Enclosure 2

Revised COLA Content
Responses to RAI No. 101,
Questions 11.02-2 through 11.02-5, 11.03-1, 11.03-2
and
RAI No. 106,
Questions 11.02-6, 11.02-7, and 11.04-2

Mark-ups to COLA FSAR Section 2.1.1.3

mi (0.53 km), as depicted on Figure 2.1-4. In accordance with 10 CFR 50.34(a)(1)(ii)(D)(1), an individual assumed to be located at any point on the EAB will not receive a radiation dose in excess of 25 rem TEDE over any two hour period following a postulated fission product release into the containment (CFR, 2007b). The EAB is established in accordance with 10 CFR 100.21(a) and 10 CFR 100.3 (CFR, 2007c).}

RAI 106, Question 11.02-7(3)

Insert 2.1.1.3-1

This area will be conspicuously posted and administrative procedures, including security patrols will be imposed to control access to the area. Section 2.1.2.1 provides additional discussion regarding the control of access to the EAB.

2.1.2 Exclusion Area Authority and Control

Section 2.1.2.1 through Section 2.1.2.4 are added as a supplement to the U. S. EPR FSAR.

2.1.2.1 Authority

The BBNPP site is approximately 975 ac (395 ha) and is comprised of multiple parcels ranging in size from 1 acre (0.4 hectares) to 228 acres (92 hectares) that are or were originally owned by either PPL Susquehanna, LLC, other entities of PPL Corporation, or private land owners.

PPL Susquehanna, LLC, a subsidiary of PPL Generation, LLC owns 90% of the existing SSES Units 1 and 2. Allegheny Electric Cooperative owns 10%. PPL Bell Bend, LLC, owns the BBNPP project. PPL Bell Bend, LLC and PPL Susquehanna, LLC, for their respective parceled areas within the BBNPP EAB, possess the authority to determine all activities including the exclusion and removal of personnel and property. PPL Bell Bend, LLC, and PPL Susquehanna, LLC, for their respective parceled area within the BBNPP EAB, will exercise dominion and control in the event of an emergency to afford protection of public health and safety. Control of access to the BBNPP EAB within the site boundary is provided by posting the boundary and performing security patrols.

2.1.2.2 Control of Activities Unrelated to Plant Operations

No activities unrelated to plant operation are planned within the BBNPP EAB. All residences located within the BBNPP EAB will be vacated prior to plant operation.

2.1.2.3 Arrangements for Traffic Control

North Market Street, Beach Grove Road, Stone Church Road and Thomas Road traverse the BBNPP EAB. U.S. Route 11 provides direct access to both the SSES Units 1 and 2 and the BBNPP site. Confers Lane travels between BBNPP and SSES and provides access to Beach Grove Road from U.S. Route 11 to the south. PPL Bell Bend, LLC will make arrangements with Salem Township and with the Pennsylvania State Police for control of traffic on North Market Street, Beach Grove Road, Stone Church Road and Thomas Road in the event of an emergency. The Pennsylvania Emergency Management Agency and Salem Township will incorporate traffic control provisions in their emergency procedures.

2.1.2.4 Abandonment or Relocation of Roads

There are no public roads traversing the BBNPP EAB that will have to be abandoned or relocated because of their location. Current site plans contemplate the abandonment and removal of the portion of Confers Lane that traverses the BBNPP site.

2.1.3 Population Distribution

The resident and transient population surrounding the site, up to a 50 mi (80 km) radius, was estimated based on the two most recent U.S. Census Bureau decennial census data (1990 and

Insert 2.1.1.3-1

BBNPP liquid and gaseous radionuclide effluent concentrations at the plant interface with the environment from routine operation will meet the concentrations limits of 10 CFR Part 20, Appendix B, Table 2. The dose to individual members of the public in the unrestricted area from routine operations will meet the limits of 10 CFR Part 20.1301, 10 CFR Part 20.1302 and the EPA environmental radiation standards in 40 CFR Part 190 as described in 10 CFR Part 20.1301(e). BBNPP will also meet the ALARA dose objectives of 10 CFR Part 50, Appendix I.

Mark-ups to COLA FSAR Section 2.3.5

Owner Controlled Area (OCA) boundary (conservatively used instead of the site boundary)

sponsored computer program XOQDOQ. The onsite meteorological data used in the dispersion analysis has been shown to be representative of the region as discussed in Section 2.3.2. Thus, the atmospheric dispersion and deposition factors determined by AEOLUS3 from the ~~site boundary~~ to a radius of 50 mi (80 km) from the plant are appropriate for use in estimating the consequences of routine releases for BBNPP.

RAI 101, Question 11.03-2

Meteorological data summaries used as input to AEOLUS3 are provided in Section 2.3.2. The regulatory guidance described in Regulatory Guide 1.23, Revision 1 (NRC, 2007a), was followed in the determination of appropriate onsite meteorological data. The regulatory guidance described in Regulatory Guide 1.112 (NRC, 2007b) was followed in the determination of points of routine release of radioactive materials to the atmosphere and their characteristics. The regulatory guidance described in Regulatory Guide 1.109, Revision 1 (NRC, 1977b), was followed in the determination of potential receptors of interest.

The following assumptions were made for the long-term atmospheric dispersion analysis:

- Seven years of onsite meteorological data were used (2001 through 2007),
- A mixed mode release from the stack,
- Lower level (10 m or 33 ft) wind speed and direction data were used,
- Wind speed extrapolation was performed using the XOQDOQ coefficients,
- Vertical temperature difference (temperature difference between 60 m (197 ft) and 10 m (33 ft)) data were used,
- Building wake credit was taken using a Reactor Building height of 60 m (197 ft) and cross-sectional area of 2,940 m^2 (31,630 ft^2),
- Stack height was assumed to be 62 m (203 ft),
- Stack inner diameter was assumed to be 3.8 m (12.5 ft (a conservative assumption)),
- Stack flow rate was assumed to be 242,458 ft3/min (6,865,646 l/min) (a conservative assumption),
- Midpoint energy and relative intensity of the gamma spectrum used to determine gamma χ/Q values were 0.3 MeV and 1.0 MeV/sec,
- Twelve wind speed groups were used per Regulatory Guide 1.23, Revision 1 (with additional wind speed class breakdown at the lower wind speeds that are important for atmospheric dispersion),
- Plume rise was considered for the elevated portion of the mixed mode release,
- Plume meander was considered,
- Site-specific recirculation correction factors were used.
- Dispersion coefficients were modeled as done in NRC code XOQDOQ,
- Regulatory Guide 1.111 depletion and deposition curves were used,

- An annual average mixing height value of 900 m (2,953 ft) was used (conservative value),
- Grid receptor distances were chosen per Regulatory Guide 1.109 (NRC, 1977b), Appendix D, Section 2.6 with some additional distances,
- Special receptors were included (~~site boundary~~, nearest residents, gardens, and milk and meat animals) according to the guidance provided in Regulatory Guide 1.109 (NRC, 1977b),
- Terrain height of receptors was considered.

OCA boundary

RAI 101, Question 11.03-2

Inputs to the AEOLUS3 computer code are provided in Table 2.3-148.

The atmospheric transport and diffusion model used to determine the long-term atmospheric dispersion estimates for routine releases for BBNPP complies with the guidance provided in Regulatory Guide 1.111, Revision 1 (NRC, 1977a).

A mixed mode release from the BBNPP stack was modeled to determine routine release normal effluent atmospheric dispersion and deposition factors. Figure 2.3-1 of the U.S. EPR Final Safety Analysis Report indicates the location of the stack. As previously stated, seven years of meteorological data (2001-2007) from the onsite monitoring program at SSES Units 1 and 2 were used in the analysis. A summary of these data in the form of a joint frequency distribution of wind speed and direction as a function of atmospheric stability is provided in Section 2.3.2.

Credit for building wake effect was taken. The release point was 203 ft (62 m) above grade (6.6 ft (2 m) above the Reactor Building). Terrain height values for downwind receptor locations were determined using topographic maps from the U.S. Geological Survey. The annual average height of the inversion layer and the maximum allowable plume centerline height were set to 900 m (2,953 ft). This value was determined using Figures 1 and 6 from Report AP-101 (EPA, 1972). A stack flow rate of 242,458 ft3/min was used; this is a conservative value, since the actual flow rate for normal operations will be higher.

Table 2.3-149 through Table 2.3-173 present the site-specific normal effluent annual average atmospheric dispersion and deposition factors for a mixed mode release from the BBNPP stack. Locations of interest (i.e., ~~site boundary~~, nearest resident, nearest garden, milk/meat animals) were derived from the SSES Annual Radiological Environmental Operating Report for 2006, and from regulatory guidance. The specific locations of the potential receptors of interest are provided in each table in terms of downwind sector and distance from the stack.

2.3.5.3 Site-Specific Evaluation of Maximum Annual Average χ/Q and D/Q

The maximum site-specific annual average χ/Q and D/Q values at or beyond the ~~site boundary~~ are 6.781E-06 sec/m^3 (~~site boundary~~, WSW downwind sector, 251 m) and 2.268E-08 /m^2 (~~site boundary~~, NE downwind sector, 506.8 m), respectively. The maximum annual average χ/Q at or beyond the ~~site boundary~~ is not bounded by the value presented in Table 2.1-1 within the U.S. EPR Final Safety Analysis Report (FSAR). This χ/Q value is a departure from the U.S. EPR FSAR. The maximum annual average D/Q at or beyond the ~~site boundary~~ is bounded by the value presented in Table 2.1-1 within the U.S. EPR Final Safety Analysis Report (FSAR).

Table 2.3-148— {AEOLUS3 Input}
(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
~~Site~~ boundary distances, terrain heights, and recirculation correction factors (RCF's)(in meters, meters above finished floor grade, and dimensionless, respectively)	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 than242,458 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 χ/Q's. Thus, using 3.8 meters as the stack inner diameter produces conservative χ/Q's.
Stack height	62 meters (2 meters above assumed Reactor Building)

Owner Controlled Area (OCA)

RAI 101, Question 11.03-2

Table 2.3-148— {AEOLUS3 Input}
(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.		
	Sector	Height	RCF's
	N	~~73.2~~	1.05
	NNE	~~73.2~~	1.37
	NE	~~42.7~~	1.44
	ENE	~~12.2~~	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	~~0.0~~	1.33
	SW	0.0	1
	WSW	~~18.3~~	1
	W	~~36.6~~	1.01
	WNW	~~36.6~~	1.19
	NW	~~61.0~~	1
	NNW	~~73.2~~	1
1.0 mile	Values in meters above finished floor grade and dimensionless, respectively.		
	Sector	Height	RCF's
	N	~~109.7~~	1.12
	NNE	109.7	1.32
	NE	103.6	1.31
	ENE	~~54.9~~	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	~~18.3~~	1
	WSW	~~36.6~~	1
	W	~~115.8~~	1.07
	WNW	115.8	1.24
	NW	85.3	1
	NNW	~~103.6~~	1

See Insert A

RAI 101, Question 11.02-3(2)

Table 2.3-148— {AEOLUS3 Input}
(Page 3 of 8)

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	~~30.5~~	1.17
	SE	~~36.6~~	1
	SSE	~~36.6~~	1.12
	S	18.3	1
	SSW	~~30.5~~	1.12
	SW	~~18.3~~	1
	WSW	~~79.2~~	1
	W	~~121.9~~	1
	WNW	134.1	1
	NW	134.1	1
	NNW	~~121.9~~	1
3.0 miles	Values in meters above finished floor grade and dimensionless, respectively.		
	Sector	Height	RCF's
	N	~~225.6~~	1.2
	NNE	~~225.6~~	1.27
	NE	103.6	1.06
	ENE	~~103.6~~	1.03
	E	~~152.4~~	1.05
	ESE	~~152.4~~	1.11
	SE	~~109.7~~	1
	SSE	~~85.3~~	1.19
	S	~~85.3~~	1
	SSW	~~73.2~~	1.09
	SW	~~42.7~~	1
	WSW	~~158.5~~	1
	W	~~158.5~~	1
	WNW	134.1	1
	NW	237.7	1.01
	NNW	~~237.7~~	1

Table 2.3-148— {AEOLUS3 Input}
(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	~~225.6~~	1.08
	NNE	~~225.6~~	1.18
	NE	~~195.1~~	1.13
	ENE	~~152.4~~	1.05
	E	~~170.7~~	1.11
	ESE	~~170.7~~	1.33
	SE	~~109.7~~	1
	SSE	~~97.5~~	1.02
	S	~~91.4~~	1
	SSW	~~79.2~~	1.1
	SW	73.2	1
	WSW	~~158.5~~	1
	W	~~158.5~~	1
	WNW	~~249.9~~	1
	NW	~~249.9~~	1
	NNW	~~237.7~~	1
5.0 miles	Values in meters above finished floor grade and dimensionless, respectively.		
	Sector	Height	RCF's
	N	243.8	1
	NNE	~~225.6~~	1.08
	NE	~~207.3~~	1
	ENE	~~170.7~~	1
	E	170.7	1.01
	ESE	~~213.4~~	1.18
	SE	~~317.0~~	1
	SSE	~~317.0~~	1.06
	S	~~292.6~~	1
	SSW	~~207.3~~	1
	SW	73.2	1
	WSW	~~158.5~~	1
	W	~~256.0~~	1
	WNW	~~280.4~~	1
	NW	280.4	1
	NNW	~~280.4~~	1

Insert A

Maximum Terrain Heights 0.5 mile	Values in meters above finished floor grade.

N	61.0
NNE	61.0
NE	30.5
ENE	0.0
E	0.0
ESE	0.0
SE	0.0
SSE	0.0
S	0.0
SSW	1.5
SW	0.0
WSW	6.1
W	18.3
WNW	24.4
NW	54.9
NNW	61.0

Insert A (cont'd)

0.75 mile	Values in meters above finished floor grade and dimensionless, respectively.

Sector	Height	RCF's
N	91.4	1.05
NNE	93.0	1.37
NE	80.8	1.44
ENE	0.0	1.47
E	0.0	1.55
ESE	0.0	1.43
SE	0.0	1.09
SSE	0.0	1.32
S	18.3	1
SSW	18.3	1.33
SW	0.0	1
WSW	12.2	1
W	54.9	1.01
WNW	91.4	1.19
NW	85.3	1
NNW	61.0	1

Insert A (cont'd)

1.0 mile	Values in meters above finished floor grade.

N	97.5
NNE	109.7
NE	103.6
ENE	42.7
E	0.0
ESE	0.0
SE	0.0
SSE	0.0
S	18.3
SSW	18.3
SW	12.2
WSW	24.4
W	79.2
WNW	115.8
NW	85.3
NNW	85.3

Insert A (cont'd)

1.5 miles	Values in meters above finished floor grade and dimensionless, respectively.

Sector	Height	RCF's
N	121.9	1.12
NNE	109.7	1.32
NE	103.6	1.31
ENE	54.9	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	12.2	1
WSW	24.4	1
W	115.8	1.07
WNW	134.1	1.24
NW	134.1	1
NNW	91.4	1

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 0.0 SE 0.0 SSE 0.0 S 18.3 SSW 18.3 SW 12.2 WSW 24.4 W 115.8 WNW 134.1 NW 134.1 NNW 91.4

Insert A (cont'd)

3.0 miles	Values in meters above finished floor grade.

N	219.5
NNE	207.3
NE	103.6
ENE	97.5
E	140.2
ESE	146.3
SE	79.2
SSE	79.2
S	79.2
SSW	67.1
SW	12.2
WSW	24.4
W	152.4
WNW	134.1
NW	237.7
NNW	213.4

Insert A (cont'd)

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

Insert A (cont'd)

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

Table 2.3-148— {AEOLUS3 Input}
(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
	~~NNE~~	~~1443~~	~~109.7~~	~~1.32~~
	~~NE~~	~~1642~~	~~103.6~~	~~1.31~~
	~~ENE~~	~~2854~~	~~54.9~~	~~1.06~~
	~~E~~	~~2381~~	~~0.0~~	~~1.21~~
	~~ESE~~	~~2259~~	~~30.5~~	~~1.37~~
	~~SE~~	~~2167~~	~~36.6~~	~~1.00~~
	~~SSW~~	~~645.0~~	~~0.0~~	~~1.33~~
	~~NW~~	~~494.0~~	~~61.0~~	~~1.00~~
	~~NE~~	~~1922~~	~~103.6~~	~~1.31~~
	~~ENE~~	~~4979~~	~~152.4~~	~~1.03~~
	~~E~~	~~3884~~	~~152.4~~	~~1.08~~
	~~ESE~~	~~2362~~	~~30.5~~	~~1.37~~
	~~SE~~	~~1343~~	~~0.0~~	~~1.00~~
	~~SSW~~	~~583.0~~	~~0.0~~	~~1.33~~
	~~NE~~	~~3021~~	~~103.6~~	~~1.17~~
	~~NE~~	~~3139~~	~~103.6~~	~~1.17~~

Insert C

RAI 101, Question 11.02-3(2)

Table 2.3-148— {AEOLUS3 Input}
(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~~	~~2557~~	~~121.9~~	~~1.32~~
	~~NNE~~	~~5948~~	~~225.6~~	~~1.18~~
	~~NE~~	~~4979~~	~~195.1~~	~~1.06~~
	~~ENE~~	~~5497~~	~~152.4~~	~~1.03~~
	~~E~~	~~3884~~	~~152.4~~	~~1.08~~
	~~ESE~~	~~5573~~	~~170.7~~	~~1.11~~
	~~SE~~	~~2116~~	~~36.6~~	~~1.00~~
	~~SSE~~	~~1683~~	~~36.6~~	~~1.32~~
	~~SSW~~	~~1959~~	~~30.5~~	~~1.21~~
	~~NW~~	~~494.0~~	~~61.0~~	~~1.00~~
	~~N~~	~~6692~~	~~243.8~~	~~1.08~~
	~~NE~~	~~5593~~	~~195.1~~	~~1.06~~
	~~E~~	~~2247~~	~~0.0~~	~~1.21~~
	~~SE~~	~~4941~~	~~109.7~~	~~1.00~~
	~~SSW~~	~~583.0~~	~~0.0~~	~~1.33~~
	~~N~~	~~1400~~	~~109.7~~	~~1.12~~
Nearest Milk Animal 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
	~~E~~	~~8789~~	~~300.5~~	~~1.01~~
	~~ESE~~	~~7818~~	~~213.4~~	~~1.18~~
	~~S~~	~~4359~~	~~85.3~~	~~1.00~~
	~~SSW~~	~~19826~~	~~360.5~~	~~1.00~~
	~~W~~	~~6433~~	~~158.5~~	~~1.00~~
	~~WNW~~	~~6602~~	~~280.4~~	~~1.00~~
	~~S~~	~~4888~~	~~91.4~~	~~1.00~~
Nearest Meat Animal 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
	~~NE~~	~~4979~~	~~195.1~~	~~1.06~~
	~~ENE~~	~~5497~~	~~152.4~~	~~1.03~~
	~~S~~	~~4888~~	~~91.4~~	~~1.00~~
	~~SSW~~	~~1225~~	~~18.3~~	~~1.21~~

Insert C

Nearest Resident	N	1254.	93.0	1.12
	NNE	1266.	97.8	1.32
	NE	1678.	103.6	1.31
	ENE	2892.	54.9	1.06
	E	2248.	0.0	1.21
	ESE	2281.	0.0	1.37
	SE	1271.	0.0	1.00
	SSE	1620.	0.0	1.32
	S	1749.	18.3	1.00
	SSW	1675.	18.3	1.21
	SW	756.	0.0	1.00
	WSW	1019.	4.6	1.00
	W	596.	18.3	1.01
	WNW	852.	48.8	1.19
	NW	748.	36.6	1.00
	NNW	1291.	54.9	1.00

Insert C (cont'd)

Nearest Garden	N	833.	67.1	1.05
	NNE	1395.	106.7	1.32
	NE	2284.	103.6	1.31
	ENE	2785.	54.9	1.06
	E	2266.	0.0	1.21
	ESE	1786.	0.0	1.37
	SE	1467.	0.0	1.00
	SSE	1619.	0.0	1.32
	S	811.	0.0	1.00
	SSW	408.	0.0	1.33
	SW	454.	0.0	1.00
	WSW	596.	0.0	1.00
	W	819.	18.3	1.01
	WNW	1424.	115.8	1.24
	NW	730.	36.6	1.00
	NNW	1338.	57.9	1.00
Nearest Milk Animal	S	4855.	79.2	1.00
	SSW	1191.	18.3	1.33
	W	6492.	158.5	1.00
	WNW	6469.	237.7	1.00
	NNW	6388.	228.6	1.00

Insert C (cont'd)

Nearest Meat Animal	N	804.	67.1	1.05
	NNE	824.	62.5	1.37
	NE	994.	42.7	1.44
	ENE	2208.	48.8	1.07
	E	2154.	0.0	1.21
	ESE	1786.	0.0	1.37
	SE	938.	0.0	1.09
	SSE	819.	0.0	1.32
	S	799.	0.0	1.00
	SSW	918.	9.1	1.33
	SW	628.	0.0	1.00
	WSW	537.	0.0	1.00
	W	534.	18.3	1.01
	WNW	545.	18.3	1.19
	NW	656.	18.3	1.00
	NNW	806.	61.0	1.00

Table 2.3-149— {Normal Effluent Annual Average, Undecayed, Undepleted χ/Q Values for Mixed Mode Release Using 242,458 cfm Flow Rate for Grid Receptors}

SECTOR	χ/Q (sec/m³) 0.5 mi	χ/Q (sec/m³) 0.75 mi	χ/Q (sec/m³) 1 mi	χ/Q (sec/m³) 1.5 mi	χ/Q (sec/m³) 2 mi	χ/Q (sec/m³) 2.5 mi	χ/Q (sec/m³) 3 mi	χ/Q (sec/m³) 3.5 mi	χ/Q (sec/m³) 4 mi	χ/Q (sec/m³) 4.5 mi	χ/Q (sec/m³) 5 mi
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	2.302E-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

Insert D

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Insert D

SECTOR	0.5	0.75	1	1.5	2	2.5	3	3.5	4	4.5	5
N	9.790E-07	1.282E-06	8.798E-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	1.419E-06	1.565E-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	9.185E-07	1.431E-06	8.746E-07	4.596E-07	2.621E-07	1.858E-07	1.274E-07	1.008E-07	8.788E-08	7.378E-08	5.579E-08
ENE	4.617E-07	2.716E-07	2.222E-07	1.496E-07	9.861E-08	7.889E-08	5.787E-08	4.576E-08	3.805E-08	3.185E-08	2.586E-08
E	2.480E-07	1.486E-07	8.417E-08	5.514E-08	3.628E-08	4.693E-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	4.983E-08	3.146E-08	3.945E-08	2.817E-08	2.218E-08	2.163E-08	1.804E-08	1.362E-08
SE	2.317E-07	1.395E-07	9.295E-08	6.034E-08	4.397E-08	5.233E-08	3.957E-08	3.149E-08	2.566E-08	2.157E-08	1.836E-08
SSE	3.050E-07	1.842E-07	1.342E-07	8.764E-08	5.441E-08	6.651E-08	5.345E-08	4.252E-08	2.973E-08	2.496E-08	2.210E-08
S	2.607E-07	1.894E-07	1.493E-07	1.050E-07	7.903E-08	1.000E-07	7.602E-08	6.092E-08	4.985E-08	4.212E-08	3.597E-08
SSW	5.086E-07	3.521E-07	2.590E-07	1.946E-07	1.423E-07	2.082E-07	1.566E-07	1.259E-07	1.052E-07	8.903E-08	6.973E-08
SW	4.838E-07	2.681E-07	2.178E-07	1.653E-07	1.374E-07	1.173E-07	1.017E-07	2.575E-07	2.146E-07	1.828E-07	1.584E-07
WSW	8.691E-07	4.477E-07	3.689E-07	2.881E-07	2.482E-07	2.188E-07	1.948E-07	1.749E-07	1.584E-07	1.445E-07	1.326E-07
W	1.800E-07	5.877E-07	1.693E-06	1.026E-06	6.229E-07	4.531E-07	3.475E-07	2.783E-07	2.301E-07	1.948E-07	1.680E-07
WNW	1.433E-07	1.687E-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	4.518E-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	6.274E-07	4.879E-07	6.127E-07	3.367E-07	2.191E-07	1.631E-07	1.241E-07	9.873E-08	8.111E-08	6.826E-08	5.856E-08

Table 2.3-151— {Normal Effluent Annual Average, Undecayed, Undepleted χ/Q Values for Mixed Mode Release Using 242,458 cfm Flow Rate for ~~Site Boundary~~ Receptors}

Owner Controlled Area (OCA) Boundary

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DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) ~~Site Boundary~~
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 2.3-152— {Normal Effluent Annual Average, Undecayed, Undepleted χ/Q Values (sec/m^3) for Mixed Mode Release With Building Wake for Nearest Residents}

DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) Nearest Residents
~~NNE~~	~~1443~~	~~1.171E-06~~
~~NE~~	~~1642~~	~~8.466E-07~~
~~NE~~	~~1922~~	~~6.587E-07~~
~~NE~~	~~3021~~	~~2.892E-07~~
~~NE~~	~~3139~~	~~2.725E-07~~
~~ENE~~	~~2854~~	~~1.170E-07~~
~~ENE~~	~~4979~~	~~5.557E-08~~
~~E~~	~~2381~~	~~5.594E-08~~
~~E~~	~~3884~~	~~4.959E-08~~
~~ESE~~	~~2259~~	~~7.442E-08~~
~~ESE~~	~~2362~~	~~7.064E-08~~
~~SE~~	~~1343~~	~~1.134E-07~~
~~SE~~	~~2167~~	~~9.858E-08~~
~~SSW~~	~~583~~	~~8.217E-07~~
~~SSW~~	~~645~~	~~6.996E-07~~
~~NW~~	~~494~~	~~7.137E-07~~

Insert F

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Table 2.3-153— {Normal Effluent Annual Average, Undecayed, Undepleted χ/Q Values (sec/m^3) for Mixed Mode Release With Building Wake for Nearest Gardens}

DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) Nearest Gardens
~~N~~	~~1400~~	~~1.123E-06~~
~~N~~	~~2557~~	~~5.178E-07~~
~~N~~	~~6692~~	~~1.003E-07~~
~~NNE~~	~~5948~~	~~1.188E-07~~
~~NE~~	~~4979~~	~~1.222E-07~~
~~NE~~	~~5593~~	~~1.024E-07~~
~~ENE~~	~~5497~~	~~4.771E-08~~
~~E~~	~~2247~~	~~5.940E-08~~
~~E~~	~~3884~~	~~4.959E-08~~
~~ESE~~	~~5573~~	~~2.256E-08~~
~~SE~~	~~2116~~	~~1.015E-07~~
~~SE~~	~~4941~~	~~3.873E-08~~
~~SSE~~	~~1683~~	~~1.960E-07~~
~~SSW~~	~~583~~	~~8.217E-07~~
~~SSW~~	~~1959~~	~~2.877E-07~~
~~NW~~	~~494~~	~~7.137E-07~~

Table 2.3-154— {Normal Effluent Annual Average, Undecayed, Undepleted χ/Q Values (sec/m^3) for Mixed Mode Release With Building Wake for Nearest Milk Animals}

DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) Nearest Milk Animals
~~E~~	~~8789~~	~~1.318E-08~~
~~ESE~~	~~7818~~	~~1.423E-08~~
~~S~~	~~4359~~	~~8.950E-08~~
~~S~~	~~4888~~	~~7.556E-08~~
~~SSW~~	~~19826~~	~~2.016E-08~~
~~W~~	~~6433~~	~~2.304E-07~~
~~WNW~~	~~6602~~	~~1.148E-07~~

Table 2.3-155— {Normal Effluent Annual Average, Undecayed, Undepleted χ/Q Values (sec/m^3) for Mixed Mode Release With Building Wake for Nearest Meat Animals}

DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) Nearest Meat Animals
~~NE~~	~~4979~~	~~1.222E-07~~
~~ENE~~	~~5497~~	~~4.771E-08~~
~~S~~	~~4888~~	~~7.556E-08~~
~~SSW~~	~~1225~~	~~3.166E-07~~

Insert F

Residents

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

Insert F (cont'd)

Gardens

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

Insert F (cont'd)

Milk Animals

SECTOR	DISTANCE (m)	χ/Q Values (sec/m^3)
S	4855	7.536E-08
SSW	1191	3.564E-07
W	6492	2.274E-07
WNW	6469	1.182E-07
NNW	6388	8.201E-08

Insert F (cont'd)

Meat Animals

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

Table 2.3-156— {Normal Effluent Annual Average, Decayed, Depleted χ/Q Values (sec/m³) for Mixed Mode Release With Building Wake for Grid Receptors}

(Page 1 of 2)

DOWNWIND SECTOR	χ/Q (sec/m³) 0.5 mi	χ/Q (sec/m³) 0.75 mi	χ/Q (sec/m³) 1 mi	χ/Q (sec/m³) 1.5 mi	χ/Q (sec/m³) 2 mi	χ/Q (sec/m³) 2.5 mi	χ/Q (sec/m³) 3 mi	χ/Q (sec/m³) 3.5 mi	χ/Q (sec/m³) 4 mi	χ/Q (sec/m³) 4.5 mi	χ/Q (sec/m³) 5 mi
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	1.2(	1.167E-07	6.744E-08	5.992E-08	4.752E-08	3.702E-08	2.560E-08	1.889E-08	1.648E-08

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Insert M

Table 2.3-156— {Normal Effluent Annual Average, Decayed, Depleted χ/Q Values (sec/m^3) for Mixed Mode Release With Building Wake for Grid Receptors}

(Page 2 of 2)

DOWNWIND SECTOR	χ/Q (sec/m^3) 0.5 mi	χ/Q (sec/m^3) 0.75 mi	χ/Q (sec/m^3) 1 mi	χ/Q (sec/m^3) 1.5 mi	χ/Q (sec/m^3) 2 mi	χ/Q (sec/m^3) 2.5 mi	χ/Q (sec/m^3) 3 mi	χ/Q (sec/m^3) 3.5 mi	χ/Q (sec/m^3) 4 mi	χ/Q (sec/m^3) 4.5 mi	χ/Q (sec/m^3) 5 mi
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

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

Table 2.3-157— {Normal Effluent Annual Average, Decayed, Depleted χ/Q Values for Mixed Mode Release Using 242,458 cfm Flow Rate for ~~Site Boundary~~ Receptors}

Owner Controlled Area (OCA) Boundary

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~~DOWNWIND~~ SECTOR	Distance (m)	χ/Q (sec/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 2.3-158— {Normal Effluent Annual Average, Decayed, Depleted χ/Q Values (sec/m^3)for Mixed Mode Release With Building Wake for Nearest Residents}

DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) Nearest Residents
~~NNE~~	~~1443~~	~~1.136E-06~~
~~NE~~	~~1642~~	~~8.024E-07~~
~~NE~~	~~1922~~	~~6.201E-07~~
~~NE~~	~~3021~~	~~2.664E-07~~
~~NE~~	~~3139~~	~~2.505E-07~~
~~ENE~~	~~2854~~	~~1.072E-07~~
~~ENE~~	~~4979~~	~~4.602E-08~~
~~E~~	~~2381~~	~~5.010E-08~~
~~E~~	~~3884~~	~~4.207E-08~~
~~ESE~~	~~2259~~	~~6.854E-08~~
~~ESE~~	~~2362~~	~~6.497E-08~~
~~SE~~	~~1343~~	~~1.021E-07~~
~~SE~~	~~2167~~	~~9.075E-08~~
~~SSW~~	~~583~~	~~7.659E-07~~
~~SSW~~	~~645~~	~~6.489E-07~~
~~NW~~	~~494~~	~~6.942E-07~~

Insert H

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Table 2.3-159— {Normal Effluent Annual Average, Decayed, Depleted χ/Q Values (sec/m^3)for Mixed Mode Release With Building Wake for Nearest Gardens}

DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) Nearest Gardens
~~N~~	~~1400~~	~~1.098E-06~~
~~N~~	~~2557~~	~~4.942E-07~~
~~N~~	~~6692~~	~~7.718E-08~~
~~NNE~~	~~5948~~	~~9.289E-08~~
~~NE~~	~~4979~~	~~9.791E-08~~
~~NE~~	~~5593~~	~~8.096E-08~~
~~ENE~~	~~5497~~	~~3.913E-08~~
~~E~~	~~2247~~	~~5.324E-08~~
~~E~~	~~3884~~	~~4.207E-08~~
~~ESE~~	~~5573~~	~~1.798E-08~~
~~SE~~	~~2116~~	~~9.355E-08~~
~~SE~~	~~4941~~	~~3.355E-08~~
~~SSE~~	~~1683~~	~~1.822E-07~~
~~SSW~~	~~583~~	~~7.659E-07~~
~~SSW~~	~~1959~~	~~2.697E-07~~
~~NW~~	~~494~~	~~6.942E-07~~

Table 2.3-160— {Normal Effluent Annual Average, Decayed, Depleted χ/Q Values (sec/m^3)for Mixed Mode Release With Building Wake for Nearest Milk Animals}

DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) Nearest Milk Animals
~~E~~	~~8789~~	~~9.703E-09~~
~~ESE~~	~~7818~~	~~1.072E-08~~
~~S~~	~~4359~~	~~8.247E-08~~
~~S~~	~~4888~~	~~6.908E-08~~
~~SSW~~	~~19826~~	~~1.303E-08~~
~~W~~	~~6433~~	~~1.960E-07~~
~~WNW~~	~~6602~~	~~8.843E-08~~

Table 2.3-161— {Normal Effluent Annual Average, Decayed, Depleted χ/Q Values (sec/m^3)for Mixed Mode Release With Building Wake for Nearest Meat Animals}

DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) Nearest Meat Animals
~~NE~~	~~4979~~	~~9.791E-08~~
~~ENE~~	~~5497~~	~~3.913E-08~~
~~S~~	~~4888~~	~~6.908E-08~~
~~SSW~~	~~1225~~	~~2.897E-07~~

Insert H

Residents

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

Insert H (cont'd)

Gardens

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

Insert H (cont'd)

Milk Animals

SECTOR	DISTANCE (m)	χ/Q Values (sec/m^3)
S	4855	6.918E-08
SSW	1191	3.260E-07
W	6492	1.933E-07
WNW	6469	9.195E-08
NNW	6388	6.389E-08

Insert H (cont'd)

Meat Animals

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

Table 2.3-162— {Normal Effluent Annual Average, Undecayed, Undepleted Gamma X/Q Values for Mixed Mode Release Using 242,458 cfm Flow Rate for Grid Receptors}

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DOWNWIND SECTOR	X/Q (sec/m³) 0.5 mi	X/Q (sec/m³) 0.75 mi	X/Q (sec/m³) 1 mi	X/Q (sec/m³) 1.5 mi	X/Q (sec/m³) 2 mi	X/Q (sec/m³) 2.5 mi	X/Q (sec/m³) 3 mi	X/Q (sec/m³) 3.5 mi	X/Q (sec/m³) 4 mi	X/Q (sec/m³) 4.5 mi	X/Q (sec/m³) 5 mi
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

Insert N

RAI 101, Question 11.02-3(2)

Insert N

SECTOR	0.5	0.75	1	1.5	2	2.5	3	3.5	4	4.5	5
N	6.857E-07	5.403E-07	4.087E-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	9.160E-07	6.951E-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	7.988E-07	7.135E-07	4.624E-07	2.725E-07	1.666E-07	1.239E-07	8.805E-08	7.168E-08	6.397E-08	5.472E-08	4.206E-08
ENE	3.464E-07	2.214E-07	1.531E-07	9.939E-08	6.839E-08	5.408E-08	4.113E-08	3.344E-08	2.846E-08	2.428E-08	2.003E-08
E	1.960E-07	1.273E-07	7.341E-08	4.754E-08	3.089E-08	3.189E-08	2.426E-08	1.970E-08	1.737E-08	1.479E-08	1.165E-08
ESE	1.411E-07	9.212E-08	6.541E-08	4.252E-08	2.647E-08	2.709E-08	2.010E-08	1.631E-08	1.629E-08	1.386E-08	1.064E-08
SE	1.762E-07	1.146E-07	7.757E-08	5.007E-08	3.632E-08	3.601E-08	2.823E-08	2.305E-08	1.923E-08	1.645E-08	1.424E-08
SSE	2.359E-07	1.535E-07	1.133E-07	7.321E-08	4.511E-08	4.511E-08	3.760E-08	3.070E-08	2.197E-08	1.879E-08	1.692E-08
S	2.403E-07	1.846E-07	1.379E-07	9.010E-08	6.578E-08	6.509E-08	5.128E-08	4.211E-08	3.529E-08	3.036E-08	2.637E-08
SSW	5.207E-07	4.037E-07	2.774E-07	1.853E-07	1.275E-07	1.331E-07	1.031E-07	8.489E-08	7.234E-08	6.226E-08	4.948E-08
SW	5.513E-07	3.655E-07	3.145E-07	2.135E-07	1.617E-07	1.298E-07	1.080E-07	1.437E-07	1.223E-07	1.060E-07	9.325E-08
WSW	1.030E-06	7.293E-07	6.398E-07	4.342E-07	3.296E-07	2.655E-07	2.219E-07	1.904E-07	1.665E-07	1.477E-07	1.327E-07
W	5.432E-07	6.308E-07	6.704E-07	4.367E-07	2.878E-07	2.213E-07	1.770E-07	1.465E-07	1.244E-07	1.077E-07	9.465E-08
WNW	4.163E-07	6.305E-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	5.286E-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	4.926E-07	3.243E-07	2.811E-07	1.732E-07	1.213E-07	9.430E-08	7.472E-08	6.133E-08	5.168E-08	4.442E-08	3.880E-08

Table 2.3-163— {Normal Effluent Annual Average, Undecayed, Undepleted Gamma χ/Q Values for Mixed Mode Release Using 242,458 cfm Flow Rate for ~~Site Boundary~~ Receptors}

Owner Controlled Area (OCA) Boundary

RAI 101, Question 11.03-2

DOWNWIND SECTOR	Distance (m)	χ/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

Table 2.3-164— {Normal Effluent Annual Average, Undecayed, Undepleted Gamma χ/Q Values (sec/m^3) for Mixed Mode Release With Building Wake for Nearest Residents}

DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) Nearest Residents
~~NNE~~	~~1443~~	~~5.462E-07~~
~~NE~~	~~1642~~	~~4.504E-07~~
~~NE~~	~~1922~~	~~3.671E-07~~
~~NE~~	~~3021~~	~~1.811E-07~~
~~NE~~	~~3139~~	~~1.722E-07~~
~~ENE~~	~~2854~~	~~7.971E-08~~
~~ENE~~	~~4979~~	~~3.964E-08~~
~~E~~	~~2381~~	~~4.826E-08~~
~~E~~	~~3884~~	~~3.344E-08~~
~~ESE~~	~~2259~~	~~5.514E-08~~
~~ESE~~	~~2362~~	~~5.236E-08~~
~~SE~~	~~1343~~	~~9.396E-08~~
~~SE~~	~~2167~~	~~6.961E-08~~
~~SSW~~	~~583~~	~~7.191E-07~~
~~SSW~~	~~645~~	~~6.476E-07~~
~~NW~~	~~494~~	~~9.332E-07~~

Insert J

RAI 101, Question 11.02-3(2)

Table 2.3-165— {Normal Effluent Annual Average, Undecayed, Undepleted Gamma χ/Q Values (sec/m^3) for Mixed Mode Release With Building Wake for Nearest Gardens}

DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) Nearest Gardens
~~N~~	~~1400~~	~~4.925E-07~~
~~N~~	~~2557~~	~~2.746E-07~~
~~N~~	~~6692~~	~~6.603E-08~~
~~NNE~~	~~5948~~	~~7.995E-08~~
~~NE~~	~~4979~~	~~8.484E-08~~
~~NE~~	~~5593~~	~~7.262E-08~~
~~ENE~~	~~5497~~	~~3.467E-08~~
~~E~~	~~2247~~	~~5.138E-08~~
~~E~~	~~3884~~	~~3.344E-08~~
~~ESE~~	~~5573~~	~~1.655E-08~~
~~SE~~	~~2116~~	~~7.159E-08~~
~~SE~~	~~4941~~	~~2.761E-08~~
~~SSE~~	~~1683~~	~~1.374E-07~~
~~SSW~~	~~583~~	~~7.191E-07~~
~~SSW~~	~~1959~~	~~2.565E-07~~
~~NW~~	~~494~~	~~9.332E-07~~

Table 2.3-166— {Normal Effluent Annual Average, Undecayed, Undepleted Gamma χ/Q Values (sec/m^3) for Mixed Mode Release With Building Wake for Nearest Milk Animals}

DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) Nearest Milk Animals
~~E~~	~~8789~~	~~1.032E-08~~
~~ESE~~	~~7818~~	~~1.107E-08~~
~~S~~	~~4359~~	~~5.893E-08~~
~~S~~	~~4888~~	~~5.084E-08~~
~~SSW~~	~~19826~~	~~1.566E-08~~
~~W~~	~~6433~~	~~1.245E-07~~
~~WNW~~	~~6602~~	~~6.832E-08~~

Table 2.3-167— {Normal Effluent Annual Average, Undecayed, Undepleted Gamma χ/Q Values (sec/m^3) for Mixed Mode Release With Building Wake for Nearest Meat Animals}

DOWNWIND SECTOR	Distance (m)	χ/Q (sec/m^3) Nearest Meat Animals
~~NE~~	~~4979~~	~~8.484E-08~~
~~ENE~~	~~5497~~	~~3.467E-08~~
~~S~~	~~4888~~	~~5.084E-08~~
~~SSW~~	~~1225~~	~~3.623E-07~~

Insert J

Residents

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

Insert J (cont'd)

Gardens

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

Insert J (cont'd)

Milk Animals

SECTOR	DISTANCE (m)	χ/Q Values (sec/m^3)
S	4855	5.090E-08
SSW	1191	4.094E-07
W	6492	1.231E-07
WNW	6469	7.010E-08
NNW	6388	5.218E-08

Insert J (cont'd)

Meat Animals

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

Table 2.3-168— {Normal Effluent Annual Average D/Q Values for Mixed Mode Release Using 242,458 cfm Flow Rate for Grid Receptors}

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DOWNWIND SECTOR	D/Q ($1/m^2$) 0.5 mi	D/Q ($1/m^2$) 0.75 mi	D/Q ($1/m^2$) 1 mi	D/Q ($1/m^2$) 1.5 mi	D/Q ($1/m^2$) 2 mi	D/Q ($1/m^2$) 2.5 mi	D/Q ($1/m^2$) 3 mi	D/Q ($1/m^2$) 3.5 mi	D/Q ($1/m^2$) 4 mi	D/Q ($1/m^2$) 4.5 mi	D/Q ($1/m^2$) 5 mi
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

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

Table 2.3-169— {Normal Effluent Annual Average D/Q Values (1/m^2) for Mixed Mode Release Using 242,458 cfm Flow Rate for ~~Site Boundary~~ Receptors}

Owner Controlled Area (OCA) Boundary

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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

Table 2.3-170— {Normal Effluent Annual Average D/Q Values (1/m^2) for Mixed Mode Release With Building Wake for Nearest Residents}

DOWNWIND SECTOR	Distance (m)	D/Q ($1/m^2$) Nearest Residents
~~NNE~~	~~1443~~	~~3.287E-09~~
~~NE~~	~~1642~~	~~5.592E-09~~
~~NE~~	~~1922~~	~~4.337E-09~~
~~NE~~	~~3021~~	~~1.846E-09~~
~~NE~~	~~3139~~	~~1.732E-09~~
~~ENE~~	~~2854~~	~~9.959E-10~~
~~ENE~~	~~4979~~	~~5.779E-10~~
~~E~~	~~2381~~	~~6.560E-10~~
~~E~~	~~3884~~	~~4.819E-10~~
~~ESE~~	~~2259~~	~~6.839E-10~~
~~ESE~~	~~2362~~	~~6.469E-10~~
~~SE~~	~~1343~~	~~1.508E-09~~
~~SE~~	~~2167~~	~~9.258E-10~~
~~SSW~~	~~583~~	~~6.036E-09~~
~~SSW~~	~~645~~	~~5.310E-09~~
~~NW~~	~~494~~	~~2.810E-09~~

Insert L

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Table 2.3-171— {Normal Effluent Annual Average D/Q Values (1/m^2) for Mixed Mode Release With Building Wake for Nearest Gardens}

DOWNWIND SECTOR	Distance (m)	D/Q ($1/m^2$) Nearest Gardens
~~N~~	~~1400~~	~~2.165E-09~~
~~N~~	~~2557~~	~~1.153E-09~~
~~N~~	~~6692~~	~~3.461E-10~~
~~NNE~~	~~5948~~	~~5.398E-10~~
~~NE~~	~~4979~~	~~9.517E-10~~
~~NE~~	~~5593~~	~~7.747E-10~~
~~ENE~~	~~5497~~	~~4.902E-10~~
~~E~~	~~2247~~	~~7.117E-10~~
~~E~~	~~3884~~	~~4.819E-10~~
~~ESE~~	~~5573~~	~~1.753E-10~~
~~SE~~	~~2116~~	~~9.578E-10~~
~~SE~~	~~4941~~	~~2.793E-10~~
~~SSE~~	~~1683~~	~~1.832E-09~~
~~SSW~~	~~583~~	~~6.036E-09~~
~~SSW~~	~~1959~~	~~1.456E-09~~
~~NW~~	~~494~~	~~2.810E-09~~

Table 2.3-172— {Normal Effluent Annual Average D/Q Values (1/m^2) for Mixed Mode Release With Building Wake for Nearest Milk Animals}

DOWNWIND SECTOR	Distance (m)	D/Q ($1/m^2$) Nearest Milk Animals
~~E~~	~~8789~~	~~8.979E-11~~
~~ESE~~	~~7818~~	~~1.009E-10~~
~~S~~	~~4359~~	~~3.803E-10~~
~~S~~	~~4888~~	~~3.149E-10~~
~~SSW~~	~~19826~~	~~6.063E-11~~
~~W~~	~~6433~~	~~1.203E-09~~
~~WNW~~	~~6602~~	~~2.330E-10~~

Table 2.3-173— {Normal Effluent Annual Average, D/Q Values (1/m^2) for Mixed Mode Release With Building Wake for Nearest Meat Animals}

DOWNWIND SECTOR	Distance (m)	D/Q ($1/m^2$) Nearest Meat Animals
~~NE~~	~~4979~~	~~9.517E-10~~
~~ENE~~	~~5497~~	~~4.902E-10~~
~~S~~	~~4888~~	~~3.149E-10~~
~~SSW~~	~~1225~~	~~2.371E-09~~

Insert L

Residents

SECTOR	DISTANCE (m)	D/Q Values (sec/m^3)
N	1254	2.294E-09
NNE	1266	3.741E-09
NE	1678	5.401E-09
ENE	2892	9.746E-10
E	2248	7.113E-10
ESE	2281	6.118E-10
SE	1271	1.609E-09
SSE	1620	1.674E-09
S	1749	1.223E-09
SSW	1675	1.690E-09
SW	756	2.547E-09
WSW	1019	1.453E-09
W	596	1.246E-09
WNW	852	1.084E-09
NW	748	1.608E-09
NNW	1291	9.812E-10

Insert L (cont'd)

Gardens

SECTOR	DISTANCE (m)	D/Q Values (sec/m^3)
N	833	3.030E-09
NNE	1395	3.410E-09
NE	2284	3.279E-09
ENE	2785	1.036E-09
E	2266	7.034E-10
ESE	1786	8.455E-10
SE	1467	1.364E-09
SSE	1619	1.676E-09
S	811	2.765E-09
SSW	408	9.504E-09
SW	454	4.892E-09
WSW	596	3.007E-09
W	819	8.873E-10
WNW	1424	1.065E-09
NW	730	1.650E-09
NNW	1338	9.597E-10

Insert L (cont'd)

Milk Animals

SECTOR	DISTANCE (m)	D/Q Values (sec/m^3)
S	4855	3.146E-10
SSW	1191	2.686E-09
W	6492	1.188E-09
WNW	6469	2.390E-10
NNW	6388	2.403E-10

Insert L (cont'd)

Meat Animals

SECTOR	DISTANCE (m)	D/Q Values (sec/m^3)
N	804	3.156E-09
NNE	824	5.431E-09
NE	994	9.914E-09
ENE	2208	1.485E-09
E	2154	7.549E-10
ESE	1786	8.455E-10
SE	938	2.563E-09
SSE	819	3.888E-09
S	799	2.817E-09
SSW	918	3.506E-09
SW	628	3.223E-09
WSW	537	3.476E-09
W	534	1.406E-09
WNW	545	1.533E-09
NW	656	1.742E-09
NNW	806	1.697E-09