	<u>1</u>
	<u>SSW</u>	<u>18.3</u>	<u>1.21</u>
	<u>SW</u>	<u>12.2</u>	<u>1</u>
	<u>WSW</u>	<u>24.4</u>	<u>1</u>
	<u>W</u>	<u>115.8</u>	<u>1.07</u>
	<u>WNW</u>	<u>134.1</u>	<u>1.24</u>
	<u>NW</u>	<u>134.1</u>	<u>1</u>
	<u>NNW</u>	<u>91.4</u>	<u>1</u>



Insert A (cont'd)

2.0 miles	Values in meters above finished floor grade.	
	N	121.9
	NNE	109.7
	NE	103.6
	ENE	54.9
	E	0.0
	ESE	<u>0.0</u>
	SE	<u>0.0</u>
	SSE	<u>0.0</u>
	S	18.3
	SSW	<u>18.3</u>
	SW	<u>12.2</u>
	WSW	<u>24.4</u>
	W	<u>115.8</u>
	WNW	134.1
	NW	134.1
	NNW	<u>91.4</u>

Insert A (cont'd)

3.0 miles	Values in meters above finished floor grade.	
	N	<u>219.5</u>
	NNE	<u>207.3</u>
	NE	103.6
	ENE	<u>97.5</u>
	E	<u>140.2</u>
	ESE	<u>146.3</u>
	SE	<u>79.2</u>
	SSE	<u>79.2</u>
	S	<u>79.2</u>
	SSW	<u>67.1</u>
	SW	<u>12.2</u>
	WSW	<u>24.4</u>
	W	<u>152.4</u>
	WNW	134.1
	NW	237.7
	NNW	<u>213.4</u>

## Insert A (cont'd)

4.0 miles	Values in meters above finished floor grade.	
	N	<u>219.5</u>
	NNE	<u>207.3</u>
	NE	<u>103.6</u>
	ENE	<u>103.6</u>
	E	<u>146.3</u>
	ESE	<u>146.3</u>
	SE	<u>91.4</u>
	SSE	<u>91.4</u>
	S	<u>88.4</u>
	SSW	<u>67.1</u>
	SW	73.2
	WSW	<u>24.4</u>
	W	<u>152.4</u>
	WNW	<u>234.7</u>
	NW	<u>243.8</u>
	NNW	<u>213.4</u>



## Insert A (cont'd)

5.0 miles	Values in meters above finished floor grade.	
	N	243.8
	NNE	<u>207.3</u>
	NE	<u>115.8</u>
	ENE	<u>115.8</u>
	E	170.7
	ESE	<u>146.3</u>
	SE	<u>304.8</u>
	SSE	<u>310.9</u>
	S	<u>262.1</u>
	SSW	<u>67.1</u>
	SW	73.2
	WSW	<u>24.4</u>
	W	<u>152.4</u>
	WNW	<u>256.0</u>
	NW	280.4
	NNW	<u>243.8</u>

**Table 2.7-129— Design Input for AEOLUS3 Normal Effluent x/Q Runs**  
(Page 7 of 8)

Parameter	Value(s)			
50 miles	Values in meters above finished floor grade and dimensionless, respectively.			
	Sector	Height	RCF's	
	N	520.5	1	
	NNE	507.5	1	
	NE	460.5	1	
	ENE	460.5	1	
	E	420.5	1	
	ESE	420.5	1	
	SE	335.3	1	
	SSE	380.5	1	
	S	380.5	1	
	SSW	360.5	1	
	SW	360.5	1	
	WSW	340.5	1	
	W	380.5	1	
	WNW	500.5	1	
	NW	539.5	1	
	NNW	520.5	1	
Nearest Resident locations distance, terrain heights, and recirculation correction factors(RCF's) (in meters, meters above finished floor grade, and dimensionless, respectively).	Sector	Distance	Height	RCF's
	N	1254.	<del>109.7</del>	1.12
	NNE	1266.	<del>109.7</del>	1.32
	NE	1678.	103.6	1.31
	ENE	2892.	54.9	1.06
	E	2248.	0.0	1.21
	ESE	2281.	<del>30.5</del>	<del>1.09</del> <sup>1.21</sup>
	SE	1271.	0.0	1.00
	SSE	1620.	<del>36.6</del>	1.32
	S	1749.	18.3	1.00
	SSW	1675.	<del>30.5</del>	1.21
	SW	756.	0.0	1.00
	WSW	1019.	<del>36.6</del>	1.00
	W	596.	<del>36.6</del>	1.01
	WNW	852.	<del>115.8</del>	1.19
	NW	748.	<del>61.0</del>	1.00
	NNW	1291.	<del>103.6</del>	1.00

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1.37

**Table 2.7-129— Design Input for AEOLUS3 Normal Effluent x/Q Runs**  
(Page 8 of 8)

Parameter	Value(s)			
Nearest Garden locations distance, terrain heights, and recirculation correction factors(RCF's) (in meters, meters above finished floor grade, and dimensionless, respectively).	Sector	Distance	Height	RCF's
	N	833.	<del>109.7</del>	1.05
	NNE	1395.	<del>109.7</del>	1.32
	NE	2284.	103.6	1.31
	ENE	2785.	54.9	1.06
	E	2266.	0.0	1.21
	ESE	1786.	<del>30.5</del>	1.37
	SE	1467.	0.0	1.00
	SSE	1619.	<del>36.6</del>	1.32
	S	811.	18.3	1.00
	SSW	408.	0.0	1.33
	SW	454.	0.0	1.00
	WSW	596.	<del>18.3</del>	1.00
	W	819.	<del>115.8</del>	1.01
	WNW	1424.	115.8	1.24
Nearest Milk Animal locations distance, terrain heights, and recirculation correction factors (RCF's)(in meters, meters above finished floor grade, and dimensionless, respectively).	NW	730.	<del>61.0</del>	1.00
	NNW	1338.	<del>103.6</del>	1.00
	Sector	Distance	Height	RCF's
	S	4855.	<del>91.4</del>	1.00
	SSW	1191.	18.3	1.33
Nearest Hypothetical Meat Animal locations distance, terrain heights, and recirculation correction factors (RCF's)(in meters, meters above finished floor grade, and dimensionless, respectively).	W	6492.	<del>256.0</del>	1.00
	WNW	6469.	<del>280.4</del>	1.00
	NNW	6388.	<del>237.7</del>	1.00
	Sector	Distance	Height	RCF's
	N	804.	<del>73.2</del>	1.05
	NNE	824.	<del>109.7</del>	1.37
	NE	994.	<del>103.6</del>	1.44
	ENE	2208.	<del>54.9</del>	1.07
	E	2154.	0.0	1.21
	ESE	1786.	<del>30.5</del>	1.37
	SE	938.	0.0	1.09
	SSE	819.	0.0	1.32
	S	799.	0.0	1.00
	SSW	918.	<del>18.3</del>	1.33
	SW	628.	0.0	1.00
	WSW	537.	<del>18.3</del>	1.00
	W	534.	<del>36.6</del>	1.01
	WNW	545.	<del>36.6</del>	1.19
	NW	656.	<del>61.0</del>	1.00
	NNW	806.	<del>103.6</del>	1.00



## Insert B

Nearest Resident terrain heights (in meters above finished floor grade).	N	<u>93.0</u>
	NNE	<u>97.8</u>
	NE	103.6
	ENE	54.9
	E	0.0
	ESE	<u>0.0</u>
	SE	0.0
	SSE	<u>0.0</u>
	S	18.3
	SSW	<u>18.3</u>
	SW	0.0
	WSW	<u>4.6</u>
	W	<u>18.3</u>
	WNW	<u>48.8</u>
	NW	<u>36.6</u>
	NNW	<u>54.9</u>

## Insert B (cont'd)

Nearest Garden locations terrain heights (in meters above finished floor grade).	N	<u>67.1</u>
	NNE	<u>106.7</u>
	NE	103.6
	ENE	54.9
	E	0.0
	ESE	<u>0.0</u>
	SE	0.0
	SSE	<u>0.0</u>
	S	0.0
	SSW	0.0
	SW	0.0
	WSW	<u>0.0</u>
	W	<u>18.3</u>
	WNW	115.8
	NW	<u>36.6</u>
	NNW	<u>57.9</u>
Nearest Milk Animal locations terrain heights (in meters above finished floor grade).	S	<u>79.2</u>
	SSW	18.3
	W	<u>158.5</u>
	WNW	<u>237.7</u>
	NNW	<u>228.6</u>

## Insert B (cont'd)

Nearest hypothetical Meat Animal locations terrain heights (in meters above finished floor grade).	N	<u>67.1</u>
	NNE	<u>62.5</u>
	NE	<u>42.7</u>
	ENE	<u>48.8</u>
	E	0.0
	ESE	<u>0.0</u>
	SE	0.0
	SSE	0.0
	S	0.0
	SSW	<u>9.1</u>
	SW	0.0
	WSW	<u>0.0</u>
	W	<u>18.3</u>
	WNW	<u>18.3</u>
	NW	<u>18.3</u>
	NNW	<u>61.0</u>

**Table 2.7-130— Normal Effluent Annual Average, Undecayed, Undepleted  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for a Mixed Mode Release With Building Wake from 0.5 to 5 Miles**

SECTOR	0.5	0.75	1	1.5	2	2.5	3	3.5	4	4.5	5
N	1.757E-06	1.339E-06	8.982E-07	4.803E-07	3.641E-07	2.616E-07	1.809E-07	1.438E-07	1.062E-07	8.936E-08	7.095E-08
NNE	2.277E-06	1.625E-06	9.828E-07	5.188E-07	3.055E-07	2.195E-07	1.749E-07	1.388E-07	1.057E-07	8.878E-08	6.958E-08
NE	1.120E-06	1.530E-06	8.746E-07	4.596E-07	2.621E-07	1.858E-07	1.274E-07	1.013E-07	8.826E-08	7.393E-08	5.588E-08
ENE	4.780E-07	5.145E-07	2.598E-07	1.496E-07	9.861E-08	7.909E-08	5.799E-08	4.596E-08	3.819E-08	3.191E-08	2.590E-08
E	2.480E-07	1.486E-07	8.417E-08	5.514E-08	3.628E-08	4.694E-08	3.437E-08	2.708E-08	2.331E-08	1.946E-08	1.508E-08
ESE	1.769E-07	1.069E-07	7.518E-08	6.885E-08	4.130E-08	3.946E-08	2.818E-08	2.219E-08	2.164E-08	1.805E-08	1.362E-08
SE	2.317E-07	1.395E-07	9.295E-08	8.608E-08	5.914E-08	5.328E-08	4.016E-08	3.164E-08	2.577E-08	2.157E-08	1.836E-08
SSE	3.050E-07	1.842E-07	1.342E-07	1.270E-07	7.427E-08	6.693E-08	5.373E-08	4.258E-08	2.977E-08	2.496E-08	2.210E-08
S	2.607E-07	1.894E-07	1.493E-07	1.050E-07	7.903E-08	1.011E-07	7.670E-08	6.100E-08	4.992E-08	4.212E-08	3.597E-08
SSW	5.075E-07	3.521E-07	2.590E-07	2.430E-07	1.721E-07	2.173E-07	1.625E-07	1.328E-07	1.103E-07	9.500E-08	7.398E-08
SW	4.838E-07	3.002E-07	2.389E-07	1.859E-07	1.542E-07	2.169E-07	1.807E-07	2.575E-07	2.146E-07	1.828E-07	1.584E-07
WSW	8.746E-07	5.828E-07	5.006E-07	2.103E-06	1.391E-06	1.054E-06	8.140E-07	6.558E-07	5.450E-07	4.634E-07	4.014E-07
W	2.179E-07	2.916E-06	1.930E-06	1.030E-06	6.247E-07	4.534E-07	3.477E-07	2.785E-07	2.362E-07	1.950E-07	1.681E-07
WNW	1.765E-07	1.789E-06	1.170E-06	6.329E-07	3.292E-07	2.358E-07	1.802E-07	1.446E-07	1.191E-07	1.004E-07	8.635E-08
NW	6.578E-07	1.175E-06	7.514E-07	4.378E-07	2.815E-07	2.024E-07	1.555E-07	1.237E-07	1.006E-07	8.467E-08	7.264E-08
NNW	1.240E-06	1.020E-06	6.440E-07	3.503E-07	2.258E-07	1.631E-07	1.241E-07	9.873E-08	8.111E-08	6.826E-08	5.856E-08

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SECTOR	0.5	0.75	1	1.5	2	2.5	3	3.5	4	4.5	5
N	<u>9.790E-07</u>	<u>1.282E-06</u>	<u>8.798E-07</u>	<u>4.803E-07</u>	<u>3.641E-07</u>	<u>2.616E-07</u>	<u>1.809E-07</u>	<u>1.438E-07</u>	<u>1.062E-07</u>	<u>8.936E-08</u>	<u>7.095E-08</u>
NNE	<u>1.419E-06</u>	<u>1.565E-06</u>	<u>9.828E-07</u>	<u>5.188E-07</u>	<u>3.055E-07</u>	<u>2.195E-07</u>	<u>1.749E-07</u>	<u>1.388E-07</u>	<u>1.057E-07</u>	<u>8.878E-08</u>	<u>6.958E-08</u>
NE	<u>9.185E-07</u>	<u>1.431E-06</u>	<u>8.746E-07</u>	<u>4.596E-07</u>	<u>2.621E-07</u>	<u>1.858E-07</u>	<u>1.274E-07</u>	<u>1.008E-07</u>	<u>8.788E-08</u>	<u>7.378E-08</u>	<u>5.579E-08</u>
ENE	<u>4.617E-07</u>	<u>2.716E-07</u>	<u>2.222E-07</u>	<u>1.496E-07</u>	<u>9.861E-08</u>	<u>7.889E-08</u>	<u>5.787E-08</u>	<u>4.576E-08</u>	<u>3.805E-08</u>	<u>3.185E-08</u>	<u>2.586E-08</u>
E	<u>2.480E-07</u>	<u>1.486E-07</u>	<u>8.417E-08</u>	<u>5.514E-08</u>	<u>3.628E-08</u>	<u>4.693E-08</u>	<u>3.437E-08</u>	<u>2.708E-08</u>	<u>2.331E-08</u>	<u>1.946E-08</u>	<u>1.508E-08</u>
ESE	<u>1.769E-07</u>	<u>1.069E-07</u>	<u>7.518E-08</u>	<u>4.983E-08</u>	<u>3.146E-08</u>	<u>3.945E-08</u>	<u>2.817E-08</u>	<u>2.218E-08</u>	<u>2.163E-08</u>	<u>1.804E-08</u>	<u>1.362E-08</u>
SE	<u>2.317E-07</u>	<u>1.395E-07</u>	<u>9.295E-08</u>	<u>6.034E-08</u>	<u>4.397E-08</u>	<u>5.233E-08</u>	<u>3.957E-08</u>	<u>3.149E-08</u>	<u>2.566E-08</u>	<u>2.157E-08</u>	<u>1.836E-08</u>
SSE	<u>3.050E-07</u>	<u>1.842E-07</u>	<u>1.342E-07</u>	<u>8.764E-08</u>	<u>5.441E-08</u>	<u>6.651E-08</u>	<u>5.345E-08</u>	<u>4.252E-08</u>	<u>2.973E-08</u>	<u>2.496E-08</u>	<u>2.210E-08</u>
S	<u>2.607E-07</u>	<u>1.894E-07</u>	<u>1.493E-07</u>	<u>1.050E-07</u>	<u>7.903E-08</u>	<u>1.000E-07</u>	<u>7.602E-08</u>	<u>6.092E-08</u>	<u>4.985E-08</u>	<u>4.212E-08</u>	<u>3.597E-08</u>
SSW	<u>5.086E-07</u>	<u>3.521E-07</u>	<u>2.590E-07</u>	<u>1.946E-07</u>	<u>1.423E-07</u>	<u>2.082E-07</u>	<u>1.566E-07</u>	<u>1.259E-07</u>	<u>1.052E-07</u>	<u>8.903E-08</u>	<u>6.973E-08</u>
SW	<u>4.838E-07</u>	<u>2.681E-07</u>	<u>2.178E-07</u>	<u>1.653E-07</u>	<u>1.374E-07</u>	<u>1.173E-07</u>	<u>1.017E-07</u>	<u>2.575E-07</u>	<u>2.146E-07</u>	<u>1.828E-07</u>	<u>1.584E-07</u>
WSW	<u>8.691E-07</u>	<u>4.477E-07</u>	<u>3.689E-07</u>	<u>2.881E-07</u>	<u>2.482E-07</u>	<u>2.188E-07</u>	<u>1.948E-07</u>	<u>1.749E-07</u>	<u>1.584E-07</u>	<u>1.445E-07</u>	<u>1.326E-07</u>
W	<u>1.800E-07</u>	<u>5.877E-07</u>	<u>1.693E-06</u>	<u>1.026E-06</u>	<u>6.229E-07</u>	<u>4.531E-07</u>	<u>3.475E-07</u>	<u>2.783E-07</u>	<u>2.301E-07</u>	<u>1.948E-07</u>	<u>1.680E-07</u>
WNW	<u>1.433E-07</u>	<u>1.687E-06</u>	<u>1.170E-06</u>	<u>6.329E-07</u>	<u>3.292E-07</u>	<u>2.358E-07</u>	<u>1.802E-07</u>	<u>1.446E-07</u>	<u>1.191E-07</u>	<u>1.004E-07</u>	<u>8.635E-08</u>
NW	<u>4.518E-07</u>	<u>1.175E-06</u>	<u>7.514E-07</u>	<u>4.378E-07</u>	<u>2.815E-07</u>	<u>2.024E-07</u>	<u>1.555E-07</u>	<u>1.237E-07</u>	<u>1.006E-07</u>	<u>8.467E-08</u>	<u>7.264E-08</u>
NNW	<u>6.274E-07</u>	<u>4.879E-07</u>	<u>6.127E-07</u>	<u>3.367E-07</u>	<u>2.191E-07</u>	<u>1.631E-07</u>	<u>1.241E-07</u>	<u>9.873E-08</u>	<u>8.111E-08</u>	<u>6.826E-08</u>	<u>5.856E-08</u>



BBNPP RAI 101,  
Question 11.03-2Owner Controlled Area  
(OCA) Boundary

Meteorology and Air Quality

**Table 2.7-132— Normal Effluent Annual Average, Undecayed, Undepleted  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake for Site Boundary Receptors**

DOWNWIND SECTOR	Distance (m)	$\chi/Q$ ( $\text{sec}/\text{m}^3$ ) <del>Site Boundary</del>
N	418.4	3.495E-06
NNE	425.5	4.875E-06
NE	506.8	1.835E-06
ENE	518.8	8.727E-07
E	478.1	5.118E-07
ESE	322.7	7.094E-07
SE	270.1	1.283E-06
SSE	263.0	1.785E-06
S	263.0	1.557E-06
SSW	267.7	3.072E-06
SW	267.7	3.133E-06
WSW	251.0	6.781E-06
W	239.1	1.368E-06
WNW	239.1	9.671E-07
NW	243.8	1.229E-06
NNW	358.6	2.456E-06

**Table 2.7-133— Normal Effluent Annual Average, Undecayed, Undepleted  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for a Mixed Mode Release With Building Wake for Nearest Residents**

SECTOR	DISTANCE (m)	$\chi/Q$ Values ( $\text{sec}/\text{m}^3$ )
N	1254	<del>1.343E-06</del>
NNE	1266	<del>1.449E-06</del>
NE	1678	8.178E-07
ENE	2892	1.148E-07
E	2248	5.937E-08
ESE	2281	<del>7.359E-08</del>
SE	1271	<del>1.207E-07</del>
SSE	1620	<del>2.047E-07</del>
S	1749	<del>1.393E-07</del>
SSW	1675	<del>3.217E-07</del>
SW	756	5.312E-07
WSW	1019	<del>6.793E-07</del>
W	596	<del>3.019E-07</del>
WNW	852	<del>3.234E-06</del>
NW	748	<del>6.697E-07</del>
NNW	1291	<del>9.154E-07</del>

Insert E

BBNPP RAI 101,  
Question  
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**Table 2.7-134— Normal Effluent Annual Average, Undecayed, Undepleted  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake for Nearest Gardens**

SECTOR	DISTANCE (m)	$\chi/Q$ Values ( $\text{sec}/\text{m}^3$ )
N	833	<del>2.489E-06</del>
NNE	1395	<del>1.237E-06</del>
NE	2284	5.014E-07
ENE	2785	1.211E-07
E	2266	5.888E-08
ESE	1786	<del>9.678E-08</del>
SE	1467	1.028E-07
SSE	1619	<del>2.048E-07</del>
S	811	<del>2.784E-07</del>
SSW	408	1.472E-06
SW	454	1.239E-06
WSW	596	<del>1.465E-06</del>
W	819	<del>1.423E-06</del>
WNW	1424	1.423E-06
NW	730	<del>6.729E-07</del>
NNW	1338	<del>8.640E-07</del>

**Table 2.7-135— Normal Effluent Annual Average, Undecayed, Undepleted  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake for Nearest Milk Animals**

SECTOR	DISTANCE (m)	$\chi/Q$ Values ( $\text{sec}/\text{m}^3$ ) Nearest Milk Animals
S	4855	<del>7.634E-08</del>
SSW	1191	3.564E-07
W	6492	<del>2.275E-07</del>
WNW	6469	1.182E-07
NNW	6388	8.201E-08

**Table 2.7-136— Normal Effluent Annual Average, Undecayed, Undepleted  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake for Nearest Hypothetical Meat Animals**

SECTOR	DISTANCE (m)	$\chi/Q$ Values ( $\text{sec}/\text{m}^3$ ) Nearest Hypothetical Meat Animals
N	804	<del>1.760E-06</del>
NNE	824	<del>3.075E-06</del>
NE	994	<del>2.112E-06</del>
ENE	2208	<del>1.693E-07</del>
E	2154	6.205E-08
ESE	1786	<del>9.678E-08</del>
SE	938	1.900E-07
SSE	819	2.982E-07
S	799	2.632E-07
SSW	918	<del>4.597E-07</del>
SW	628	7.178E-07
WSW	537	<del>1.759E-06</del>
W	534	<del>3.555E-07</del>
WNW	545	<del>2.558E-07</del>
NW	656	<del>6.870E-07</del>
NNW	806	<del>1.998E-06</del>



## Insert E

## Residents

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
N	1254	<u>1.293E-06</u>
NNE	1266	<u>1.417E-06</u>
NE	1678	8.178E-07
ENE	2892	1.148E-07
E	2248	5.937E-08
ESE	2281	<u>5.279E-08</u>
SE	1271	<u>1.207E-07</u>
SSE	1620	<u>1.332E-07</u>
S	1749	<u>1.393E-07</u>
SSW	1675	<u>2.520E-07</u>
SW	756	5.312E-07
WSW	1019	<u>5.792E-07</u>
W	596	<u>2.862E-07</u>
WNW	852	<u>3.025E-07</u>
NW	748	<u>2.134E-07</u>
NNW	1291	<u>3.641E-07</u>

## Insert E (cont'd)

## Gardens

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
N	833	<u>1.289E-06</u>
NNE	1395	<u>1.232E-06</u>
NE	2284	5.014E-07
ENE	2785	1.211E-07
E	2266	5.888E-08
ESE	1786	<u>6.758E-08</u>
SE	1467	1.028E-07
SSE	1619	<u>1.333E-07</u>
S	811	<u>2.582E-07</u>
SSW	408	1.472E-06
SW	454	1.239E-06
WSW	596	<u>1.460E-06</u>
W	819	<u>1.758E-07</u>
WNW	1424	1.423E-06
NW	730	<u>2.169E-07</u>
NNW	1338	<u>3.986E-07</u>

Insert E (cont'd)

## Milk Animals

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
S	4855	<u>7.536E-08</u>
SSW	1191	3.564E-07
W	6492	<u>2.274E-07</u>
WNW	6469	1.182E-07
NNW	6388	8.201E-08

Insert E (cont'd)

## Hypothetical Meat Animals

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
N	804	<u>1.330E-06</u>
NNE	824	<u>1.483E-06</u>
NE	994	<u>9.226E-07</u>
ENE	2208	<u>1.600E-07</u>
E	2154	6.205E-08
ESE	1786	<u>6.758E-08</u>
SE	938	1.900E-07
SSE	819	2.982E-07
S	799	2.632E-07
SSW	918	<u>4.381E-07</u>
SW	628	7.178E-07
WSW	537	<u>1.755E-06</u>
W	534	<u>3.431E-07</u>
WNW	545	<u>2.409E-07</u>
NW	656	<u>2.112E-07</u>
NNW	806	<u>6.270E-07</u>

**Table 2.7-137— Normal Effluent Annual Average, Decayed, Depleted  $\chi$ Q Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake from 0.5 to 5 Miles**

SECTOR	0.5	0.75	1	1.5	2	2.5	3	3.5	4	4.5	5
N	1.729E-06	1.314E-06	8.760E-07	4.592E-07	3.448E-07	2.140E-07	1.451E-07	1.134E-07	8.245E-08	6.806E-08	5.328E-08
NNE	2.233E-06	1.583E-06	9.504E-07	4.955E-07	2.888E-07	1.791E-07	1.400E-07	1.092E-07	8.182E-08	6.770E-08	5.233E-08
NE	1.058E-06	1.467E-06	8.296E-07	4.282E-07	2.407E-07	1.685E-07	1.143E-07	8.004E-08	6.864E-08	5.644E-08	4.207E-08
ENE	4.402E-07	4.860E-07	2.435E-07	1.381E-07	8.983E-08	7.039E-08	5.097E-08	3.760E-08	3.081E-08	2.469E-08	1.977E-08
E	2.274E-07	1.342E-07	7.569E-08	4.938E-08	3.232E-08	3.970E-08	2.860E-08	2.158E-08	1.830E-08	1.505E-08	1.151E-08
ESE	1.621E-07	9.661E-08	6.773E-08	6.328E-08	3.754E-08	3.326E-08	2.335E-08	1.767E-08	1.697E-08	1.373E-08	1.022E-08
SE	2.122E-07	1.259E-07	8.357E-08	7.893E-08	5.355E-08	4.686E-08	3.485E-08	2.713E-08	2.184E-08	1.632E-08	1.369E-08
SSE	2.795E-07	1.663E-07	1.208E-07	1.167E-07	6.744E-08	5.992E-08	4.752E-08	3.702E-08	2.560E-08	1.889E-08	1.648E-08
S	2.392E-07	1.741E-07	1.376E-07	9.667E-08	7.244E-08	9.351E-08	7.031E-08	5.535E-08	4.493E-08	3.188E-08	2.684E-08
SSW	4.654E-07	3.221E-07	2.381E-07	2.278E-07	1.608E-07	2.059E-07	1.530E-07	1.243E-07	1.027E-07	7.272E-08	5.584E-08
SW	4.430E-07	2.728E-07	2.181E-07	1.713E-07	1.426E-07	2.066E-07	1.717E-07	2.488E-07	2.067E-07	1.755E-07	1.516E-07
WSW	8.000E-07	5.362E-07	4.659E-07	2.078E-06	1.371E-06	9.069E-07	6.901E-07	5.487E-07	4.501E-07	3.780E-07	3.235E-07
W	2.035E-07	2.897E-06	1.915E-06	1.012E-06	6.115E-07	3.997E-07	3.027E-07	2.396E-07	1.959E-07	1.484E-07	1.262E-07
WNW	1.659E-07	1.775E-06	1.158E-06	6.094E-07	3.146E-07	2.238E-07	1.700E-07	1.141E-07	9.251E-08	7.648E-08	6.484E-08
NW	6.450E-07	1.164E-06	7.425E-07	4.187E-07	2.667E-07	1.659E-07	1.251E-07	9.755E-08	7.809E-08	6.444E-08	5.452E-08
NNW	1.225E-06	1.007E-06	6.328E-07	3.382E-07	2.162E-07	1.335E-07	9.967E-08	7.790E-08	6.298E-08	5.190E-08	4.390E-08

Insert M

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Insert M

SECTOR	0.5	0.75	1	1.5	2	2.5	3	3.5	4	4.5	5
N	<u>9.522E-07</u>	<u>1.260E-06</u>	<u>8.600E-07</u>	<u>4.592E-07</u>	<u>3.448E-07</u>	<u>2.142E-07</u>	<u>1.453E-07</u>	<u>1.135E-07</u>	<u>8.257E-08</u>	<u>6.806E-08</u>	<u>5.328E-08</u>
NNE	<u>1.377E-06</u>	<u>1.530E-06</u>	<u>9.504E-07</u>	<u>4.955E-07</u>	<u>2.888E-07</u>	<u>1.798E-07</u>	<u>1.406E-07</u>	<u>1.096E-07</u>	<u>8.218E-08</u>	<u>6.800E-08</u>	<u>5.257E-08</u>
NE	<u>8.578E-07</u>	<u>1.378E-06</u>	<u>8.296E-07</u>	<u>4.282E-07</u>	<u>2.407E-07</u>	<u>1.685E-07</u>	<u>1.143E-07</u>	<u>8.958E-08</u>	<u>7.738E-08</u>	<u>6.359E-08</u>	<u>4.763E-08</u>
ENE	<u>4.241E-07</u>	<u>2.454E-07</u>	<u>2.068E-07</u>	<u>1.381E-07</u>	<u>8.983E-08</u>	<u>7.041E-08</u>	<u>5.102E-08</u>	<u>3.977E-08</u>	<u>3.272E-08</u>	<u>2.683E-08</u>	<u>2.156E-08</u>
E	<u>2.274E-07</u>	<u>1.342E-07</u>	<u>7.569E-08</u>	<u>4.938E-08</u>	<u>3.232E-08</u>	<u>4.039E-08</u>	<u>2.914E-08</u>	<u>2.243E-08</u>	<u>1.905E-08</u>	<u>1.505E-08</u>	<u>1.151E-08</u>
ESE	<u>1.621E-07</u>	<u>9.661E-08</u>	<u>6.773E-08</u>	<u>4.474E-08</u>	<u>2.809E-08</u>	<u>3.351E-08</u>	<u>2.355E-08</u>	<u>1.827E-08</u>	<u>1.757E-08</u>	<u>1.447E-08</u>	<u>1.079E-08</u>
SE	<u>2.122E-07</u>	<u>1.259E-07</u>	<u>8.357E-08</u>	<u>5.395E-08</u>	<u>3.904E-08</u>	<u>4.675E-08</u>	<u>3.490E-08</u>	<u>2.731E-08</u>	<u>2.201E-08</u>	<u>1.633E-08</u>	<u>1.370E-08</u>
SSE	<u>2.795E-07</u>	<u>1.663E-07</u>	<u>1.208E-07</u>	<u>7.847E-08</u>	<u>4.840E-08</u>	<u>5.968E-08</u>	<u>4.738E-08</u>	<u>3.708E-08</u>	<u>2.566E-08</u>	<u>1.889E-08</u>	<u>1.649E-08</u>
S	<u>2.392E-07</u>	<u>1.741E-07</u>	<u>1.376E-07</u>	<u>9.667E-08</u>	<u>7.244E-08</u>	<u>9.266E-08</u>	<u>6.980E-08</u>	<u>5.533E-08</u>	<u>4.493E-08</u>	<u>3.192E-08</u>	<u>2.688E-08</u>
SSW	<u>4.665E-07</u>	<u>3.221E-07</u>	<u>2.381E-07</u>	<u>1.798E-07</u>	<u>1.314E-07</u>	<u>1.971E-07</u>	<u>1.474E-07</u>	<u>1.178E-07</u>	<u>9.790E-08</u>	<u>8.242E-08</u>	<u>6.423E-08</u>
SW	<u>4.430E-07</u>	<u>2.407E-07</u>	<u>1.970E-07</u>	<u>1.508E-07</u>	<u>1.259E-07</u>	<u>1.076E-07</u>	<u>9.325E-08</u>	<u>2.488E-07</u>	<u>2.067E-07</u>	<u>1.755E-07</u>	<u>1.516E-07</u>
WSW	<u>7.945E-07</u>	<u>4.011E-07</u>	<u>3.342E-07</u>	<u>2.644E-07</u>	<u>2.294E-07</u>	<u>2.029E-07</u>	<u>1.809E-07</u>	<u>1.626E-07</u>	<u>1.473E-07</u>	<u>1.343E-07</u>	<u>1.233E-07</u>
W	<u>1.657E-07</u>	<u>5.779E-07</u>	<u>1.685E-06</u>	<u>1.015E-06</u>	<u>6.144E-07</u>	<u>4.081E-07</u>	<u>3.097E-07</u>	<u>2.457E-07</u>	<u>2.011E-07</u>	<u>1.685E-07</u>	<u>1.439E-07</u>
WNW	<u>1.327E-07</u>	<u>1.678E-06</u>	<u>1.158E-06</u>	<u>6.094E-07</u>	<u>3.146E-07</u>	<u>2.238E-07</u>	<u>1.700E-07</u>	<u>1.144E-07</u>	<u>9.275E-08</u>	<u>7.680E-08</u>	<u>6.511E-08</u>
NW	<u>4.391E-07</u>	<u>1.164E-06</u>	<u>7.425E-07</u>	<u>4.187E-07</u>	<u>2.667E-07</u>	<u>1.659E-07</u>	<u>1.251E-07</u>	<u>9.764E-08</u>	<u>7.816E-08</u>	<u>6.444E-08</u>	<u>5.452E-08</u>
NNW	<u>6.124E-07</u>	<u>4.770E-07</u>	<u>6.029E-07</u>	<u>3.289E-07</u>	<u>2.128E-07</u>	<u>1.343E-07</u>	<u>1.002E-07</u>	<u>7.837E-08</u>	<u>6.337E-08</u>	<u>5.216E-08</u>	<u>4.413E-08</u>

**BBNPP RAI 101,  
Question 11.03-2****Owner Controlled Area  
(OCA) Boundary****Table 2.7-139— Normal Effluent Annual Average, Decayed, Depleted  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake for Site Boundary Receptors**

DOWNWIND SECTOR	Distance (m)	$\chi/Q$ ( $\text{sec}/\text{m}^3$ ) Site Boundary
N	418.4	3.445E-06
NNE	425.5	4.799E-06
NE	506.8	1.744E-06
ENE	518.8	8.194E-07
E	478.1	4.813E-07
ESE	322.7	6.774E-07
SE	270.1	1.232E-06
SSE	263.0	1.716E-06
S	263.0	1.497E-06
SSW	267.7	2.953E-06
SW	267.7	3.010E-06
WSW	251.0	6.529E-06
W	239.1	1.320E-06
WNW	239.1	9.330E-07
NW	243.8	1.191E-06
NNW	358.6	2.424E-06

**Table 2.7-140— Normal Effluent Annual Average, Decayed, Depleted  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake for Nearest Residents**

SECTOR	DISTANCE (m)	$\chi/Q$ Values ( $\text{sec}/\text{m}^3$ )
N	1254	<del>1.32E-06</del>
NNE	1266	<del>1.41E-06</del>
NE	1678	<del>7.74E-07</del>
ENE	2892	<del>1.05E-07</del>
E	2248	<del>5.32E-08</del>
ESE	2281	<del>6.78E-08</del>
SE	1271	<del>1.09E-07</del>
SSE	1620	<del>1.90E-07</del>
S	1749	<del>1.29E-07</del>
SSW	1675	<del>3.01E-07</del>
SW	756	<del>4.88E-07</del>
WSW	1019	<del>6.22E-07</del>
W	596	<del>2.83E-07</del>
WNW	852	<del>3.22E-06</del>
NW	748	<del>6.56E-07</del>
NNW	1291	<del>9.02E-07</del>

Insert G

BBNPP RAI 101,  
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**Table 2.7-141— Normal Effluent Annual Average, Decayed, Depleted  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake for Nearest Gardens**

SECTOR	DISTANCE (m)	$\chi/Q$ Values ( $\text{sec}/\text{m}^3$ )
N	833	2.46E-06
NNE	1395	1.20E-06
NE	2284	4.68E-07
ENE	2785	1.11E-07
E	2266	5.28E-08
ESE	1786	8.97E-08
SE	1467	9.25E-08
SSE	1619	1.91E-07
S	811	2.57E-07
SSW	408	1.39E-06
SW	454	1.17E-06
WSW	596	1.36E-06
W	819	5.70E-06
WNW	1424	1.41E-06
NW	730	6.59E-07
NNW	1338	8.51E-07

**Table 2.7-142— Normal Effluent Annual Average, Decayed, Depleted  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake for Nearest Milk Animals**

SECTOR	DISTANCE (m)	$\chi/Q$ Values ( $\text{sec}/\text{m}^3$ )
S	4855	6.98E-08
SSW	1191	3.26E-07
W	6492	1.76E-07
WNW	6469	9.13E-08
NNW	6388	6.37E-08



**Table 2.7-143— Normal Effluent Annual Average, Decayed, Depleted  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake for Nearest Hypothetical Meat Animals**

DOWNWIND SECTOR	DISTANCE (m)	$\chi/Q$ Values ( $\text{sec}/\text{m}^3$ ) Nearest Hypothetical Meat Animals
N	804	<del>1.73E-06</del>
NNE	824	<del>3.02E-06</del>
NE	994	<del>2.04E-06</del>
ENE	2208	<del>1.57E-07</del>
E	2154	<del>5.57E-08</del>
ESE	1786	<del>8.97E-08</del>
SE	938	<del>1.73E-07</del>
SSE	819	<del>2.73E-07</del>
S	799	<del>2.42E-07</del>
SSW	918	<del>4.21E-07</del>
SW	628	<del>6.66E-07</del>
WSW	537	<del>1.64E-06</del>
W	534	<del>3.34E-07</del>
WNW	545	<del>2.41E-07</del>
NW	656	<del>6.72E-07</del>
NNW	806	<del>1.98E-06</del>

Insert G

Residents

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
N	1254	<u>1.270E-06</u>
NNE	1266	<u>1.382E-06</u>
NE	1678	<u>7.743E-07</u>
ENE	2892	<u>1.052E-07</u>
E	2248	<u>5.322E-08</u>
ESE	2281	<u>4.743E-08</u>
SE	1271	<u>1.088E-07</u>
SSE	1620	<u>1.199E-07</u>
S	1749	<u>1.285E-07</u>
SSW	1675	<u>2.318E-07</u>
SW	756	<u>4.881E-07</u>
WSW	1019	<u>5.219E-07</u>
W	596	<u>2.670E-07</u>
WNW	852	<u>2.923E-07</u>
NW	748	<u>2.003E-07</u>
NNW	1291	<u>3.540E-07</u>

Insert G (cont'd)

Gardens

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
N	833	<u>1.262E-06</u>
NNE	1395	<u>1.197E-06</u>
NE	2284	<u>4.684E-07</u>
ENE	2785	<u>1.112E-07</u>
E	2266	<u>5.277E-08</u>
ESE	1786	<u>6.084E-08</u>
SE	1467	<u>9.248E-08</u>
SSE	1619	<u>1.200E-07</u>
S	811	<u>2.369E-07</u>
SSW	408	<u>1.394E-06</u>
SW	454	<u>1.168E-06</u>
WSW	596	<u>1.357E-06</u>
W	819	<u>1.617E-07</u>
WNW	1424	<u>1.410E-06</u>
NW	730	<u>2.035E-07</u>
NNW	1338	<u>3.888E-07</u>

Insert G (cont'd)

Milk Animals

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
S	4855	<u>6.918E-08</u>
SSW	1191	<u>3.260E-07</u>
W	6492	<u>1.933E-07</u>
WNW	6469	<u>9.195E-08</u>
NNW	6388	<u>6.389E-08</u>

## Insert G (cont'd)

## Hypothetical Meat Animals

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
N	804	<u>1.303E-06</u>
NNE	824	<u>1.442E-06</u>
NE	994	<u>8.704E-07</u>
ENE	2208	<u>1.479E-07</u>
E	2154	<u>5.565E-08</u>
ESE	1786	<u>6.084E-08</u>
SE	938	<u>1.727E-07</u>
SSE	819	<u>2.731E-07</u>
S	799	<u>2.416E-07</u>
SSW	918	<u>3.998E-07</u>
SW	628	<u>6.662E-07</u>
WSW	537	<u>1.639E-06</u>
W	534	<u>3.216E-07</u>
WNW	545	<u>2.259E-07</u>
NW	656	<u>1.965E-07</u>
NNW	806	<u>6.120E-07</u>



**Table 2.7-144— Normal Effluent Annual Average, Undecayed, Undepleted Gamma  $\gamma$ /Q Values (sec/m<sup>3</sup>) for Mixed Mode Release With Building Wake from 0.5 to 5 Miles**

SECTOR	0.5	0.75	1	1.5	2	2.5	3	3.5	4	4.5	5
N	7.959E-07	5.549E-07	4.141E-07	2.506E-07	2.052E-07	1.552E-07	1.117E-07	9.160E-08	6.943E-08	5.964E-08	4.820E-08
NNE	1.043E-06	7.095E-07	4.761E-07	2.845E-07	1.805E-07	1.362E-07	1.129E-07	9.238E-08	7.216E-08	6.187E-08	4.935E-08
NE	8.878E-07	7.363E-07	4.624E-07	2.725E-07	1.666E-07	1.239E-07	8.805E-08	7.195E-08	6.418E-08	5.481E-08	4.211E-08
ENE	3.714E-07	3.167E-07	1.638E-07	9.939E-08	6.839E-08	5.416E-08	4.119E-08	3.355E-08	2.854E-08	2.431E-08	2.006E-08
E	1.960E-07	1.273E-07	7.341E-08	4.754E-08	3.089E-08	3.190E-08	2.427E-08	1.970E-08	1.737E-08	1.479E-08	1.165E-08
ESE	1.411E-07	9.212E-08	6.541E-08	5.106E-08	3.101E-08	2.709E-08	2.010E-08	1.631E-08	1.630E-08	1.387E-08	1.065E-08
SE	1.762E-07	1.146E-07	7.757E-08	6.125E-08	4.321E-08	3.641E-08	2.850E-08	2.313E-08	1.929E-08	1.645E-08	1.424E-08
SSE	2.359E-07	1.535E-07	1.133E-07	9.015E-08	5.399E-08	4.527E-08	3.771E-08	3.073E-08	2.199E-08	1.879E-08	1.692E-08
S	2.403E-07	1.846E-07	1.379E-07	9.010E-08	6.578E-08	6.546E-08	5.154E-08	4.216E-08	3.533E-08	3.036E-08	2.637E-08
SSW	5.143E-07	4.037E-07	2.774E-07	2.064E-07	1.403E-07	1.356E-07	1.048E-07	8.700E-08	7.398E-08	6.457E-08	5.116E-08
SW	5.513E-07	4.436E-07	3.367E-07	2.281E-07	1.721E-07	1.733E-07	1.419E-07	1.437E-07	1.223E-07	1.060E-07	9.325E-08
WSW	1.179E-06	9.894E-07	7.513E-07	8.133E-07	5.810E-07	4.566E-07	3.679E-07	3.065E-07	2.617E-07	2.277E-07	2.011E-07
W	6.979E-07	9.557E-07	7.145E-07	4.381E-07	2.886E-07	2.214E-07	1.771E-07	1.466E-07	1.245E-07	1.078E-07	9.473E-08
WNW	4.913E-07	6.591E-07	4.834E-07	2.973E-07	1.676E-07	1.267E-07	1.009E-07	8.348E-08	7.055E-08	6.080E-08	5.322E-08
NW	5.797E-07	4.815E-07	3.410E-07	2.193E-07	1.525E-07	1.155E-07	9.244E-08	7.588E-08	6.331E-08	5.442E-08	4.753E-08
NNW	5.813E-07	4.131E-07	2.903E-07	1.782E-07	1.241E-07	9.430E-08	7.472E-08	6.133E-08	5.168E-08	4.442E-08	3.880E-08

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Insert N

Insert N

SECTOR	0.5	0.75	1	1.5	2	2.5	3	3.5	4	4.5	5
N	<u>6.857E-07</u>	<u>5.403E-07</u>	<u>4.087E-07</u>	<u>2.506E-07</u>	<u>2.052E-07</u>	<u>1.552E-07</u>	<u>1.117E-07</u>	<u>9.160E-08</u>	<u>6.943E-08</u>	<u>5.964E-08</u>	<u>4.820E-08</u>
NNE	<u>9.160E-07</u>	<u>6.951E-07</u>	<u>4.761E-07</u>	<u>2.845E-07</u>	<u>1.805E-07</u>	<u>1.362E-07</u>	<u>1.129E-07</u>	<u>9.238E-08</u>	<u>7.216E-08</u>	<u>6.187E-08</u>	<u>4.935E-08</u>
NE	<u>7.988E-07</u>	<u>7.135E-07</u>	<u>4.624E-07</u>	<u>2.725E-07</u>	<u>1.666E-07</u>	<u>1.239E-07</u>	<u>8.805E-08</u>	<u>7.168E-08</u>	<u>6.397E-08</u>	<u>5.472E-08</u>	<u>4.206E-08</u>
ENE	<u>3.464E-07</u>	<u>2.214E-07</u>	<u>1.531E-07</u>	<u>9.939E-08</u>	<u>6.839E-08</u>	<u>5.408E-08</u>	<u>4.113E-08</u>	<u>3.344E-08</u>	<u>2.846E-08</u>	<u>2.428E-08</u>	<u>2.003E-08</u>
E	<u>1.960E-07</u>	<u>1.273E-07</u>	<u>7.341E-08</u>	<u>4.754E-08</u>	<u>3.089E-08</u>	<u>3.189E-08</u>	<u>2.426E-08</u>	<u>1.970E-08</u>	<u>1.737E-08</u>	<u>1.479E-08</u>	<u>1.165E-08</u>
ESE	<u>1.411E-07</u>	<u>9.212E-08</u>	<u>6.541E-08</u>	<u>4.252E-08</u>	<u>2.647E-08</u>	<u>2.709E-08</u>	<u>2.010E-08</u>	<u>1.631E-08</u>	<u>1.629E-08</u>	<u>1.386E-08</u>	<u>1.064E-08</u>
SE	<u>1.762E-07</u>	<u>1.146E-07</u>	<u>7.757E-08</u>	<u>5.007E-08</u>	<u>3.632E-08</u>	<u>3.601E-08</u>	<u>2.823E-08</u>	<u>2.305E-08</u>	<u>1.923E-08</u>	<u>1.645E-08</u>	<u>1.424E-08</u>
SSE	<u>2.359E-07</u>	<u>1.535E-07</u>	<u>1.133E-07</u>	<u>7.321E-08</u>	<u>4.511E-08</u>	<u>4.511E-08</u>	<u>3.760E-08</u>	<u>3.070E-08</u>	<u>2.197E-08</u>	<u>1.879E-08</u>	<u>1.692E-08</u>
S	<u>2.403E-07</u>	<u>1.846E-07</u>	<u>1.379E-07</u>	<u>9.010E-08</u>	<u>6.578E-08</u>	<u>6.509E-08</u>	<u>5.128E-08</u>	<u>4.211E-08</u>	<u>3.529E-08</u>	<u>3.036E-08</u>	<u>2.637E-08</u>
SSW	<u>5.207E-07</u>	<u>4.037E-07</u>	<u>2.774E-07</u>	<u>1.853E-07</u>	<u>1.275E-07</u>	<u>1.331E-07</u>	<u>1.031E-07</u>	<u>8.489E-08</u>	<u>7.234E-08</u>	<u>6.226E-08</u>	<u>4.948E-08</u>
SW	<u>5.513E-07</u>	<u>3.655E-07</u>	<u>3.145E-07</u>	<u>2.135E-07</u>	<u>1.617E-07</u>	<u>1.298E-07</u>	<u>1.080E-07</u>	<u>1.437E-07</u>	<u>1.223E-07</u>	<u>1.060E-07</u>	<u>9.325E-08</u>
WSW	<u>1.030E-06</u>	<u>7.293E-07</u>	<u>6.398E-07</u>	<u>4.342E-07</u>	<u>3.296E-07</u>	<u>2.655E-07</u>	<u>2.219E-07</u>	<u>1.904E-07</u>	<u>1.665E-07</u>	<u>1.477E-07</u>	<u>1.327E-07</u>
W	<u>5.432E-07</u>	<u>6.308E-07</u>	<u>6.704E-07</u>	<u>4.367E-07</u>	<u>2.878E-07</u>	<u>2.213E-07</u>	<u>1.770E-07</u>	<u>1.465E-07</u>	<u>1.244E-07</u>	<u>1.077E-07</u>	<u>9.465E-08</u>
WNW	<u>4.163E-07</u>	<u>6.305E-07</u>	<u>4.834E-07</u>	<u>2.973E-07</u>	<u>1.676E-07</u>	<u>1.267E-07</u>	<u>1.009E-07</u>	<u>8.348E-08</u>	<u>7.055E-08</u>	<u>6.080E-08</u>	<u>5.322E-08</u>
NW	<u>5.286E-07</u>	<u>4.815E-07</u>	<u>3.410E-07</u>	<u>2.193E-07</u>	<u>1.525E-07</u>	<u>1.155E-07</u>	<u>9.244E-08</u>	<u>7.588E-08</u>	<u>6.331E-08</u>	<u>5.442E-08</u>	<u>4.753E-08</u>
NNW	<u>4.926E-07</u>	<u>3.243E-07</u>	<u>2.811E-07</u>	<u>1.732E-07</u>	<u>1.213E-07</u>	<u>9.430E-08</u>	<u>7.472E-08</u>	<u>6.133E-08</u>	<u>5.168E-08</u>	<u>4.442E-08</u>	<u>3.880E-08</u>



**Table 2.7-146— Normal Effluent Annual Average, Undecayed, Undepleted Gamma  $\chi/Q$  Values (sec/ $m^3$ ) for Mixed Mode Release With Building Wake for Site Boundary Receptors**

DOWNWIND SECTOR	Distance (m)	$\chi/Q$ (sec/ $m^3$ )	Site Boundary
N	418.4	1.616E-06	
NNE	425.5	2.123E-06	
NE	506.8	1.464E-06	
ENE	518.8	5.968E-07	
E	478.1	3.318E-07	
ESE	322.7	3.137E-07	
SE	270.1	4.402E-07	
SSE	263.0	5.961E-07	
S	263.0	5.681E-07	
SSW	267.7	1.172E-06	
SW	267.7	1.173E-06	
WSW	251.0	2.537E-06	
W	239.1	1.406E-06	
WNW	239.1	9.784E-07	
NW	243.8	1.532E-06	
NNW	358.6	1.345E-06	

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**Table 2.7-147— Normal Effluent Annual Average, Undecayed, Undepleted Gamma  $\chi/Q$  Values (sec/m<sup>3</sup>) for Mixed Mode Release With Building Wake for Nearest Residents**

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
N	1254	<del>5.649E-07</del>
NNE	1266	<del>6.442E-07</del>
NE	1678	4.379E-07
ENE	2892	7.838E-08
E	2248	5.136E-08
ESE	2281	<del>5.452E-08</del>
SE	1271	9.960E-08
SSE	1620	<del>1.435E-07</del>
S	1749	1.265E-07
SSW	1675	<del>3.008E-07</del>
SW	756	5.877E-07
WSW	1019	<del>1.168E-06</del>
W	596	<del>9.332E-07</del>
WNW	852	<del>1.009E-06</del>
NW	748	<del>6.233E-07</del>
NNW	1291	<del>3.807E-07</del>

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**Table 2.7-148— Normal Effluent Annual Average, Undecayed, Undepleted Gamma  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake for Nearest Gardens**

SECTOR	DISTANCE (m)	$\chi/Q$ Values ( $\text{sec}/\text{m}^3$ )
N	833	<del>8.792E-07</del>
NNE	1395	<del>5.700E-07</del>
NE	2284	2.930E-07
ENE	2785	8.222E-08
E	2266	5.092E-08
ESE	1786	<del>7.199E-08</del>
SE	1467	8.556E-08
SSE	1619	<del>1.436E-07</del>
S	811	<del>2.763E-07</del>
SSW	408	9.183E-07
SW	454	8.987E-07
WSW	596	<del>1.603E-06</del>
W	819	<del>1.533E-06</del>
WNW	1424	5.614E-07
NW	730	<del>6.384E-07</del>
NNW	1338	<del>3.643E-07</del>



**Table 2.7-149— Normal Effluent Annual Average, Undecayed, Undepleted Gamma  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake for Nearest Milk Animals**

SECTOR	DISTANCE (m)	$\chi/Q$ Values ( $\text{sec}/\text{m}^3$ )
S	4855	<del>5.129E-08</del>
SSW	1191	4.094E-07
W	6492	<del>1.232E-07</del>
WNW	6469	7.010E-08
NNW	6388	5.218E-08

**Table 2.7-150— Normal Effluent Annual Average, Undecayed, Undepleted Gamma  $\chi/Q$  Values ( $\text{sec}/\text{m}^3$ ) for Mixed Mode Release With Building Wake for Nearest Hypothetical Meat Animals**

DOWNWIND SECTOR	DISTANCE (m)	$\chi/Q$ Values ( $\text{sec}/\text{m}^3$ ) Nearest Hypothetical Meat Animals
N	804	<del>7.970E-07</del>
NNE	824	<del>1.147E-06</del>
NE	994	<del>9.477E-07</del>
ENE	2208	<del>1.111E-07</del>
E	2154	5.378E-08
ESE	1786	<del>7.199E-08</del>
SE	938	1.498E-07
SSE	819	2.316E-07
S	799	2.421E-07
SSW	918	<del>5.301E-07</del>
SW	628	7.121E-07
WSW	537	<del>1.781E-06</del>
W	534	<del>1.036E-06</del>
WNW	545	<del>7.125E-07</del>
NW	656	<del>7.093E-07</del>
NNW	806	<del>6.770E-07</del>

## Insert I

## Residents

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
N	1254	<u>5.519E-07</u>
NNE	1266	<u>6.362E-07</u>
NE	1678	4.379E-07
ENE	2892	7.838E-08
E	2248	5.136E-08
ESE	2281	<u>4.520E-08</u>
SE	1271	9.960E-08
SSE	1620	<u>1.125E-07</u>
S	1749	1.265E-07
SSW	1675	<u>2.667E-07</u>
SW	756	5.877E-07
WSW	1019	<u>7.956E-07</u>
W	596	<u>7.282E-07</u>
WNW	852	<u>5.578E-07</u>
NW	748	<u>4.372E-07</u>
NNW	1291	<u>2.812E-07</u>

## Insert I (cont'd)

## Gardens

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
N	833	<u>7.150E-07</u>
NNE	1395	<u>5.686E-07</u>
NE	2284	2.930E-07
ENE	2785	8.222E-08
E	2266	5.092E-08
ESE	1786	<u>5.862E-08</u>
SE	1467	8.556E-08
SSE	1619	<u>1.126E-07</u>
S	811	<u>2.385E-07</u>
SSW	408	9.183E-07
SW	454	8.987E-07
WSW	596	<u>1.318E-06</u>
W	819	<u>5.341E-07</u>
WNW	1424	5.614E-07
NW	730	<u>4.476E-07</u>
NNW	1338	<u>2.808E-07</u>

Insert I (cont'd)

Milk Animals

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
S	4855	<u>5.090E-08</u>
SSW	1191	4.094E-07
W	6492	<u>1.231E-07</u>
WNW	6469	7.010E-08
NNW	6388	5.218E-08



Insert I (cont'd)

## Hypothetical Meat Animals

SECTOR	DISTANCE (m)	$\chi/Q$ Values (sec/m <sup>3</sup> )
N	804	<u>7.426E-07</u>
NNE	824	<u>9.092E-07</u>
NE	994	<u>7.045E-07</u>
ENE	2208	<u>1.082E-07</u>
E	2154	5.378E-08
ESE	1786	<u>5.862E-08</u>
SE	938	1.498E-07
SSE	819	2.316E-07
S	799	2.421E-07
SSW	918	<u>4.867E-07</u>
SW	628	7.121E-07
WSW	537	<u>1.461E-06</u>
W	534	<u>8.072E-07</u>
WNW	545	<u>5.582E-07</u>
NW	656	<u>3.966E-07</u>
NNW	806	<u>4.920E-07</u>

Table 2.7-151— Normal Effluent Annual Average D/Q Values (1/m<sup>2</sup>) for Mixed Mode Release With Building Wake from 0.5 to 5 Miles

SECTOR	0.5	0.75	1	1.5	2	2.5	3	3.5	4	4.5	5
N	3.272E-09	2.526E-09	1.762E-09	1.059E-09	8.591E-10	1.037E-09	6.839E-10	5.200E-10	3.688E-10	3.004E-10	2.301E-10
NNE	5.945E-09	4.482E-09	2.789E-09	1.504E-09	8.772E-10	1.105E-09	8.415E-10	6.402E-10	4.689E-10	3.794E-10	2.873E-10
NE	1.306E-08	1.018E-08	5.777E-09	2.995E-09	1.661E-09	1.144E-09	7.649E-10	7.653E-10	6.434E-10	5.232E-10	3.831E-10
ENE	7.583E-09	5.004E-09	2.414E-09	1.313E-09	8.213E-10	6.001E-10	4.261E-10	4.706E-10	3.824E-10	2.546E-10	2.007E-10
E	3.494E-09	2.051E-09	1.122E-09	6.433E-10	3.797E-10	4.555E-10	3.296E-10	2.089E-10	1.739E-10	1.406E-10	1.058E-10
ESE	2.353E-09	1.411E-09	9.671E-10	6.270E-10	3.486E-10	3.684E-10	2.581E-10	1.720E-10	1.622E-10	1.306E-10	9.586E-11
SE	3.141E-09	1.865E-09	1.212E-09	7.912E-10	5.092E-10	3.990E-10	2.909E-10	2.228E-10	1.772E-10	1.622E-10	1.341E-10
SSE	3.979E-09	2.375E-09	1.689E-09	1.108E-09	6.062E-10	4.558E-10	3.527E-10	2.731E-10	1.850E-10	1.825E-10	1.569E-10
S	2.791E-09	1.858E-09	1.355E-09	8.052E-10	5.384E-10	4.357E-10	3.196E-10	2.466E-10	1.956E-10	2.302E-10	1.904E-10
SSW	4.021E-09	2.645E-09	1.774E-09	1.110E-09	6.917E-10	5.417E-10	3.927E-10	3.061E-10	2.468E-10	3.666E-10	2.757E-10
SW	2.355E-09	1.537E-09	1.142E-09	6.902E-10	4.737E-10	3.615E-10	2.751E-10	2.241E-10	1.799E-10	1.476E-10	1.234E-10
WSW	2.014E-09	1.219E-09	8.591E-10	5.464E-10	3.571E-10	4.508E-09	3.531E-09	2.834E-09	2.313E-09	1.916E-09	1.607E-09
W	9.453E-10	1.010E-09	7.478E-10	4.771E-10	3.359E-10	2.186E-09	1.765E-09	1.449E-09	1.203E-09	3.029E-10	2.506E-10
WNW	1.076E-09	1.266E-09	9.078E-10	7.614E-10	5.229E-10	4.822E-10	4.533E-10	3.072E-10	2.420E-10	1.973E-10	1.633E-10
NW	1.715E-09	1.341E-09	9.557E-10	8.352E-10	6.516E-10	6.106E-10	4.473E-10	3.410E-10	2.661E-10	2.166E-10	1.792E-10
NNW	1.841E-09	1.442E-09	9.720E-10	6.066E-10	4.138E-10	5.480E-10	3.974E-10	3.022E-10	2.382E-10	1.940E-10	1.605E-10

← Insert O

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Insert O

SECTOR	0.5	0.75	1	1.5	2	2.5	3	3.5	4	4.5	5
N	<u>3.044E-09</u>	<u>2.239E-09</u>	<u>1.663E-09</u>	<u>1.059E-09</u>	<u>8.591E-10</u>	<u>1.036E-09</u>	<u>6.827E-10</u>	<u>5.191E-10</u>	<u>3.681E-10</u>	<u>3.004E-10</u>	<u>2.301E-10</u>
NNE	<u>5.536E-09</u>	<u>4.028E-09</u>	<u>2.789E-09</u>	<u>1.504E-09</u>	<u>8.772E-10</u>	<u>1.100E-09</u>	<u>8.376E-10</u>	<u>6.371E-10</u>	<u>4.665E-10</u>	<u>3.773E-10</u>	<u>2.857E-10</u>
NE	<u>1.246E-08</u>	<u>9.044E-09</u>	<u>5.777E-09</u>	<u>2.995E-09</u>	<u>1.661E-09</u>	<u>1.144E-09</u>	<u>7.649E-10</u>	<u>5.929E-10</u>	<u>5.089E-10</u>	<u>5.091E-10</u>	<u>3.917E-10</u>
ENE	<u>7.394E-09</u>	<u>4.233E-09</u>	<u>2.327E-09</u>	<u>1.313E-09</u>	<u>8.213E-10</u>	<u>5.935E-10</u>	<u>4.207E-10</u>	<u>3.267E-10</u>	<u>2.651E-10</u>	<u>2.430E-10</u>	<u>1.975E-10</u>
E	<u>3.494E-09</u>	<u>2.051E-09</u>	<u>1.122E-09</u>	<u>6.433E-10</u>	<u>3.797E-10</u>	<u>4.389E-10</u>	<u>3.265E-10</u>	<u>2.646E-10</u>	<u>2.257E-10</u>	<u>1.406E-10</u>	<u>1.058E-10</u>
ESE	<u>2.353E-09</u>	<u>1.411E-09</u>	<u>9.671E-10</u>	<u>5.661E-10</u>	<u>3.228E-10</u>	<u>3.709E-10</u>	<u>2.629E-10</u>	<u>2.047E-10</u>	<u>1.966E-10</u>	<u>1.611E-10</u>	<u>1.196E-10</u>
SE	<u>3.141E-09</u>	<u>1.865E-09</u>	<u>1.212E-09</u>	<u>7.040E-10</u>	<u>4.666E-10</u>	<u>3.795E-10</u>	<u>2.768E-10</u>	<u>2.126E-10</u>	<u>1.675E-10</u>	<u>1.621E-10</u>	<u>1.341E-10</u>
SSE	<u>3.979E-09</u>	<u>2.375E-09</u>	<u>1.689E-09</u>	<u>9.828E-10</u>	<u>5.540E-10</u>	<u>4.524E-10</u>	<u>3.509E-10</u>	<u>2.703E-10</u>	<u>1.828E-10</u>	<u>1.824E-10</u>	<u>1.569E-10</u>
S	<u>2.791E-09</u>	<u>1.858E-09</u>	<u>1.355E-09</u>	<u>8.052E-10</u>	<u>5.384E-10</u>	<u>4.319E-10</u>	<u>3.177E-10</u>	<u>2.458E-10</u>	<u>1.950E-10</u>	<u>2.300E-10</u>	<u>1.903E-10</u>
SSW	<u>4.034E-09</u>	<u>2.645E-09</u>	<u>1.774E-09</u>	<u>1.067E-09</u>	<u>6.713E-10</u>	<u>5.360E-10</u>	<u>3.898E-10</u>	<u>3.031E-10</u>	<u>2.452E-10</u>	<u>2.009E-10</u>	<u>1.526E-10</u>
SW	<u>2.355E-09</u>	<u>1.468E-09</u>	<u>1.122E-09</u>	<u>6.785E-10</u>	<u>4.675E-10</u>	<u>3.442E-10</u>	<u>2.647E-10</u>	<u>2.241E-10</u>	<u>1.799E-10</u>	<u>1.476E-10</u>	<u>1.234E-10</u>
WSW	<u>1.991E-09</u>	<u>1.176E-09</u>	<u>8.439E-10</u>	<u>4.865E-10</u>	<u>3.268E-10</u>	<u>2.370E-10</u>	<u>1.805E-10</u>	<u>1.421E-10</u>	<u>1.148E-10</u>	<u>9.438E-11</u>	<u>7.885E-11</u>
W	<u>9.033E-10</u>	<u>6.926E-10</u>	<u>6.227E-10</u>	<u>4.398E-10</u>	<u>2.824E-10</u>	<u>2.173E-09</u>	<u>1.844E-09</u>	<u>1.574E-09</u>	<u>1.346E-09</u>	<u>1.156E-09</u>	<u>9.975E-10</u>
WNW	<u>1.032E-09</u>	<u>1.042E-09</u>	<u>9.078E-10</u>	<u>7.614E-10</u>	<u>5.229E-10</u>	<u>4.822E-10</u>	<u>4.533E-10</u>	<u>3.057E-10</u>	<u>2.408E-10</u>	<u>1.960E-10</u>	<u>1.622E-10</u>
NW	<u>1.647E-09</u>	<u>1.341E-09</u>	<u>9.557E-10</u>	<u>8.352E-10</u>	<u>6.516E-10</u>	<u>6.106E-10</u>	<u>4.473E-10</u>	<u>3.407E-10</u>	<u>2.658E-10</u>	<u>2.166E-10</u>	<u>1.792E-10</u>
NNW	<u>1.699E-09</u>	<u>1.089E-09</u>	<u>8.870E-10</u>	<u>5.210E-10</u>	<u>3.373E-10</u>	<u>5.434E-10</u>	<u>3.941E-10</u>	<u>2.997E-10</u>	<u>2.361E-10</u>	<u>1.930E-10</u>	<u>1.597E-10</u>

**Table 2.7-153— Normal Effluent Annual Average D/Q Values ( $1/m^2$ ) for Mixed Mode Release With Building Wake for Site Boundary Receptors**

DOWNWIND SECTOR	Distance (m)	D/Q ( $1/m^2$ )	Site Boundary
N	418.4	6.796E-09	
NNE	425.5	1.210E-08	
NE	506.8	2.268E-08	
ENE	518.8	1.367E-08	
E	478.1	7.162E-09	
ESE	322.7	8.245E-09	
SE	270.1	1.449E-08	
SSE	263.0	1.838E-08	
S	263.0	1.149E-08	
SSW	267.7	1.589E-08	
SW	267.7	9.454E-09	
WSW	251.0	9.765E-09	
W	239.1	3.402E-09	
WNW	239.1	3.872E-09	
NW	243.8	5.812E-09	
NNW	358.6	4.323E-09	

Owner Controlled  
Area (OCA) Boundary

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**Table 2.7-154— Normal Effluent Annual Average D/Q Values (1/m<sup>2</sup>) for Mixed Mode Release With Building Wake for Nearest Residents**

SECTOR	DISTANCE (m)	D/Q Values (1/m <sup>2</sup> )
N	1254	2.55E-09
NNE	1266	4.02E-09
NE	1678	5.40E-09
ENE	2892	9.75E-10
E	2248	7.11E-10
ESE	2281	6.80E-10
SE	1271	1.61E-09
SSE	1620	1.93E-09
S	1749	1.22E-09
SSW	1675	1.77E-09
SW	756	2.55E-09
WSW	1019	1.52E-09
W	596	1.29E-09
WNW	852	1.91E-09
NW	748	1.85E-09
NNW	1291	1.32E-09

Insert K →

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**Table 2.7-155— Normal Effluent Annual Average D/Q Values (1/m<sup>2</sup>) for Mixed Mode Release With Building Wake for Nearest Gardens**

SECTOR	DISTANCE (m)	D/Q Values (1/m <sup>2</sup> )
N	833	4.16E-09
NNE	1395	3.47E-09
NE	2284	3.28E-09
ENE	2785	1.04E-09
E	2266	7.03E-10
ESE	1786	9.49E-10
SE	1467	1.36E-09
SSE	1619	1.93E-09
S	811	2.94E-09
SSW	408	9.50E-09
SW	454	4.89E-09
WSW	596	3.04E-09
W	819	1.59E-09
WNW	1424	1.07E-09
NW	730	1.89E-09
NNW	1338	1.25E-09

**Table 2.7-156— Normal Effluent Annual Average D/Q Values (1/m<sup>2</sup>) for Mixed Mode Release With Building Wake for Nearest Milk Animals**

SECTOR	DISTANCE (m)	D/Q Values (1/m <sup>2</sup> )
S	4855	<del>3.19E-10</del>
SSW	1191	<del>2.69E-09</del>
W	6492	<del>3.69E-10</del>
WNW	6469	<del>2.42E-10</del>
NNW	6388	<del>2.41E-10</del>

**Table 2.7-157— Normal Effluent Annual Average D/Q Values (1/m<sup>2</sup>) for Mixed Mode Release With Building Wake for Nearest Hypothetical Meat Animals**

DOWNWIND SECTOR	DISTANCE (m)	D/Q Values (1/m <sup>2</sup> ) Nearest Hypothetical Meat Animals
N	804	3.28E-09
NNE	824	7.60E-09
NE	994	1.38E-08
ENE	2208	1.51E-09
E	2154	7.55E-10
ESE	1786	9.49E-10
SE	938	2.56E-09
SSE	819	3.89E-09
S	799	2.82E-09
SSW	918	3.62E-09
SW	628	3.22E-09
WSW	537	3.51E-09
W	534	1.45E-09
WNW	545	1.60E-09
NW	656	2.11E-09
NNW	806	2.38E-09

Insert K

Residents

SECTOR	DISTANCE (m)	D/Q Values (1/m <sup>2</sup> )
N	1254	<u>2.294E-09</u>
NNE	1266	<u>3.741E-09</u>
NE	1678	<u>5.401E-09</u>
ENE	2892	<u>9.746E-10</u>
E	2248	<u>7.113E-10</u>
ESE	2281	<u>6.118E-10</u>
SE	1271	<u>1.609E-09</u>
SSE	1620	<u>1.674E-09</u>
S	1749	<u>1.223E-09</u>
SSW	1675	<u>1.690E-09</u>
SW	756	<u>2.547E-09</u>
WSW	1019	<u>1.453E-09</u>
W	596	<u>1.246E-09</u>
WNW	852	<u>1.084E-09</u>
NW	748	<u>1.608E-09</u>
NNW	1291	<u>9.812E-10</u>

## Insert K (cont'd)

## Gardens

SECTOR	DISTANCE (m)	D/Q Values (1/m <sup>2</sup> )
N	833	<u>3.030E-09</u>
NNE	1395	<u>3.410E-09</u>
NE	2284	<u>3.279E-09</u>
ENE	2785	<u>1.036E-09</u>
E	2266	<u>7.034E-10</u>
ESE	1786	<u>8.455E-10</u>
SE	1467	<u>1.364E-09</u>
SSE	1619	<u>1.676E-09</u>
S	811	<u>2.765E-09</u>
SSW	408	<u>9.504E-09</u>
SW	454	<u>4.892E-09</u>
WSW	596	<u>3.007E-09</u>
W	819	<u>8.873E-10</u>
WNW	1424	<u>1.065E-09</u>
NW	730	<u>1.650E-09</u>
NNW	1338	<u>9.597E-10</u>



Insert K (cont'd)

Milk Animals

SECTOR	DISTANCE (m)	D/Q Values (1/m <sup>2</sup> )
S	4855	<u>3.146E-10</u>
SSW	1191	<u>2.686E-09</u>
W	6492	<u>1.188E-09</u>
WNW	6469	<u>2.390E-10</u>
NNW	6388	<u>2.403E-10</u>

## Insert K (cont'd)

## Hypothetical Meat Animals

SECTOR	DISTANCE (m)	D/Q Values (1/m <sup>2</sup> )
N	804	<u>3.156E-09</u>
NNE	824	<u>5.431E-09</u>
NE	994	<u>9.914E-09</u>
ENE	2208	<u>1.485E-09</u>
E	2154	<u>7.549E-10</u>
ESE	1786	<u>8.455E-10</u>
SE	938	<u>2.563E-09</u>
SSE	819	<u>3.888E-09</u>
S	799	<u>2.817E-09</u>
SSW	918	<u>3.506E-09</u>
SW	628	<u>3.223E-09</u>
WSW	537	<u>3.476E-09</u>
W	534	<u>1.406E-09</u>
WNW	545	<u>1.533E-09</u>
NW	656	<u>1.742E-09</u>
NNW	806	<u>1.697E-09</u>

**Table 2.7-158— Ground Level, Normal Effluent, Sector Average, Undepleted, Undecayed, Atmospheric Dispersion Factors (sec/m<sup>3</sup>)**

SECTOR	100 m	200 m	250m	275m	300m	350m	375m	400m	500m	Site Boundary
N	2.596E-04	7.105E-05	4.734E-05	3.985E-05	3.407E-05	2.584E-05	2.284E-05	2.036E-05	1.370E-05	<del>2.034E-05</del>
NNE	2.997E-04	8.155E-05	5.425E-05	4.563E-05	3.899E-05	2.955E-05	2.611E-05	2.326E-05	1.563E-05	<del>7.593E-06</del>
NE	2.608E-04	7.035E-05	4.658E-05	3.911E-05	3.335E-05	2.518E-05	2.221E-05	1.976E-05	1.321E-05	<del>4.381E-06</del>
ENE	1.177E-04	3.155E-05	2.089E-05	1.753E-05	1.495E-05	1.129E-05	9.963E-06	8.864E-06	5.928E-06	<del>1.942E-06</del>
E	7.153E-05	1.914E-05	1.269E-05	1.066E-05	9.097E-06	6.880E-06	6.074E-06	5.407E-06	3.625E-06	<del>1.028E-06</del>
ESE	5.013E-05	1.337E-05	8.860E-06	7.442E-06	6.350E-06	4.801E-06	4.239E-06	3.773E-06	2.529E-06	<del>1.661E-06</del>
SE	5.980E-05	1.597E-05	1.058E-05	8.889E-06	7.587E-06	5.737E-06	5.065E-06	4.509E-06	3.023E-06	<del>2.882E-06</del>
SSE	8.314E-05	2.228E-05	1.477E-05	1.241E-05	1.059E-05	8.013E-06	7.076E-06	6.300E-06	4.224E-06	<del>4.341E-06</del>
S	1.174E-04	3.174E-05	2.109E-05	1.774E-05	1.515E-05	1.148E-05	1.014E-05	9.031E-06	6.066E-06	<del>6.233E-06</del>
SSW	3.337E-04	9.107E-05	6.065E-05	5.104E-05	4.363E-05	3.309E-05	2.925E-05	2.606E-05	1.753E-05	<del>2.083E-05</del>
SW	5.888E-04	1.647E-04	1.100E-04	9.267E-05	7.926E-05	6.014E-05	5.317E-05	4.738E-05	3.185E-05	<del>5.028E-05</del>
WSW	1.420E-03	4.026E-04	2.694E-04	2.270E-04	1.942E-04	1.474E-04	1.303E-04	1.161E-04	7.799E-05	<del>1.602E-04</del>
W	6.251E-04	1.750E-04	1.170E-04	9.855E-05	8.431E-05	6.399E-05	5.658E-05	5.043E-05	3.392E-05	<del>6.953E-05</del>
WNW	3.781E-04	1.047E-04	6.991E-05	5.888E-05	5.036E-05	3.822E-05	3.379E-05	3.012E-05	2.026E-05	<del>4.153E-05</del>
NW	2.632E-04	7.236E-05	4.825E-05	4.062E-05	3.473E-05	2.635E-05	2.329E-05	2.076E-05	1.397E-05	<del>2.863E-05</del>
NNW	2.082E-04	5.717E-05	3.811E-05	3.209E-05	2.744E-05	2.081E-05	1.840E-05	1.640E-05	1.103E-05	<del>2.744E-05</del>

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Table 2.7-159— Ground Level, Normal Effluent, Sector Average, Depleted, Decayed, Atmospheric Dispersion Factors (sec/m<sup>3</sup>)

SECTOR	100 m	200 m	250m	275m	300m	350m	375m	400m	500m	Site Boundary
N	2.545E-04	6.884E-05	4.558E-05	3.825E-05	3.261E-05	2.459E-05	2.168E-05	1.927E-05	1.284E-05	<del>2.897E-05</del>
NNE	2.938E-04	7.902E-05	5.224E-05	4.381E-05	3.732E-05	2.812E-05	2.478E-05	2.202E-05	1.465E-05	<del>6.962E-06</del>
NE	2.557E-04	6.816E-05	4.486E-05	3.754E-05	3.192E-05	2.397E-05	2.108E-05	1.871E-05	1.238E-05	<del>3.965E-06</del>
ENE	1.154E-04	3.057E-05	2.011E-05	1.683E-05	1.431E-05	1.075E-05	9.457E-06	8.391E-06	5.556E-06	<del>1.757E-06</del>
E	7.012E-05	1.855E-05	1.222E-05	1.023E-05	8.708E-06	6.548E-06	5.765E-06	5.119E-06	3.397E-06	<del>9.248E-07</del>
ESE	4.914E-05	1.296E-05	8.531E-06	7.144E-06	6.078E-06	4.570E-06	4.023E-06	3.572E-06	2.370E-06	<del>1.538E-06</del>
SE	5.862E-05	1.547E-05	1.019E-05	8.534E-06	7.262E-06	5.461E-06	4.808E-06	4.269E-06	2.833E-06	<del>2.698E-06</del>
SSE	8.149E-05	2.158E-05	1.422E-05	1.191E-05	1.014E-05	7.627E-06	6.716E-06	5.964E-06	3.958E-06	<del>4.071E-06</del>
S	1.151E-04	3.075E-05	2.031E-05	1.703E-05	1.450E-05	1.092E-05	9.623E-06	8.549E-06	5.685E-06	<del>5.846E-06</del>
SSW	3.271E-04	8.823E-05	5.840E-05	4.900E-05	4.176E-05	3.149E-05	2.776E-05	2.467E-05	1.643E-05	<del>1.961E-05</del>
SW	5.772E-04	1.595E-04	1.059E-04	8.896E-05	7.587E-05	5.724E-05	5.046E-05	4.485E-05	2.985E-05	<del>4.767E-05</del>
WSW	1.392E-03	3.900E-04	2.594E-04	2.180E-04	1.859E-04	1.403E-04	1.237E-04	1.099E-04	7.309E-05	<del>1.527E-04</del>
W	6.128E-04	1.695E-04	1.126E-04	9.461E-05	8.070E-05	6.091E-05	5.370E-05	4.774E-05	3.179E-05	<del>6.630E-05</del>
WNW	3.707E-04	1.015E-04	6.732E-05	5.653E-05	4.821E-05	3.637E-05	3.207E-05	2.851E-05	1.899E-05	<del>3.960E-05</del>
NW	2.580E-04	7.011E-05	4.646E-05	3.900E-05	3.325E-05	2.508E-05	2.211E-05	1.965E-05	1.309E-05	<del>2.730E-05</del>
NNW	2.041E-04	5.539E-05	3.670E-05	3.080E-05	2.626E-05	1.981E-05	1.746E-05	1.552E-05	1.034E-05	<del>2.626E-05</del>

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Gamma

Dispersion

Table 2.7-160— Ground Level, Normal Effluent, Sector Average, Undepleted, Undecayed, Atmospheric Deposition Factors (sec/m<sup>3</sup>)

SECTOR	100 m	200 m	250m	275m	300m	350m	375m	400m	500m	Site Boundary
N	2.063E-05	9.952E-06	7.704E-06	6.883E-06	6.208E-06	5.167E-06	4.757E-06	4.403E-06	3.361E-06	<del>5.749E-06</del>
NNE	2.485E-05	1.215E-05	9.416E-06	8.410E-06	7.583E-06	6.306E-06	5.804E-06	5.369E-06	4.091E-06	<del>2.459E-06</del>
NE	2.242E-05	1.142E-05	8.886E-06	7.938E-06	7.158E-06	5.950E-06	5.473E-06	5.061E-06	3.842E-06	<del>1.732E-06</del>
ENE	1.014E-05	5.270E-06	4.106E-06	3.667E-06	3.306E-06	2.747E-06	2.527E-06	2.337E-06	1.775E-06	<del>7.949E-07</del>
E	6.081E-06	3.167E-06	2.466E-06	2.201E-06	1.984E-06	1.648E-06	1.516E-06	1.402E-06	1.067E-06	<del>4.315E-07</del>
ESE	4.270E-06	2.250E-06	1.752E-06	1.564E-06	1.408E-06	1.169E-06	1.075E-06	9.942E-07	7.557E-07	<del>5.625E-07</del>
SE	5.019E-06	2.649E-06	2.064E-06	1.842E-06	1.659E-06	1.378E-06	1.267E-06	1.171E-06	8.908E-07	<del>8.618E-07</del>
SSE	6.978E-06	3.636E-06	2.832E-06	2.527E-06	2.278E-06	1.892E-06	1.741E-06	1.610E-06	1.225E-06	<del>1.249E-06</del>
S	9.746E-06	4.903E-06	3.809E-06	3.402E-06	3.067E-06	2.551E-06	2.348E-06	2.173E-06	1.656E-06	<del>1.688E-06</del>
SSW	2.663E-05	1.302E-05	1.009E-05	9.017E-06	8.133E-06	6.768E-06	6.232E-06	5.767E-06	4.403E-06	<del>4.955E-06</del>
SW	3.873E-05	1.827E-05	1.414E-05	1.265E-05	1.142E-05	9.525E-06	8.779E-06	8.132E-06	6.233E-06	<del>8.460E-06</del>
WSW	8.106E-05	3.734E-05	2.890E-05	2.588E-05	2.339E-05	1.954E-05	1.803E-05	1.671E-05	1.285E-05	<del>2.063E-05</del>
W	4.107E-05	1.917E-05	1.482E-05	1.326E-05	1.198E-05	9.991E-06	9.210E-06	8.534E-06	6.545E-06	<del>1.055E-05</del>
WNW	2.718E-05	1.292E-05	9.996E-06	8.937E-06	8.065E-06	6.720E-06	6.192E-06	5.734E-06	4.388E-06	<del>7.101E-06</del>
NW	2.002E-05	9.641E-06	7.463E-06	6.669E-06	6.015E-06	5.008E-06	4.611E-06	4.268E-06	3.261E-06	<del>5.293E-06</del>
NNW	1.607E-05	7.739E-06	5.990E-06	5.351E-06	4.827E-06	4.018E-06	3.699E-06	3.424E-06	2.615E-06	<del>4.827E-06</del>

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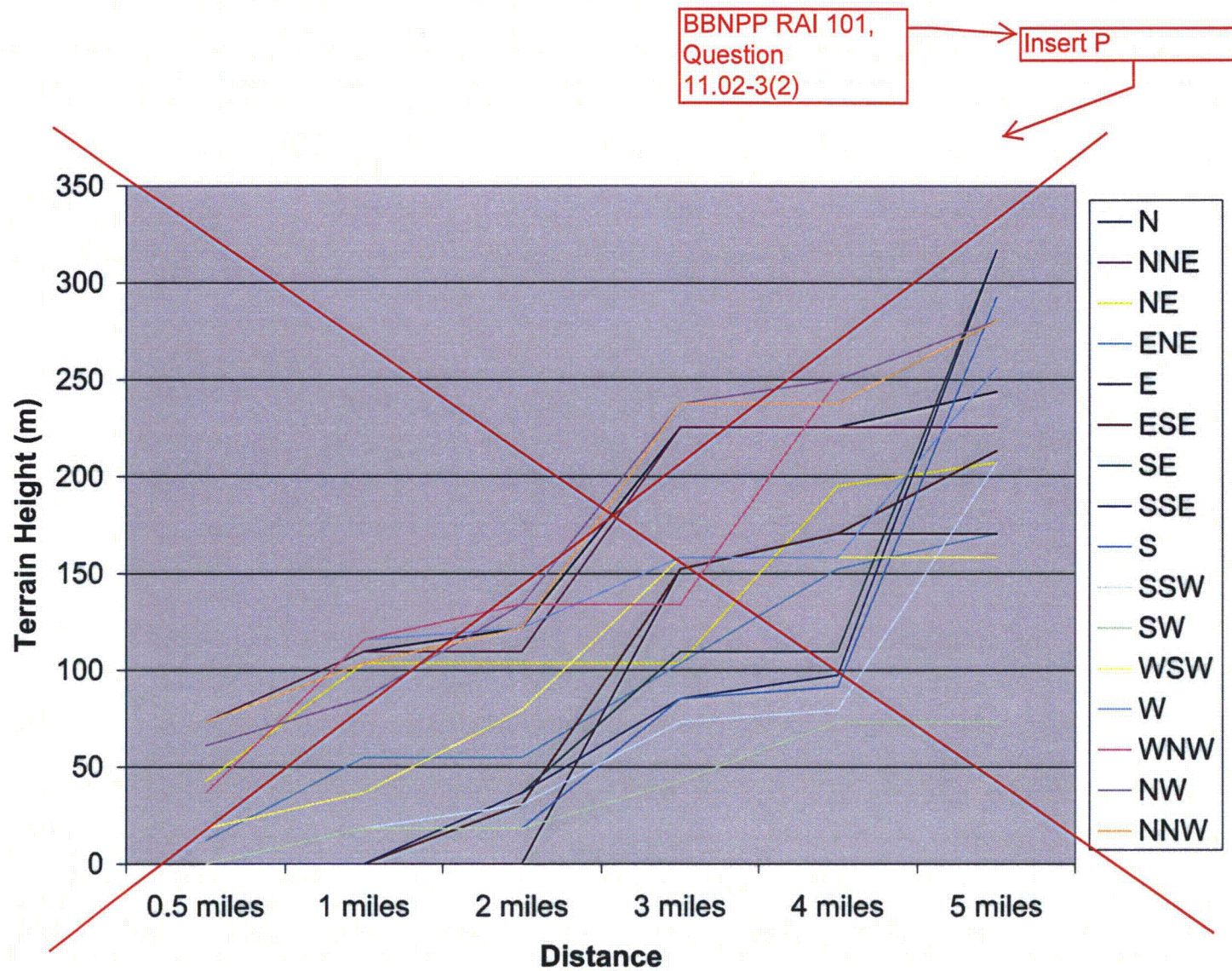


Table 2.7-161— Ground Level, Normal Effluent, Sector Average, Depleted, Decayed, Atmospheric Deposition Factors (1/m<sup>2</sup>)

SECTOR	100 m	200 m	250m	275m	300m	350m	375m	400m	500m	Site Boundary
N	2.629E-07	1.040E-07	7.589E-08	6.619E-08	5.834E-08	4.652E-08	4.198E-08	3.811E-08	2.714E-08	<del>5.309E-08</del>
NNE	3.926E-07	1.557E-07	1.137E-07	9.923E-08	8.751E-08	6.981E-08	6.301E-08	5.721E-08	4.076E-08	<del>2.146E-08</del>
NE	5.805E-07	2.313E-07	1.693E-07	1.478E-07	1.304E-07	1.041E-07	9.401E-08	8.538E-08	6.089E-08	<del>2.289E-08</del>
ENE	3.168E-07	1.257E-07	9.186E-08	8.015E-08	7.068E-08	5.639E-08	5.090E-08	4.621E-08	3.292E-08	<del>1.219E-08</del>
E	1.764E-07	6.969E-08	5.086E-08	4.435E-08	3.909E-08	3.116E-08	2.812E-08	2.552E-08	1.817E-08	<del>5.844E-09</del>
ESE	1.278E-07	5.044E-08	3.680E-08	3.209E-08	2.828E-08	2.254E-08	2.033E-08	1.846E-08	1.313E-08	<del>9.090E-09</del>
SE	1.609E-07	6.347E-08	4.629E-08	4.036E-08	3.556E-08	2.834E-08	2.556E-08	2.320E-08	1.651E-08	<del>1.584E-08</del>
SSE	2.142E-07	8.457E-08	6.170E-08	5.380E-08	4.741E-08	3.779E-08	3.409E-08	3.094E-08	2.202E-08	<del>2.255E-08</del>
S	2.076E-07	8.204E-08	5.988E-08	5.222E-08	4.602E-08	3.669E-08	3.310E-08	3.005E-08	2.139E-08	<del>2.190E-08</del>
SSW	4.051E-07	1.600E-07	1.168E-07	1.018E-07	8.976E-08	7.155E-08	6.456E-08	5.860E-08	4.171E-08	<del>4.841E-08</del>
SW	3.816E-07	1.506E-07	1.098E-07	9.577E-08	8.440E-08	6.726E-08	6.069E-08	5.508E-08	3.920E-08	<del>5.791E-08</del>
WSW	5.925E-07	2.335E-07	1.702E-07	1.484E-07	1.307E-07	1.042E-07	9.396E-08	8.527E-08	6.067E-08	<del>1.116E-07</del>
W	2.811E-07	1.109E-07	8.086E-08	7.049E-08	6.212E-08	4.950E-08	4.466E-08	4.053E-08	2.884E-08	<del>5.303E-08</del>
WNW	2.146E-07	8.469E-08	6.178E-08	5.386E-08	4.747E-08	3.783E-08	3.413E-08	3.098E-08	2.205E-08	<del>4.053E-08</del>
NW	1.961E-07	7.749E-08	5.655E-08	4.931E-08	4.346E-08	3.465E-08	3.126E-08	2.838E-08	2.020E-08	<del>3.712E-08</del>
NNW	1.753E-07	6.928E-08	5.056E-08	4.409E-08	3.886E-08	3.098E-08	2.795E-08	2.537E-08	1.806E-08	<del>3.886E-08</del>

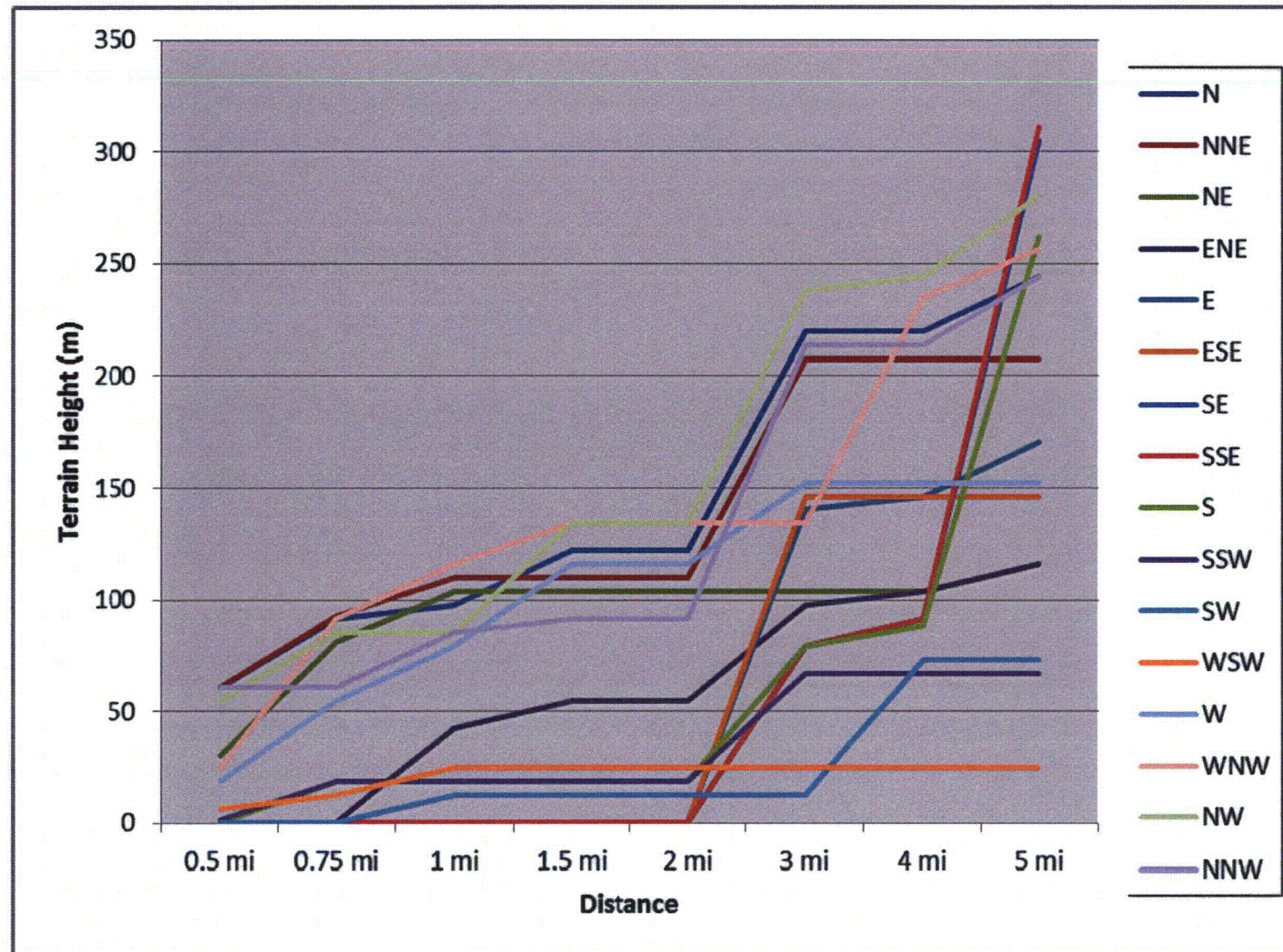
BBNPP RAI 101,  
Question 11.03-2



**Figure 2.7-92— Maximum Terrain Heights, With Respect to Finished Floor Grade, 0-5 Miles Downwind of Bell Bend by Compass Sector**

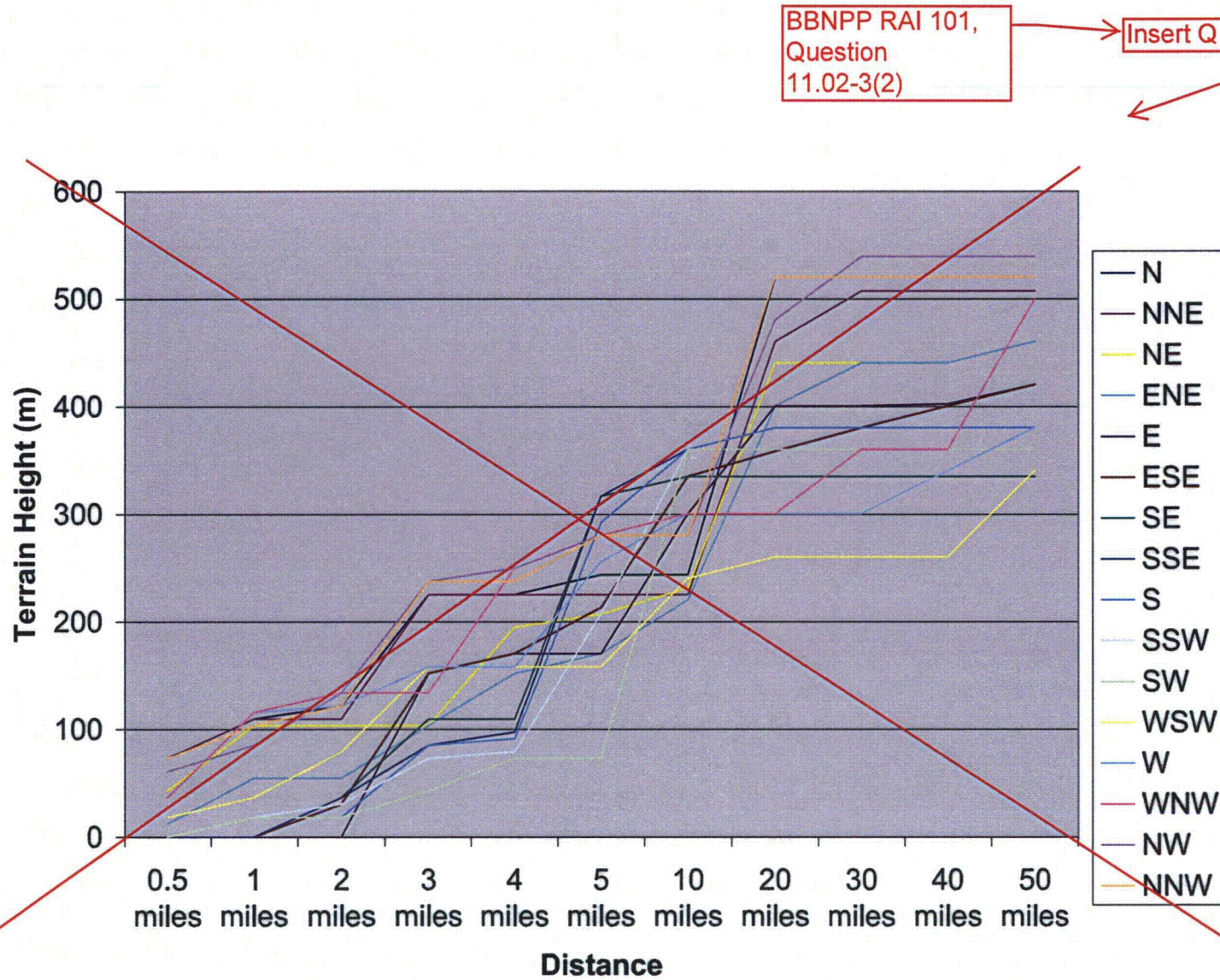


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**Figure 2.7-93— Maximum Terrain Heights, With Respect to Finished Floor Grade, 0-50 Miles Downwind of Bell Bend by Compass Sector**



ER: Section 2.7

Meteorology and Air Quality



Insert Q

