

**The Detroit Edison Company**  
**One Energy Plaza, Detroit, MI 48226-1279**  
**DTE Energy®**



*Detroit Edison*

10 CFR 51.45  
10 CFR 52.79  
10 CFR 52.77

July 26, 2010  
NRC3-10-0033

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

- References:
- 1) Fermi 3  
Docket No. 52-033
  - 2) Letter from Jerry Hale (USNRC) to Jack M. Davis (Detroit Edison), "Request for Additional Information Letter No. 35 Related to SRP Section 2.3.5 for the Fermi 3 Combined License Application," Dated June 9, 2010

Subject: Detroit Edison Company Response to NRC Requests for Additional Information  
Letter No. 35

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In Reference 2, the NRC requested additional information to support the review of certain portions of the Fermi 3 Combined License Application (COLA). The responses to the Request for Additional Information (RAI) associated with Reference 2, SRP Section 2.3.5, are provided as Attachment 1 of this letter. Information contained in this response will be incorporated into a future COLA submission as described in the attachments.

Electronic input and output files for each of the XOQDOQ cases associated with the analyses discussed in this response, are provided in Attachment 1. The file format and names on the enclosed CD do not comply with the requirements for electronic submission in the NRC Guidance Document "Guidance for Electronic Submissions to the NRC," dated May 7, 2010; the files are not "pdf" formatted. The NRC Staff requested the files be submitted in their native formats required by the software in which they are utilized.

If you have any questions, or need additional information, please contact me at (313) 235-3341.

DOGS  
NRC

USNRC  
NRC3-10-0022  
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I state under penalty of perjury that the foregoing is true and correct. Executed on the 26<sup>th</sup> day of July 2010.

Sincerely,



Peter W. Smith, Director  
Nuclear Development – Licensing & Engineering  
Detroit Edison Company

Attachments: 1) Response to RAI Letter No. 35, RAI Questions 02.03.05-3 and 02.03.05-4  
Enclosure 1, XOQDOQ Input / Output Files

cc: Jerry Hale, NRC Fermi 3 Project Manager  
Adrian Muniz, NRC Fermi 3 Project Manager  
Bruce Olson, NRC Fermi 3 Environmental Project Manager  
Fermi 2 Resident Inspector (w/o attachments)  
NRC Region III Regional Administrator (w/o attachments)  
NRC Region II Regional Administrator (w/o attachments)  
Supervisor, Electric Operators, Michigan Public Service Commission (w/o attachments)  
Michigan Department of Environmental Quality, Radiological Protection and Medical  
Waste Section (w/o attachments)

Attachment 1 to

NRC3-10-0033

Page 1

**Attachment 1  
NRC3-10-0033**

**Response to RAI Letter No. 35  
(eRAI Tracking No. 4740)**

**RAI Question No. 02.03.05-3  
RAI Question No. 02.03.05-4**

### NRC RAIs 02.03.05-3 and 02.03.05-4

The following RAIs involve modeling long term atmospheric dispersion and deposition of routine gaseous effluents. To avoid unnecessary duplication and achieve as much simplification as possible, Detroit Edison has elected to address these RAIs with a single response.

#### NRC RAI 02.03.05-3

*This question is related to the applicant's supplemental responses to RAIs 02.03.03-1, 02.03.04-3, and 02.03.04-4 submitted in Detroit Edison letter NRC3-10-0015, dated March 30, 2010.*

#### *Question Summary*

*Discrepancies in wind speed and stability class frequency distributions discussed below create uncertainty as to which meteorological data set (1985-1989 versus 2002-2007) is most representative of long-term site conditions. Given the uncertainty in the data, please justify why the long-term (routine) atmospheric dispersion ( $X/Q$ ) and deposition ( $D/Q$ ) values should not be generated using both meteorological data sets and the more conservative resulting  $X/Q$  and  $D/Q$  values be presented in FSAR Section 2.3.5 and ER Section 2.7.6.2.*

#### *Details*

*As described in the supplemental response to RAI 02.03.04-3, the applicant reviewed the 2002-2007 data from the Fermi meteorological tower and found a number of hourly measurements to be improbable. The applicant removed these hourly measurements from its analysis and determined new joint frequency distributions (JFDs) with revised assumptions regarding wind directions during calm conditions. The applicant then used the new JFDs to update the long-term  $X/Q$  and  $D/Q$  estimates presented in FSAR Section 2.3.5 and ER Section 2.7.6.2. The updated long-term dispersion estimates were also computed using distances from the outer edge of a circle centered on the reactor building which encompasses the identified routine release points.*

*The supplemental response to RAI 02.03.03-1 states that after a review of wind rose data spanning a period of over 30 years, the applicant concluded that the potential exists for recent wind speed measurements at the 10-meter elevation to be slower than the actual wind speeds at the 10-meter elevation due to trees located in the vicinity of the Fermi meteorological tower. The applicant further concluded that the slower wind speeds measured at the 10-meter elevation during 2002-2007 produces higher (more conservative) long-term  $X/Q$  and  $D/Q$  values as compared to faster actual wind speeds at the 10-meter elevation.*

*The staff disagrees with the assessment that slower wind speeds at the 10-meter elevation produce higher  $X/Q$  and  $D/Q$  values for mixed-mode (part-time ground, part-time elevated) releases. The applicant has modeled the reactor building/fuel building stack and the turbine*

*building stack as mixed-mode releases pursuant to RG 1.111 because these two stacks are higher than the adjacent buildings. Regulatory position C.2.b of RG 1.111 states that mixed-mode releases can be considered to be elevated releases whenever the plume exit velocity is at least five times the horizontal wind speed at the height of the release. Because the wind speed provided as input to the XOQDOQ dispersion code is measured at 10-meters, the code corrects the 10-meter wind speed to the stack height. Providing faster 10-meter elevation wind speeds as input to the XOQDOQ dispersion code decreases the percent of time the plume is assumed to be an elevated release, potentially resulting in higher X/Q and D/Q values.*

*The applicant provided a copy of the 1985-1989 data from the Fermi meteorological tower in its supplemental response to RAI 02.03.04-4. The staff generated a JFD from the 1985-1989 data for comparison with the new 2002-2007 JFD presented by the applicant in its supplemental response to RAI 02.03.04-3. The staff found the older JFD has a lower frequency of (1) slow wind speed conditions (the frequency of wind speeds less than 1.5 m/s increased from 9.1% in the 1985-1989 data to 17.0% in the 2002-2007 data) and (2) extremely unstable (stability class A) conditions (the frequency of extremely unstable conditions increased from 7.1% in the 1985-1989 data to 19.3% in the 2002-2007 data).*

*Consequently, the staff reran the XOQDOQ dispersion code with the 1985-1989 JFD to compare the results with applicant's revised 2002-2007 X/Q and D/Q values presented in the supplemental response to RAI 02.03.04-3. The staff found that its 1985-1989 X/Q and D/Q values were higher than the applicant's 2002-2007 X/Q and D/Q values for the two mixed-mode (reactor building/fuel building stack and the turbine building stack) release pathways for the reason cited above. The staff also found that some of its 1985-1989 X/Q and D/Q values for the ground-level (radwaste building stack) release pathway were also higher, probably due to the occurrence of more frequent extremely unstable conditions in the more recent 2002-2007 data set.*

NRC RAI 02.03.05-4

*This question is related to the applicant's response to RAI 02.03.05-2. The staff finds the response to RAI 02.03.05-2 to be incomplete.*

*As discussed in the response to RAI 02.03.05-2, the overwater trajectories for the population living within 50 miles in the NE, ENE, E, SE, SSE, S and SSW sectors can range from 10 to 50 miles. Air trajectories over such extensive water surfaces could decrease atmospheric diffusion rates when compared with overland trajectories due to: (1) the generally smoother water surface decreasing the contribution to diffusion by mechanical turbulence and (2) cooler water temperatures (as compared to air temperatures) decreasing the contribution to diffusion from convectional turbulence (Reference: I. Van der Hoven, Atmospheric Transport and Diffusion at Coastal Sites, Nuclear Safety, 8(5): 490-499 (1967)).*

- a. Please revise FSAR Section 2.3.5 to discuss the impact of changes in surface temperature and roughness resulting from over-water trajectories on the resulting long-term (routine) atmospheric dispersion and deposition estimates. SRP 2.3.5 states that applicants should

*discuss the appropriateness of the atmospheric diffusion parameters (such as vertical plume spread or sigma z) used in estimating the consequences of routine releases out to a distance of 50 miles from the plant; modified plume spread parameters may need to be considered for unique terrain features such as large bodies of water. Figure 1 in RG 1.111 also states that the vertical dispersion coefficients presented in this figure may have to be modified for certain types of terrain such as over water.*

- b. Given the discussion provided above, please explain in more detail the following sentence proposed for FSAR Section 2.3.5.1: "Long term CHI/Q models are conservatively determined to apply broadly within compass sector and radial ring regions; thus, the very local impacts of over water wind trajectory changes will not have a significant impact on the CHI/Q values." The staff is uncertain as to the intent and meaning of this sentence.*

### **Response**

*Discrepancies in wind speed and stability class frequency distributions discussed below create uncertainty as to which meteorological data set (1985-1989 versus 2002-2007) is most representative of long-term site conditions. Given the uncertainty in the data, please justify why the long-term (routine) atmospheric dispersion (X/Q) and deposition (D/Q) values should not be generated using both meteorological data sets and the more conservative resulting X/Q and D/Q values be presented in FSAR Section 2.3.5 and ER Section 2.7.6.2.*

The X/Q and D/Q analysis of the 2002 – 2007 meteorological data was presented in the COLA markups in Detroit Edison Letter NRC3-10-0015 dated March 30, 2010 (ML100960474). As discussed in the response to RAI 02.03.03-1 in Detroit Edison letter NRC3-10-0015, the trees in the vicinity of the Fermi meteorological tower may have resulted in lower measured wind speeds than the actual wind speed at the 10-meter elevation. Meteorological data from the 1985 – 1989 time frame was evaluated in the X/Q and D/Q analysis to assess the influence of the trees on the X/Q and D/Q values. The XOQDOQ model (NUREG/CR-2919) was used to produce X/Q and D/Q values representing meteorological data from the 1985-1989 time frame and meteorological data from the 2002-2007 time frame. The results from the XOQDOQ model using the 1985-1989 meteorological data were compared to the results using the 2002-2007 meteorological data. In several cases, the 1985-1989 meteorological data provided higher X/Q and D/Q values than the 2002-2007 meteorological data. The highest X/Q and D/Q values from the two cases were utilized to update FSAR Table 2.0-201.

In addition, these XOQDOQ models incorporate ESBWR DCD Revision 7 which made small changes in the stack and building heights. The DCD height changes were applicable only to the Reactor Building/Fuel Building Vent Stack and the Turbine Building Vent Stack as the Radwaste Building Vent Stack is modeled as a ground release.

The X/Q and D/Q values from the 2002 - 2007 meteorological data presented in the FSAR and the Environmental Report were updated as described above and included in the attached markups. New tables presenting the X/Q and D/Q values from the 1985-1989 meteorological data are being added to the FSAR and Environmental Report as shown in the attached markups.

*As discussed in the response to RAI 02.03.05-2, the overwater trajectories for the population living within 50 miles in the NE, ENE, E, SE, SSE, S and SSW sectors can range from 10 to 50 miles. Air trajectories over such extensive water surfaces could decrease atmospheric diffusion rates when compared with overland trajectories due to: (1) the generally smoother water surface decreasing the contribution to diffusion by mechanical turbulence and (2) cooler water temperatures (as compared to air temperatures) decreasing the contribution to diffusion from convectional turbulence (Reference: I. Van der Hoven, Atmospheric Transport and Diffusion at Coastal Sites, Nuclear Safety, 8(5): 490-499 (1967)).*

- a. Please revise FSAR Section 2.3.5 to discuss the impact of changes in surface temperature and roughness resulting from over-water trajectories on the resulting long-term (routine) atmospheric dispersion and deposition estimates. SRP 2.3.5 states that applicants should discuss the appropriateness of the atmospheric diffusion parameters (such as vertical plume spread or sigma z) used in estimating the consequences of routine releases out to a distance of 50 miles from the plant; modified plume spread parameters may need to be considered for unique terrain features such as large bodies of water. Figure 1 in RG 1.111 also states that the vertical dispersion coefficients presented in this figure may have to be modified for certain types of terrain such as over water.

Air trajectories over large water surfaces could decrease atmospheric diffusion rates due to differences in surface roughness and static stability as compared to transport over land (per NRPB-W2, Atmospheric Dispersion Modeling Liaison Committee, Annual Report 1999/2000, Review of Dispersion Over Bodies of Water, Published February 2002). The stability class for the sectors that are upwind to the over water sectors (SW, WSW, W, WNW, NW, NNW, N and NNE) in the Joint Frequency Distributions (JFDs), were adjusted to the next higher stability class level, to model the potential decrease in atmospheric diffusion rates for over water trajectories. This analytical approach results in the hours for the upwind sectors originally associated with stability class A shifting to stability class B, stability class B hours shifting to stability class C, and so on. The hours in stability class F were added to the hours originally identified in stability class G.

After adjusting both the 1985-1989 JFDs and the 2002-2007 JFDs, the XOQDOQ model was utilized to develop adjusted over water X/Q and D/Q values for the over water sectors (NE, ENE, E, ESE, SE, SEE, S and SSW). The resulting adjusted over water X/Q and D/Q values were then compared to the non-adjusted X/Q and D/Q values generated as described in the response to RAI 02.03.05-3 above. The X/Q and D/Q values associated with the adjusted over water JFDs resulted in higher annual average values than the non-adjusted JFDs, particularly at distances farther from the plant site. This increase in the X/Q and D/Q values is consistent with the decreased diffusion and

increased stability described above. The annual average X/Q and D/Q values, based on the adjusted stability class data, are included in the attached FSAR and ER markups.

The over water trajectories of effluent from the site in the NE, ENE, E, ESE, SE, SSE, S and SSW sectors can range from 10 to 50 miles, as shown on FSAR Figure 2.1-207. The trajectories at these distances and directions impact the cumulative estimated exposure to the population living within a 50 mile radius of the plant. The Maximum Exposed Individual (MEI), however, is not in an over water affected effluent trajectory.

The attached markups have incorporated the higher X/Q and D/Q values associated with both the 1985-1989 and 2002-2007 meteorological input data sets, as well as the adjusted over water stability classifications, for each of the gaseous effluent pathways affected.

Electronic input and output files for each of the XOQDOQ cases associated with the analyses discussed above are provided in Enclosure 1.

Detroit Edison is currently revising the gaseous effluent calculations presented in the FSAR and ER, including an update of the GASPAR model (NUREG/CR-4653), to address: 1) changes associated with the routine gaseous effluent source term in ESBWR DCD Revision 7, Table 12.2-16, 2) the X/Q and D/Q values associated with both the 1985-1989 and 2002-2007 meteorological data sets, and 3) the X/Q and D/Q values associated with the adjusted over water JFDs. As discussed in Detroit Edison letter NRC3-10-0025, dated July 9, 2010 and associated with NRC RAIs related to the environmental review, the gaseous effluent dose analysis associated with ESBWR DCD Revision 7 source term updates will be completed by August 31, 2010.

- b. Given the discussion provided above, please explain in more detail the following sentence proposed for FSAR Section 2.3.5.1: "Long term CHI/Q models are conservatively determined to apply broadly within compass sector and radial ring regions; thus, the very local impacts of over water wind trajectory changes will not have a significant impact on the CHI/Q values." The staff is uncertain as to the intent and meaning of this sentence.*

The statement identified above was replaced with a summary of the technical discussion associated with over water trajectories, as shown in the attached markup.

### **Proposed COLA Revision**

Proposed mark-ups are included for the FSAR and ER. The markups incorporate changes as discussed above, to Fermi 3 COLA Revision 2 markups previously submitted in Detroit Edison letter NRC3-10-0015, dated March 30, 2010 (ML100960472). The attached markups represent revisions associated with both 02.03.05-3 and 02.03.05-4 RAI responses.

Attachment 1 to

NRC3-10-0033

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**NRC3-10-0033  
RAIs 02.03.05-3 and 02.03.05-4**

**Enclosure 1**

**XOQDOQ Input / Output Files  
(CD inventory included next page)**

**Enclosure 1**

**Letter No. NRC3-10-0033**  
**XOQDOQ Input / Output Files**

**CD Inventory**

07/26/2010 09:41 AM	<DIR>	.
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07/26/2010 09:41 AM		9,983 XOQ_INP_Fermi_a_DCD7_02-07_H2O.DAT
07/26/2010 09:41 AM		9,969 XOQ_INP_Fermi_a_DCD7_85-89.DAT
07/26/2010 09:41 AM		9,983 XOQ_INP_Fermi_a_DCD7_85-89_H2O.DAT
07/26/2010 09:41 AM		9,573 XOQ_INP_Fermi_b_DCD7_02-07.DAT
07/26/2010 09:41 AM		9,608 XOQ_INP_Fermi_b_DCD7_02-07_H2O.DAT
07/26/2010 09:41 AM		9,594 XOQ_INP_Fermi_b_DCD7_85-89.DAT
07/26/2010 09:41 AM		9,608 XOQ_INP_Fermi_b_DCD7_85-89_H2O.DAT
07/26/2010 09:41 AM		146,112 XOQ_OUT_Fermi_a_DCD7_02-07.DAT
07/26/2010 09:41 AM		146,112 XOQ_OUT_Fermi_a_DCD7_02-07_H2O.DAT
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**Markup of Detroit Edison FSAR**  
(following 132 pages)

The following markup represents how Detroit Edison intends to reflect these RAI responses in a future submittal of the Fermi 3 FSAR. However, the same COLA content may be impacted by revisions to the ESBWR DCD, responses to other COLA RAIs, other COLA changes, plant design changes, editorial or typographical corrections, etc. As a result, the final COLA content that appears in a future submittal may be different than presented here.

Table 2.0-201

Evaluation of Site/Design Parameters and Characteristics (Sheet 22 of 28)

[EF3 COL 2.0-1-A]

Subject <sup>(16)</sup>	DCD Site Parameter Value <sup>(1)(16)</sup>	Fermi 3 Site Characteristic	Evaluation	
<b>Meteorological Dispersion (X/Q) (continued)</b>				
Passive Containment Cooling System/Reactor Building Roof <sup>(17)</sup>				
TSC Unfiltered Inleakage and TSC Air Intakes (emergency and normal)				
0–2 hours	2.00E-03 s/m <sup>3</sup>	<del>4.65E-04</del> s/m <sup>3</sup>	3.6E-04	The Fermi 3 site characteristic value is provided in Table 2.3-303 and falls within (is less than) the DCD site parameter value.
2–8 hours	1.10E-03 s/m <sup>3</sup>	<del>9.50E-04</del> s/m <sup>3</sup>	2.7E-04	The Fermi 3 site characteristic value is provided in Table 2.3-303 and falls within (is less than) the DCD site parameter value.
8–24 hours	5.00E-04 s/m <sup>3</sup>	<del>1.40E-04</del> s/m <sup>3</sup>	1.0E-04	The Fermi 3 site characteristic value is provided in Table 2.3-303 and falls within (is less than) the DCD site parameter value.
1–4 days	4.00E-04 s/m <sup>3</sup>	<del>4.10E-04</del> s/m <sup>3</sup>	8.8E-05	The Fermi 3 site characteristic value is provided in Table 2.3-303 and falls within (is less than) the DCD site parameter value.
4–30 days	3.00E-04 s/m <sup>3</sup>	<del>4.00E-04</del> s/m <sup>3</sup>	7.3E-05	The Fermi 3 site characteristic value is provided in Table 2.3-303 and falls within (is less than) the DCD site parameter value.
<b>Long Term Dispersion Estimates<sup>(12)</sup></b>				
X/Q RB/FB Vent Stack TB Vent Stack RWB Vent Stack	-3.0E-07 s/m <sup>3</sup> 2.0E-07 s/m <sup>3</sup> 2.0E-05 s/m <sup>3</sup>	The site characteristic values for long term (routine release) atmospheric dispersion estimates are defined based on type of sensitive receptor (MEI) and decay time. Each of these values is compared with the appropriate DCD site parameter value, X/Q or D/Q, below. Each site characteristic value that is equal to or less than the DCD site parameter value results in a lower estimated dose for the same source term, and conversely, a higher X/Q or D/Q results in a higher estimated dose.		
Change DCD X/Q values for all long term X/Qs to: RB/FB Vent Stack 1.5E-07 TB Vent Stack 1.2E-07 RWB Vent Stack 5.0E-06				

Table 2.0-201

## Evaluation of Site/Design Parameters and Characteristics (Sheet 23 of 28)

[EF3 COL 2.0-1-A]

Subject <sup>(16)</sup>	DCD Site Parameter Value <sup>(1)(16)</sup>	Fermi 3 Site Characteristic	Evaluation			
<b>Long Term Dispersion Estimates (continued)</b>						
D/Q RB/FB Vent Stack TB Vent Stack RWB Vent Stack	$1.0 \times 10^{-8} \text{ m}^{-2}$ $6.0 \times 10^{-9} \text{ m}^{-2}$ $1.0 \times 10^{-8} \text{ m}^{-2}$	The characteristic values assume conservatively, that each sensitive receptor (meat animal, vegetable garden, residence) is at the location of the closest receptor.	As shown below, every site characteristic value does not fall within (some are greater than) the DCD site parameter value. Per Note (12) of DCD Table 2.0-1, if a site-specific X/Q value exceeds the site parameter value, the release concentrations in DCD Table 12.2-17 must be adjusted proportionate to the change in X/Q values using the stack release information in DCD Table 12.2-16 to show the 10 CFR 20 limits are met; and the annual average doses in DCD Table 12.2-18b must be changed to show the 10 CFR 50 Appendix I doses are met. Per DCD COL Item 12.2-2-A, calculation bases in DCD Tables 12.2-15 and 12.2-18a are replaced with site-specific values for calculation of airborne concentrations and doses. Table 12.2-15R and identify the replacement DCD information. This table identifies that there are Fermi 3 site characteristic values that do not fall within (are greater than) the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.			
<p>Change DCD D/Q values for all long term X/Qs to:</p> <p>RB/FB Vent Stack <math>4.8 \times 10^{-9}</math>      TB Vent Stack <math>3.5 \times 10^{-9}</math>      RWB Vent Stack <math>1.9 \times 10^{-8}</math></p>						
<b>Site Boundary Annual Average</b>						
X/Q RB/FB Vent Stack TB Vent Stack RWB Vent Stack	$3.0 \times 10^{-7} \text{ s/m}^3$ $2.0 \times 10^{-7} \text{ s/m}^3$ $2.0 \times 10^{-5} \text{ s/m}^3$	$5.0 \times 10^{-7} \text{ s/m}^3$ $5.5 \times 10^{-7} \text{ s/m}^3$ $9.0 \times 10^{-6} \text{ s/m}^3$ undepleted/no decay	The site characteristic value for this long term dispersion estimate is defined as the maximum annual average site boundary undepleted/no decay X/Q value for use in determining gaseous pathway doses to the maximally exposed individual. The site characteristic value is provided in Table 2.3-307, Table 2.3-308 and Table 2.3-309. The Fermi 3 site characteristic values do not fall within (is greater than) all of the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.			
<table border="1"> <tr><td><math>8.7 \times 10^{-7}</math></td></tr> <tr><td><math>9.6 \times 10^{-7}</math></td></tr> <tr><td><math>1.1 \times 10^{-5}</math></td></tr> </table> <p>(based on the 2002-2007 met data) and      Table 2.3-XXX, 2.3-XXX and 2.3-XXX      (based on the 1985-1989 met data).</p>				$8.7 \times 10^{-7}$	$9.6 \times 10^{-7}$	$1.1 \times 10^{-5}$
$8.7 \times 10^{-7}$						
$9.6 \times 10^{-7}$						
$1.1 \times 10^{-5}$						

Table 2.0-201

## Evaluation of Site/Design Parameters and Characteristics (Sheet 24 of 28)

[EF3 COL 2.0-1-A]

Subject <sup>(16)</sup>	DCD Site Parameter Value <sup>(1)(16)</sup>	Fermi 3 Site Characteristic	Evaluation
<b>Long Term Dispersion Estimates (continued)</b>			
Site Boundary Annual Average (continued)			
X/Q			
RB/FB Vent Stack	$3.0 \times 10^{-7} \text{ s/m}^3$	$5.0 \times 10^{-7} \text{ s/m}^3$	
TB Vent Stack	$2.0 \times 10^{-7} \text{ s/m}^3$	$5.5 \times 10^{-7} \text{ s/m}^3$	
RWB Vent Stack	$2.0 \times 10^{-5} \text{ s/m}^3$	$9.0 \times 10^{-6} \text{ s/m}^3$	
	$8.7 \times 10^{-7}$ $9.6 \times 10^{-7}$ $1.1 \times 10^{-5}$	undepleted/2.26-day	(based on the 2002-2007 met data) and Table 2.3-XXX, 2.3-XXX and 2.3-XXX (based on the 1985-1989 met data).
X/Q			
RB/FB Vent Stack	$3.0 \times 10^{-7} \text{ s/m}^3$	$4.7 \times 10^{-7} \text{ s/m}^3$	
TB Vent Stack	$2.0 \times 10^{-7} \text{ s/m}^3$	$5.1 \times 10^{-7} \text{ s/m}^3$	
RWB Vent Stack	$2.0 \times 10^{-5} \text{ s/m}^3$	$8.9 \times 10^{-6} \text{ s/m}^3$	
	$8.1 \times 10^{-7}$ $8.9 \times 10^{-7}$ $1.0 \times 10^{-5}$	depleted/8.00-day decay	The site characteristic value for this long term dispersion estimate is defined as the maximum annual average site boundary depleted/8.00-day decay X/Q value for use in determining gaseous pathway doses to the maximally exposed individual. The site characteristic value is provided in Table 2.3-307, Table 2.3-308 and Table 2.3-309. The Fermi 3 site characteristic values do not fall within (is greater than) all of the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
D/Q			
RB/FB Vent Stack	$1.0 \times 10^{-8} \text{ m}^{-2}$	$1.4 \times 10^{-8} \text{ 1/m}^2$	
TB Vent Stack	$6.0 \times 10^{-9} \text{ m}^{-2}$	$1.8 \times 10^{-8} \text{ 1/m}^2$	
RWB Vent Stack	$3.0 \times 10^{-8} \text{ m}^{-2}$	$3.5 \times 10^{-8} \text{ 1/m}^2$	
	$1.7 \times 10^{-8}$ $1.5 \times 10^{-8}$ $4.9 \times 10^{-8}$		The site characteristic value for this long term dispersion estimate is defined as the maximum annual average site boundary D/Q value for use in determining gaseous pathway doses to the maximally exposed individual. The site characteristic value is provided in Table 2.3-307, Table 2.3-308 and Table 2.3-309. The Fermi 3 site characteristic values do not fall within (is greater than) all of the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
Annual Average Nearest Residence			
X/Q			
RB/FB Vent Stack	$3.0 \times 10^{-7} \text{ s/m}^3$	$3.8 \times 10^{-7} \text{ s/m}^3$	
TB Vent Stack	$2.0 \times 10^{-7} \text{ s/m}^3$	$4.0 \times 10^{-7} \text{ s/m}^3$	
RWB Vent Stack	$2.0 \times 10^{-5} \text{ s/m}^3$	$4.9 \times 10^{-6} \text{ s/m}^3$	
	undepleted/no decay		The Fermi 3 site characteristic value for this long term dispersion estimate is provided in Table 2.3-310, Table 2.3-311 and Table 2.3-312. The Fermi 3 site characteristic values do not fall within (is greater than) all of the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
Fermi 3 Combined License Application	$6.8 \times 10^{-7}$ $7.2 \times 10^{-7}$ $7.0 \times 10^{-6}$		(based on the 2002-2007 met data) and Table 2.3-XXX, 2.3-XXX and 2.3-XXX (based on the 1985-1989 met data).

Table 2.0-201

## Evaluation of Site/Design Parameters and Characteristics (Sheet 25 of 28)

[EF3 COL 2.0-1-A]

Subject <sup>(16)</sup>	DCD Site Parameter Value <sup>(1)(16)</sup>	Fermi 3 Site Characteristic	Evaluation	(based on the 2002-2007 met data) and Table 2.3-XXX, 2.3-XXX and 2.3-XXX (based on the 1985-1989 met data)
<b>Long Term Dispersion Estimates (continued)</b>				
<b>Annual Average Nearest Residence (continued)</b>				
X/Q				
6.8 x 10 <sup>-7</sup>	RB/FB Vent Stack 3.0E-07 s/m <sup>3</sup>	3.0 × 10 <sup>-7</sup> s/m <sup>3</sup>	The Fermi 3 site characteristic value for this long term dispersion estimate is provided in Table 2.3-310, Table 2.3-311 and Table 2.3-312. The Fermi 3 site characteristic values do not fall within (is greater than) all of the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.	
7.2 x 10 <sup>-7</sup>	TB Vent Stack 2.0E-07 s/m <sup>3</sup>	4.0 × 10 <sup>-7</sup> s/m <sup>3</sup>		
7.0 x 10 <sup>-6</sup>	RWB Vent Stack 2.0E-05 s/m <sup>3</sup>	4.0 × 10 <sup>-6</sup> s/m <sup>3</sup>	undepleted/2.26-day decay	
X/Q				
6.3 x 10 <sup>-7</sup>	RB/FB Vent Stack 3.0E-07 s/m <sup>3</sup>	3.6 × 10 <sup>-7</sup> s/m <sup>3</sup>	The Fermi 3 site characteristic value for this long term dispersion estimate is provided in Table 2.3-310, Table 2.3-311 and Table 2.3-312. The Fermi 3 site characteristic values do not fall within (is greater than) all of the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.	
6.6 x 10 <sup>-7</sup>	TB Vent Stack 2.0E-07 s/m <sup>3</sup>	3.7 × 10 <sup>-7</sup> s/m <sup>3</sup>		
6.3 x 10 <sup>-6</sup>	RWB Vent Stack 2.0E-05 s/m <sup>3</sup>	4.3 × 10 <sup>-6</sup> s/m <sup>3</sup>	depleted/8.00-day decay,	
D/Q				
1.2 x 10 <sup>-8</sup>	RB/FB Vent Stack 1.0E-08 m <sup>-2</sup>	1.1 × 10 <sup>-8</sup> 1/m <sup>2</sup>	The Fermi 3 site characteristic value for this long term dispersion estimate is provided in Table 2.3-310, Table 2.3-311 and Table 2.3-312. The Fermi 3 site characteristic values do not fall within (is greater than) all of the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.	
1.2 x 10 <sup>-8</sup>	TB Vent Stack 6.0E-09 m <sup>-2</sup>	9.0 × 10 <sup>-9</sup> 1/m <sup>2</sup>		
3.4 x 10 <sup>-8</sup>	RWB Vent Stack 3.0E-08 m <sup>-2</sup>	2.5 × 10 <sup>-8</sup> 1/m <sup>2</sup>		
<b>Annual Average Nearest Meat Animal</b>				
X/Q				
4.3 x 10 <sup>-8</sup>	RB/FB Vent Stack 3.0E-07 s/m <sup>3</sup>	4.8 × 10 <sup>-8</sup> s/m <sup>3</sup>	The Fermi 3 site characteristic value for this long term dispersion estimate is provided in Table 2.3-322, Table 2.3-323 and Table 2.3-324. The Fermi 3 site characteristic values fall within (is less than) the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.	
4.3 x 10 <sup>-8</sup>	TB Vent Stack 2.0E-07 s/m <sup>3</sup>	4.1 × 10 <sup>-8</sup> s/m <sup>3</sup>		
1.8 x 10 <sup>-7</sup>	RWB Vent Stack 2.0E-05 s/m <sup>3</sup>	1.9 × 10 <sup>-7</sup> s/m <sup>3</sup>	undepleted/no decay	
X/Q				
4.8 x 10 <sup>-8</sup>	RB/FB Vent Stack 3.0E-07 s/m <sup>3</sup>	4.7 × 10 <sup>-8</sup> s/m <sup>3</sup>	The Fermi 3 site characteristic value for this long term dispersion estimate is provided in Table 2.3-322, Table 2.3-323 and Table 2.3-324. The Fermi 3 site characteristic values fall within (is less than) the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.	
4.3 x 10 <sup>-8</sup>	TB Vent Stack 2.0E-07 s/m <sup>3</sup>	4.1 × 10 <sup>-8</sup> s/m <sup>3</sup>		
1.8 x 10 <sup>-7</sup>	RWB Vent Stack 2.0E-05 s/m <sup>3</sup>	1.9 × 10 <sup>-7</sup> s/m <sup>3</sup>	undepleted/2.26-day decay	

Table 2.0-201

## Evaluation of Site/Design Parameters and Characteristics (Sheet 26 of 28)

[EF3 COL 2.0-1-A]

Subject <sup>(16)</sup>	DCD Site Parameter Value <sup>(1)(16)</sup>	Fermi 3 Site Characteristic	Evaluation
<b>Long Term Dispersion Estimates (continued)</b>			
Annual Average Nearest Meat Animal (continued)			
X/Q			
RB/FB Vent Stack	<del>3.0E-07 s/m<sup>3</sup></del>	$4.3 \times 10^{-8}$ s/m <sup>3</sup>	The Fermi 3 site characteristic value for this long term dispersion estimate is provided in Table 2.3-322, Table 2.3-323 and Table 2.3-324. The Fermi 3 site characteristic values fall within (is less than) the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	<del>2.0E-07 s/m<sup>3</sup></del>	<del><math>3.8 \times 10^{-8}</math> s/m<sup>3</sup></del>	
RWB Vent Stack	<del>2.0E-05 s/m<sup>3</sup></del>	<del><math>1.4 \times 10^{-7}</math> s/m<sup>3</sup></del>	
		depleted/8.00-day decay	
D/Q		$3.8 \times 10^{-8}$	
RB/FB Vent Stack	<del>1.0E-08 m<sup>-2</sup></del>	<del><math>3.0 \times 10^{-10}</math> 1/m<sup>2</sup></del>	The Fermi 3 site characteristic value for this long term dispersion estimate is provided in Table 2.3-322, Table 2.3-323 and Table 2.3-324. The Fermi 3 site characteristic values fall within (is less than) the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	<del>6.0E-09 m<sup>-2</sup></del>	<del><math>2.9 \times 10^{-10}</math> 1/m<sup>2</sup></del>	
RWB Vent Stack	<del>3.0E-08 m<sup>-2</sup></del>	<del><math>6.0 \times 10^{-10}</math> 1/m<sup>2</sup></del>	
Annual Average Nearest Garden			
X/Q			
RB/FB Vent Stack	<del>3.0E-07 s/m<sup>3</sup></del>	<del><math>3.0 \times 10^{-7}</math> s/m<sup>3</sup></del>	The Fermi 3 site characteristic value for this long term dispersion estimate is provided in Table 2.3-313, Table 2.3-314 and Table 2.3-315. The Fermi 3 site characteristic values do not fall within (is greater than) all of the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	<del>2.0E-07 s/m<sup>3</sup></del>	<del><math>4.0 \times 10^{-7}</math> s/m<sup>3</sup></del>	
RWB Vent Stack	<del>2.0E-05 s/m<sup>3</sup></del>	<del><math>4.0 \times 10^{-6}</math> s/m<sup>3</sup></del>	
		undepleted/no decay	
X/Q			
RB/FB Vent Stack	<del>3.0E-07 s/m<sup>3</sup></del>	<del><math>3.8 \times 10^{-7}</math> s/m<sup>3</sup></del>	The Fermi 3 site characteristic value for this long term dispersion estimate is provided in Table 2.3-313, Table 2.3-314 and Table 2.3-315. The Fermi 3 site characteristic values do not fall within (is greater than) all of the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	<del>2.0E-07 s/m<sup>3</sup></del>	<del><math>4.0 \times 10^{-7}</math> s/m<sup>3</sup></del>	
RWB Vent Stack	<del>2.0E-05 s/m<sup>3</sup></del>	<del><math>4.0 \times 10^{-6}</math> s/m<sup>3</sup></del>	
		undepleted/2.26-day decay	
(based on the 2002-2007 met data) and Table 2.3-XXX, 2.3-XXX and 2.3-XXX (based on the 1985-1989 met data)			

Table 2.0-201

## Evaluation of Site/Design Parameters and Characteristics (Sheet 27 of 28)

[EF3 COL 2.0-1-A]

Subject <sup>(16)</sup>	DCD Site Parameter Value <sup>(1)(16)</sup>	Fermi 3 Site Characteristic	Evaluation
<b>Long Term Dispersion Estimates (continued)</b>			
<b>Annual Average Nearest Garden (continued)</b>			
X/Q			
RB/FB Vent Stack	<del>3.0E-07 s/m<sup>3</sup></del>	<del>3.6 × 10<sup>-7</sup> s/m<sup>3</sup></del>	The Fermi 3 site characteristic value for this long term dispersion estimate is provided in Table 2.3-313, Table 2.3-314 and Table 2.3-315. The Fermi 3 site characteristic values do not fall within (is greater than) all of the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	<del>2.0E-07 s/m<sup>3</sup></del>	<del>3.7 × 10<sup>-7</sup> s/m<sup>3</sup></del>	
RWB Vent Stack	<del>2.0E-05 s/m<sup>3</sup></del>	<del>4.1 × 10<sup>-6</sup> s/m<sup>3</sup></del>	
		depleted/8.00-day decay	
D/Q			
RB/FB Vent Stack	<del>1.0E-08 m<sup>-2</sup></del>	<del>1.1 × 10<sup>-8</sup> 1/m<sup>2</sup></del>	The Fermi 3 site characteristic value for this long term dispersion estimate taken is provided in Table 2.3-313, Table 2.3-314 and Table 2.3-315. The Fermi 3 site characteristic values do not fall within (is greater than) all of the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	<del>6.0E-09 m<sup>-2</sup></del>	<del>9.8 × 10<sup>-9</sup> 1/m<sup>2</sup></del>	
RWB Vent Stack	<del>3.0E-08 m<sup>-2</sup></del>	<del>2.5 × 10<sup>-8</sup> 1/m<sup>2</sup></del>	
<b>Annual Average Nearest Milk Cow</b>			
X/Q			
RB/FB Vent Stack	<del>3.0E-07 s/m<sup>3</sup></del>	<del>6.7 × 10<sup>-8</sup> s/m<sup>3</sup></del>	The Fermi 3 site characteristic values for this long term dispersion estimate is provided in Table 2.3-325, Table 2.3-326 and Table 2.3-327. The Fermi 3 site characteristic values fall within (is smaller than) the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	<del>2.0E-07 s/m<sup>3</sup></del>	<del>5.8 × 10<sup>-8</sup> s/m<sup>3</sup></del>	
RWB Vent Stack	<del>2.0E-05 s/m<sup>3</sup></del>	<del>3.0 × 10<sup>-7</sup> s/m<sup>3</sup></del>	
		undepleted/no decay	
X/Q			
RB/FB Vent Stack	<del>3.0E-07 s/m<sup>3</sup></del>	<del>6.6 × 10<sup>-8</sup> s/m<sup>3</sup></del>	The Fermi 3 site characteristic values for this long term dispersion estimate is provided in Table 2.3-325, Table 2.3-326 and Table 2.3-327. The Fermi 3 site characteristic values fall within (is smaller than) the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	<del>2.0E-07 s/m<sup>3</sup></del>	<del>5.8 × 10<sup>-8</sup> s/m<sup>3</sup></del>	
RWB Vent Stack	<del>2.0E-05 s/m<sup>3</sup></del>	<del>2.9 × 10<sup>-7</sup> s/m<sup>3</sup></del>	
		undepleted/2.26-day decay	
X/Q			
RB/FB Vent Stack	<del>3.0E-07 s/m<sup>3</sup></del>	<del>6.1 × 10<sup>-8</sup> s/m<sup>3</sup></del>	The Fermi 3 site characteristic values for this long term dispersion estimate is provided in Table 2.3-325, Table 2.3-326 and Table 2.3-327. The Fermi 3 site characteristic values fall within (is smaller than) the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	<del>2.0E-07 s/m<sup>3</sup></del>	<del>5.3 × 10<sup>-8</sup> s/m<sup>3</sup></del>	
RWB Vent Stack	<del>2.0E-05 s/m<sup>3</sup></del>	<del>2.4 × 10<sup>-7</sup> s/m<sup>3</sup></del>	
		depleted/8.00-day decay	
<b>Fermi 3 Combined License Application</b>			
		2-261	(based on the 2002-2007 met data) and Table 2.3-XXX, 2.3-XXX and 2.3-XXX (based on the 1985-1989 met data)
			Revision 2 March 2010

Table 2.0-201

Evaluation of Site/Design Parameters and Characteristics (Sheet 28 of 28)

[EF3 COL 2.0-1-A]

Subject <sup>(16)</sup>	DCD Site Parameter Value <sup>(1)(16)</sup>	Fermi 3 Site Characteristic	Evaluation
<b>Long Term Dispersion Estimates (continued)</b>			
Annual Average Nearest Milk Cow (continued)			
D/Q			
RB/FB Vent Stack	$1.0 \times 10^{-8} \text{ m}^2$	$8.7 \times 10^{-10} \text{ 1/m}^2$	$9.5 \times 10^{-10}$ $8.9 \times 10^{-10}$ $1.7 \times 10^{-9}$
TB Vent Stack	$6.0 \times 10^{-9} \text{ m}^2$	$8.3 \times 10^{-10} \text{ 1/m}^2$	
RWB Vent Stack	$3.0 \times 10^{-8} \text{ m}^2$	$1.5 \times 10^{-9} \text{ 1/m}^2$	
Annual Average Nearest Milk Goat			
X/Q			
RB/FB Vent Stack	$3.0 \times 10^{-7} \text{ s/m}^3$	$6.4 \times 10^{-8} \text{ s/m}^3$	The Fermi 3 site characteristic values for this long term dispersion estimate is provided in Table 2.3-319, Table 2.3-320 and Table 2.3-321. The Fermi 3 site characteristic values fall within (is smaller than) the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	$2.0 \times 10^{-7} \text{ s/m}^3$	$5.4 \times 10^{-8} \text{ s/m}^3$	
RWB Vent Stack	$2.0 \times 10^{-5} \text{ s/m}^3$	$2.6 \times 10^{-7} \text{ s/m}^3$	
		undepleted/no decay	
X/Q			
RB/FB Vent Stack	$3.0 \times 10^{-7} \text{ s/m}^3$	$6.4 \times 10^{-8} \text{ s/m}^3$	The Fermi 3 site characteristic values for this long term dispersion estimate is provided in Table 2.3-319, Table 2.3-320 and Table 2.3-321. The Fermi 3 site characteristic values fall within (is smaller than) the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	$2.0 \times 10^{-7} \text{ s/m}^3$	$5.3 \times 10^{-8} \text{ s/m}^3$	
RWB Vent Stack	$2.0 \times 10^{-5} \text{ s/m}^3$	$2.6 \times 10^{-7} \text{ s/m}^3$	
		undepleted/2.26-day decay	
X/Q			
RB/FB Vent Stack	$3.0 \times 10^{-7} \text{ s/m}^3$	$5.6 \times 10^{-8} \text{ s/m}^3$	The Fermi 3 site characteristic values for this long term dispersion estimate is provided in Table 2.3-319, Table 2.3-320 and Table 2.3-321. The Fermi 3 site characteristic values fall within (is smaller than) the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	$2.0 \times 10^{-7} \text{ s/m}^3$	$4.9 \times 10^{-8} \text{ s/m}^3$	
RWB Vent Stack	$2.0 \times 10^{-5} \text{ s/m}^3$	$2.2 \times 10^{-7} \text{ s/m}^3$	
		depleted/8.00-day decay	
D/Q			
RB/FB Vent Stack	$1.0 \times 10^{-8} \text{ m}^2$	$7.7 \times 10^{-10} \text{ 1/m}^2$	The Fermi 3 site characteristic values for this long term dispersion estimate is provided in Table 2.3-319, Table 2.3-320 and Table 2.3-321. The Fermi 3 site characteristic values fall within (is smaller than) the DCD site parameter values. See Section 12.2 for the site-specific concentration and dose analysis inputs and results.
TB Vent Stack	$6.0 \times 10^{-9} \text{ m}^2$	$7.4 \times 10^{-10} \text{ 1/m}^2$	
RWB Vent Stack	$3.0 \times 10^{-8} \text{ m}^2$	$1.4 \times 10^{-9} \text{ 1/m}^2$	
<b>Fermi 3</b>			
<b>Combined License Application</b>			
(based on the 2002-2007 met data) and Table 2.3-XXX, 2.3-XXX and 2.3-XXX (based on the 1985-1989 met data)			

After the validation process is completed, the processed data are archived and permanently stored electronically.

The objective for the meteorological monitoring program is to maintain annual data recovery rates of at least 90 percent on an annual basis for all meteorological parameters in order to assess the relative concentrations and doses resulting from accidental or routine releases. Table 2.3-291 provides recovery rates for the meteorological parameters monitored on the onsite meteorological tower. The recovery rates for each parameter, including the joint data recovery of wind speed, wind

Therefore,

~~direction, and  $\Delta T$ , exceed the 90 percent guidance criteria in accordance with Regulatory Guide 1.23. In addition, the onsite meteorological data are considered adequate to represent onsite meteorological conditions as required by 10 CFR 100.10 and 10 CFR 100.20, as well as to make estimates of atmospheric dispersion for design basis accident and routine releases from the reactor.~~

[Insert 2 here]

Meteorological data are available in five different formats: instantaneous values, 1-minute blocked averages, 15-minute rolling averages, 15-minute blocked averages, and 1-hour blocked averages. Routine data summaries are generated for each day, calendar month, and calendar year and then archived on the IPCS computers. In addition, joint frequency distributions of wind speed and wind direction for each Pasquill stability category are created from the 1-hour blocked averages. The format of the annual onsite meteorological data summaries and joint frequency distribution tables conforms to the recommended format found in Regulatory Guide 1.23.

### 2.3.3.2 Fermi 3 Site Preparation and Construction, Pre-Operational, and Operational Onsite Meteorological Monitoring Program

As described in Section 2.3.3 of NUREG-0800, the current meteorological program establishes a baseline for identifying and assessing the environmental impacts during preapplication meteorological monitoring. The NDCT for Fermi 3 will be built in the approximate location of the current onsite meteorological tower. A new meteorological tower will be erected in the southeast corner of the Fermi site. [START COM FSAR-2.3-003]. The new meteorological tower will be operational for at least one year prior to the decommissioning of the existing onsite meteorological tower. The meteorological data recorded concurrently from the current and new onsite meteorological towers will

## **Insert 2**

The meteorological tower is located east of a grove of trees that is located less than ten times the obstruction height recommended in Regulatory Guide 1.2.3. The impact of the trees, for upwind sectors, is to reduce the indicated wind speed at the 10 meter elevation. Very little impact to the wind speed has been observed at the 60 meter elevation. The SACTI analysis (Section 2.3.2) uses the data from the 60 meter elevation and, thus, is not impacted by the presence of the trees. For determination of the atmospheric dispersion factors used in the analysis of off-site design basis accident (PAVAN) and routine releases (XOQDOQ) using the lower indicated wind speed provides conservative results. For determination of control room atmospheric dispersion factors (ARCON96), the analyses were run using both the current data and data from 1985 through 1989. X/Q results from ARCON96 using both sets of data are bounded by the DCD limiting values in DCD Table 2.0-1.

For determination of atmospheric dispersion factors used in analysis of routine releases (XOQDOQ) the analyses were run using both the current data and the data from 1985-1989. Results based on both sets of data are reported in Section 2.3.5.

Fermi 2 and Fermi 3 was conservatively assumed (actual distance is approximately 421 m [1381 ft]). The release height and receptor height were both assumed to be 10m (32.8 ft). The methodology uses a "safety factor" of 1.5 to account for any variations in release locations.

**EE3 COL 2.0-11-A**  
Fermi 3 is located on the shore of Lake Erie and a portion of the effluent could be transported across Lake Erie prior to reaching populations.

### 2.3.5 Long-Term (Routine) Diffusion Estimates

For a routine release, the concentration of radioactive material in the surrounding region depends on the amount of effluent released, the height of the release, the momentum and buoyancy of the emitted plume, the wind speed, atmospheric stability, airflow patterns of the site, and various effluent removal mechanisms. Annual average relative concentration, X/Q, and annual average relative deposition, D/Q, for gaseous effluent routine releases were, therefore, calculated.

#### 2.3.5.1 Calculation Methodology and Assumptions

The X0QDOQ computer program, NUREG/CR-2919, which implements the assumptions outlined in Regulatory Guide 1.111, was used to generate the annual average relative concentration, X/Q, and annual average relative deposition, D/Q. Values of X/Q and D/Q were determined at the site boundary, at points of maximum individual exposure, and at points within a radial grid of sixteen 22.5 degree sectors and extending to a distance of 80 km (50 mi). Radioactive decay and dry deposition were considered. ~~Long-term X/Q models are conservatively determined to apply broadly within compass sector and radial ring regions; thus, the very local impacts of over water wind trajectory changes will not have a significant impact on the X/Q values. The only potential impact of the trajectories over Lake Erie is to the collective dose for the population within 50 miles of the site, and based on the small percentage of the population that is potentially impacted by this trajectory, no specific modeling conditions are included for this trajectory condition.~~

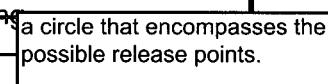
Meteorological data from 2002 through 2007 was used in the analysis. Receptor locations were based on the site boundary in each of the 16 directions as well as the nearest residences, gardens, sheep, goat, meat cow, and milk cow receptor locations in each of the 16 directions based on 2005 through 2007 Land Use Census. Meteorological data in joint frequency distributions format consistent with the Fermi 3 short-term (accident) diffusion X/Q calculation discussed above was utilized.

Trajectories over extensive water surfaces could result in larger atmospheric diffusion rates (i.e., decreased dispersion) when compared to over land trajectories due to differences in surface roughness and static stability (Reference 2.3-2XX). To account for this decreased dispersion, the stability classifications for the met data for the upwind sectors were adjusted to the next higher stability classification. For example, for the upwind sectors, the hours in stability class A were moved to stability class B and so forth. The annual average X/Q results are based on the Joint Frequency Distributions based on these stability classification adjustments.

For this analysis, both ground-level and mixed-mode releases were considered. A ground-level release was considered for releases from the Radwaste Building, while mixed-mode releases were considered for releases from the Reactor Building/Fuel Building Stack and the Turbine Building Stack based on the criteria set forth in Regulatory Guide 1.111. At ground-level locations beyond several miles from the plant, the annual average concentration of effluents are essentially independent of release mode; however, for ground-level concentrations within a few miles, the release mode is important. Gaseous effluents released from tall stacks generally produce peak ground-level air concentrations near or beyond the site boundary. Near ground-level releases usually produce concentrations that decrease from the release point to locations downwind. Guidance for selection of the release mode is provided in Regulatory Guide 1.111.

The following input data and assumptions are used in the analysis:

- Meteorological data: 6-year (2002-2007) composite onsite joint frequency distributions of wind speed, wind direction, and atmospheric stability
- Type of release: Ground-level (Radwaste Building Stack); mixed-mode (Reactor Building/Fuel Building and Turbine Building Stacks)
- Wind sensor height: 10 m
- Vertical temperature difference: between 10 m to 60 m
- Number of wind speed categories: 9 14
- Release height: 10 m (default height) for ground-level release; 52.62 m for Reactor Building/Fuel Building Stack (mixed-mode); 71.30 m for Turbine Building Stack (mixed-mode)
- Building area: 350 m<sup>2</sup> for ground-level release, conservatively set to zero to neglect the building wake credit for the mixed-mode releases
- Adjacent building height: N/A for ground-level release; 46.05 m for Reactor Building/Fuel Building Stack (mixed-mode); 52.0 m for Turbine Building Stack (mixed-mode)
- Average Vent Velocity: N/A for ground-level release; 17.78 m/s for Reactor Building/Fuel Building Stack (mixed-mode); 17.78 m/s for Turbine Building Stack (mixed-mode)

- Inside Vent Diameter: N/A for ground-level release; 2.40 m for Reactor Building/Fuel Building Stack (mixed-mode); 1.95 m for Turbine Building Stack (mixed-mode)
- Distances from release point to site boundary, nearest residence, nearest garden, nearest sheep, nearest goat, nearest meat cow, and nearest milk cow for all downwind sectors. The distances are determined from the ~~centerline of the Reactor Building~~  

- Dry deposition is considered for all releases
- Continuous release is assumed
- Site and regional topography are included

Consistent with Regulatory Guide 1.111 guidance regarding radiological impact evaluations, radioactive decay and deposition were considered. Terrain recirculation was considered consistent with Regulatory Guide 1.111 by employing the default terrain correction option.

### 2.3.5.2 Results

Receptor locations for Fermi were evaluated. Values of X/Q and D/Q were determined at the site boundary, at points of maximum individual exposure, and at points within a radial grid of sixteen 22.5 degree sectors (centered on true north, north-northeast, northeast, etc.) and extending to a distance of 80 km (50 mi) from the station. Receptor locations included in the evaluation are given in Table 2.3-305 and Table 2.3-306. A set of data points were located within each sector at increments of 402 m (0.25 mi). to a distance of 1609 m (1 mile) from the plant, at increments of 805 m (0.5 mile) from a distance of 1609 m to 8000 m (1 mile to 5 mi), at increments of 4023 m (2.5 mi) from a distance of 8 km to 16 km (5 mile to 10 mile), and at increments of 16 km (5 mi) thereafter to a distance of 80 km (50 mi). Table 2.3-328 through Table 2.3-339 summarize annual average X/Q values (no decay and undepleted; 2.26 day decayed and undepleted; 8 day decayed and depleted) and D/Q values at each of these grid points. The results of the analysis, based on meteorological data collected onsite from 2002 through 2007, are presented in Table 2.3-307 through Table 2.3-327.

### 2.3.6 References

- 2.3-201 National Climatic Data Center, "2006 Local Climatological Data Annual Summary with Comparative Data for Detroit Metropolitan Airport," January 2007.

Add new Reference 2.3-2XX NRPB-W2, Atmospheric Dispersion Modeling Liaison Committee, Annual Report 1999/2000, Review of Dispersion Modeling Over Bodies of Water, Published February 2002.

**Table 2.3-307 Site Boundary X/Q and D/Q Factors for Ground-Level Release [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	0.66	7.9E-06	7.9E-06	7.1E-06	2.8E-08
NNE	0.95	5.6E-06	5.6E-06	4.9E-06	2.3E-08
NE	1.28	3.0E-06	3.0E-06	2.6E-06	1.1E-08
SSE	0.70	9.3E-06	9.3E-06	8.3E-06	2.6E-08
S	0.70	6.7E-06	7.5E-06	6.0E-06	2.1E-08
SSW	0.72	4.6E-06	4.6E-06	4.1E-06	1.7E-08
SW	0.90	2.2E-06	2.2E-06	1.9E-06	1.2E-08
WSW	0.80	2.2E-06	2.2E-06	2.0E-06	1.5E-08
W	0.59	4.3E-06	4.3E-06	3.9E-06	2.8E-08
WNW	0.57	6.2E-06	6.2E-06	5.6E-06	3.5E-08
NW	0.57	6.5E-06	6.5E-06	5.9E-06	3.4E-08
NNW	0.57	7.2E-06	7.2E-06	6.5E-06	3.0E-08

Note: There are no values listed for the ENE, E, ESE and SE sectors because these sectors are directly towards Lake Erie.

**Table 2.3-308 Site Boundary X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	0.66	4.3E-07	4.3E-07	3.9E-07	8.6E-09
NNE	0.95	4.9E-07	4.9E-07	4.5E-07	8.6E-09
NE	1.28	2.8E-07	2.8E-07	2.6E-07	4.8E-09
SSE	0.70	2.9E-07	2.9E-07	2.8E-07	7.7E-09
S	0.70	3.0E-07	3.0E-07	2.8E-07	6.2E-09
SSW	0.72	2.3E-07	Insert Table 2.3-308		2.1E-07
SW	0.90	2.4E-07	2.4E-07	2.3E-07	4.9E-09
WSW	0.80	2.7E-07	2.7E-07	2.5E-07	6.7E-09
W	0.59	4.6E-07	4.6E-07	4.3E-07	1.2E-08
WNW	0.57	5.0E-07	5.0E-07	4.7E-07	1.4E-08
NW	0.57	4.9E-07	4.9E-07	4.6E-07	1.4E-08
NNW	0.57	4.5E-07	4.5E-07	4.2E-07	1.1E-08

Note: There are no values listed for the ENE, E, ESE and SE sectors because these sectors are directly towards Lake Erie.

**Table 2.3-309      Site Boundary X/Q and D/Q Factors for Mixed-Mode Release  
 from the Turbine Building Stack [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )	
N	0.68	4.9E-07	4.9E-07	4.5E-07	8.2E-09	
NNE	0.95	5.1E-07	5.1E-07	4.6E-07	8.2E-09	
NE	1.28	2.6E-07	2.6E-07	2.3E-07	4.1E-09	
SSE	0.70	3.6E-07	3.6E-07	3.3E-07	7.0E-09	
S	0.70	3.5E-07	Insert Table 2.3-309		3.2E-07	5.5E-09
SSW	0.72	2.6E-07	2.5E-07	2.3E-07	4.4E-09	
SW	0.90	2.1E-07	2.1E-07	2.0E-07	4.0E-09	
WSW	0.80	2.5E-07	2.5E-07	2.3E-07	5.8E-09	
W	0.59	4.8E-07	4.8E-07	4.4E-07	1.1E-08	
WNW	0.57	5.5E-07	5.5E-07	5.1E-07	1.3E-08	
NW	0.57	5.4E-07	5.4E-07	5.0E-07	1.2E-08	
NNW	0.57	5.2E-07	5.2E-07	4.8E-07	1.0E-08	

Note: There are no values listed for the ENE, E, ESE and SE sectors because these sectors are directly towards Lake Erie.

**Table 2.3-310      Nearest Residence X/Q and D/Q Factors for Ground-Level Release [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	1.31	2.5E-06	2.5E-06	2.2E-06	1.0E-08
NE	1.36	2.6E-06	2.6E-06	2.2E-06	9.4E-09
SSE	0.92	4.9E-06	4.9E-06	4.3E-06	1.4E-08
SSW	0.90	2.7E-06	2.7E-06	2.4E-06	9.9E-09
SW	1.00	1.7E-06	1.7E-06	1.5E-06	8.9E-09
WSW	1.13	9.0E-07	8.9E-07	7.8E-07	5.9E-09
W	0.98	1.4E-06	1.4E-06	1.2E-06	9.5E-09
NW	0.69	4.0E-06	4.6E-06	4.2E-06	2.5E-08
NNW	1.19	1.4E-06	1.4E-06	1.2E-06	5.8E-09

Insert Table 2.3-310

**Table 2.3-311      Nearest Residence X/Q and D/Q Factors for Mixed-Mode Release  
 from the Reactor Building/Fuel Building Stack [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	1.32	2.8E-07	2.8E-07	2.6E-07	4.0E-09
NE	1.36	2.6E-07	2.6E-07	2.4E-07	4.2E-09
SSE	0.92	2.0E-07	2.0E-07	1.9E-07	4.7E-09
SSW	0.90	1.7E-07	1.7E-07	1.6E-07	3.3E-09
SW	1.00	2.1E-07	Insert Table 2.3-311		2.0E-07
WSW	1.13	1.6E-07	1.6E-07	1.5E-07	3.1E-09
W	0.98	2.3E-07	2.2E-07	2.1E-07	4.8E-09
NW	0.69	3.8E-07	3.8E-07	3.6E-07	1.1E-08
NNW	1.19	1.4E-07	1.4E-07	1.3E-07	2.5E-09

**Table 2.3-312      Nearest Residence X/Q and D/Q Factors for Mixed-Mode Release  
 from the Turbine Building Stack [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	1.32	2.7E-07	2.7E-07	2.4E-07	3.7E-09
NE	1.36	2.3E-07	2.3E-07	2.1E-07	3.6E-09
SSE	0.92	2.2E-07	2.2E-07	2.0E-07	4.3E-09
SSW	0.90	1.7E-07	1.7E-07	1.6E-07	3.0E-09
SW	1.00	1.8E-07	1.8E-07	1.7E-07	3.3E-09
WSW	1.13	1.3E-07	1.3E-07	1.2E-07	2.7E-09
W	0.98	2.1E-07	2.1E-07	1.9E-07	4.8E-09
NW	0.69	4.0E-07	4.0E-07	3.7E-07	9.9E-09
NNW	1.19	1.4E-07	1.4E-07	1.2E-07	2.4E-09

Insert Table 2.3-312

**Table 2.3-313      Nearest Garden X/Q and D/Q Factors for Ground-Level Release [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	2.31	4.4E-07	4.3E-07	3.5E-07	1.3E-09
NNE	2.16	8.2E-07	8.1E-07	6.7E-07	3.0E-09
NE	2.24	8.4E-07	8.3E-07	6.8E-07	2.8E-09
S	1.28	1.5E-06	1.5E-06	1.3E-06	4.7E-09
WSW	2.14	2.0E-07	Insert Table 2.3-313		1.7E-07
W	1.50	4.9E-07	4.9E-07	4.2E-07	3.2E-09
NW	0.69	4.6E-06	4.6E-06	4.1E-06	2.5E-08
NNW	1.09	1.7E-06	1.7E-06	1.5E-06	7.3E-09

**Table 2.3-314      Nearest Garden X/Q and D/Q Factors for Mixed-Mode Release  
 from the Reactor Building/Fuel Building Stack [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	2.31	6.9E-08	6.9E-08	6.4E-08	5.5E-10
NNE	2.16	1.3E-07	1.3E-07	1.2E-07	1.3E-09
NE	2.24	1.3E-07	1.3E-07	1.2E-07	1.4E-09
S	1.28	1.2E-07	1.2E-07	1.1E-07	1.8E-09
WSW	2.14	5.7E-08	Insert Table 2.3-314		5.2E-08
W	1.50	1.1E-07	1.1E-07	1.0E-07	1.8E-09
NW	0.69	3.8E-07	3.8E-07	3.6E-07	1.1E-08
NNW	1.09	1.6E-07	1.6E-07	1.5E-07	3.1E-09

**Table 2.3-315      Nearest Garden X/Q and D/Q Factors for Mixed-Mode Release  
 from the Turbine Building Stack [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	2.31	5.9E-08	5.9E-08	5.3E-08	5.4E-10
NNE	2.16	1.2E-07	1.2E-07	1.1E-07	1.3E-09
NE	2.24	1.1E-07	1.1E-07	1.0E-07	1.3E-09
S	1.28	1.2E-07	1.2E-07	1.1E-07	1.6E-09
WSW	2.14	4.8E-08	Insert Table 2.3-315		4.4E-08
W	1.50	9.7E-08	9.7E-08	8.7E-08	1.8E-09
NW	0.69	4.0E-07	4.0E-07	3.7E-07	9.8E-09
NNW	1.09	1.6E-07	1.6E-07	1.4E-07	3.0E-09

Insert Table 2.3-307 Site Boundary X/Q and D/Q Factors for Ground-Level Release  
 (Based on 2002-2007 met data)

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	0.56	9.6E-06	9.5E-06	8.7E-06	3.5E-08
NNE	0.86	6.8E-06	6.8E-06	6.0E-06	2.9E-08
NE	1.18	3.5E-06	3.4E-06	3.0E-06	1.3E-08
SSE	0.61	1.1E-05	1.1E-05	1.0E-05	3.3E-08
S	0.61	8.2E-06	8.2E-06	7.4E-06	2.6E-08
SSW	0.63	5.8E-06	5.8E-06	5.2E-06	2.1E-08
SW	0.81	2.7E-06	2.7E-06	2.4E-06	1.5E-08
WSW	0.70	2.6E-06	2.6E-06	2.3E-06	1.9E-08
W	0.49	5.5E-06	5.5E-06	5.1E-06	3.7E-08
WNW	0.48	8.1E-06	8.1E-06	7.4E-06	4.6E-08
NW	0.48	7.9E-06	7.9E-06	7.2E-06	4.4E-08
NNW	0.48	9.2E-06	9.2E-06	8.4E-06	3.9E-08

Insert Table 2.3-308 Site Boundary X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack (Based on 2002-2007 met data)

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	0.56	5.3E-07	5.3E-07	4.9E-07	1.0E-08
NNE	0.86	6.0E-07	6.0E-07	5.5E-07	1.1E-08
NE	1.18	3.3E-07	3.3E-07	3.1E-07	5.8E-09
SSE	0.61	3.8E-07	3.8E-07	3.5E-07	9.2E-09
S	0.61	3.8E-07	3.8E-07	3.5E-07	7.4E-09
SSW	0.63	2.8E-07	2.8E-07	2.6E-07	5.8E-09
SW	0.81	2.9E-07	2.9E-07	2.7E-07	6.0E-09
WSW	0.70	3.2E-07	3.2E-07	2.9E-07	8.1E-09
W	0.49	5.7E-07	5.7E-07	5.3E-07	1.5E-08
WNW	0.48	6.6E-07	6.6E-07	6.2E-07	1.7E-08
NW	0.48	6.4E-07	6.4E-07	6.1E-07	1.6E-08
NNW	0.48	6.0E-07	6.0E-07	5.6E-07	1.3E-08

2.8E-07

Insert Table 2.3-309 Site Boundary X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack (Based on 2002-2007 met data)

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	0.56	6.1E-07	6.1E-07	5.6E-07	9.6E-09
NNE	0.86	6.3E-07	6.3E-07	5.7E-07	1.0E-08
NE	1.18	2.9E-07	2.9E-07	2.7E-07	4.8E-09
SSE	0.61	4.3E-07	4.3E-07	3.9E-07	8.1E-09
S	0.61	4.2E-07	4.2E-07	3.9E-07	6.3E-09
SSW	0.63	3.0E-07	3.0E-07	2.8E-07	5.1E-09
SW	0.81	2.6E-07	2.6E-07	2.3E-07	5.0E-09
WSW	0.70	3.0E-07	3.0E-07	2.7E-07	7.0E-09
W	0.49	6.2E-07	6.2E-07	5.7E-07	1.4E-08
WNW	0.48	7.2E-07	7.2E-07	6.7E-07	1.5E-08
NW	0.48	7.1E-07	7.1E-07	6.6E-07	1.5E-08
NNW	0.48	6.8E-07	6.8E-07	6.3E-07	1.2E-08

Insert Table 2.3-310 Nearest Residence X/Q and D/Q Factors for Ground-Level Release  
 (Based on 2002-2007 met data)

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	1.22	2.8E-06	2.8E-06	2.4E-06	1.2E-08
NE	1.26	3.0E-06	2.9E-06	2.5E-06	1.1E-08
SSE	0.83	6.1E-06	6.1E-06	5.4E-06	1.8E-08
SSW	0.80	3.5E-06	3.5E-06	3.1E-06	1.3E-08
SW	0.90	2.0E-06	2.0E-06	1.8E-06	1.1E-08
WSW	1.04	1.0E-06	1.0E-06	8.8E-07	7.3E-09
W	0.88	1.7E-06	1.7E-06	1.5E-06	1.2E-08
NW	0.59	5.3E-06	5.3E-06	4.8E-06	3.1E-08
NNW	1.10	1.5E-06	1.5E-06	1.3E-06	7.0E-09

Insert Table 2.3-311 Nearest Residence X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack  
(Based on 2002-2007 met data)

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	1.22	3.3E-07	3.3E-07	3.0E-07	4.8E-09
NE	1.26	3.0E-07	3.0E-07	2.8E-07	5.0E-09
SSE	0.83	2.7E-07	2.7E-07	2.5E-07	5.9E-09
SSW	0.80	2.2E-07	2.2E-07	2.0E-07	4.1E-09
SW	0.90	2.4E-07	2.4E-07	2.3E-07	4.7E-09
WSW	1.04	1.8E-07	1.8E-07	1.7E-07	3.7E-09
W	0.88	2.7E-07	2.7E-07	2.5E-07	6.0E-09
NW	0.59	4.7E-07	4.7E-07	4.4E-07	1.2E-08
NNW	1.10	1.6E-07	1.6E-07	1.5E-07	2.9E-09

Insert Table 2.3-312 Nearest Residence X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack  
(Based on 2002-2007 met data)

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	1.22	3.1E-07	3.1E-07	2.8E-07	4.5E-09
NE	1.26	2.6E-07	2.6E-07	2.4E-07	4.2E-09
SSE	0.83	2.7E-07	2.7E-07	2.5E-07	5.3E-09
SSW	0.80	2.2E-07	2.2E-07	2.0E-07	3.7E-09
SW	0.90	2.1E-07	2.1E-07	1.9E-07	4.0E-09
WSW	1.04	1.5E-07	1.5E-07	1.4E-07	3.2E-09
W	0.88	2.5E-07	2.5E-07	2.3E-07	5.9E-09
NW	0.59	5.1E-07	5.1E-07	4.7E-07	1.2E-08
NNW	1.10	1.6E-07	1.6E-07	1.4E-07	2.9E-09

Insert Table 2.3-313 Nearest Garden X/Q and D/Q Factors for Ground-Level Release  
 (Based on 2002-2007 met data)

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	2.22	4.4E-07	4.3E-07	3.6E-07	1.5E-09
NNE	2.07	8.4E-07	8.4E-07	6.9E-07	3.2E-09
NE	2.14	8.9E-07	8.8E-07	7.3E-07	3.1E-09
S	1.19	1.8E-06	1.8E-06	1.5E-06	5.7E-09
WSW	2.05	2.0E-07	2.0E-07	1.7E-07	1.3E-09
W	1.41	5.4E-07	5.4E-07	4.6E-07	3.7E-09
NW	0.60	5.3E-06	5.3E-06	4.8E-06	3.1E-08
NNW	1.00	2.0E-06	2.0E-06	1.7E-06	9.0E-09

Insert Table 2.3-314 Nearest Garden X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack  
*(Based on 2002-2007 met data)*

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	2.22	7.4E-08	7.3E-08	6.8E-08	6.0E-10
NNE	2.07	1.4E-07	1.4E-07	1.3E-07	1.4E-09
NE	2.14	1.4E-07	1.4E-07	1.3E-07	1.6E-09
S	1.19	1.4E-07	1.4E-07	1.3E-07	2.1E-09
WSW	2.05	6.0E-08	6.0E-08	5.6E-08	8.1E-10
W	1.41	1.2E-07	1.2E-07	1.1E-07	2.1E-09
NW	0.60	4.7E-07	4.7E-07	4.4E-07	1.2E-08
NNW	1.00	1.9E-07	1.9E-07	1.8E-07	3.7E-09
			5.5E-08		

Insert Table 2.3-315 Nearest Garden X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack  
(Based on 2002-2007 met data)

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	2.22	6.2E-08	6.2E-08	5.6E-08	5.9E-10
NNE	2.07	1.3E-07	1.3E-07	1.1E-07	1.4E-09
NE	2.14	1.2E-07	1.2E-07	1.1E-07	1.4E-09
S	1.19	1.4E-07	1.3E-07	1.2E-07	1.9E-09
WSW	2.05	5.1E-08	5.1E-08	4.6E-08	7.3E-10
W	1.41	1.1E-07	1.1E-07	9.8E-08	2.0E-09
NW	0.60	5.0E-07	5.0E-07	4.7E-07	1.1E-08
NNW	1.00	1.9E-07	1.9E-07	1.7E-07	3.7E-09

(Based on  
2002-2007 met  
data)

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**Table 2.3-316      Nearest Sheep X/Q and D/Q Factors for Ground-Level  
Release [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.50	4.41	1.9E-07	4.0E-07	1.8E-07
NNW	4.46	4.36	8.5E-08	8.1E-08	8.0E-08

(Based on  
2002-2007 met  
data)

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**Table 2.3-317      Nearest Sheep X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	—4.50	4.41	4.8E-08	4.7E-08	4.3E-08
NNW	—4.46	4.36	2.0E-08	2.0E-08	1.8E-08

**Table 2.3-318      Nearest Sheep X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.50	4.41	4.1E-08	4.4E-08	4.0E-08
NNW	4.46	4.36	1.7E-08	1.7E-08	1.5E-08

Table 2.3-319      Nearest Goat X/Q and D/Q Factors for Ground-Level  
Release      [EF3 COL 2.0-11-A]

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	2.00	2.21	2.0E-07	2.7E-07	2.0E-07
NNW	3.00	2.99	1.7E-07	1.7E-07	1.3E-07

**Table 2.3-320      Nearest Goat X/Q and D/Q Factors for Mixed-Mode Release from  
the Reactor Building/Fuel Building Stack → [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	2.00	2.21	6.4E-08	6.6E-08	6.4E-08
NNW	3.00	2.99	3.4E-08	3.5E-08	3.2E-08

**Table 2.3-321      Nearest Goat X/Q and D/Q Factors for Mixed-Mode Release from  
the Turbine Building Stack** [EF3 COL 2.0-11-A]

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	2.30	2.21	5.4E-08	5.7E-08	5.3E-08
NNW	3.08	2.99	2.9E-08	3.0E-08	2.9E-08

(Based on  
2002-2007 met  
data)

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**Table 2.3-322      Nearest Meat Cow X/Q and D/Q Factors for Ground-Level  
Release [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.50	4.41	1.9E-07	1.8E-07	5.6E-10
NNW	3.05	2.95	1.7E-07	1.4E-07	6.0E-10

(Based on  
2002-2007 met  
data)

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**Table 2.3-323      Nearest Meat Cow X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.50	4.41	4.80E-08	4.8E-08	4.70E-08
NNW	3.05	2.95	3.40E-08	3.6E-08	3.40E-08

(Based on  
2002-2007 met  
data)

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**Table 2.3-324      Nearest Meat Cow X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack → [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.50	4.41	4.40E-08	4.1E-08	4.40E-08
NNW	3.06	2.95	3.00E-08	3.1E-08	2.90E-08

(Based on  
2002-2007 met  
data)

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**Table 2.3-325      Nearest Milk Cow X/Q and D/Q Factors for Ground-Level  
Release [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	2.48	2.09	3.1E-07	3.1E-07	2.5E-07
NW	3.65	3.55	1.0E-07	1.0E-07	4.7E-10

(Based on  
2002-2007 met  
data)

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**Table 2.3-326      Nearest Milk Cow X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	2.40	2.09	6.70E-08	7.2E-08	6.60E-08
NW	3.65	3.55	2.70E-08	2.8E-08	2.70E-08

(Based on  
2002-2007 met  
data)

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**Table 2.3-327      Nearest Milk Cow X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack [EF3 COL 2.0-11-A]**

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )					
WNW	2.40	2.09	5.00E-06	6.2E-08	5.00E-06	6.2E-08	5.30E-06	5.6E-08	8.00E-10	8.9E-10
NW	3.66	3.55	2.40E-06	2.4E-08	2.30E-06	2.4E-08	2.10E-06	2.1E-08	2.60E-10	2.7E-10

**Table 2.3-328 Annual Average X/Q Values (No Decay, Undepleted) for Ground Level Release (Sheet 1 of 3)** [EF3 COL 2.0-11-A]

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	4.464E-05	1.291E-05	6.302E-06	3.000E-06	1.130E-06	5.929E-07	3.689E-07	2.544E-07	1.879E-07	1.456E-07	1.170E-07
NNE	7.320E-05	2.121E-05	1.636E-05	4.931E-06	1.854E-06	9.724E-07	6.046E-07	4.166E-07	3.074E-07	2.381E-07	1.912E-07
NE	8.036E-05	2.333E-05	1.140E-05	5.430E-06	2.038E-06	1.067E-06	6.621E-07	4.555E-07	3.356E-07	2.596E-07	2.082E-07
ENE	9.779E-05	2.840E-05	1.384E-05	6.605E-06	2.491E-06	1.309E-06	8.159E-07	5.623E-07	4.164E-07	3.230E-07	2.597E-07
E	9.458E-05	2.735E-05	1.326E-05	6.333E-06	2.396E-06	1.264E-06	7.898E-07	5.468E-07	4.051E-07	3.150E-07	2.538E-07
ESE	1.214E-04	3.511E-05	1.698E-05	8.117E-06	3.083E-06	1.632E-06	1.024E-06	7.107E-07	5.279E-07	4.113E-07	3.321E-07
SE	7.993E-05	2.313E-05	1.123E-05	Replace Tables 2.3-328 through 2.3-339 with attached new tables							
SSE	5.915E-05	1.711E-05	8.318E-06	3.968E-06	1.497E-06	7.872E-07	4.908E-07	3.391E-07	2.507E-07	1.946E-07	1.566E-07
S	4.212E-05	1.224E-05	5.968E-06	2.845E-06	1.070E-06	5.615E-07	3.493E-07	2.408E-07	1.777E-07	1.377E-07	1.106E-07
SSW	2.990E-05	8.693E-06	4.257E-06	2.027E-06	7.586E-07	3.959E-07	2.451E-07	1.682E-07	1.237E-07	9.553E-08	7.650E-08
SW	2.490E-05	7.149E-06	3.497E-06	1.661E-06	6.193E-07	3.216E-07	1.982E-07	1.355E-07	9.926E-08	7.638E-08	6.096E-08
WSW	1.860E-05	5.285E-06	2.573E-06	1.220E-06	4.547E-07	2.362E-07	1.456E-07	9.955E-08	7.295E-08	5.616E-08	4.484E-08
W	2.015E-05	5.745E-06	2.796E-06	1.328E-06	4.974E-07	2.597E-07	1.608E-07	1.104E-07	8.116E-08	6.266E-08	5.018E-08
WNW	2.792E-05	7.916E-06	3.832E-06	1.820E-06	6.839E-07	3.582E-07	2.225E-07	1.532E-07	1.130E-07	8.746E-08	7.020E-08
NW	2.942E-05	8.268E-06	3.981E-06	1.889E-06	7.115E-07	3.736E-07	2.326E-07	1.605E-07	1.185E-07	9.191E-08	7.388E-08
NNW	3.201E-05	9.137E-06	4.425E-06	2.105E-06	7.945E-07	4.181E-07	2.607E-07	1.802E-07	1.333E-07	1.035E-07	8.324E-08

based on 2002-2007 met data

Insert Table 2.3-328 Annual Average X/Q Values (no Decay, Undepleted) for Ground Level Release (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	4.096E-05	1.188E-05	5.798E-06	2.761E-06	1.040E-06	5.456E-07	3.395E-07	2.341E-07	1.728E-07	1.339E-07	1.076E-07
NNE	6.801E-05	1.974E-05	9.639E-06	4.591E-06	1.728E-06	9.064E-07	5.639E-07	3.888E-07	2.870E-07	2.224E-07	1.786E-07
NE	1.148E-04	3.343E-05	1.621E-05	7.747E-06	2.938E-06	1.555E-06	9.749E-07	6.768E-07	5.027E-07	3.917E-07	3.162E-07
ENE	1.347E-04	3.915E-05	1.893E-05	9.055E-06	3.442E-06	1.825E-06	1.147E-06	7.972E-07	5.930E-07	4.627E-07	3.740E-07
E	1.255E-04	3.635E-05	1.753E-05	8.383E-06	3.190E-06	1.693E-06	1.065E-06	7.409E-07	5.516E-07	4.307E-07	3.484E-07
ESE	1.615E-04	4.668E-05	2.245E-05	1.075E-05	4.100E-06	2.182E-06	1.375E-06	9.584E-07	7.146E-07	5.587E-07	4.525E-07
SE	1.071E-04	3.100E-05	1.495E-05	7.149E-06	2.719E-06	1.443E-06	9.071E-07	6.313E-07	4.699E-07	3.669E-07	2.967E-07
SSE	7.788E-05	2.259E-05	1.092E-05	5.220E-06	1.982E-06	1.051E-06	6.596E-07	4.585E-07	3.410E-07	2.660E-07	2.149E-07
S	5.836E-05	1.696E-05	8.205E-06	3.923E-06	1.491E-06	7.900E-07	4.960E-07	3.448E-07	2.564E-07	2.000E-07	1.616E-07
SSW	4.414E-05	1.288E-05	6.263E-06	2.992E-06	1.133E-06	5.985E-07	3.747E-07	2.598E-07	1.928E-07	1.501E-07	1.210E-07
SW	2.330E-05	6.709E-06	3.284E-06	1.561E-06	5.814E-07	3.017E-07	1.858E-07	1.270E-07	9.297E-08	7.150E-08	5.705E-08
WSW	1.680E-05	4.797E-06	2.340E-06	1.110E-06	4.131E-07	2.143E-07	1.319E-07	9.013E-08	6.598E-08	5.075E-08	4.049E-08
W	1.891E-05	5.406E-06	2.634E-06	1.251E-06	4.682E-07	2.441E-07	1.510E-07	1.036E-07	7.614E-08	5.876E-08	4.703E-08
WNW	2.642E-05	7.499E-06	3.633E-06	1.725E-06	6.486E-07	3.398E-07	2.111E-07	1.454E-07	1.072E-07	8.298E-08	6.661E-08
NW	2.587E-05	7.292E-06	3.515E-06	1.668E-06	6.280E-07	3.296E-07	2.051E-07	1.415E-07	1.045E-07	8.100E-08	6.510E-08
NNW	2.956E-05	8.461E-06	4.103E-06	1.952E-06	7.363E-07	3.872E-07	2.414E-07	1.667E-07	1.233E-07	9.567E-08	7.696E-08

Insert Table 2.3-328 Annual Average X/Q Values (no Decay, Undepleted) for Ground Level Release (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	8.888E-08	4.550E-08	2.948E-08	1.695E-08	1.151E-08	8.550E-09	6.715E-09	5.480E-09	4.599E-09	3.943E-09	3.437E-09
NNE	1.476E-07	7.553E-08	4.894E-08	2.813E-08	1.911E-08	1.419E-08	1.115E-08	9.099E-09	7.636E-09	6.546E-09	5.706E-09
NE	2.625E-07	1.369E-07	8.997E-08	5.276E-08	3.634E-08	2.729E-08	2.162E-08	1.778E-08	1.502E-08	1.295E-08	1.135E-08
ENE	3.107E-07	1.628E-07	1.073E-07	6.319E-08	4.365E-08	3.285E-08	2.609E-08	2.149E-08	1.818E-08	1.569E-08	1.376E-08
E	2.897E-07	1.522E-07	1.005E-07	5.943E-08	4.116E-08	3.104E-08	2.469E-08	2.037E-08	1.725E-08	1.491E-08	1.309E-08
ESE	3.766E-07	1.988E-07	1.317E-07	7.817E-08	5.430E-08	4.104E-08	3.271E-08	2.702E-08	2.292E-08	1.983E-08	1.743E-08
SE	2.467E-07	1.297E-07	8.565E-08	5.062E-08	3.506E-08	2.644E-08	2.103E-08	1.734E-08	1.469E-08	1.270E-08	1.115E-08
SSE	1.786E-07	9.355E-08	6.166E-08	3.633E-08	2.511E-08	1.890E-08	1.501E-08	1.237E-08	1.047E-08	9.038E-09	7.930E-09
S	1.342E-07	7.026E-08	4.628E-08	2.724E-08	1.881E-08	1.415E-08	1.124E-08	9.253E-09	7.827E-09	6.756E-09	5.926E-09
SSW	1.004E-07	5.218E-08	3.420E-08	1.998E-08	1.372E-08	1.028E-08	8.132E-09	6.677E-09	5.633E-09	4.851E-09	4.245E-09
SW	4.684E-08	2.340E-08	1.488E-08	8.335E-09	5.559E-09	4.071E-09	3.160E-09	2.554E-09	2.126E-09	1.809E-09	1.567E-09
WSW	3.325E-08	1.663E-08	1.059E-08	5.943E-09	3.971E-09	2.912E-09	2.264E-09	1.832E-09	1.527E-09	1.300E-09	1.127E-09
W	3.872E-08	1.957E-08	1.257E-08	7.132E-09	4.803E-09	3.544E-09	2.769E-09	2.251E-09	1.882E-09	1.608E-09	1.398E-09
WNW	5.499E-08	2.810E-08	1.819E-08	1.045E-08	7.101E-09	5.277E-09	4.148E-09	3.387E-09	2.845E-09	2.441E-09	2.129E-09
NW	5.383E-08	2.768E-08	1.800E-08	1.041E-08	7.111E-09	5.305E-09	4.183E-09	3.426E-09	2.884E-09	2.480E-09	2.167E-09
NNW	6.366E-08	3.278E-08	2.134E-08	1.235E-08	8.427E-09	6.283E-09	4.952E-09	4.053E-09	3.410E-09	2.930E-09	2.559E-09

Insert Table 2.3-328 Annual Average X/Q Values (no Decay, Undepleted) for Ground Level Release (Sheet 3 of 3)

**X/Q (sec/m<sup>3</sup>) for Each Segment**

<b>Sector</b>	<b>Segment Boundaries in Miles from the Site</b>									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.799E-06	1.203E-06	3.523E-07	1.755E-07	1.085E-07	4.802E-08	1.732E-08	8.606E-09	5.497E-09	3.950E-09
NNE	9.640E-06	1.999E-06	5.852E-07	2.914E-07	1.801E-07	7.972E-08	2.875E-08	1.429E-08	9.127E-09	6.558E-09
NE	1.628E-05	3.392E-06	1.010E-06	5.101E-07	3.187E-07	1.440E-07	5.373E-08	2.744E-08	1.783E-08	1.297E-08
ENE	1.903E-05	3.971E-06	1.188E-06	6.017E-07	3.768E-07	1.710E-07	6.431E-08	3.303E-08	2.154E-08	1.571E-08
E	1.765E-05	3.679E-06	1.103E-06	5.596E-07	3.510E-07	1.598E-07	6.045E-08	3.120E-08	2.042E-08	1.493E-08
ESE	2.263E-05	4.725E-06	1.423E-06	7.249E-07	4.559E-07	2.085E-07	7.945E-08	4.124E-08	2.708E-08	1.986E-08
SE	1.505E-05	3.136E-06	9.397E-07	4.768E-07	2.990E-07	1.361E-07	5.149E-08	2.657E-08	1.739E-08	1.271E-08
SSE	1.098E-05	2.288E-06	6.834E-07	3.460E-07	2.166E-07	9.827E-08	3.697E-08	1.900E-08	1.240E-08	9.051E-09
S	8.247E-06	1.720E-06	5.139E-07	2.602E-07	1.628E-07	7.382E-08	2.772E-08	1.423E-08	9.276E-09	6.766E-09
SSW	6.280E-06	1.308E-06	3.884E-07	1.957E-07	1.220E-07	5.490E-08	2.036E-08	1.034E-08	6.695E-09	4.858E-09
SW	3.279E-06	6.747E-07	1.932E-07	9.451E-08	5.755E-08	2.482E-08	8.557E-09	4.103E-09	2.564E-09	1.813E-09
WSW	2.339E-06	4.796E-07	1.372E-07	6.708E-08	4.085E-08	1.764E-08	6.099E-09	2.936E-09	1.839E-09	1.303E-09
W	2.635E-06	5.426E-07	1.569E-07	7.737E-08	4.743E-08	2.071E-08	7.305E-09	3.570E-09	2.258E-09	1.612E-09
WNW	3.644E-06	7.507E-07	2.191E-07	1.089E-07	6.716E-08	2.967E-08	1.068E-08	5.312E-09	3.398E-09	2.445E-09
NW	3.533E-06	7.265E-07	2.128E-07	1.061E-07	6.564E-08	2.919E-08	1.063E-08	5.338E-09	3.436E-09	2.484E-09
NNW	4.115E-06	8.513E-07	2.504E-07	1.252E-07	7.758E-08	3.456E-08	1.260E-08	6.322E-09	4.065E-09	2.934E-09

based on 2002-2007 met data

Insert Table 2.3-329 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Ground Level Release (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	4.091E-05	1.185E-05	5.777E-06	2.748E-06	1.032E-06	5.403E-07	3.354E-07	2.307E-07	1.699E-07	1.313E-07	1.052E-07
NNE	6.794E-05	1.970E-05	9.608E-06	4.571E-06	1.716E-06	8.985E-07	5.578E-07	3.837E-07	2.826E-07	2.185E-07	1.751E-07
NE	1.147E-04	3.334E-05	1.615E-05	7.708E-06	2.916E-06	1.539E-06	9.624E-07	6.664E-07	4.937E-07	3.836E-07	3.089E-07
ENE	1.345E-04	3.902E-05	1.885E-05	8.999E-06	3.410E-06	1.803E-06	1.129E-06	7.824E-07	5.801E-07	4.512E-07	3.635E-07
E	1.253E-04	3.622E-05	1.744E-05	8.325E-06	3.156E-06	1.669E-06	1.046E-06	7.254E-07	5.381E-07	4.186E-07	3.374E-07
ESE	1.612E-04	4.652E-05	2.233E-05	1.067E-05	4.057E-06	2.151E-06	1.350E-06	9.382E-07	6.971E-07	5.431E-07	4.383E-07
SE	1.069E-04	3.090E-05	1.488E-05	7.103E-06	2.693E-06	1.424E-06	8.926E-07	6.191E-07	4.594E-07	3.575E-07	2.882E-07
SSE	7.777E-05	2.253E-05	1.088E-05	5.192E-06	1.966E-06	1.039E-06	6.507E-07	4.511E-07	3.345E-07	2.602E-07	2.097E-07
S	5.828E-05	1.692E-05	8.175E-06	3.904E-06	1.480E-06	7.824E-07	4.900E-07	3.398E-07	2.520E-07	1.961E-07	1.581E-07
SSW	4.409E-05	1.285E-05	6.240E-06	2.977E-06	1.124E-06	5.926E-07	3.701E-07	2.559E-07	1.894E-07	1.471E-07	1.183E-07
SW	2.328E-05	6.696E-06	3.275E-06	1.555E-06	5.781E-07	2.994E-07	1.841E-07	1.255E-07	9.172E-08	7.040E-08	5.606E-08
WSW	1.679E-05	4.789E-06	2.335E-06	1.107E-06	4.113E-07	2.130E-07	1.310E-07	8.932E-08	6.529E-08	5.014E-08	3.994E-08
W	1.890E-05	5.398E-06	2.628E-06	1.247E-06	4.661E-07	2.427E-07	1.499E-07	1.027E-07	7.533E-08	5.805E-08	4.639E-08
WNW	2.639E-05	7.486E-06	3.623E-06	1.720E-06	6.453E-07	3.375E-07	2.093E-07	1.439E-07	1.059E-07	8.184E-08	6.558E-08
NW	2.585E-05	7.280E-06	3.507E-06	1.663E-06	6.250E-07	3.275E-07	2.035E-07	1.402E-07	1.034E-07	8.001E-08	6.420E-08
NNW	2.953E-05	8.443E-06	4.090E-06	1.944E-06	7.316E-07	3.840E-07	2.389E-07	1.646E-07	1.215E-07	9.408E-08	7.552E-08

Insert Table 2.3-329 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Ground Level Release (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	8.674E-08	4.387E-08	2.808E-08	1.576E-08	1.046E-08	7.590E-09	5.828E-09	4.652E-09	3.820E-09	3.205E-09	2.735E-09
NNE	1.443E-07	7.308E-08	4.683E-08	2.635E-08	1.752E-08	1.274E-08	9.806E-09	7.843E-09	6.453E-09	5.425E-09	4.639E-09
NE	2.557E-07	1.317E-07	8.540E-08	4.881E-08	3.278E-08	2.400E-08	1.856E-08	1.490E-08	1.229E-08	1.035E-08	8.860E-09
ENE	3.011E-07	1.553E-07	1.008E-07	5.754E-08	3.856E-08	2.816E-08	2.171E-08	1.737E-08	1.428E-08	1.199E-08	1.023E-08
E	2.796E-07	1.443E-07	9.366E-08	5.346E-08	3.578E-08	2.608E-08	2.006E-08	1.601E-08	1.313E-08	1.099E-08	9.348E-09
ESE	3.635E-07	1.885E-07	1.227E-07	7.034E-08	4.722E-08	3.451E-08	2.661E-08	2.128E-08	1.748E-08	1.465E-08	1.248E-08
SE	2.388E-07	1.235E-07	8.028E-08	4.596E-08	3.085E-08	2.256E-08	1.741E-08	1.394E-08	1.146E-08	9.624E-09	8.211E-09
SSE	1.738E-07	8.981E-08	5.839E-08	3.349E-08	2.254E-08	1.654E-08	1.280E-08	1.029E-08	8.491E-09	7.154E-09	6.126E-09
S	1.310E-07	6.773E-08	4.407E-08	2.533E-08	1.709E-08	1.256E-08	9.751E-09	7.854E-09	6.499E-09	5.490E-09	4.714E-09
SSW	9.788E-08	5.025E-08	3.252E-08	1.854E-08	1.243E-08	9.091E-09	7.026E-09	5.638E-09	4.650E-09	3.916E-09	3.353E-09
SW	4.594E-08	2.272E-08	1.431E-08	7.857E-09	5.138E-09	3.690E-09	2.810E-09	2.229E-09	1.820E-09	1.521E-09	1.293E-09
WSW	3.275E-08	1.625E-08	1.027E-08	5.678E-09	3.737E-09	2.700E-09	2.068E-09	1.649E-09	1.354E-09	1.137E-09	9.713E-10
W	3.814E-08	1.913E-08	1.219E-08	6.815E-09	4.521E-09	3.288E-09	2.532E-09	2.028E-09	1.672E-09	1.409E-09	1.208E-09
WNW	5.404E-08	2.738E-08	1.757E-08	9.924E-09	6.630E-09	4.846E-09	3.747E-09	3.011E-09	2.489E-09	2.101E-09	1.805E-09
NW	5.300E-08	2.705E-08	1.746E-08	9.947E-09	6.691E-09	4.918E-09	3.822E-09	3.085E-09	2.560E-09	2.169E-09	1.869E-09
NNW	6.234E-08	3.177E-08	2.046E-08	1.160E-08	7.763E-09	5.676E-09	4.388E-09	3.524E-09	2.910E-09	2.455E-09	2.106E-09

Insert Table 2.3-329 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Ground Level Release (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.780E-06	1.195E-06	3.481E-07	1.726E-07	1.061E-07	4.638E-08	1.614E-08	7.650E-09	4.671E-09	3.213E-09
NNE	9.611E-06	1.987E-06	5.790E-07	2.871E-07	1.766E-07	7.725E-08	2.698E-08	1.284E-08	7.875E-09	5.439E-09
NE	1.622E-05	3.369E-06	9.977E-07	5.011E-07	3.114E-07	1.387E-07	4.982E-08	2.416E-08	1.495E-08	1.037E-08
ENE	1.895E-05	3.938E-06	1.170E-06	5.888E-07	3.664E-07	1.635E-07	5.871E-08	2.835E-08	1.744E-08	1.201E-08
E	1.756E-05	3.644E-06	1.084E-06	5.461E-07	3.401E-07	1.519E-07	5.453E-08	2.626E-08	1.607E-08	1.102E-08
ESE	2.252E-05	4.680E-06	1.399E-06	7.073E-07	4.416E-07	1.981E-07	7.170E-08	3.474E-08	2.135E-08	1.469E-08
SE	1.498E-05	3.109E-06	9.250E-07	4.662E-07	2.904E-07	1.299E-07	4.687E-08	2.271E-08	1.399E-08	9.646E-09
SSE	1.094E-05	2.271E-06	6.745E-07	3.395E-07	2.114E-07	9.450E-08	3.416E-08	1.665E-08	1.032E-08	7.169E-09
S	8.219E-06	1.709E-06	5.079E-07	2.558E-07	1.593E-07	7.128E-08	2.583E-08	1.264E-08	7.880E-09	5.502E-09
SSW	6.258E-06	1.300E-06	3.838E-07	1.923E-07	1.193E-07	5.295E-08	1.893E-08	9.154E-09	5.658E-09	3.925E-09
SW	3.270E-06	6.713E-07	1.914E-07	9.325E-08	5.656E-08	2.414E-08	8.082E-09	3.724E-09	2.239E-09	1.525E-09
WSW	2.335E-06	4.777E-07	1.362E-07	6.639E-08	4.030E-08	1.726E-08	5.836E-09	2.724E-09	1.656E-09	1.140E-09
W	2.630E-06	5.404E-07	1.557E-07	7.656E-08	4.678E-08	2.027E-08	6.990E-09	3.314E-09	2.036E-09	1.412E-09
WNW	3.636E-06	7.472E-07	2.173E-07	1.076E-07	6.612E-08	2.894E-08	1.016E-08	4.882E-09	3.022E-09	2.106E-09
NW	3.526E-06	7.235E-07	2.113E-07	1.050E-07	6.474E-08	2.855E-08	1.017E-08	4.952E-09	3.095E-09	2.174E-09
NNW	4.103E-06	8.465E-07	2.479E-07	1.234E-07	7.614E-08	3.354E-08	1.186E-08	5.717E-09	3.537E-09	2.461E-09

based on 2002-2007 met data

Insert Table 2.3-330 Annual Average X/Q Values (8.0 Day Decay, Undepleted) for Ground Level Release (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	3.875E-05	1.084E-05	5.162E-06	2.414E-06	8.810E-07	4.505E-07	2.740E-07	1.852E-07	1.342E-07	1.022E-07	8.084E-08
NNE	6.435E-05	1.802E-05	8.582E-06	4.014E-06	1.464E-06	7.487E-07	4.554E-07	3.077E-07	2.230E-07	1.698E-07	1.343E-07
NE	1.086E-04	3.050E-05	1.443E-05	6.772E-06	2.490E-06	1.284E-06	7.868E-07	5.352E-07	3.902E-07	2.989E-07	2.375E-07
ENE	1.275E-04	3.572E-05	1.685E-05	7.912E-06	2.916E-06	1.506E-06	9.246E-07	6.299E-07	4.599E-07	3.526E-07	2.805E-07
E	1.187E-04	3.316E-05	1.560E-05	7.324E-06	2.701E-06	1.396E-06	8.580E-07	5.850E-07	4.274E-07	3.280E-07	2.610E-07
ESE	1.528E-04	4.259E-05	1.998E-05	9.390E-06	3.472E-06	1.799E-06	1.108E-06	7.567E-07	5.537E-07	4.255E-07	3.390E-07
SE	1.013E-04	2.829E-05	1.330E-05	6.246E-06	2.303E-06	1.190E-06	7.314E-07	4.987E-07	3.643E-07	2.796E-07	2.225E-07
SSE	7.367E-05	2.062E-05	9.720E-06	4.562E-06	1.680E-06	8.673E-07	5.323E-07	3.625E-07	2.646E-07	2.029E-07	1.614E-07
S	5.521E-05	1.547E-05	7.304E-06	3.429E-06	1.263E-06	6.524E-07	4.004E-07	2.727E-07	1.991E-07	1.527E-07	1.214E-07
SSW	4.176E-05	1.175E-05	5.575E-06	2.615E-06	9.601E-07	4.942E-07	3.025E-07	2.055E-07	1.497E-07	1.145E-07	9.092E-08
SW	2.205E-05	6.123E-06	2.924E-06	1.365E-06	4.930E-07	2.493E-07	1.501E-07	1.005E-07	7.226E-08	5.465E-08	4.292E-08
WSW	1.590E-05	4.378E-06	2.084E-06	9.708E-07	3.504E-07	1.772E-07	1.067E-07	7.141E-08	5.133E-08	3.882E-08	3.050E-08
W	1.789E-05	4.935E-06	2.346E-06	1.094E-06	3.971E-07	2.018E-07	1.221E-07	8.208E-08	5.923E-08	4.495E-08	3.542E-08
WNW	2.500E-05	6.845E-06	3.235E-06	1.509E-06	5.500E-07	2.808E-07	1.706E-07	1.151E-07	8.336E-08	6.345E-08	5.014E-08
NW	2.448E-05	6.656E-06	3.130E-06	1.459E-06	5.326E-07	2.724E-07	1.658E-07	1.121E-07	8.128E-08	6.196E-08	4.903E-08
NNW	2.797E-05	7.722E-06	3.653E-06	1.707E-06	6.242E-07	3.199E-07	1.949E-07	1.320E-07	9.580E-08	7.309E-08	5.788E-08

Insert Table 2.3-330 Annual Average X/Q Values (8.0 Day Decay, Undepleted) for Ground Level Release (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	6.579E-08	3.174E-08	1.953E-08	1.032E-08	6.537E-09	4.568E-09	3.396E-09	2.635E-09	2.109E-09	1.729E-09	1.445E-09
NNE	1.093E-07	5.275E-08	3.246E-08	1.716E-08	1.088E-08	7.608E-09	5.660E-09	4.395E-09	3.521E-09	2.888E-09	2.415E-09
NE	1.942E-07	9.546E-08	5.955E-08	3.208E-08	2.059E-08	1.454E-08	1.090E-08	8.516E-09	6.857E-09	5.651E-09	4.742E-09
ENE	2.296E-07	1.132E-07	7.079E-08	3.824E-08	2.459E-08	1.738E-08	1.303E-08	1.018E-08	8.201E-09	6.757E-09	5.669E-09
E	2.137E-07	1.057E-07	6.619E-08	3.584E-08	2.308E-08	1.633E-08	1.225E-08	9.578E-09	7.715E-09	6.357E-09	5.333E-09
ESE	2.779E-07	1.380E-07	8.669E-08	4.715E-08	3.045E-08	2.159E-08	1.623E-08	1.271E-08	1.025E-08	8.459E-09	7.104E-09
SE	1.822E-07	9.014E-08	5.648E-08	3.061E-08	1.973E-08	1.396E-08	1.049E-08	8.206E-09	6.615E-09	5.455E-09	4.580E-09
SSE	1.321E-07	6.519E-08	4.078E-08	2.207E-08	1.421E-08	1.006E-08	7.555E-09	5.913E-09	4.768E-09	3.935E-09	3.306E-09
S	9.937E-08	4.902E-08	3.066E-08	1.658E-08	1.068E-08	7.562E-09	5.682E-09	4.449E-09	3.590E-09	2.963E-09	2.491E-09
SSW	7.428E-08	3.639E-08	2.264E-08	1.216E-08	7.785E-09	5.486E-09	4.106E-09	3.204E-09	2.578E-09	2.123E-09	1.780E-09
SW	3.472E-08	1.635E-08	9.887E-09	5.095E-09	3.173E-09	2.189E-09	1.610E-09	1.239E-09	9.843E-10	8.019E-10	6.662E-10
WSW	2.468E-08	1.165E-08	7.053E-09	3.647E-09	2.279E-09	1.577E-09	1.163E-09	8.971E-10	7.147E-10	5.837E-10	4.861E-10
W	2.874E-08	1.371E-08	8.369E-09	4.378E-09	2.757E-09	1.919E-09	1.423E-09	1.102E-09	8.816E-10	7.224E-10	6.034E-10
WNW	4.079E-08	1.966E-08	1.210E-08	6.403E-09	4.065E-09	2.848E-09	2.123E-09	1.652E-09	1.326E-09	1.090E-09	9.134E-10
NW	3.995E-08	1.938E-08	1.199E-08	6.391E-09	4.081E-09	2.872E-09	2.150E-09	1.678E-09	1.351E-09	1.114E-09	9.355E-10
NNW	4.717E-08	2.290E-08	1.416E-08	7.541E-09	4.805E-09	3.375E-09	2.520E-09	1.963E-09	1.577E-09	1.297E-09	1.087E-09

Insert Table 2.3-330 Annual Average X/Q Values (8.0 Day Decay, Undepleted) for Ground Level Release (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.202E-06	1.030E-06	2.855E-07	1.366E-07	8.161E-08	3.388E-08	1.069E-08	4.624E-09	2.652E-09	1.736E-09
NNE	8.648E-06	1.713E-06	4.745E-07	2.269E-07	1.356E-07	5.630E-08	1.777E-08	7.702E-09	4.423E-09	2.900E-09
NE	1.460E-05	2.905E-06	8.187E-07	3.969E-07	2.397E-07	1.014E-07	3.308E-08	1.470E-08	8.565E-09	5.672E-09
ENE	1.707E-05	3.400E-06	9.618E-07	4.676E-07	2.830E-07	1.202E-07	3.941E-08	1.756E-08	1.024E-08	6.782E-09
E	1.582E-05	3.148E-06	8.924E-07	4.345E-07	2.633E-07	1.121E-07	3.691E-08	1.650E-08	9.632E-09	6.380E-09
ESE	2.030E-05	4.044E-06	1.152E-06	5.628E-07	3.420E-07	1.463E-07	4.851E-08	2.181E-08	1.278E-08	8.489E-09
SE	1.350E-05	2.685E-06	7.607E-07	3.704E-07	2.245E-07	9.564E-08	3.152E-08	1.411E-08	8.252E-09	5.475E-09
SSE	9.849E-06	1.959E-06	5.537E-07	2.691E-07	1.628E-07	6.920E-08	2.273E-08	1.016E-08	5.946E-09	3.949E-09
S	7.398E-06	1.473E-06	4.165E-07	2.025E-07	1.225E-07	5.205E-08	1.709E-08	7.642E-09	4.474E-09	2.974E-09
SSW	5.633E-06	1.121E-06	3.148E-07	1.522E-07	9.175E-08	3.870E-08	1.254E-08	5.547E-09	3.223E-09	2.131E-09
SW	2.942E-06	5.784E-07	1.567E-07	7.363E-08	4.336E-08	1.756E-08	5.306E-09	2.220E-09	1.248E-09	8.057E-10
WSW	2.099E-06	4.113E-07	1.114E-07	5.230E-08	3.081E-08	1.250E-08	3.796E-09	1.599E-09	9.037E-10	5.864E-10
W	2.365E-06	4.652E-07	1.273E-07	6.032E-08	3.577E-08	1.468E-08	4.544E-09	1.944E-09	1.110E-09	7.255E-10
WNW	3.270E-06	6.435E-07	1.778E-07	8.485E-08	5.062E-08	2.100E-08	6.630E-09	2.883E-09	1.663E-09	1.095E-09
NW	3.171E-06	6.228E-07	1.727E-07	8.272E-08	4.950E-08	2.067E-08	6.608E-09	2.906E-09	1.688E-09	1.118E-09
NNW	3.692E-06	7.295E-07	2.031E-07	9.748E-08	5.842E-08	2.441E-08	7.797E-09	3.414E-09	1.975E-09	1.302E-09

based on 2002-2007 met data

Insert Table 2.3-331 Annual Average D/Q Values for Ground Level Release (Sheet 1 of 3) ↪

**Relative Deposition per Unit Area ( $m^{-2}$ ) at Fixed Points by Downwind Sectors**

<b>Sector</b>	<b>Distance in Miles from the Site</b>										
	<b>0.25</b>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.0</b>	<b>2.5</b>	<b>3.0</b>	<b>3.5</b>	<b>4.0</b>	<b>4.5</b>
N	1.265E-07	4.279E-08	2.197E-08	1.045E-08	3.752E-09	1.861E-09	1.096E-09	7.174E-10	5.048E-10	3.741E-10	2.883E-10
NNE	2.385E-07	8.064E-08	4.141E-08	1.969E-08	7.071E-09	3.507E-09	2.065E-09	1.352E-09	9.513E-10	7.050E-10	5.433E-10
NE	2.472E-07	8.360E-08	4.292E-08	2.041E-08	7.330E-09	3.635E-09	2.140E-09	1.402E-09	9.862E-10	7.308E-10	5.632E-10
ENE	2.009E-07	6.795E-08	3.489E-08	1.659E-08	5.958E-09	2.954E-09	1.740E-09	1.139E-09	8.015E-10	5.940E-10	4.578E-10
E	1.646E-07	5.566E-08	2.858E-08	1.359E-08	4.880E-09	2.420E-09	1.425E-09	9.331E-10	6.566E-10	4.866E-10	3.750E-10
ESE	1.879E-07	6.354E-08	3.262E-08	1.551E-08	5.571E-09	2.763E-09	1.627E-09	1.065E-09	7.495E-10	5.555E-10	4.281E-10
SE	1.508E-07	5.099E-08	2.618E-08	1.245E-08	4.471E-09	2.217E-09	1.306E-09	8.549E-10	6.016E-10	4.458E-10	3.435E-10
SSE	1.345E-07	4.549E-08	2.335E-08	1.110E-08	3.988E-09	1.978E-09	1.165E-09	7.626E-10	5.366E-10	3.977E-10	3.064E-10
S	1.077E-07	3.641E-08	1.870E-08	8.888E-09	3.193E-09	1.583E-09	9.323E-10	6.105E-10	4.296E-10	3.183E-10	2.453E-10
SSW	8.994E-08	3.042E-08	1.562E-08	7.424E-09	2.667E-09	1.323E-09	7.787E-10	5.099E-10	3.588E-10	2.659E-10	2.049E-10
SW	1.059E-07	3.580E-08	1.838E-08	8.739E-09	3.139E-09	1.557E-09	9.166E-10	6.002E-10	4.223E-10	3.130E-10	2.412E-10
WSW	9.700E-08	3.280E-08	1.684E-08	8.007E-09	2.876E-09	1.426E-09	8.399E-10	5.499E-10	3.870E-10	2.868E-10	2.210E-10
W	1.075E-07	3.637E-08	1.867E-08	8.877E-09	3.189E-09	1.581E-09	9.311E-10	6.097E-10	4.290E-10	3.179E-10	2.450E-10
WNW	1.274E-07	4.308E-08	2.212E-08	1.052E-08	3.778E-09	1.873E-09	1.103E-09	7.223E-10	5.082E-10	3.767E-10	2.903E-10
NW	1.214E-07	4.105E-08	2.108E-08	1.002E-08	3.599E-09	1.785E-09	1.051E-09	6.882E-10	4.842E-10	3.589E-10	2.765E-10
NNW	1.082E-07	3.660E-08	1.879E-08	8.933E-09	3.209E-09	1.591E-09	9.370E-10	6.135E-10	4.317E-10	3.199E-10	2.466E-10

Insert Table 2.3-331 Annual Average D/Q Values for Ground Level Release (Sheet 2 of 3)

Relative Deposition per Unit Area ( $m^2$ ) at Fixed Points by Downwind Sectors											
Sector	Distance in Miles from the Site										
	5	7.5	10	15	20	25	30	35	40	45	50
N	2.290E-10	1.017E-10	6.163E-11	3.115E-11	1.886E-11	1.264E-11	9.059E-12	6.802E-12	5.289E-12	4.225E-12	3.448E-12
NNE	4.316E-10	1.917E-10	1.161E-10	5.871E-11	3.553E-11	2.382E-11	1.707E-11	1.282E-11	9.967E-12	7.961E-12	6.498E-12
NE	4.474E-10	1.988E-10	1.204E-10	6.086E-11	3.683E-11	2.470E-11	1.770E-11	1.329E-11	1.033E-11	8.253E-12	6.736E-12
ENE	3.637E-10	1.616E-10	9.786E-11	4.946E-11	2.994E-11	2.007E-11	1.438E-11	1.080E-11	8.397E-12	6.708E-12	5.475E-12
E	2.979E-10	1.323E-10	8.017E-11	4.052E-11	2.452E-11	1.644E-11	1.178E-11	8.847E-12	6.879E-12	5.495E-12	4.485E-12
ESE	3.401E-10	1.511E-10	9.151E-11	4.626E-11	2.800E-11	1.877E-11	1.345E-11	1.010E-11	7.853E-12	6.273E-12	5.120E-12
SE	2.729E-10	1.212E-10	7.344E-11	3.712E-11	2.247E-11	1.506E-11	1.079E-11	8.106E-12	6.302E-12	5.034E-12	4.109E-12
SSE	2.434E-10	1.081E-10	6.551E-11	3.311E-11	2.004E-11	1.344E-11	9.629E-12	7.230E-12	5.622E-12	4.491E-12	3.665E-12
S	1.949E-10	8.658E-11	5.244E-11	2.651E-11	1.604E-11	1.076E-11	7.708E-12	5.788E-12	4.500E-12	3.595E-12	2.934E-12
SSW	1.628E-10	7.232E-11	4.381E-11	2.214E-11	1.340E-11	8.985E-12	6.438E-12	4.835E-12	3.759E-12	3.003E-12	2.451E-12
SW	1.916E-10	8.512E-11	5.156E-11	2.606E-11	1.577E-11	1.058E-11	7.578E-12	5.691E-12	4.425E-12	3.534E-12	2.885E-12
WSW	1.756E-10	7.799E-11	4.724E-11	2.388E-11	1.445E-11	9.690E-12	6.944E-12	5.214E-12	4.054E-12	3.238E-12	2.643E-12
W	1.946E-10	8.647E-11	5.238E-11	2.647E-11	1.602E-11	1.074E-11	7.698E-12	5.781E-12	4.495E-12	3.590E-12	2.930E-12
WNW	2.306E-10	1.024E-10	6.205E-11	3.136E-11	1.898E-11	1.273E-11	9.120E-12	6.848E-12	5.325E-12	4.253E-12	3.472E-12
NW	2.197E-10	9.760E-11	5.912E-11	2.988E-11	1.809E-11	1.213E-11	8.689E-12	6.525E-12	5.073E-12	4.052E-12	3.308E-12
NNW	1.959E-10	8.701E-11	5.271E-11	2.664E-11	1.612E-11	1.081E-11	7.747E-12	5.817E-12	4.523E-12	3.613E-12	2.949E-12

Insert Table 2.3-331 Annual Average D/Q Values for Ground Level Release (Sheet 3 of 3)

Relative Deposition per Unit Area ( $m^{-2}$ ) at Fixed Points by Downwind Sectors										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	2.148E-08	4.399E-09	1.148E-09	5.158E-10	2.918E-10	1.122E-10	3.246E-11	1.287E-11	6.870E-12	4.252E-12
NNE	4.047E-08	8.290E-09	2.164E-09	9.720E-10	5.499E-10	2.115E-10	6.117E-11	2.425E-11	1.295E-11	8.014E-12
NE	4.195E-08	8.594E-09	2.243E-09	1.008E-09	5.700E-10	2.192E-10	6.341E-11	2.513E-11	1.342E-11	8.307E-12
ENE	3.410E-08	6.985E-09	1.823E-09	8.189E-10	4.633E-10	1.782E-10	5.154E-11	2.043E-11	1.091E-11	6.752E-12
E	2.793E-08	5.722E-09	1.494E-09	6.708E-10	3.795E-10	1.459E-10	4.222E-11	1.673E-11	8.936E-12	5.531E-12
ESE	3.189E-08	6.532E-09	1.705E-09	7.658E-10	4.332E-10	1.666E-10	4.820E-11	1.910E-11	1.020E-11	6.314E-12
SE	2.559E-08	5.242E-09	1.368E-09	6.146E-10	3.477E-10	1.337E-10	3.868E-11	1.533E-11	8.187E-12	5.067E-12
SSE	2.283E-08	4.676E-09	1.221E-09	5.482E-10	3.101E-10	1.193E-10	3.450E-11	1.367E-11	7.303E-12	4.520E-12
S	1.827E-08	3.743E-09	9.772E-10	4.389E-10	2.483E-10	9.548E-11	2.762E-11	1.095E-11	5.846E-12	3.618E-12
SSW	1.526E-08	3.127E-09	8.162E-10	3.666E-10	2.074E-10	7.975E-11	2.307E-11	9.144E-12	4.883E-12	3.022E-12
SW	1.797E-08	3.680E-09	9.608E-10	4.315E-10	2.441E-10	9.387E-11	2.716E-11	1.076E-11	5.748E-12	3.558E-12
WSW	1.646E-08	3.372E-09	8.803E-10	3.954E-10	2.237E-10	8.601E-11	2.488E-11	9.862E-12	5.266E-12	3.260E-12
W	1.825E-08	3.738E-09	9.759E-10	4.383E-10	2.480E-10	9.536E-11	2.759E-11	1.093E-11	5.839E-12	3.614E-12
WNW	2.162E-08	4.429E-09	1.156E-09	5.193E-10	2.938E-10	1.130E-10	3.268E-11	1.295E-11	6.917E-12	4.281E-12
NW	2.060E-08	4.220E-09	1.102E-09	4.947E-10	2.799E-10	1.076E-10	3.114E-11	1.234E-11	6.590E-12	4.079E-12
NNW	1.837E-08	3.762E-09	9.821E-10	4.411E-10	2.495E-10	9.596E-11	2.776E-11	1.100E-11	5.875E-12	3.637E-12

based on 2002-2007 met data

Insert Table 2.3-332 Annual Average X/Q Values (no Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	1.847E-06	6.419E-07	3.901E-07	2.390E-07	1.300E-07	8.553E-08	6.176E-08	4.731E-08	3.778E-08	3.111E-08	2.641E-08
NNE	3.700E-06	1.308E-06	7.853E-07	4.572E-07	2.338E-07	1.489E-07	1.057E-07	8.007E-08	6.514E-08	5.466E-08	4.612E-08
NE	4.753E-06	1.755E-06	1.028E-06	5.637E-07	2.628E-07	1.612E-07	1.128E-07	8.531E-08	6.785E-08	5.593E-08	4.733E-08
ENE	2.592E-06	1.040E-06	6.226E-07	3.489E-07	1.723E-07	1.114E-07	8.133E-08	6.357E-08	5.192E-08	4.374E-08	3.770E-08
E	1.792E-06	7.851E-07	4.809E-07	2.708E-07	1.335E-07	8.608E-08	6.270E-08	4.893E-08	3.994E-08	3.364E-08	2.900E-08
ESE	1.930E-06	8.467E-07	5.110E-07	2.833E-07	1.366E-07	8.712E-08	6.322E-08	4.935E-08	4.037E-08	3.412E-08	2.954E-08
SE	1.709E-06	7.440E-07	4.472E-07	2.474E-07	1.190E-07	7.593E-08	5.511E-08	4.300E-08	3.512E-08	2.961E-08	2.556E-08
SSE	2.063E-06	8.025E-07	4.717E-07	2.605E-07	1.251E-07	7.882E-08	5.630E-08	4.323E-08	3.479E-08	2.895E-08	2.470E-08
S	2.096E-06	7.468E-07	4.308E-07	2.364E-07	1.123E-07	6.997E-08	4.951E-08	3.774E-08	3.020E-08	2.502E-08	2.128E-08
SSW	1.650E-06	6.059E-07	3.574E-07	2.007E-07	9.800E-08	6.227E-08	4.466E-08	3.434E-08	2.764E-08	2.298E-08	1.957E-08
SW	1.167E-06	4.527E-07	3.182E-07	2.117E-07	1.177E-07	7.587E-08	5.335E-08	3.984E-08	3.110E-08	2.509E-08	2.078E-08
WSW	1.208E-06	4.555E-07	3.026E-07	1.913E-07	1.001E-07	6.246E-08	4.309E-08	3.178E-08	2.458E-08	1.971E-08	1.643E-08
W	1.618E-06	5.700E-07	3.591E-07	2.192E-07	1.106E-07	6.814E-08	4.679E-08	3.446E-08	2.667E-08	2.141E-08	1.768E-08
WNW	1.899E-06	6.393E-07	3.869E-07	2.372E-07	1.231E-07	7.735E-08	5.386E-08	4.011E-08	3.131E-08	2.532E-08	2.104E-08
NW	1.889E-06	6.269E-07	3.596E-07	2.129E-07	1.094E-07	6.886E-08	4.813E-08	3.599E-08	2.822E-08	2.290E-08	1.919E-08
NNW	1.757E-06	5.793E-07	3.291E-07	1.924E-07	1.002E-07	6.445E-08	4.598E-08	3.497E-08	2.780E-08	2.284E-08	1.947E-08

Insert Table 2.3-332 Annual Average X/Q Values (no Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.285E-08	1.424E-08	1.043E-08	7.007E-09	5.237E-09	4.107E-09	3.296E-09	2.698E-09	2.264E-09	1.941E-09	1.691E-09
NNE	3.972E-08	2.303E-08	1.602E-08	1.002E-08	7.161E-09	5.515E-09	4.455E-09	3.719E-09	3.182E-09	2.774E-09	2.454E-09
NE	4.094E-08	2.508E-08	1.825E-08	1.225E-08	9.247E-09	7.451E-09	6.258E-09	5.408E-09	4.773E-09	4.279E-09	3.884E-09
ENE	3.314E-08	2.158E-08	1.633E-08	1.151E-08	8.984E-09	7.421E-09	6.358E-09	5.588E-09	5.002E-09	4.542E-09	4.169E-09
E	2.553E-08	1.641E-08	1.227E-08	8.460E-09	6.457E-09	5.213E-09	4.366E-09	3.751E-09	3.286E-09	2.921E-09	2.627E-09
ESE	2.612E-08	1.735E-08	1.334E-08	9.618E-09	7.600E-09	6.316E-09	5.423E-09	4.765E-09	4.259E-09	3.857E-09	3.530E-09
SE	2.253E-08	1.480E-08	1.126E-08	7.987E-09	6.248E-09	5.161E-09	4.416E-09	3.874E-09	3.460E-09	3.134E-09	2.871E-09
SSE	2.153E-08	1.419E-08	1.101E-08	8.274E-09	6.887E-09	6.012E-09	5.373E-09	4.855E-09	4.401E-09	3.987E-09	3.599E-09
S	1.847E-08	1.173E-08	8.812E-09	6.256E-09	4.962E-09	4.171E-09	3.632E-09	3.234E-09	2.924E-09	2.669E-09	2.454E-09
SSW	1.701E-08	1.064E-08	7.833E-09	5.315E-09	4.040E-09	3.270E-09	2.756E-09	2.387E-09	2.108E-09	1.890E-09	1.713E-09
SW	1.758E-08	9.725E-09	6.525E-09	3.872E-09	2.670E-09	2.000E-09	1.580E-09	1.295E-09	1.090E-09	9.369E-10	8.183E-10
WSW	1.398E-08	7.668E-09	5.130E-09	3.040E-09	2.097E-09	1.570E-09	1.239E-09	1.014E-09	8.510E-10	7.284E-10	6.330E-10
W	1.493E-08	8.573E-09	5.942E-09	3.703E-09	2.619E-09	1.965E-09	1.537E-09	1.248E-09	1.043E-09	8.912E-10	7.744E-10
WNW	1.787E-08	1.072E-08	7.716E-09	5.098E-09	3.706E-09	2.786E-09	2.190E-09	1.788E-09	1.501E-09	1.288E-09	1.123E-09
NW	1.643E-08	9.815E-09	7.039E-09	4.658E-09	3.470E-09	2.722E-09	2.186E-09	1.793E-09	1.510E-09	1.299E-09	1.135E-09
NNW	1.693E-08	1.073E-08	7.992E-09	5.499E-09	4.109E-09	3.152E-09	2.489E-09	2.038E-09	1.715E-09	1.474E-09	1.288E-09

Insert Table 2.3-332 Annual Average X/Q Values (no Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	3.789E-07	1.345E-07	6.232E-08	3.796E-08	2.648E-08	1.446E-08	6.980E-09	4.084E-09	2.703E-09	1.944E-09
NNE	7.557E-07	2.457E-07	1.070E-07	6.541E-08	4.628E-08	2.363E-08	1.008E-08	5.530E-09	3.725E-09	2.777E-09
NE	9.831E-07	2.845E-07	1.147E-07	6.830E-08	4.751E-08	2.557E-08	1.225E-08	7.453E-09	5.409E-09	4.279E-09
ENE	5.938E-07	1.845E-07	8.224E-08	5.213E-08	3.780E-08	2.181E-08	1.146E-08	7.413E-09	5.585E-09	4.540E-09
E	4.551E-07	1.429E-07	6.343E-08	4.011E-08	2.909E-08	1.660E-08	8.417E-09	5.206E-09	3.749E-09	2.920E-09
ESE	4.844E-07	1.472E-07	6.405E-08	4.055E-08	2.963E-08	1.752E-08	9.548E-09	6.301E-09	4.760E-09	3.855E-09
SE	4.243E-07	1.284E-07	5.582E-08	3.527E-08	2.564E-08	1.495E-08	7.941E-09	5.153E-09	3.871E-09	3.133E-09
SSE	4.513E-07	1.346E-07	5.708E-08	3.498E-08	2.479E-08	1.441E-08	8.265E-09	5.990E-09	4.830E-09	3.966E-09
S	4.146E-07	1.211E-07	5.025E-08	3.038E-08	2.135E-08	1.193E-08	6.249E-09	4.166E-09	3.230E-09	2.665E-09
SSW	3.430E-07	1.049E-07	4.523E-08	2.778E-08	1.963E-08	1.081E-08	5.308E-09	3.270E-09	2.386E-09	1.889E-09
SW	3.007E-07	1.200E-07	5.395E-08	3.131E-08	2.088E-08	1.005E-08	3.928E-09	2.011E-09	1.298E-09	9.384E-10
WSW	2.871E-07	1.036E-07	4.373E-08	2.478E-08	1.649E-08	7.943E-09	3.085E-09	1.578E-09	1.016E-09	7.294E-10
W	3.438E-07	1.159E-07	4.755E-08	2.690E-08	1.777E-08	8.816E-09	3.719E-09	1.968E-09	1.253E-09	8.930E-10
WNW	3.764E-07	1.281E-07	5.462E-08	3.154E-08	2.113E-08	1.097E-08	5.061E-09	2.793E-09	1.793E-09	1.290E-09
NW	3.538E-07	1.144E-07	4.880E-08	2.841E-08	1.927E-08	1.005E-08	4.659E-09	2.707E-09	1.798E-09	1.301E-09
NNW	3.240E-07	1.048E-07	4.650E-08	2.796E-08	1.952E-08	1.089E-08	5.435E-09	3.142E-09	2.044E-09	1.476E-09

based on 2002-2007 met data

Insert Table 2.3-333 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	1.846E-06	6.414E-07	3.896E-07	2.386E-07	1.297E-07	8.525E-08	6.150E-08	4.707E-08	3.755E-08	3.089E-08	2.620E-08
NNE	3.699E-06	1.307E-06	7.844E-07	4.565E-07	2.333E-07	1.485E-07	1.053E-07	7.970E-08	6.479E-08	5.431E-08	4.579E-08
NE	4.751E-06	1.753E-06	1.026E-06	5.628E-07	2.622E-07	1.607E-07	1.124E-07	8.494E-08	6.750E-08	5.559E-08	4.701E-08
ENE	2.591E-06	1.039E-06	6.218E-07	3.483E-07	1.718E-07	1.110E-07	8.097E-08	6.323E-08	5.160E-08	4.342E-08	3.739E-08
E	1.791E-06	7.844E-07	4.803E-07	2.703E-07	1.331E-07	8.576E-08	6.240E-08	4.866E-08	3.967E-08	3.337E-08	2.874E-08
ESE	1.929E-06	8.459E-07	5.103E-07	2.828E-07	1.362E-07	8.680E-08	6.293E-08	4.907E-08	4.010E-08	3.385E-08	2.928E-08
SE	1.709E-06	7.432E-07	4.465E-07	2.470E-07	1.187E-07	7.565E-08	5.486E-08	4.276E-08	3.489E-08	2.939E-08	2.534E-08
SSE	2.062E-06	8.018E-07	4.710E-07	2.600E-07	1.248E-07	7.855E-08	5.606E-08	4.300E-08	3.458E-08	2.875E-08	2.451E-08
S	2.095E-06	7.461E-07	4.302E-07	2.360E-07	1.120E-07	6.973E-08	4.930E-08	3.754E-08	3.002E-08	2.485E-08	2.111E-08
SSW	1.650E-06	6.053E-07	3.569E-07	2.003E-07	9.776E-08	6.206E-08	4.447E-08	3.417E-08	2.748E-08	2.282E-08	1.942E-08
SW	1.166E-06	4.523E-07	3.178E-07	2.113E-07	1.175E-07	7.564E-08	5.315E-08	3.966E-08	3.093E-08	2.493E-08	2.063E-08
WSW	1.208E-06	4.552E-07	3.023E-07	1.910E-07	9.987E-08	6.229E-08	4.294E-08	3.165E-08	2.446E-08	1.960E-08	1.632E-08
W	1.617E-06	5.696E-07	3.588E-07	2.189E-07	1.104E-07	6.796E-08	4.663E-08	3.432E-08	2.655E-08	2.129E-08	1.757E-08
WNW	1.898E-06	6.387E-07	3.864E-07	2.369E-07	1.229E-07	7.712E-08	5.366E-08	3.993E-08	3.115E-08	2.517E-08	2.089E-08
NW	1.888E-06	6.263E-07	3.591E-07	2.126E-07	1.092E-07	6.864E-08	4.795E-08	3.583E-08	2.806E-08	2.276E-08	1.905E-08
NNW	1.757E-06	5.788E-07	3.286E-07	1.921E-07	9.994E-08	6.424E-08	4.579E-08	3.480E-08	2.764E-08	2.268E-08	1.932E-08

Insert Table 2.3-333 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.264E-08	1.404E-08	1.023E-08	6.797E-09	5.021E-09	3.891E-09	3.086E-09	2.497E-09	2.073E-09	1.758E-09	1.516E-09
NNE	3.940E-08	2.274E-08	1.575E-08	9.752E-09	6.906E-09	5.268E-09	4.214E-09	3.485E-09	2.953E-09	2.550E-09	2.234E-09
NE	4.063E-08	2.478E-08	1.796E-08	1.193E-08	8.924E-09	7.118E-09	5.916E-09	5.058E-09	4.416E-09	3.916E-09	3.516E-09
ENE	3.283E-08	2.127E-08	1.600E-08	1.115E-08	8.598E-09	7.015E-09	5.935E-09	5.149E-09	4.550E-09	4.078E-09	3.694E-09
E	2.527E-08	1.615E-08	1.200E-08	8.171E-09	6.156E-09	4.905E-09	4.054E-09	3.437E-09	2.971E-09	2.606E-09	2.313E-09
ESE	2.586E-08	1.707E-08	1.305E-08	9.285E-09	7.241E-09	5.937E-09	5.029E-09	4.359E-09	3.843E-09	3.433E-09	3.099E-09
SE	2.232E-08	1.458E-08	1.103E-08	7.731E-09	5.975E-09	4.874E-09	4.118E-09	3.566E-09	3.145E-09	2.812E-09	2.542E-09
SSE	2.134E-08	1.400E-08	1.080E-08	8.031E-09	6.607E-09	5.697E-09	5.028E-09	4.485E-09	4.014E-09	3.589E-09	3.198E-09
S	1.832E-08	1.157E-08	8.655E-09	6.084E-09	4.777E-09	3.975E-09	3.424E-09	3.017E-09	2.698E-09	2.437E-09	2.215E-09
SSW	1.686E-08	1.051E-08	7.696E-09	5.171E-09	3.891E-09	3.117E-09	2.599E-09	2.227E-09	1.946E-09	1.725E-09	1.546E-09
SW	1.744E-08	9.604E-09	6.415E-09	3.771E-09	2.576E-09	1.911E-09	1.495E-09	1.213E-09	1.011E-09	8.604E-10	7.440E-10
WSW	1.388E-08	7.584E-09	5.053E-09	2.971E-09	2.033E-09	1.511E-09	1.183E-09	9.598E-10	7.993E-10	6.788E-10	5.852E-10
W	1.483E-08	8.480E-09	5.854E-09	3.620E-09	2.541E-09	1.892E-09	1.468E-09	1.183E-09	9.817E-10	8.323E-10	7.178E-10
WNW	1.773E-08	1.059E-08	7.592E-09	4.973E-09	3.583E-09	2.669E-09	2.080E-09	1.685E-09	1.403E-09	1.193E-09	1.032E-09
NW	1.630E-08	9.699E-09	6.929E-09	4.549E-09	3.363E-09	2.617E-09	2.086E-09	1.698E-09	1.419E-09	1.211E-09	1.050E-09
NNW	1.678E-08	1.058E-08	7.847E-09	5.345E-09	3.954E-09	3.002E-09	2.348E-09	1.904E-09	1.588E-09	1.352E-09	1.170E-09

Insert Table 2.3-333 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	3.784E-07	1.341E-07	6.206E-08	3.773E-08	2.627E-08	1.426E-08	6.770E-09	3.870E-09	2.504E-09	1.762E-09
NNE	7.549E-07	2.452E-07	1.066E-07	6.506E-08	4.595E-08	2.334E-08	9.820E-09	5.283E-09	3.491E-09	2.552E-09
NE	9.820E-07	2.839E-07	1.143E-07	6.795E-08	4.719E-08	2.527E-08	1.194E-08	7.118E-09	5.059E-09	3.916E-09
ENE	5.930E-07	1.840E-07	8.188E-08	5.181E-08	3.749E-08	2.150E-08	1.109E-08	7.005E-09	5.145E-09	4.075E-09
E	4.545E-07	1.426E-07	6.313E-08	3.984E-08	2.883E-08	1.634E-08	8.127E-09	4.898E-09	3.436E-09	2.606E-09
ESE	4.838E-07	1.468E-07	6.375E-08	4.028E-08	2.937E-08	1.724E-08	9.213E-09	5.921E-09	4.354E-09	3.431E-09
SE	4.238E-07	1.281E-07	5.556E-08	3.504E-08	2.542E-08	1.472E-08	7.683E-09	4.866E-09	3.564E-09	2.811E-09
SSE	4.507E-07	1.343E-07	5.683E-08	3.476E-08	2.459E-08	1.421E-08	8.014E-09	5.672E-09	4.461E-09	3.570E-09
S	4.141E-07	1.208E-07	5.004E-08	3.020E-08	2.118E-08	1.177E-08	6.075E-09	3.969E-09	3.012E-09	2.432E-09
SSW	3.425E-07	1.047E-07	4.504E-08	2.762E-08	1.948E-08	1.067E-08	5.163E-09	3.116E-09	2.226E-09	1.724E-09
SW	3.004E-07	1.197E-07	5.375E-08	3.114E-08	2.073E-08	9.929E-09	3.828E-09	1.922E-09	1.217E-09	8.620E-10
WSW	2.868E-07	1.034E-07	4.358E-08	2.466E-08	1.639E-08	7.859E-09	3.017E-09	1.519E-09	9.624E-10	6.798E-10
W	3.434E-07	1.156E-07	4.740E-08	2.677E-08	1.766E-08	8.723E-09	3.637E-09	1.895E-09	1.188E-09	8.341E-10
WNW	3.760E-07	1.279E-07	5.442E-08	3.138E-08	2.099E-08	1.085E-08	4.937E-09	2.677E-09	1.690E-09	1.196E-09
NW	3.534E-07	1.141E-07	4.862E-08	2.826E-08	1.913E-08	9.936E-09	4.551E-09	2.604E-09	1.702E-09	1.213E-09
NNW	3.236E-07	1.046E-07	4.631E-08	2.780E-08	1.937E-08	1.074E-08	5.283E-09	2.994E-09	1.910E-09	1.354E-09

based on 2002-2007 met data

Insert Table 2.3-334 Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	1.768E-06	5.978E-07	3.589E-07	2.202E-07	1.203E-07	7.917E-08	5.711E-08	4.367E-08	3.479E-08	2.859E-08	2.423E-08
NNE	3.529E-06	1.213E-06	7.185E-07	4.174E-07	2.134E-07	1.358E-07	9.611E-08	7.266E-08	5.909E-08	4.957E-08	4.174E-08
NE	4.506E-06	1.619E-06	9.319E-07	5.069E-07	2.347E-07	1.436E-07	1.004E-07	7.588E-08	6.031E-08	4.968E-08	4.202E-08
ENE	2.461E-06	9.670E-07	5.702E-07	3.176E-07	1.567E-07	1.016E-07	7.441E-08	5.830E-08	4.770E-08	4.023E-08	3.471E-08
E	1.704E-06	7.351E-07	4.442E-07	2.486E-07	1.224E-07	7.906E-08	5.772E-08	4.514E-08	3.690E-08	3.111E-08	2.685E-08
ESE	1.836E-06	7.937E-07	4.724E-07	2.600E-07	1.249E-07	7.974E-08	5.799E-08	4.536E-08	3.717E-08	3.146E-08	2.727E-08
SE	1.626E-06	6.973E-07	4.132E-07	2.269E-07	1.087E-07	6.945E-08	5.053E-08	3.950E-08	3.232E-08	2.729E-08	2.358E-08
SSE	1.958E-06	7.457E-07	4.316E-07	2.366E-07	1.131E-07	7.130E-08	5.096E-08	3.915E-08	3.152E-08	2.623E-08	2.238E-08
S	1.987E-06	6.891E-07	3.910E-07	2.129E-07	1.005E-07	6.247E-08	4.416E-08	3.364E-08	2.690E-08	2.227E-08	1.892E-08
SSW	1.565E-06	5.595E-07	3.247E-07	1.812E-07	8.830E-08	5.616E-08	4.032E-08	3.103E-08	2.498E-08	2.077E-08	1.768E-08
SW	1.117E-06	4.232E-07	2.971E-07	1.987E-07	1.105E-07	7.085E-08	4.952E-08	3.676E-08	2.852E-08	2.288E-08	1.885E-08
WSW	1.158E-06	4.260E-07	2.818E-07	1.785E-07	9.316E-08	5.780E-08	3.962E-08	2.903E-08	2.231E-08	1.778E-08	1.475E-08
W	1.548E-06	5.309E-07	3.320E-07	2.026E-07	1.018E-07	6.229E-08	4.248E-08	3.109E-08	2.392E-08	1.909E-08	1.567E-08
WNW	1.826E-06	5.991E-07	3.590E-07	2.200E-07	1.139E-07	7.116E-08	4.928E-08	3.649E-08	2.834E-08	2.281E-08	1.886E-08
NW	1.821E-06	5.900E-07	3.340E-07	1.971E-07	1.009E-07	6.319E-08	4.393E-08	3.268E-08	2.549E-08	2.059E-08	1.719E-08
NNW	1.687E-06	5.420E-07	3.033E-07	1.771E-07	9.217E-08	5.921E-08	4.214E-08	3.196E-08	2.534E-08	2.075E-08	1.766E-08

Insert Table 2.3-334 Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3)

Annual Average X/Q (sec/m <sup>3</sup> )												
Sector	Distance in Miles from the Site											
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50	
N	2.092E-08	1.299E-08	9.471E-09	6.236E-09	4.388E-09	3.255E-09	2.514E-09	1.991E-09	1.621E-09	1.351E-09	1.147E-09	
NNE	3.587E-08	2.060E-08	1.420E-08	8.752E-09	6.184E-09	4.715E-09	3.775E-09	3.124E-09	2.640E-09	2.275E-09	1.986E-09	
NE	3.632E-08	2.223E-08	1.615E-08	1.080E-08	8.127E-09	6.530E-09	5.470E-09	4.713E-09	4.126E-09	3.672E-09	3.303E-09	
ENE	3.053E-08	1.994E-08	1.509E-08	1.063E-08	8.276E-09	6.820E-09	5.829E-09	5.106E-09	4.533E-09	4.084E-09	3.714E-09	
E	2.364E-08	1.521E-08	1.136E-08	7.803E-09	5.926E-09	4.761E-09	3.967E-09	3.391E-09	2.942E-09	2.593E-09	2.310E-09	
ESE	2.414E-08	1.607E-08	1.237E-08	8.905E-09	7.018E-09	5.814E-09	4.975E-09	4.355E-09	3.857E-09	3.465E-09	3.141E-09	
SE	2.080E-08	1.370E-08	1.042E-08	7.378E-09	5.755E-09	4.739E-09	4.042E-09	3.532E-09	3.127E-09	2.810E-09	2.550E-09	
SSE	1.950E-08	1.291E-08	1.004E-08	7.581E-09	6.324E-09	5.474E-09	4.729E-09	4.112E-09	3.595E-09	3.151E-09	2.775E-09	
S	1.642E-08	1.044E-08	7.850E-09	5.579E-09	4.429E-09	3.725E-09	3.235E-09	2.845E-09	2.506E-09	2.225E-09	1.989E-09	
SSW	1.536E-08	9.620E-09	7.069E-09	4.782E-09	3.623E-09	2.924E-09	2.455E-09	2.115E-09	1.840E-09	1.613E-09	1.426E-09	
SW	1.587E-08	8.593E-09	5.667E-09	3.273E-09	2.209E-09	1.625E-09	1.264E-09	1.018E-09	8.400E-10	7.055E-10	6.010E-10	
WSW	1.250E-08	6.708E-09	4.408E-09	2.540E-09	1.702E-09	1.228E-09	9.312E-10	7.328E-10	5.934E-10	4.920E-10	4.158E-10	
W	1.317E-08	7.447E-09	5.094E-09	3.042E-09	2.026E-09	1.454E-09	1.095E-09	8.596E-10	6.962E-10	5.776E-10	4.883E-10	
WNW	1.595E-08	9.470E-09	6.750E-09	4.259E-09	2.918E-09	2.104E-09	1.593E-09	1.258E-09	1.024E-09	8.530E-10	7.240E-10	
NW	1.466E-08	8.657E-09	6.151E-09	3.941E-09	2.763E-09	2.054E-09	1.588E-09	1.259E-09	1.028E-09	8.582E-10	7.300E-10	
NNW	1.532E-08	9.679E-09	7.182E-09	4.747E-09	3.318E-09	2.434E-09	1.853E-09	1.467E-09	1.197E-09	9.993E-10	8.497E-10	

Insert Table 2.3-334 Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	3.504E-07	1.242E-07	5.761E-08	3.497E-08	2.430E-08	1.319E-08	6.134E-09	3.261E-09	2.000E-09	1.355E-09
NNE	6.946E-07	2.242E-07	9.731E-08	5.934E-08	4.189E-08	2.115E-08	8.822E-09	4.731E-09	3.126E-09	2.276E-09
NE	8.957E-07	2.547E-07	1.021E-07	6.071E-08	4.218E-08	2.266E-08	1.080E-08	6.532E-09	4.706E-09	3.670E-09
ENE	5.461E-07	1.680E-07	7.522E-08	4.788E-08	3.480E-08	2.014E-08	1.057E-08	6.812E-09	5.094E-09	4.080E-09
E	4.219E-07	1.312E-07	5.838E-08	3.705E-08	2.692E-08	1.538E-08	7.760E-09	4.754E-09	3.384E-09	2.592E-09
ESE	4.494E-07	1.348E-07	5.874E-08	3.733E-08	2.735E-08	1.622E-08	8.836E-09	5.800E-09	4.342E-09	3.461E-09
SE	3.935E-07	1.175E-07	5.117E-08	3.246E-08	2.365E-08	1.382E-08	7.333E-09	4.731E-09	3.523E-09	2.808E-09
SSE	4.147E-07	1.220E-07	5.166E-08	3.168E-08	2.246E-08	1.310E-08	7.569E-09	5.403E-09	4.091E-09	3.143E-09
S	3.781E-07	1.086E-07	4.483E-08	2.706E-08	1.899E-08	1.062E-08	5.573E-09	3.717E-09	2.828E-09	2.221E-09
SSW	3.131E-07	9.467E-08	4.083E-08	2.510E-08	1.774E-08	9.762E-09	4.775E-09	2.923E-09	2.107E-09	1.611E-09
SW	2.814E-07	1.125E-07	5.011E-08	2.873E-08	1.894E-08	8.909E-09	3.332E-09	1.636E-09	1.020E-09	7.066E-10
WSW	2.680E-07	9.642E-08	4.023E-08	2.250E-08	1.481E-08	6.973E-09	2.583E-09	1.236E-09	7.364E-10	4.939E-10
W	3.186E-07	1.066E-07	4.321E-08	2.413E-08	1.576E-08	7.673E-09	3.047E-09	1.463E-09	8.646E-10	5.796E-10
WNW	3.506E-07	1.185E-07	5.000E-08	2.856E-08	1.895E-08	9.701E-09	4.217E-09	2.117E-09	1.264E-09	8.558E-10
NW	3.301E-07	1.055E-07	4.457E-08	2.568E-08	1.726E-08	8.878E-09	3.909E-09	2.057E-09	1.265E-09	8.609E-10
NNW	3.003E-07	9.639E-08	4.262E-08	2.548E-08	1.771E-08	9.824E-09	4.653E-09	2.437E-09	1.474E-09	1.002E-09

based on 2002-2007 met data.

Insert Table 2.3-335 Annual Average D/Q Values for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3)

**Relative Deposition per Unit Area ( $m^{-2}$ ) at Fixed Points by Downwind Sectors**

Sector	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	2.364E-08	1.178E-08	7.038E-09	3.670E-09	1.420E-09	7.470E-10	4.586E-10	3.104E-10	2.242E-10	1.697E-10	1.331E-10
NNE	5.332E-08	2.515E-08	1.463E-08	7.556E-09	2.945E-09	1.539E-09	9.392E-10	6.324E-10	4.550E-10	3.433E-10	2.685E-10
NE	5.519E-08	2.258E-08	1.225E-08	6.026E-09	2.233E-09	1.138E-09	6.832E-10	4.548E-10	3.246E-10	2.434E-10	1.896E-10
ENE	2.995E-08	1.358E-08	7.554E-09	3.752E-09	1.387E-09	7.122E-10	4.308E-10	2.887E-10	2.072E-10	1.562E-10	1.222E-10
E	2.453E-08	1.184E-08	6.741E-09	3.378E-09	1.245E-09	6.416E-10	3.893E-10	2.615E-10	1.882E-10	1.422E-10	1.115E-10
ESE	2.692E-08	1.302E-08	7.401E-09	3.704E-09	1.363E-09	7.023E-10	4.260E-10	2.862E-10	2.059E-10	1.556E-10	1.220E-10
SE	2.234E-08	1.093E-08	6.220E-09	3.107E-09	1.139E-09	5.857E-10	3.549E-10	2.383E-10	1.714E-10	1.295E-10	1.016E-10
SSE	2.249E-08	1.025E-08	5.700E-09	2.830E-09	1.044E-09	5.368E-10	3.250E-10	2.179E-10	1.565E-10	1.180E-10	9.236E-11
S	1.938E-08	8.156E-09	4.484E-09	2.222E-09	8.237E-10	4.219E-10	2.546E-10	1.701E-10	1.217E-10	9.153E-11	7.141E-11
SSW	1.621E-08	6.780E-09	3.746E-09	1.860E-09	6.893E-10	3.530E-10	2.129E-10	1.423E-10	1.018E-10	7.653E-11	5.970E-11
SW	1.930E-08	1.057E-08	6.902E-09	3.844E-09	1.607E-09	8.673E-10	5.395E-10	3.679E-10	2.668E-10	2.023E-10	1.586E-10
WSW	2.338E-08	1.207E-08	7.420E-09	3.971E-09	1.605E-09	8.498E-10	5.221E-10	3.531E-10	2.547E-10	1.925E-10	1.507E-10
W	3.030E-08	1.463E-08	8.627E-09	4.628E-09	1.832E-09	9.540E-10	5.795E-10	3.888E-10	2.789E-10	2.100E-10	1.640E-10
WNW	3.191E-08	1.623E-08	9.548E-09	5.154E-09	2.009E-09	1.044E-09	6.345E-10	4.261E-10	3.061E-10	2.308E-10	1.805E-10
NW	2.936E-08	1.541E-08	9.074E-09	4.877E-09	1.875E-09	9.712E-10	5.896E-10	3.959E-10	2.844E-10	2.146E-10	1.680E-10
NNW	2.469E-08	1.246E-08	7.217E-09	3.674E-09	1.387E-09	7.224E-10	4.410E-10	2.975E-10	2.146E-10	1.624E-10	1.274E-10

Insert Table 2.3-335 Annual Average D/Q Values for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors												
Sector	Distance in Miles from the Site											
	5	7.5	10	15	20	25	30	35	40	45	50	
N	1.073E-10	5.070E-11	3.196E-11	3.925E-11	2.843E-11	1.732E-11	1.203E-11	9.077E-12	7.072E-12	5.648E-12	4.611E-12	
NNE	2.160E-10	9.930E-11	6.062E-11	3.165E-11	2.024E-11	1.455E-11	1.137E-11	9.229E-12	8.176E-12	6.981E-12	6.995E-12	
NE	1.520E-10	6.948E-11	4.242E-11	2.232E-11	1.432E-11	1.039E-11	8.218E-12	7.131E-12	6.185E-12	6.383E-12	6.951E-12	
ENE	9.834E-11	4.567E-11	2.812E-11	1.510E-11	9.901E-12	7.379E-12	6.003E-12	5.204E-12	4.635E-12	4.323E-12	4.469E-12	
E	8.991E-11	4.210E-11	2.601E-11	1.406E-11	9.159E-12	6.919E-12	5.595E-12	4.733E-12	4.136E-12	3.664E-12	3.325E-12	
ESE	9.842E-11	4.611E-11	2.850E-11	1.542E-11	1.007E-11	7.645E-12	6.232E-12	5.323E-12	4.699E-12	4.206E-12	3.833E-12	
SE	8.197E-11	3.845E-11	2.380E-11	1.291E-11	8.444E-12	6.421E-12	5.171E-12	4.403E-12	3.887E-12	3.475E-12	3.183E-12	
SSE	7.438E-11	3.460E-11	2.147E-11	1.163E-11	9.941E-12	2.015E-11	1.913E-11	1.418E-11	1.073E-11	7.424E-12	5.631E-12	
S	5.735E-11	2.640E-11	1.617E-11	8.597E-12	5.701E-12	5.069E-12	7.181E-12	9.852E-12	9.158E-12	7.359E-12	5.944E-12	
SSW	4.793E-11	2.206E-11	1.351E-11	7.166E-12	4.757E-12	4.190E-12	4.211E-12	4.727E-12	6.495E-12	5.983E-12	5.108E-12	
SW	1.277E-10	5.875E-11	3.573E-11	1.821E-11	1.147E-11	8.171E-12	6.310E-12	5.609E-12	5.635E-12	4.878E-12	4.113E-12	
WSW	1.239E-10	5.634E-11	3.370E-11	1.868E-11	1.395E-11	1.193E-11	8.926E-12	6.830E-12	5.323E-12	4.255E-12	3.504E-12	
W	1.318E-10	6.028E-11	3.950E-11	3.013E-11	1.939E-11	1.321E-11	9.685E-12	7.286E-12	5.670E-12	4.530E-12	3.698E-12	
WNW	1.453E-10	6.670E-11	5.189E-11	3.731E-11	2.311E-11	1.601E-11	1.157E-11	8.703E-12	6.771E-12	5.409E-12	4.416E-12	
NW	1.353E-10	6.230E-11	4.100E-11	3.548E-11	2.398E-11	1.572E-11	1.102E-11	8.303E-12	6.449E-12	5.155E-12	4.211E-12	
NNW	1.056E-10	4.865E-11	3.939E-11	3.506E-11	2.147E-11	1.393E-11	1.005E-11	7.564E-12	5.886E-12	4.701E-12	3.837E-12	

Insert Table 2.3-335 Annual Average D/Q Values for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3)

Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	6.596E-09	1.621E-09	4.762E-10	2.281E-10	1.344E-10	5.494E-11	3.282E-11	1.817E-11	9.158E-12	5.686E-12
NNE	1.382E-08	3.345E-09	9.764E-10	4.631E-10	2.712E-10	1.080E-10	3.302E-11	1.479E-11	9.440E-12	7.340E-12
NE	1.178E-08	2.589E-09	7.130E-10	3.309E-10	1.916E-10	7.580E-11	2.323E-11	1.057E-11	7.081E-12	6.535E-12
ENE	7.203E-09	1.613E-09	4.490E-10	2.110E-10	1.234E-10	4.958E-11	1.568E-11	7.501E-12	5.215E-12	4.469E-12
E	6.379E-09	1.451E-09	4.055E-10	1.916E-10	1.126E-10	4.557E-11	1.454E-11	6.986E-12	4.752E-12	3.678E-12
ESE	7.006E-09	1.590E-09	4.438E-10	2.097E-10	1.232E-10	4.991E-11	1.595E-11	7.728E-12	5.345E-12	4.214E-12
SE	5.884E-09	1.330E-09	3.698E-10	1.745E-10	1.026E-10	4.161E-11	1.334E-11	6.461E-12	4.426E-12	3.489E-12
SSE	5.435E-09	1.216E-09	3.387E-10	1.594E-10	9.330E-11	3.760E-11	1.307E-11	1.702E-11	1.428E-11	7.740E-12
S	4.295E-09	9.558E-10	2.654E-10	1.241E-10	7.216E-11	2.873E-11	8.994E-12	6.082E-12	8.824E-12	7.368E-12
SSW	3.582E-09	8.000E-10	2.220E-10	1.037E-10	6.033E-11	2.401E-11	7.506E-12	4.350E-12	5.253E-12	5.811E-12
SW	6.359E-09	1.775E-09	5.583E-10	2.711E-10	1.601E-10	6.383E-11	1.911E-11	8.305E-12	5.819E-12	4.819E-12
WSW	6.920E-09	1.795E-09	5.419E-10	2.591E-10	1.532E-10	6.128E-11	1.991E-11	1.127E-11	6.855E-12	4.294E-12
W	8.185E-09	2.063E-09	6.031E-10	2.841E-10	1.657E-10	6.694E-11	2.744E-11	1.345E-11	7.356E-12	4.560E-12
WNW	9.080E-09	2.279E-09	6.603E-10	3.117E-10	1.824E-10	7.758E-11	3.424E-11	1.613E-11	8.787E-12	5.445E-12
NW	8.617E-09	2.140E-09	6.139E-10	2.897E-10	1.697E-10	6.905E-11	3.159E-11	1.604E-11	8.373E-12	5.189E-12
NNW	6.809E-09	1.600E-09	4.587E-10	2.184E-10	1.297E-10	5.719E-11	2.998E-11	1.438E-11	7.634E-12	4.732E-12

based on 2002-2007 met data

Insert Table 2.3-336 Annual Average X/Q Values (No Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.201E-06	7.406E-07	4.177E-07	2.335E-07	1.153E-07	7.323E-08	5.214E-08	3.971E-08	3.164E-08	2.604E-08	2.209E-08
NNE	4.384E-06	1.491E-06	8.431E-07	4.603E-07	2.169E-07	1.335E-07	9.317E-08	6.999E-08	5.630E-08	4.687E-08	3.947E-08
NE	6.279E-06	2.172E-06	1.227E-06	6.467E-07	2.789E-07	1.622E-07	1.094E-07	8.056E-08	6.285E-08	5.106E-08	4.273E-08
ENE	3.470E-06	1.266E-06	7.259E-07	3.856E-07	1.707E-07	1.026E-07	7.140E-08	5.407E-08	4.321E-08	3.583E-08	3.053E-08
E	2.338E-06	9.151E-07	5.385E-07	2.882E-07	1.281E-07	7.707E-08	5.369E-08	4.068E-08	3.252E-08	2.697E-08	2.299E-08
ESE	2.623E-06	1.018E-06	5.898E-07	3.125E-07	1.366E-07	8.125E-08	5.613E-08	4.230E-08	3.370E-08	2.790E-08	2.376E-08
SE	2.306E-06	8.907E-07	5.144E-07	2.726E-07	1.189E-07	7.060E-08	4.875E-08	3.674E-08	2.928E-08	2.424E-08	2.064E-08
SSE	2.739E-06	9.777E-07	5.517E-07	2.912E-07	1.274E-07	7.564E-08	5.197E-08	3.887E-08	3.071E-08	2.520E-08	2.127E-08
S	2.821E-06	9.464E-07	5.235E-07	2.752E-07	1.197E-07	7.059E-08	4.811E-08	3.571E-08	2.803E-08	2.288E-08	1.923E-08
SSW	2.205E-06	7.580E-07	4.273E-07	2.272E-07	1.003E-07	5.973E-08	4.112E-08	3.079E-08	2.434E-08	1.998E-08	1.686E-08
SW	1.297E-06	4.751E-07	2.927E-07	1.795E-07	9.708E-08	6.307E-08	4.485E-08	3.382E-08	2.659E-08	2.159E-08	1.797E-08
WSW	1.299E-06	4.660E-07	2.781E-07	1.644E-07	8.402E-08	5.278E-08	3.675E-08	2.733E-08	2.128E-08	1.716E-08	1.435E-08
W	1.811E-06	6.138E-07	3.526E-07	2.011E-07	9.778E-08	5.999E-08	4.129E-08	3.052E-08	2.370E-08	1.908E-08	1.579E-08
WNW	2.106E-06	6.937E-07	3.857E-07	2.186E-07	1.080E-07	6.724E-08	4.682E-08	3.493E-08	2.733E-08	2.214E-08	1.843E-08
NW	2.088E-06	6.839E-07	3.671E-07	2.023E-07	9.803E-08	6.078E-08	4.232E-08	3.162E-08	2.479E-08	2.013E-08	1.686E-08
NNW	2.006E-06	6.514E-07	3.496E-07	1.901E-07	9.111E-08	5.674E-08	3.987E-08	3.010E-08	2.383E-08	1.953E-08	1.658E-08

Insert Table 2.3-336 Annual Average X/Q Values (No Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	1.910E-08	1.187E-08	8.698E-09	5.886E-09	4.463E-09	3.575E-09	2.941E-09	2.446E-09	2.058E-09	1.764E-09	1.537E-09
NNE	3.395E-08	1.970E-08	1.373E-08	8.609E-09	6.170E-09	4.760E-09	3.850E-09	3.219E-09	2.757E-09	2.406E-09	2.131E-09
NE	3.663E-08	2.175E-08	1.556E-08	1.024E-08	7.650E-09	6.119E-09	5.114E-09	4.406E-09	3.881E-09	3.476E-09	3.156E-09
ENE	2.661E-08	1.686E-08	1.258E-08	8.741E-09	6.775E-09	5.576E-09	4.771E-09	4.193E-09	3.758E-09	3.419E-09	3.148E-09
E	2.006E-08	1.258E-08	9.287E-09	6.322E-09	4.800E-09	3.866E-09	3.234E-09	2.778E-09	2.434E-09	2.164E-09	1.948E-09
ESE	2.074E-08	1.318E-08	9.878E-09	6.930E-09	5.408E-09	4.465E-09	3.822E-09	3.354E-09	2.998E-09	2.717E-09	2.489E-09
SE	1.801E-08	1.145E-08	8.561E-09	5.968E-09	4.631E-09	3.809E-09	3.253E-09	2.851E-09	2.547E-09	2.310E-09	2.119E-09
SSE	1.838E-08	1.158E-08	8.712E-09	6.301E-09	5.162E-09	4.508E-09	4.077E-09	3.757E-09	3.492E-09	3.252E-09	3.023E-09
S	1.654E-08	1.006E-08	7.361E-09	5.053E-09	3.934E-09	3.277E-09	2.846E-09	2.541E-09	2.311E-09	2.129E-09	1.980E-09
SSW	1.456E-08	8.902E-09	6.482E-09	4.355E-09	3.295E-09	2.662E-09	2.243E-09	1.945E-09	1.723E-09	1.551E-09	1.413E-09
SW	1.527E-08	8.546E-09	5.769E-09	3.444E-09	2.382E-09	1.787E-09	1.413E-09	1.159E-09	9.769E-10	8.403E-10	7.346E-10
WSW	1.226E-08	6.802E-09	4.579E-09	2.732E-09	1.892E-09	1.422E-09	1.126E-09	9.239E-10	7.781E-10	6.684E-10	5.829E-10
W	1.336E-08	7.676E-09	5.319E-09	3.327E-09	2.383E-09	1.821E-09	1.439E-09	1.170E-09	9.776E-10	8.350E-10	7.256E-10
WNW	1.568E-08	9.327E-09	6.666E-09	4.417E-09	3.300E-09	2.561E-09	2.022E-09	1.651E-09	1.386E-09	1.189E-09	1.037E-09
NW	1.443E-08	8.538E-09	6.074E-09	3.992E-09	2.999E-09	2.400E-09	1.979E-09	1.653E-09	1.394E-09	1.199E-09	1.048E-09
NNW	1.438E-08	8.993E-09	6.673E-09	4.634E-09	3.562E-09	2.835E-09	2.275E-09	1.864E-09	1.569E-09	1.349E-09	1.178E-09

Insert Table 2.3-336 Annual Average X/Q Values (No Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	4.076E-07	1.229E-07	5.279E-08	3.181E-08	2.215E-08	1.207E-08	5.879E-09	3.558E-09	2.439E-09	1.767E-09
NNE	8.168E-07	2.339E-07	9.466E-08	5.662E-08	3.962E-08	2.021E-08	8.663E-09	4.772E-09	3.223E-09	2.408E-09
NE	1.179E-06	3.088E-07	1.119E-07	6.342E-08	4.294E-08	2.231E-08	1.027E-08	6.126E-09	4.408E-09	3.477E-09
ENE	6.947E-07	1.882E-07	7.278E-08	4.350E-08	3.065E-08	1.712E-08	8.720E-09	5.574E-09	4.192E-09	3.419E-09
E	5.110E-07	1.410E-07	5.472E-08	3.274E-08	2.308E-08	1.278E-08	6.304E-09	3.862E-09	2.777E-09	2.164E-09
ESE	5.617E-07	1.511E-07	5.730E-08	3.395E-08	2.387E-08	1.339E-08	6.909E-09	4.459E-09	3.352E-09	2.716E-09
SE	4.905E-07	1.316E-07	4.977E-08	2.949E-08	2.073E-08	1.162E-08	5.950E-09	3.806E-09	2.850E-09	2.309E-09
SSE	5.306E-07	1.408E-07	5.304E-08	3.094E-08	2.137E-08	1.182E-08	6.331E-09	4.510E-09	3.748E-09	3.238E-09
S	5.071E-07	1.324E-07	4.914E-08	2.826E-08	1.931E-08	1.030E-08	5.068E-09	3.280E-09	2.540E-09	2.128E-09
SSW	4.119E-07	1.105E-07	4.195E-08	2.452E-08	1.693E-08	9.083E-09	4.357E-09	2.663E-09	1.946E-09	1.551E-09
SW	2.829E-07	1.003E-07	4.530E-08	2.675E-08	1.804E-08	8.805E-09	3.489E-09	1.796E-09	1.162E-09	8.416E-10
WSW	2.693E-07	8.799E-08	3.726E-08	2.144E-08	1.441E-08	7.026E-09	2.769E-09	1.429E-09	9.261E-10	6.692E-10
W	3.433E-07	1.039E-07	4.197E-08	2.388E-08	1.586E-08	7.892E-09	3.350E-09	1.818E-09	1.173E-09	8.367E-10
WNW	3.799E-07	1.144E-07	4.751E-08	2.752E-08	1.851E-08	9.556E-09	4.420E-09	2.543E-09	1.656E-09	1.191E-09
NW	3.642E-07	1.046E-07	4.296E-08	2.497E-08	1.693E-08	8.752E-09	4.013E-09	2.391E-09	1.647E-09	1.201E-09
NNW	3.458E-07	9.784E-08	4.046E-08	2.398E-08	1.664E-08	9.158E-09	4.611E-09	2.805E-09	1.869E-09	1.351E-09

based on 2002-2007 met data

Insert Table 2.3-337 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.200E-06	7.400E-07	4.172E-07	2.331E-07	1.150E-07	7.299E-08	5.193E-08	3.951E-08	3.145E-08	2.587E-08	2.192E-08
NNE	4.382E-06	1.489E-06	8.420E-07	4.595E-07	2.164E-07	1.331E-07	9.282E-08	6.967E-08	5.600E-08	4.659E-08	3.920E-08
NE	6.277E-06	2.170E-06	1.225E-06	6.457E-07	2.782E-07	1.616E-07	1.089E-07	8.018E-08	6.251E-08	5.075E-08	4.244E-08
ENE	3.468E-06	1.265E-06	7.248E-07	3.848E-07	1.702E-07	1.022E-07	7.106E-08	5.377E-08	4.293E-08	3.557E-08	3.028E-08
E	2.337E-06	9.142E-07	5.377E-07	2.876E-07	1.277E-07	7.677E-08	5.343E-08	4.044E-08	3.230E-08	2.677E-08	2.279E-08
ESE	2.622E-06	1.017E-06	5.890E-07	3.118E-07	1.362E-07	8.093E-08	5.586E-08	4.205E-08	3.347E-08	2.769E-08	2.356E-08
SE	2.305E-06	8.898E-07	5.136E-07	2.720E-07	1.185E-07	7.031E-08	4.851E-08	3.652E-08	2.908E-08	2.406E-08	2.046E-08
SSE	2.737E-06	9.767E-07	5.509E-07	2.906E-07	1.270E-07	7.535E-08	5.173E-08	3.865E-08	3.051E-08	2.502E-08	2.110E-08
S	2.820E-06	9.455E-07	5.228E-07	2.747E-07	1.194E-07	7.033E-08	4.789E-08	3.552E-08	2.786E-08	2.272E-08	1.907E-08
SSW	2.204E-06	7.573E-07	4.267E-07	2.268E-07	1.000E-07	5.952E-08	4.094E-08	3.062E-08	2.419E-08	1.984E-08	1.673E-08
SW	1.296E-06	4.747E-07	2.923E-07	1.792E-07	9.686E-08	6.288E-08	4.468E-08	3.367E-08	2.645E-08	2.146E-08	1.785E-08
WSW	1.298E-06	4.656E-07	2.777E-07	1.641E-07	8.385E-08	5.263E-08	3.663E-08	2.722E-08	2.118E-08	1.706E-08	1.427E-08
W	1.810E-06	6.134E-07	3.522E-07	2.008E-07	9.759E-08	5.983E-08	4.115E-08	3.039E-08	2.358E-08	1.897E-08	1.569E-08
WNW	2.105E-06	6.931E-07	3.853E-07	2.182E-07	1.077E-07	6.704E-08	4.664E-08	3.477E-08	2.718E-08	2.201E-08	1.830E-08
NW	2.087E-06	6.833E-07	3.666E-07	2.019E-07	9.779E-08	6.059E-08	4.215E-08	3.147E-08	2.465E-08	2.001E-08	1.674E-08
NNW	2.005E-06	6.508E-07	3.491E-07	1.898E-07	9.088E-08	5.655E-08	3.970E-08	2.995E-08	2.369E-08	1.940E-08	1.646E-08

Insert Table 2.3-337 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	1.894E-08	1.172E-08	8.547E-09	5.728E-09	4.299E-09	3.408E-09	2.774E-09	2.283E-09	1.901E-09	1.614E-09	1.393E-09
NNE	3.369E-08	1.947E-08	1.351E-08	8.401E-09	5.969E-09	4.565E-09	3.661E-09	3.034E-09	2.576E-09	2.229E-09	1.957E-09
NE	3.635E-08	2.150E-08	1.532E-08	1.000E-08	7.406E-09	5.873E-09	4.865E-09	4.153E-09	3.624E-09	3.216E-09	2.891E-09
ENE	2.637E-08	1.663E-08	1.235E-08	8.495E-09	6.517E-09	5.307E-09	4.492E-09	3.904E-09	3.461E-09	3.114E-09	2.834E-09
E	1.987E-08	1.240E-08	9.105E-09	6.131E-09	4.605E-09	3.667E-09	3.033E-09	2.576E-09	2.232E-09	1.962E-09	1.746E-09
ESE	2.054E-08	1.298E-08	9.682E-09	6.719E-09	5.184E-09	4.232E-09	3.581E-09	3.106E-09	2.743E-09	2.457E-09	2.225E-09
SE	1.784E-08	1.128E-08	8.398E-09	5.795E-09	4.450E-09	3.621E-09	3.059E-09	2.652E-09	2.343E-09	2.101E-09	1.906E-09
SSE	1.822E-08	1.142E-08	8.557E-09	6.131E-09	4.973E-09	4.298E-09	3.846E-09	3.505E-09	3.221E-09	2.966E-09	2.725E-09
S	1.639E-08	9.931E-09	7.233E-09	4.921E-09	3.797E-09	3.134E-09	2.697E-09	2.385E-09	2.149E-09	1.961E-09	1.806E-09
SSW	1.443E-08	8.789E-09	6.373E-09	4.244E-09	3.183E-09	2.548E-09	2.127E-09	1.828E-09	1.604E-09	1.429E-09	1.289E-09
SW	1.515E-08	8.446E-09	5.678E-09	3.361E-09	2.304E-09	1.714E-09	1.343E-09	1.092E-09	9.120E-10	7.774E-10	6.736E-10
WSW	1.217E-08	6.731E-09	4.514E-09	2.674E-09	1.839E-09	1.372E-09	1.078E-09	8.781E-10	7.342E-10	6.260E-10	5.419E-10
W	1.327E-08	7.596E-09	5.245E-09	3.258E-09	2.316E-09	1.757E-09	1.379E-09	1.113E-09	9.236E-10	7.835E-10	6.760E-10
WNW	1.556E-08	9.221E-09	6.565E-09	4.316E-09	3.198E-09	2.462E-09	1.929E-09	1.563E-09	1.302E-09	1.108E-09	9.590E-10
NW	1.432E-08	8.438E-09	5.980E-09	3.902E-09	2.910E-09	2.312E-09	1.893E-09	1.570E-09	1.315E-09	1.123E-09	9.745E-10
NNW	1.426E-08	8.880E-09	6.560E-09	4.515E-09	3.440E-09	2.713E-09	2.158E-09	1.752E-09	1.462E-09	1.246E-09	1.080E-09

Insert Table 2.3-337 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3)

X/Q (sec/m<sup>3</sup>) for Each Segment

Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	4.071E-07	1.226E-07	5.258E-08	3.163E-08	2.199E-08	1.191E-08	5.719E-09	3.392E-09	2.278E-09	1.617E-09
NNE	8.159E-07	2.334E-07	9.431E-08	5.632E-08	3.935E-08	1.998E-08	8.456E-09	4.578E-09	3.039E-09	2.231E-09
NE	1.178E-06	3.081E-07	1.115E-07	6.308E-08	4.264E-08	2.205E-08	1.003E-08	5.879E-09	4.155E-09	3.217E-09
ENE	6.937E-07	1.877E-07	7.244E-08	4.322E-08	3.040E-08	1.689E-08	8.472E-09	5.304E-09	3.903E-09	3.113E-09
E	5.102E-07	1.406E-07	5.446E-08	3.252E-08	2.289E-08	1.259E-08	6.114E-09	3.664E-09	2.576E-09	1.962E-09
ESE	5.609E-07	1.507E-07	5.702E-08	3.372E-08	2.366E-08	1.320E-08	6.695E-09	4.226E-09	3.104E-09	2.456E-09
SE	4.898E-07	1.312E-07	4.953E-08	2.929E-08	2.055E-08	1.146E-08	5.776E-09	3.617E-09	2.651E-09	2.101E-09
SSE	5.298E-07	1.404E-07	5.280E-08	3.074E-08	2.119E-08	1.166E-08	6.156E-09	4.297E-09	3.494E-09	2.952E-09
S	5.064E-07	1.321E-07	4.893E-08	2.809E-08	1.916E-08	1.017E-08	4.935E-09	3.136E-09	2.384E-09	1.959E-09
SSW	4.113E-07	1.102E-07	4.177E-08	2.437E-08	1.680E-08	8.969E-09	4.246E-09	2.549E-09	1.828E-09	1.429E-09
SW	2.826E-07	1.001E-07	4.513E-08	2.661E-08	1.792E-08	8.706E-09	3.406E-09	1.723E-09	1.095E-09	7.788E-10
WSW	2.690E-07	8.782E-08	3.713E-08	2.134E-08	1.432E-08	6.955E-09	2.712E-09	1.379E-09	8.804E-10	6.269E-10
W	3.430E-07	1.037E-07	4.183E-08	2.377E-08	1.577E-08	7.813E-09	3.281E-09	1.755E-09	1.117E-09	7.852E-10
WNW	3.794E-07	1.142E-07	4.733E-08	2.738E-08	1.839E-08	9.449E-09	4.319E-09	2.445E-09	1.568E-09	1.110E-09
NW	3.638E-07	1.044E-07	4.279E-08	2.483E-08	1.681E-08	8.653E-09	3.923E-09	2.304E-09	1.565E-09	1.125E-09
NNW	3.453E-07	9.760E-08	4.029E-08	2.384E-08	1.651E-08	9.044E-09	4.492E-09	2.685E-09	1.758E-09	1.249E-09

based on 2002-2007 met data

Insert Table 2.3-338 Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.100E-06	6.859E-07	3.794E-07	2.108E-07	1.038E-07	6.583E-08	4.678E-08	3.555E-08	2.824E-08	2.318E-08	1.962E-08
NNE	4.171E-06	1.376E-06	7.631E-07	4.131E-07	1.934E-07	1.185E-07	8.241E-08	6.168E-08	4.956E-08	4.121E-08	3.460E-08
NE	5.946E-06	1.996E-06	1.105E-06	5.742E-07	2.430E-07	1.397E-07	9.347E-08	6.845E-08	5.317E-08	4.303E-08	3.590E-08
ENE	3.288E-06	1.170E-06	6.586E-07	3.453E-07	1.507E-07	9.000E-08	6.249E-08	4.727E-08	3.776E-08	3.132E-08	2.668E-08
E	2.217E-06	8.506E-07	4.923E-07	2.603E-07	1.141E-07	6.828E-08	4.747E-08	3.594E-08	2.872E-08	2.382E-08	2.030E-08
ESE	2.488E-06	9.466E-07	5.394E-07	2.821E-07	1.215E-07	7.168E-08	4.934E-08	3.711E-08	2.954E-08	2.445E-08	2.081E-08
SE	2.187E-06	8.283E-07	4.703E-07	2.460E-07	1.056E-07	6.221E-08	4.280E-08	3.220E-08	2.564E-08	2.122E-08	1.807E-08
SSE	2.595E-06	9.033E-07	5.004E-07	2.606E-07	1.121E-07	6.601E-08	4.513E-08	3.363E-08	2.650E-08	2.170E-08	1.828E-08
S	2.672E-06	8.699E-07	4.717E-07	2.446E-07	1.045E-07	6.091E-08	4.119E-08	3.040E-08	2.376E-08	1.932E-08	1.618E-08
SSW	2.088E-06	6.971E-07	3.851E-07	2.021E-07	8.778E-08	5.185E-08	3.552E-08	2.651E-08	2.090E-08	1.713E-08	1.443E-08
SW	1.238E-06	4.410E-07	2.686E-07	1.653E-07	8.976E-08	5.821E-08	4.122E-08	3.091E-08	2.417E-08	1.951E-08	1.615E-08
WSW	1.241E-06	4.331E-07	2.549E-07	1.508E-07	7.707E-08	4.823E-08	3.341E-08	2.469E-08	1.911E-08	1.531E-08	1.275E-08
W	1.727E-06	5.682E-07	3.211E-07	1.824E-07	8.826E-08	5.383E-08	3.680E-08	2.702E-08	2.084E-08	1.667E-08	1.372E-08
WNW	2.017E-06	6.461E-07	3.527E-07	1.991E-07	9.796E-08	6.072E-08	4.204E-08	3.118E-08	2.426E-08	1.955E-08	1.618E-08
NW	2.004E-06	6.395E-07	3.367E-07	1.843E-07	8.878E-08	5.474E-08	3.789E-08	2.815E-08	2.194E-08	1.772E-08	1.477E-08
NNW	1.919E-06	6.061E-07	3.185E-07	1.718E-07	8.178E-08	5.071E-08	3.549E-08	2.668E-08	2.104E-08	1.718E-08	1.455E-08

Insert Table 2.3-338 Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3)

Annual Average X/Q (sec/m <sup>3</sup> )												
Sector	Distance in Miles from the Site											
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50	
N	1.694E-08	1.048E-08	7.645E-09	5.142E-09	3.843E-09	2.946E-09	2.319E-09	1.867E-09	1.526E-09	1.273E-09	1.082E-09	
NNE	2.968E-08	1.701E-08	1.172E-08	7.221E-09	5.101E-09	3.888E-09	3.112E-09	2.576E-09	2.178E-09	1.879E-09	1.644E-09	
NE	3.069E-08	1.810E-08	1.288E-08	8.413E-09	6.250E-09	4.981E-09	4.151E-09	3.567E-09	3.122E-09	2.781E-09	2.508E-09	
ENE	2.325E-08	1.477E-08	1.102E-08	7.657E-09	5.928E-09	4.874E-09	4.165E-09	3.655E-09	3.256E-09	2.947E-09	2.694E-09	
E	1.771E-08	1.111E-08	8.190E-09	5.551E-09	4.193E-09	3.360E-09	2.797E-09	2.391E-09	2.084E-09	1.844E-09	1.651E-09	
ESE	1.816E-08	1.155E-08	8.657E-09	6.066E-09	4.724E-09	3.893E-09	3.324E-09	2.910E-09	2.593E-09	2.343E-09	2.140E-09	
SE	1.576E-08	1.003E-08	7.502E-09	5.221E-09	4.042E-09	3.317E-09	2.826E-09	2.471E-09	2.198E-09	1.983E-09	1.806E-09	
SSE	1.577E-08	9.948E-09	7.494E-09	5.448E-09	4.493E-09	3.949E-09	3.590E-09	3.296E-09	2.991E-09	2.712E-09	2.454E-09	
S	1.388E-08	8.403E-09	6.126E-09	4.196E-09	3.269E-09	2.730E-09	2.378E-09	2.128E-09	1.931E-09	1.773E-09	1.632E-09	
SSW	1.243E-08	7.588E-09	5.510E-09	3.685E-09	2.779E-09	2.240E-09	1.884E-09	1.631E-09	1.435E-09	1.285E-09	1.162E-09	
SW	1.365E-08	7.475E-09	4.954E-09	2.871E-09	1.938E-09	1.426E-09	1.109E-09	8.945E-10	7.408E-10	6.274E-10	5.398E-10	
WSW	1.084E-08	5.877E-09	3.881E-09	2.246E-09	1.519E-09	1.119E-09	8.678E-10	6.921E-10	5.650E-10	4.707E-10	3.987E-10	
W	1.154E-08	6.511E-09	4.445E-09	2.717E-09	1.866E-09	1.360E-09	1.035E-09	8.132E-10	6.589E-10	5.467E-10	4.623E-10	
WNW	1.370E-08	8.038E-09	5.683E-09	3.692E-09	2.622E-09	1.946E-09	1.481E-09	1.169E-09	9.520E-10	7.934E-10	6.736E-10	
NW	1.258E-08	7.330E-09	5.149E-09	3.330E-09	2.449E-09	1.878E-09	1.484E-09	1.200E-09	9.822E-10	8.212E-10	6.992E-10	
NNW	1.258E-08	7.832E-09	5.786E-09	3.990E-09	2.935E-09	2.221E-09	1.719E-09	1.363E-09	1.113E-09	9.296E-10	7.910E-10	

Insert Table 2.3-338 Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	3.725E-07	1.107E-07	4.737E-08	2.840E-08	1.968E-08	1.065E-08	5.121E-09	2.935E-09	1.866E-09	1.277E-09
NNE	7.437E-07	2.089E-07	8.376E-08	4.984E-08	3.474E-08	1.748E-08	7.279E-09	3.901E-09	2.578E-09	1.881E-09
NE	1.067E-06	2.707E-07	9.578E-08	5.367E-08	3.608E-08	1.858E-08	8.445E-09	4.987E-09	3.564E-09	2.781E-09
ENE	6.331E-07	1.670E-07	6.374E-08	3.802E-08	2.679E-08	1.499E-08	7.637E-09	4.872E-09	3.649E-09	2.945E-09
E	4.688E-07	1.262E-07	4.841E-08	2.892E-08	2.039E-08	1.128E-08	5.534E-09	3.357E-09	2.390E-09	1.843E-09
ESE	5.155E-07	1.350E-07	5.041E-08	2.976E-08	2.091E-08	1.173E-08	6.046E-09	3.887E-09	2.908E-09	2.342E-09
SE	4.502E-07	1.175E-07	4.374E-08	2.583E-08	1.815E-08	1.018E-08	5.204E-09	3.314E-09	2.468E-09	1.981E-09
SSE	4.833E-07	1.246E-07	4.610E-08	2.671E-08	1.837E-08	1.015E-08	5.478E-09	3.950E-09	3.264E-09	2.699E-09
S	4.592E-07	1.162E-07	4.213E-08	2.397E-08	1.626E-08	8.608E-09	4.213E-09	2.733E-09	2.124E-09	1.767E-09
SSW	3.731E-07	9.722E-08	3.627E-08	2.107E-08	1.449E-08	7.741E-09	3.688E-09	2.241E-09	1.629E-09	1.284E-09
SW	2.610E-07	9.252E-08	4.163E-08	2.432E-08	1.622E-08	7.726E-09	2.919E-09	1.436E-09	8.971E-10	6.286E-10
WSW	2.482E-07	8.063E-08	3.388E-08	1.926E-08	1.280E-08	6.092E-09	2.286E-09	1.125E-09	6.939E-10	4.719E-10
W	3.144E-07	9.387E-08	3.743E-08	2.102E-08	1.379E-08	6.711E-09	2.723E-09	1.365E-09	8.178E-10	5.487E-10
WNW	3.496E-07	1.039E-07	4.268E-08	2.444E-08	1.626E-08	8.249E-09	3.659E-09	1.940E-09	1.175E-09	7.960E-10
NW	3.362E-07	9.487E-08	3.849E-08	2.211E-08	1.483E-08	7.528E-09	3.343E-09	1.873E-09	1.198E-09	8.237E-10
NNW	3.172E-07	8.797E-08	3.602E-08	2.118E-08	1.460E-08	7.978E-09	3.920E-09	2.211E-09	1.369E-09	9.325E-10

based on 2002-2007 met data

Insert Table 2.3-339 Annual Average D/Q Values for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3)

**Relative Deposition per Unit Area ( $m^{-2}$ ) at Fixed Points by Downwind Sectors**

<b>Sector</b>	<b>Distance in Miles from the Site</b>										
	<b>0.25</b>	<b>0.5</b>	<b>0.75</b>	<b>1.0</b>	<b>1.5</b>	<b>2.0</b>	<b>2.5</b>	<b>3.0</b>	<b>3.5</b>	<b>4.0</b>	<b>4.5</b>
N	2.322E-08	1.111E-08	6.853E-09	3.611E-09	1.379E-09	7.339E-10	4.555E-10	3.107E-10	2.257E-10	1.714E-10	1.347E-10
NNE	5.010E-08	2.258E-08	1.354E-08	7.118E-09	2.730E-09	1.457E-09	9.061E-10	6.186E-10	4.530E-10	3.476E-10	2.725E-10
NE	6.121E-08	2.429E-08	1.354E-08	6.723E-09	2.451E-09	1.251E-09	7.538E-10	5.032E-10	3.598E-10	2.703E-10	2.107E-10
ENE	3.019E-08	1.357E-08	7.927E-09	4.002E-09	1.453E-09	7.468E-10	4.525E-10	3.038E-10	2.184E-10	1.649E-10	1.291E-10
E	2.414E-08	1.163E-08	6.950E-09	3.538E-09	1.283E-09	6.618E-10	4.022E-10	2.707E-10	1.951E-10	1.476E-10	1.159E-10
ESE	2.671E-08	1.288E-08	7.696E-09	3.914E-09	1.417E-09	7.300E-10	4.433E-10	2.983E-10	2.149E-10	1.626E-10	1.276E-10
SE	2.176E-08	1.069E-08	6.415E-09	3.260E-09	1.175E-09	6.045E-10	3.666E-10	2.465E-10	1.776E-10	1.344E-10	1.055E-10
SSE	2.277E-08	1.030E-08	6.030E-09	3.044E-09	1.103E-09	5.668E-10	3.433E-10	2.304E-10	1.657E-10	1.251E-10	9.798E-11
S	2.165E-08	8.836E-09	4.987E-09	2.491E-09	9.095E-10	4.660E-10	2.815E-10	1.884E-10	1.350E-10	1.015E-10	7.926E-11
SSW	1.841E-08	7.440E-09	4.173E-09	2.081E-09	7.613E-10	3.901E-10	2.357E-10	1.577E-10	1.129E-10	8.493E-11	6.627E-11
SW	1.715E-08	8.392E-09	5.677E-09	3.243E-09	1.365E-09	7.678E-10	4.932E-10	3.435E-10	2.525E-10	1.930E-10	1.520E-10
WSW	2.025E-08	9.844E-09	6.443E-09	3.517E-09	1.416E-09	7.714E-10	4.853E-10	3.336E-10	2.434E-10	1.852E-10	1.498E-10
W	2.787E-08	1.351E-08	8.102E-09	4.448E-09	1.741E-09	9.184E-10	5.645E-10	3.820E-10	2.758E-10	2.085E-10	1.632E-10
WNW	2.820E-08	1.463E-08	9.352E-09	4.883E-09	1.865E-09	9.836E-10	6.058E-10	4.111E-10	2.976E-10	2.257E-10	1.772E-10
NW	2.596E-08	1.394E-08	8.683E-09	4.622E-09	1.725E-09	9.056E-10	5.569E-10	3.779E-10	2.738E-10	2.080E-10	1.636E-10
NNW	2.224E-08	1.136E-08	7.031E-09	3.653E-09	1.354E-09	7.097E-10	4.361E-10	2.958E-10	2.143E-10	1.627E-10	1.292E-10

Insert Table 2.3-339 Annual Average D/Q Values for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3)

**Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors**

Sector	Distance in Miles from the Site										
	5	7.5	10	15	20	25	30	35	40	45	50
N	1.086E-10	5.232E-11	3.223E-11	1.741E-11	2.664E-11	2.025E-11	1.314E-11	9.403E-12	7.323E-12	5.855E-12	4.783E-12
NNE	2.194E-10	1.037E-10	6.323E-11	3.323E-11	2.124E-11	1.531E-11	1.184E-11	9.588E-12	7.997E-12	6.846E-12	5.991E-12
NE	1.690E-10	7.830E-11	4.806E-11	2.525E-11	1.598E-11	1.153E-11	9.038E-12	7.483E-12	6.416E-12	5.628E-12	5.068E-12
ENE	1.041E-10	4.895E-11	3.029E-11	1.621E-11	1.040E-11	7.738E-12	6.287E-12	5.387E-12	4.752E-12	4.262E-12	3.922E-12
E	9.359E-11	4.431E-11	2.751E-11	1.482E-11	9.493E-12	7.090E-12	5.515E-12	4.418E-12	3.620E-12	3.018E-12	2.554E-12
ESE	1.031E-10	4.880E-11	3.031E-11	1.633E-11	1.047E-11	7.835E-12	6.117E-12	4.929E-12	4.067E-12	3.416E-12	3.104E-12
SE	8.528E-11	4.047E-11	2.515E-11	1.360E-11	8.742E-12	6.551E-12	5.220E-12	4.369E-12	3.836E-12	3.472E-12	3.186E-12
SSE	7.899E-11	3.719E-11	2.302E-11	1.238E-11	8.078E-12	5.937E-12	7.790E-12	1.267E-11	1.174E-11	9.306E-12	7.244E-12
S	6.367E-11	2.958E-11	1.822E-11	9.658E-12	6.160E-12	4.495E-12	3.559E-12	2.976E-12	3.582E-12	3.866E-12	5.308E-12
SSW	5.320E-11	2.473E-11	1.522E-11	8.024E-12	5.105E-12	3.722E-12	2.944E-12	2.467E-12	2.148E-12	2.029E-12	2.158E-12
SW	1.225E-10	5.866E-11	3.567E-11	1.871E-11	1.177E-11	8.328E-12	6.301E-12	4.985E-12	4.081E-12	3.432E-12	2.980E-12
WSW	1.206E-10	5.709E-11	3.432E-11	1.783E-11	1.131E-11	8.048E-12	7.466E-12	7.044E-12	5.680E-12	4.603E-12	3.747E-12
W	1.313E-10	6.159E-11	3.735E-11	2.432E-11	1.986E-11	1.381E-11	9.800E-12	7.404E-12	5.763E-12	4.604E-12	3.758E-12
WNW	1.430E-10	6.886E-11	4.172E-11	3.502E-11	2.473E-11	1.628E-11	1.173E-11	8.833E-12	6.872E-12	5.490E-12	4.482E-12
NW	1.323E-10	6.351E-11	3.934E-11	2.124E-11	2.325E-11	1.739E-11	1.235E-11	8.593E-12	6.668E-12	5.329E-12	4.354E-12
NNW	1.044E-10	4.982E-11	3.078E-11	2.296E-11	2.358E-11	1.464E-11	1.021E-11	7.713E-12	6.001E-12	4.793E-12	3.913E-12

Insert Table 2.3-339 Annual Average D/Q Values for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3)

**Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors**

Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	6.359E-09	1.588E-09	4.718E-10	2.293E-10	1.359E-10	5.591E-11	2.481E-11	1.911E-11	9.679E-12	5.893E-12
NNE	1.270E-08	3.140E-09	9.381E-10	4.601E-10	2.751E-10	1.114E-10	3.457E-11	1.550E-11	9.624E-12	6.870E-12
NE	1.290E-08	2.867E-09	7.862E-10	3.667E-10	2.129E-10	8.502E-11	2.620E-11	1.172E-11	7.521E-12	5.654E-12
ENE	7.437E-09	1.706E-09	4.715E-10	2.224E-10	1.304E-10	5.291E-11	1.676E-11	7.868E-12	5.402E-12	4.281E-12
E	6.473E-09	1.508E-09	4.188E-10	1.986E-10	1.170E-10	4.779E-11	1.527E-11	7.101E-12	4.428E-12	3.024E-12
ESE	7.167E-09	1.667E-09	4.617E-10	2.188E-10	1.289E-10	5.264E-11	1.683E-11	7.851E-12	4.940E-12	3.494E-12
SE	5.963E-09	1.385E-09	3.820E-10	1.808E-10	1.066E-10	4.362E-11	1.401E-11	6.603E-12	4.409E-12	3.474E-12
SSE	5.653E-09	1.296E-09	3.578E-10	1.687E-10	9.898E-11	4.018E-11	1.283E-11	7.249E-12	1.092E-11	9.262E-12
S	4.733E-09	1.064E-09	2.934E-10	1.375E-10	8.009E-11	3.211E-11	1.000E-11	4.564E-12	3.373E-12	4.316E-12
SSW	3.969E-09	8.896E-10	2.457E-10	1.150E-10	6.696E-11	2.683E-11	8.325E-12	3.780E-12	2.482E-12	2.112E-12
SW	5.198E-09	1.517E-09	5.065E-10	2.558E-10	1.532E-10	6.263E-11	1.939E-11	8.435E-12	5.017E-12	3.457E-12
WSW	5.899E-09	1.596E-09	5.009E-10	2.470E-10	1.495E-10	6.109E-11	1.860E-11	8.684E-12	6.645E-12	4.605E-12
W	7.679E-09	1.977E-09	5.859E-10	2.805E-10	1.648E-10	6.631E-11	2.523E-11	1.382E-11	7.464E-12	4.634E-12
WNW	8.539E-09	2.144E-09	6.287E-10	3.026E-10	1.789E-10	7.327E-11	3.193E-11	1.671E-11	8.913E-12	5.526E-12
NW	8.045E-09	2.005E-09	5.783E-10	2.785E-10	1.651E-10	6.805E-11	2.616E-11	1.694E-11	8.933E-12	5.365E-12
NNW	6.492E-09	1.578E-09	4.529E-10	2.179E-10	1.300E-10	5.349E-11	2.497E-11	1.525E-11	7.775E-12	4.825E-12

**Table 2.3-XXX      Joint Frequency Distribution in Hours of Wind Speed and Direction by Atmospheric Stability Class  
(Based on 1985 – 1989 Met Data) – Stability Class A**

Max Wind Speed (mph)	Direction																TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.12	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	3
1.68	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2.24	1	0	1	0	1	0	1	0	1	1	0	0	0	1	0	1	8
2.80	0	1	1	0	1	0	2	0	1	2	3	0	2	2	2	0	17
3.36	3	1	1	2	0	1	0	0	1	1	2	2	3	1	0	3	21
4.47	1	5	4	3	1	10	4	2	11	10	14	9	9	8	4	4	99
6.71	15	12	24	17	29	26	42	15	35	36	39	45	50	55	41	27	508
8.95	15	18	55	37	45	48	60	19	28	67	60	73	90	81	84	49	829
11.18	16	19	62	25	42	54	33	12	13	60	80	60	61	93	84	50	764
13.42	15	15	25	11	29	40	8	0	11	34	50	46	61	62	43	31	481
17.90	9	7	22	4	17	31	3	1	5	29	37	16	29	33	19	25	287
22.37	0	3	2	0	2	1	0	0	0	4	4	0	3	10	1	0	30
26.84	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4
Total	75	84	197	99	168	211	153	49	106	245	290	251	308	347	279	190	3052

Notes:

Data from 10 m Sensor

Data from 1985-1989

Calms already distributed into data

**Table 2.3-XXX      Joint Frequency Distribution in Hours of Wind Speed and Direction by Atmospheric Stability Class  
(Based on 1985 – 1989 Met Data) – Stability Class B**

Max Wind Speed (mph)	Direction																	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1.12	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
1.68	0	1	0	0	0	0	0	0	1	0	0	0	1	1	0	0	4	
2.24	1	0	1	0	0	0	0	0	1	1	1	0	1	1	1	1	9	
2.80	2	0	2	0	0	1	1	1	1	1	2	2	3	3	0	0	19	
3.36	1	2	0	2	2	2	0	0	1	5	5	1	4	1	3	1	30	
4.47	2	4	6	5	7	3	8	2	8	7	6	10	14	10	2	5	99	
6.71	10	17	25	19	18	18	38	13	29	39	37	40	48	45	44	32	472	
8.95	13	12	44	19	23	43	52	23	41	56	51	60	53	73	61	38	662	
11.18	23	17	38	33	17	29	28	16	8	40	59	57	55	50	45	38	553	
13.42	10	11	10	12	19	28	9	3	9	27	38	33	39	27	22	13	310	
17.90	13	7	26	3	18	20	8	4	1	17	42	14	30	19	12	5	239	
22.37	0	1	7	4	3	1	0	0	0	1	4	6	7	5	2	2	43	
26.84	0	0	0	0	2	0	0	0	0	3	8	0	0	0	0	0	13	
Total	75	72	159	97	109	145	144	62	100	197	253	223	256	235	192	135	2454	

Notes:

Data from 10 m Sensor

Data from 1985-1989

Calms already distributed into data

**Table 2.3-XXX      Joint Frequency Distribution in Hours of Wind Speed and Direction by Atmospheric Stability Class  
(Based on 1985 – 1989 Met Data) – Stability Class C**

Max Wind Speed (mph)	Direction																	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1.0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	0	0	4	
1.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1.68	2	2	1	0	0	0	1	0	1	1	1	0	0	0	0	0	9	
2.24	1	0	0	1	0	1	0	0	1	2	2	1	3	1	0	1	14	
2.80	2	4	1	0	0	1	3	0	0	2	3	3	2	4	3	5	33	
3.36	4	0	3	0	0	3	1	4	3	3	4	4	5	6	2	4	46	
4.47	8	10	9	6	9	14	12	7	10	9	15	17	17	13	13	11	180	
6.71	13	21	31	26	43	57	69	36	46	47	83	79	80	63	69	45	808	
8.95	28	16	37	36	42	55	95	46	52	89	76	100	84	91	78	66	991	
11.18	25	15	46	34	23	48	57	30	43	74	98	75	67	55	62	55	807	
13.42	27	13	26	30	22	36	25	11	22	37	82	66	38	44	27	36	542	
17.90	14	11	29	17	18	27	9	2	0	19	38	36	37	26	17	9	309	
22.37	4	3	6	4	6	2	1	0	0	2	11	9	5	7	5	1	66	
26.84	4	1	0	0	4	0	0	0	0	1	5	0	2	1	0	0	18	
Total	132	96	189	154	167	244	273	136	179	287	418	391	340	312	276	233	3827	

Notes:

Data from 10 m Sensor

Data from 1985-1989

Calms already distributed into data

**Table 2.3-XXX      Joint Frequency Distribution in Hours of Wind Speed and Direction by Atmospheric Stability Class  
(Based on 1985 – 1989 Met Data) – Stability Class D**

Max Wind Speed (mph)	Direction																	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1.0	0	1	0	0	1	1	0	0	0	2	3	2	1	1	3	3	18	
1.12	1	1	1	0	0	1	0	1	1	0	1	2	1	1	0	2	13	
1.68	1	4	2	1	0	2	1	2	1	2	7	9	9	4	3	5	53	
2.24	4	4	7	8	4	5	4	6	6	7	10	14	20	10	10	12	131	
2.80	12	11	1	4	4	13	11	10	9	18	24	35	35	30	16	11	244	
3.36	13	8	9	3	5	15	14	14	15	15	28	22	38	24	22	18	263	
4.47	45	39	27	17	40	37	47	39	72	65	80	109	96	85	74	57	929	
6.71	136	106	180	89	136	167	217	180	270	218	236	308	256	262	241	278	3280	
8.95	149	141	290	203	182	264	295	296	317	345	336	411	275	232	230	217	4183	
11.18	147	134	276	237	146	150	233	219	171	291	329	243	204	173	164	203	3320	
13.42	73	85	250	148	117	103	128	87	93	152	215	173	99	106	93	116	2038	
17.90	89	82	246	100	71	76	105	28	48	105	204	123	87	77	69	76	1586	
22.37	22	18	12	22	27	16	9	6	2	28	51	35	16	11	11	9	295	
26.84	12	0	13	0	1	2	0	0	0	0	8	4	4	2	2	0	48	
Total	704	634	1314	832	734	852	1064	888	1005	1248	1532	1490	1141	1018	938	1007	16401	

Notes:

Data from 10 m Sensor

Data from 1985-1989

Calms already distributed into data

**Table 2.3-XXX      Joint Frequency Distribution in Hours of Wind Speed and Direction by Atmospheric Stability Class  
(Based on 1985 – 1989 Met Data) – Stability Class E**

Max Wind Speed (mph)	Direction																	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1.0	3	1	0	0	0	2	0	0	4	2	5	1	6	6	3	0	33	
1.12	0	0	0	1	0	0	2	1	2	0	0	2	4	1	5	3	21	
1.68	6	5	4	2	0	6	4	8	2	13	13	11	13	17	9	10	123	
2.24	23	10	8	3	3	7	7	11	20	17	20	18	38	22	35	26	268	
2.80	26	19	10	10	11	13	11	23	31	44	47	64	64	56	38	33	500	
3.36	26	20	14	6	11	11	13	16	32	38	67	85	69	49	48	33	538	
4.47	88	49	24	21	19	37	40	41	81	113	178	260	244	157	140	85	1577	
6.71	183	133	88	62	87	122	138	135	262	398	387	343	384	266	294	225	3507	
8.95	95	89	90	72	95	134	139	147	281	411	286	159	115	153	98	101	2465	
11.18	32	35	52	42	74	70	87	94	123	278	205	63	28	48	29	32	1292	
13.42	16	11	29	15	65	47	37	50	73	132	70	23	29	31	14	15	657	
17.90	19	9	26	9	42	42	27	35	40	93	64	20	21	13	14	15	489	
22.37	2	1	11	4	4	9	2	8	11	6	20	25	2	2	0	1	108	
26.84	0	0	1	0	3	0	0	0	0	0	2	1	0	0	0	0	7	
Total	519	382	357	247	414	500	507	569	962	1545	1364	1075	1017	821	727	579	11585	

Notes:

Data from 10 m Sensor

Data from 1985-1989

Calms already distributed into data

**Table 2.3-XXX      Joint Frequency Distribution in Hours of Wind Speed and Direction by Atmospheric Stability Class  
(Based on 1985 – 1989 Met Data) – Stability Class F**

Max Wind Speed (mph)	Direction																	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1.0	3	0	2	1	1	0	1	4	4	2	0	1	1	2	2	2	26	
1.12	1	2	0	0	1	1	1	0	0	0	0	0	2	3	1	3	15	
1.68	4	2	1	2	2	3	3	7	5	8	3	11	4	9	9	10	83	
2.24	10	7	2	2	3	3	8	7	11	18	8	10	19	19	18	17	162	
2.80	14	8	2	2	1	9	5	9	15	26	31	26	39	32	23	24	266	
3.36	25	13	3	1	1	6	5	5	8	18	38	68	51	64	34	26	366	
4.47	60	16	2	2	5	10	23	12	18	51	77	139	141	145	89	87	877	
6.71	82	9	6	8	15	45	60	29	49	95	66	62	69	141	101	90	927	
8.95	13	3	4	9	22	42	47	48	38	80	24	5	3	13	14	9	374	
11.18	5	4	4	9	18	27	18	28	36	57	14	5	2	0	2	2	231	
13.42	4	2	8	4	11	9	9	16	12	53	12	0	0	1	1	1	143	
17.90	2	0	2	13	6	5	9	10	11	25	4	1	0	0	1	4	93	
22.37	0	0	1	0	3	4	2	2	5	2	1	0	0	0	0	0	20	
26.84	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
Total	223	66	37	54	89	164	191	177	212	435	278	328	331	429	295	275	3584	

Notes:

Data from 10 m Sensor

Data from 1985-1989

Calms already distributed into data

**Table 2.3-XXX      Joint Frequency Distribution in Hours of Wind Speed and Direction by Atmospheric Stability Class  
(Based on 1985 – 1989 Met Data) – Stability Class G**

Max Wind Speed (mph)	Direction																	TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1.0	0	1	0	0	1	1	1	0	0	0	0	1	3	0	3	1	12	
1.12	2	0	0	1	0	0	1	0	0	3	1	0	1	1	0	0	10	
1.68	2	3	2	2	0	3	2	1	3	1	2	3	6	4	4	10	48	
2.24	4	8	1	2	5	5	0	4	2	5	7	6	5	10	13	13	90	
2.80	9	3	1	1	2	1	4	4	5	11	10	8	17	26	35	38	175	
3.36	14	2	0	2	1	2	4	7	5	20	7	10	23	35	27	47	206	
4.47	30	1	1	1	4	12	11	13	17	26	28	39	65	98	54	70	470	
6.71	34	1	2	2	12	29	65	34	27	29	7	18	16	44	20	21	361	
8.95	2	2	2	2	7	29	38	23	10	24	6	3	4	7	0	2	161	
11.18	4	2	0	2	4	19	20	14	12	15	5	1	1	0	0	0	99	
13.42	6	1	0	5	2	10	9	12	2	19	4	1	0	0	0	1	72	
17.90	9	2	0	2	1	8	6	9	0	3	0	0	0	0	0	8	48	
22.37	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	5	
26.84	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	4	
Total	117	26	9	24	41	121	162	122	83	156	77	90	141	225	156	211	1761	

Notes:

Data from 10 m Sensor

Data from 1985-1989

Calms already distributed into data

**Insert Table 2.3-xxx Site Boundary X/Q and D/Q Factors for Ground-Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	9.50E-06	9.50E-06	8.60E-06	4.00E-08
NNE	6.10E-06	6.00E-06	5.40E-06	2.70E-08
NE	2.60E-06	2.60E-06	2.20E-06	1.20E-08
SSE	1.10E-05	1.10E-05	9.90E-06	3.50E-08
S	7.20E-06	7.20E-06	6.50E-06	2.40E-08
SSW	4.00E-06	4.00E-06	3.60E-06	1.70E-08
SW	2.40E-06	2.30E-06	2.10E-06	1.80E-08
WSW	2.40E-06	2.40E-06	2.10E-06	1.60E-08
W	5.50E-06	5.50E-06	5.00E-06	3.20E-08
WNW	8.90E-06	8.90E-06	8.10E-06	4.40E-08
NW	1.00E-05	1.00E-05	9.50E-06	4.90E-08
NNW	9.60E-06	9.60E-06	8.80E-06	4.00E-08

**Insert Table 2.3-xxx Site Boundary X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	7.20E-07	7.20E-07	6.60E-07	1.10E-08
NNE	6.70E-07	6.70E-07	6.10E-07	9.80E-09
NE	3.50E-07	3.50E-07	3.20E-07	5.40E-09
SSE	5.20E-07	5.20E-07	4.80E-07	1.00E-08
S	4.20E-07	4.20E-07	3.80E-07	7.00E-09
SSW	2.80E-07	2.80E-07	2.60E-07	5.60E-09
SW	3.80E-07	3.80E-07	3.60E-07	8.40E-09
WSW	3.30E-07	3.30E-07	3.00E-07	6.90E-09
W	5.60E-07	5.60E-07	5.20E-07	1.20E-08
WNW	7.80E-07	7.80E-07	7.30E-07	1.50E-08
NW	8.70E-07	8.70E-07	8.10E-07	1.50E-08
NNW	7.10E-07	7.10E-07	6.60E-07	1.00E-08

**Insert Table 2.3-xxx Site Boundary X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack**  
**(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	8.10E-07	8.10E-07	7.40E-07	9.90E-09
NNE	7.20E-07	7.10E-07	6.40E-07	9.20E-09
NE	3.30E-07	3.30E-07	3.00E-07	4.70E-09
SSE	5.80E-07	5.80E-07	5.30E-07	8.50E-09
S	4.80E-07	4.80E-07	4.40E-07	6.00E-09
SSW	2.90E-07	2.90E-07	2.60E-07	4.70E-09
SW	3.40E-07	3.40E-07	3.10E-07	7.50E-09
WSW	3.10E-07	3.10E-07	2.80E-07	5.90E-09
W	6.20E-07	6.20E-07	5.70E-07	1.10E-08
WNW	8.60E-07	8.60E-07	8.00E-07	1.40E-08
NW	9.60E-07	9.60E-07	8.90E-07	1.40E-08
NNW	8.30E-07	8.30E-07	7.60E-07	9.40E-09

**Insert Table 2.3-xxx Nearest Residence X/Q and D/Q Factors for Ground-Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	2.50E-06	2.50E-06	2.20E-06	1.10E-08
NE	2.20E-06	2.20E-06	1.90E-06	1.00E-08
SSE	6.00E-06	5.90E-06	5.30E-06	1.90E-08
SSW	2.40E-06	2.40E-06	2.20E-06	1.10E-08
SW	1.70E-06	1.70E-06	1.50E-06	1.30E-08
WSW	9.10E-07	9.10E-07	8.00E-07	6.10E-09
W	1.70E-06	1.70E-06	1.50E-06	1.10E-08
NW	7.00E-06	7.00E-06	6.30E-06	3.40E-08
NNW	1.60E-06	1.60E-06	1.40E-06	7.00E-09

**Insert Table 2.3-xxx Nearest Residence X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	3.60E-07	3.60E-07	3.30E-07	4.50E-09
NE	3.20E-07	3.20E-07	2.90E-07	4.60E-09
SSE	3.60E-07	3.60E-07	3.30E-07	6.50E-09
SSW	2.10E-07	2.10E-07	2.00E-07	3.90E-09
SW	3.20E-07	3.20E-07	3.00E-07	6.60E-09
WSW	1.80E-07	1.80E-07	1.70E-07	3.20E-09
W	2.80E-07	2.80E-07	2.60E-07	4.90E-09
NW	6.80E-07	6.80E-07	6.30E-07	1.20E-08
NNW	2.40E-07	2.40E-07	2.20E-07	2.80E-09

**Insert Table 2.3-xxx Nearest Residence X/Q and D/Q Factors for Mixed-Mode Release from the Turbine Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	3.60E-07	3.60E-07	3.20E-07	4.10E-09
NE	2.90E-07	2.90E-07	2.60E-07	4.10E-09
SSE	3.70E-07	3.70E-07	3.40E-07	5.60E-09
SSW	2.00E-07	2.00E-07	1.90E-07	3.40E-09
SW	2.80E-07	2.80E-07	2.50E-07	5.90E-09
WSW	1.60E-07	1.60E-07	1.40E-07	2.80E-09
W	2.70E-07	2.70E-07	2.40E-07	4.90E-09
NW	7.20E-07	7.20E-07	6.60E-07	1.10E-08
NNW	2.20E-07	2.20E-07	2.00E-07	2.50E-09

**Insert Table 2.3-xxx Nearest Garden X/Q and D/Q Factors for Ground-Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	4.30E-07	4.30E-07	3.50E-07	1.70E-09
NNE	7.50E-07	7.40E-07	6.20E-07	3.00E-09
NE	6.60E-07	6.50E-07	5.40E-07	2.80E-09
S	1.50E-06	1.50E-06	1.30E-06	5.30E-09
WSW	1.80E-07	1.80E-07	1.50E-07	1.10E-09
W	5.40E-07	5.30E-07	4.60E-07	3.20E-09
NW	7.00E-06	7.00E-06	6.30E-06	3.40E-08
NNW	2.10E-06	2.10E-06	1.80E-06	9.00E-09

**Insert Table 2.3-xxx Nearest Garden X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	9.80E-08	9.80E-08	9.00E-08	7.50E-10
NNE	1.50E-07	1.50E-07	1.40E-07	1.40E-09
NE	1.40E-07	1.40E-07	1.30E-07	1.40E-09
S	1.50E-07	1.50E-07	1.40E-07	2.00E-09
WSW	5.60E-08	5.60E-08	5.10E-08	7.20E-10
W	1.30E-07	1.20E-07	1.20E-07	1.80E-09
NW	6.80E-07	6.80E-07	6.30E-07	1.20E-08
NNW	2.80E-07	2.80E-07	2.60E-07	3.50E-09

**Insert Table 2.3-xxx Nearest Garden X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack**  
**(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	8.60E-08	8.60E-08	7.70E-08	7.20E-10
NNE	1.40E-07	1.40E-07	1.20E-07	1.30E-09
NE	1.20E-07	1.20E-07	1.10E-07	1.30E-09
S	1.50E-07	1.50E-07	1.30E-07	1.70E-09
WSW	4.90E-08	4.90E-08	4.40E-08	6.50E-10
W	1.10E-07	1.10E-07	1.00E-07	1.70E-09
NW	7.10E-07	7.10E-07	6.50E-07	1.10E-08
NNW	2.70E-07	2.60E-07	2.40E-07	3.10E-09

**Insert Table 2.3-xxx Nearest Sheep X/Q and D/Q Factors for Ground Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	1.60E-07	1.60E-07	1.20E-07	5.30E-10
NNW	8.40E-08	8.20E-08	6.30E-08	2.70E-10

**Insert Table 2.3-xxx Nearest Sheep X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.80E-08	4.80E-08	4.30E-08	2.70E-10
NNW	2.60E-08	2.50E-08	2.30E-08	1.50E-10

**Insert Table 2.3-xxx Nearest Sheep X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.30E-08	4.30E-08	3.80E-08	2.70E-10
NNW	2.30E-08	2.30E-08	2.00E-08	1.50E-10

**Insert Table 2.3-xxx Nearest Goat X/Q and D/Q Factors for Ground Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	3.00E-07	3.00E-07	2.40E-07	1.40E-09
NNW	1.70E-07	1.70E-07	1.40E-07	6.20E-10

**Insert Table 2.3-xxx Nearest Goat X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	7.70E-08	7.70E-08	7.00E-08	8.10E-10
NNW	4.70E-08	4.60E-08	4.20E-08	3.30E-10

**Insert Table 2.3-xxx Nearest Goat X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	6.90E-08	6.90E-08	6.10E-08	7.70E-10
NNW	4.20E-08	4.20E-08	3.70E-08	3.20E-10

**Insert Table 2.3-xxx Nearest Meat Cow X/Q and D/Q Factors for Ground Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	1.60E-07	1.60E-07	1.20E-07	5.30E-10
NNW	1.80E-07	1.80E-07	1.40E-07	6.40E-10

**Insert Table 2.3-xxx Nearest Meat Cow X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.80E-08	4.80E-08	4.30E-08	2.70E-10
NNW	4.80E-08	4.70E-08	4.30E-08	3.40E-10

**Insert Table 2.3-xxx Nearest Meat Cow X/Q and D/Q Factors for Mixed-Mode Release from the Turbine Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.30E-08	4.30E-08	3.80E-08	2.70E-10
NNW	4.30E-08	4.20E-08	3.80E-08	3.30E-10

**Insert Table 2.3-xxx Nearest Milk Cow X/Q and D/Q Factors for Ground Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	3.40E-07	3.30E-07	2.80E-07	1.60E-09
NW	1.30E-07	1.30E-07	1.00E-07	5.20E-10

**Insert Table 2.3-xxx Nearest Milk Cow X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	8.40E-08	8.40E-08	7.70E-08	9.10E-10
NW	3.90E-08	3.90E-08	3.50E-08	3.20E-10

**Insert Table 2.3-xxx Nearest Milk Cow X/Q and D/Q Factors for Mixed-Mode Release from the Turbine Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	7.60E-08	7.50E-08	6.80E-08	8.70E-10
NW	3.50E-08	3.50E-08	3.10E-08	3.10E-10

Insert Table 2.3-xxx Annual Average X/Q Values (no Decay, Undepleted) for Ground Level Release (Sheet 1 of 3)  
 (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	4.021E-05	1.175E-05	5.764E-06	2.745E-06	1.028E-06	5.364E-07	3.321E-07	2.280E-07	1.677E-07	1.295E-07	1.037E-07
NNE	6.006E-05	1.753E-05	8.587E-06	4.091E-06	1.535E-06	8.031E-07	4.984E-07	3.429E-07	2.527E-07	1.954E-07	1.568E-07
NE	8.615E-05	2.517E-05	1.225E-05	5.855E-06	2.217E-06	1.171E-06	7.330E-07	5.081E-07	3.768E-07	2.932E-07	2.365E-07
ENE	9.240E-05	2.698E-05	1.312E-05	6.270E-06	2.378E-06	1.257E-06	7.879E-07	5.466E-07	4.058E-07	3.160E-07	2.550E-07
E	9.619E-05	2.802E-05	1.359E-05	6.498E-06	2.467E-06	1.306E-06	8.192E-07	5.689E-07	4.227E-07	3.294E-07	2.660E-07
ESE	9.470E-05	2.751E-05	1.330E-05	6.365E-06	2.420E-06	1.284E-06	8.065E-07	5.609E-07	4.172E-07	3.255E-07	2.631E-07
SE	7.865E-05	2.288E-05	1.108E-05	5.299E-06	2.014E-06	1.067E-06	6.699E-07	4.656E-07	3.462E-07	2.699E-07	2.181E-07
SSE	7.415E-05	2.158E-05	1.044E-05	4.999E-06	1.902E-06	1.009E-06	6.339E-07	4.409E-07	3.280E-07	2.559E-07	2.069E-07
S	5.040E-05	1.469E-05	7.117E-06	3.407E-06	1.297E-06	6.879E-07	4.322E-07	3.006E-07	2.236E-07	1.745E-07	1.410E-07
SSW	2.980E-05	8.719E-06	4.249E-06	2.030E-06	7.686E-07	4.059E-07	2.540E-07	1.760E-07	1.305E-07	1.016E-07	8.188E-08
SW	2.008E-05	5.786E-06	2.832E-06	1.344E-06	4.978E-07	2.570E-07	1.576E-07	1.073E-07	7.830E-08	6.005E-08	4.779E-08
WSW	1.497E-05	4.322E-06	2.112E-06	1.003E-06	3.728E-07	1.932E-07	1.188E-07	8.113E-08	5.936E-08	4.564E-08	3.640E-08
W	1.858E-05	5.364E-06	2.619E-06	1.245E-06	4.642E-07	2.415E-07	1.491E-07	1.021E-07	7.493E-08	5.776E-08	4.618E-08
WNW	2.835E-05	8.196E-06	3.995E-06	1.901E-06	7.111E-07	3.711E-07	2.298E-07	1.578E-07	1.161E-07	8.969E-08	7.186E-08
NW	3.307E-05	9.562E-06	4.656E-06	2.216E-06	8.295E-07	4.331E-07	2.684E-07	1.844E-07	1.357E-07	1.049E-07	8.405E-08
NNW	3.047E-05	8.888E-06	4.350E-06	2.074E-06	7.779E-07	4.067E-07	2.522E-07	1.734E-07	1.276E-07	9.867E-08	7.909E-08

Insert Table 2.3-xxx Annual Average X/Q Values (no Decay, Undepleted) for Ground Level Release (Sheet 2 of 3)  
 (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	8.544E-08	4.325E-08	2.779E-08	1.579E-08	1.064E-08	7.853E-09	6.137E-09	4.987E-09	4.170E-09	3.563E-09	3.097E-09
NNE	1.293E-07	6.584E-08	4.248E-08	2.429E-08	1.644E-08	1.218E-08	9.542E-09	7.773E-09	6.513E-09	5.576E-09	4.854E-09
NE	1.960E-07	1.017E-07	6.658E-08	3.882E-08	2.663E-08	1.993E-08	1.575E-08	1.292E-08	1.089E-08	9.375E-09	8.200E-09
ENE	2.115E-07	1.100E-07	7.212E-08	4.216E-08	2.897E-08	2.171E-08	1.718E-08	1.411E-08	1.190E-08	1.025E-08	8.973E-09
E	2.208E-07	1.152E-07	7.566E-08	4.437E-08	3.056E-08	2.295E-08	1.818E-08	1.495E-08	1.263E-08	1.089E-08	9.542E-09
ESE	2.186E-07	1.145E-07	7.544E-08	4.443E-08	3.070E-08	2.311E-08	1.835E-08	1.512E-08	1.279E-08	1.104E-08	9.686E-09
SE	1.811E-07	9.470E-08	6.231E-08	3.663E-08	2.527E-08	1.900E-08	1.507E-08	1.241E-08	1.049E-08	9.051E-09	7.935E-09
SSE	1.719E-07	8.999E-08	5.928E-08	3.489E-08	2.410E-08	1.813E-08	1.439E-08	1.185E-08	1.003E-08	8.655E-09	7.591E-09
S	1.172E-07	6.129E-08	4.035E-08	2.373E-08	1.637E-08	1.231E-08	9.763E-09	8.036E-09	6.794E-09	5.862E-09	5.139E-09
SSW	6.787E-08	3.520E-08	2.302E-08	1.341E-08	9.193E-09	6.877E-09	5.433E-09	4.455E-09	3.755E-09	3.231E-09	2.825E-09
SW	3.915E-08	1.941E-08	1.228E-08	6.823E-09	4.531E-09	3.307E-09	2.561E-09	2.065E-09	1.715E-09	1.457E-09	1.260E-09
WSW	2.989E-08	1.493E-08	9.506E-09	5.335E-09	3.569E-09	2.620E-09	2.039E-09	1.651E-09	1.376E-09	1.173E-09	1.017E-09
W	3.799E-08	1.915E-08	1.227E-08	6.948E-09	4.678E-09	3.451E-09	2.697E-09	2.191E-09	1.832E-09	1.566E-09	1.361E-09
WNW	5.923E-08	3.006E-08	1.937E-08	1.106E-08	7.487E-09	5.549E-09	4.351E-09	3.547E-09	2.974E-09	2.548E-09	2.220E-09
NW	6.930E-08	3.522E-08	2.271E-08	1.299E-08	8.807E-09	6.534E-09	5.128E-09	4.184E-09	3.510E-09	3.009E-09	2.622E-09
NNW	6.520E-08	3.310E-08	2.132E-08	1.216E-08	8.217E-09	6.079E-09	4.760E-09	3.875E-09	3.245E-09	2.777E-09	2.416E-09

Insert Table 2.3-xxx Annual Average X/Q Values (no Decay, Undepleted) for Ground Level Release (Sheet 3 of 3)  
 (Based on 1985-1989 met data)

X/Q (sec/m<sup>3</sup>) for Each Segment

Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.752E-06	1.191E-06	3.449E-07	1.704E-07	1.046E-07	4.575E-08	1.617E-08	7.910E-09	5.004E-09	3.570E-09
NNE	8.576E-06	1.778E-06	5.175E-07	2.567E-07	1.581E-07	6.957E-08	2.484E-08	1.226E-08	7.799E-09	5.586E-09
NE	1.228E-05	2.561E-06	7.599E-07	3.825E-07	2.383E-07	1.071E-07	3.957E-08	2.004E-08	1.296E-08	9.390E-09
ENE	1.315E-05	2.745E-06	8.166E-07	4.118E-07	2.569E-07	1.157E-07	4.295E-08	2.183E-08	1.414E-08	1.027E-08
E	1.364E-05	2.847E-06	8.489E-07	4.289E-07	2.680E-07	1.211E-07	4.519E-08	2.307E-08	1.499E-08	1.091E-08
ESE	1.338E-05	2.792E-06	8.355E-07	4.233E-07	2.651E-07	1.203E-07	4.522E-08	2.323E-08	1.515E-08	1.106E-08
SE	1.113E-05	2.323E-06	6.941E-07	3.513E-07	2.198E-07	9.951E-08	3.729E-08	1.910E-08	1.244E-08	9.064E-09
SSE	1.050E-05	2.193E-06	6.567E-07	3.328E-07	2.085E-07	9.454E-08	3.551E-08	1.823E-08	1.188E-08	8.668E-09
S	7.150E-06	1.495E-06	4.478E-07	2.269E-07	1.421E-07	6.440E-08	2.415E-08	1.237E-08	8.057E-09	5.870E-09
SSW	4.256E-06	8.877E-07	2.633E-07	1.325E-07	8.252E-08	3.704E-08	1.367E-08	6.917E-09	4.468E-09	3.236E-09
SW	2.827E-06	5.788E-07	1.640E-07	7.963E-08	4.823E-08	2.063E-08	7.016E-09	3.335E-09	2.073E-09	1.460E-09
WSW	2.110E-06	4.331E-07	1.236E-07	6.035E-08	3.673E-08	1.584E-08	5.477E-09	2.640E-09	1.657E-09	1.175E-09
W	2.618E-06	5.386E-07	1.549E-07	7.615E-08	4.658E-08	2.028E-08	7.121E-09	3.477E-09	2.199E-09	1.569E-09
WNW	3.998E-06	8.243E-07	2.387E-07	1.180E-07	7.246E-08	3.179E-08	1.132E-08	5.587E-09	3.559E-09	2.553E-09
NW	4.662E-06	9.615E-07	2.787E-07	1.379E-07	8.476E-08	3.724E-08	1.329E-08	6.578E-09	4.197E-09	3.014E-09
NNW	4.347E-06	9.010E-07	2.619E-07	1.297E-07	7.975E-08	3.500E-08	1.244E-08	6.122E-09	3.888E-09	2.782E-09

Insert Table 2.3-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Ground Level Release (Sheet 1 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	4.017E-05	1.172E-05	5.746E-06	2.734E-06	1.021E-06	5.319E-07	3.286E-07	2.252E-07	1.652E-07	1.273E-07	1.018E-07
NNE	6.000E-05	1.750E-05	8.564E-06	4.076E-06	1.527E-06	7.974E-07	4.940E-07	3.393E-07	2.495E-07	1.927E-07	1.543E-07
NE	8.607E-05	2.513E-05	1.222E-05	5.833E-06	2.205E-06	1.163E-06	7.263E-07	5.025E-07	3.721E-07	2.890E-07	2.326E-07
ENE	9.231E-05	2.692E-05	1.308E-05	6.246E-06	2.364E-06	1.248E-06	7.803E-07	5.403E-07	4.003E-07	3.111E-07	2.505E-07
E	9.608E-05	2.796E-05	1.354E-05	6.468E-06	2.450E-06	1.294E-06	8.097E-07	5.610E-07	4.158E-07	3.233E-07	2.605E-07
ESE	9.460E-05	2.745E-05	1.326E-05	6.337E-06	2.405E-06	1.272E-06	7.976E-07	5.535E-07	4.108E-07	3.198E-07	2.579E-07
SE	7.855E-05	2.282E-05	1.104E-05	5.274E-06	1.999E-06	1.057E-06	6.618E-07	4.589E-07	3.403E-07	2.647E-07	2.134E-07
SSE	7.407E-05	2.153E-05	1.041E-05	4.976E-06	1.889E-06	9.999E-07	6.268E-07	4.350E-07	3.229E-07	2.513E-07	2.027E-07
S	5.034E-05	1.465E-05	7.093E-06	3.391E-06	1.288E-06	6.817E-07	4.273E-07	2.965E-07	2.201E-07	1.713E-07	1.382E-07
SSW	2.977E-05	8.700E-06	4.235E-06	2.021E-06	7.636E-07	4.024E-07	2.512E-07	1.737E-07	1.285E-07	9.979E-08	8.028E-08
SW	2.006E-05	5.776E-06	2.825E-06	1.340E-06	4.953E-07	2.553E-07	1.563E-07	1.062E-07	7.738E-08	5.924E-08	4.706E-08
WSW	1.496E-05	4.314E-06	2.107E-06	1.000E-06	3.709E-07	1.918E-07	1.178E-07	8.029E-08	5.864E-08	4.500E-08	3.583E-08
W	1.856E-05	5.354E-06	2.611E-06	1.240E-06	4.616E-07	2.396E-07	1.477E-07	1.009E-07	7.393E-08	5.687E-08	4.538E-08
WNW	2.832E-05	8.181E-06	3.983E-06	1.893E-06	7.071E-07	3.683E-07	2.276E-07	1.560E-07	1.146E-07	8.834E-08	7.064E-08
NW	3.304E-05	9.546E-06	4.644E-06	2.209E-06	8.253E-07	4.302E-07	2.661E-07	1.825E-07	1.341E-07	1.034E-07	8.276E-08
NNW	3.044E-05	8.871E-06	4.337E-06	2.066E-06	7.733E-07	4.035E-07	2.497E-07	1.713E-07	1.259E-07	9.709E-08	7.767E-08

Insert Table 2.3-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Ground Level Release (Sheet 2 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	8.365E-08	4.190E-08	2.664E-08	1.483E-08	9.793E-09	7.088E-09	5.434E-09	4.334E-09	3.558E-09	2.986E-09	2.550E-09
NNE	1.270E-07	6.410E-08	4.100E-08	2.303E-08	1.532E-08	1.115E-08	8.596E-09	6.886E-09	5.676E-09	4.780E-09	4.095E-09
NE	1.925E-07	9.899E-08	6.420E-08	3.677E-08	2.478E-08	1.823E-08	1.416E-08	1.142E-08	9.470E-09	8.017E-09	6.899E-09
ENE	2.074E-07	1.068E-07	6.936E-08	3.977E-08	2.681E-08	1.971E-08	1.531E-08	1.234E-08	1.022E-08	8.646E-09	7.433E-09
E	2.157E-07	1.112E-07	7.223E-08	4.140E-08	2.789E-08	2.048E-08	1.589E-08	1.279E-08	1.058E-08	8.935E-09	7.671E-09
ESE	2.138E-07	1.108E-07	7.219E-08	4.161E-08	2.815E-08	2.075E-08	1.614E-08	1.303E-08	1.081E-08	9.147E-09	7.869E-09
SE	1.768E-07	9.130E-08	5.936E-08	3.407E-08	2.297E-08	1.688E-08	1.309E-08	1.054E-08	8.724E-09	7.369E-09	6.327E-09
SSE	1.680E-07	8.698E-08	5.665E-08	3.261E-08	2.202E-08	1.621E-08	1.260E-08	1.016E-08	8.411E-09	7.111E-09	6.109E-09
S	1.145E-07	5.923E-08	3.855E-08	2.217E-08	1.497E-08	1.101E-08	8.557E-09	6.900E-09	5.717E-09	4.836E-09	4.158E-09
SSW	6.639E-08	3.405E-08	2.203E-08	1.256E-08	8.423E-09	6.168E-09	4.772E-09	3.834E-09	3.166E-09	2.670E-09	2.290E-09
SW	3.849E-08	1.890E-08	1.185E-08	6.471E-09	4.223E-09	3.029E-09	2.306E-09	1.829E-09	1.494E-09	1.249E-09	1.063E-09
WSW	2.936E-08	1.454E-08	9.169E-09	5.052E-09	3.318E-09	2.392E-09	1.828E-09	1.455E-09	1.192E-09	9.985E-10	8.514E-10
W	3.726E-08	1.859E-08	1.179E-08	6.549E-09	4.325E-09	3.132E-09	2.402E-09	1.918E-09	1.576E-09	1.324E-09	1.132E-09
WNW	5.811E-08	2.922E-08	1.864E-08	1.045E-08	6.947E-09	5.058E-09	3.898E-09	3.124E-09	2.576E-09	2.171E-09	1.861E-09
NW	6.811E-08	3.432E-08	2.194E-08	1.233E-08	8.220E-09	5.997E-09	4.630E-09	3.717E-09	3.070E-09	2.590E-09	2.223E-09
NNW	6.390E-08	3.212E-08	2.048E-08	1.145E-08	7.589E-09	5.509E-09	4.234E-09	3.385E-09	2.785E-09	2.342E-09	2.003E-09

Insert Table 2.3-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Ground Level Release (Sheet 3 of 3) (Based on 1985-1989 met data)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.735E-06	1.184E-06	3.414E-07	1.679E-07	1.026E-07	4.440E-08	1.522E-08	7.147E-09	4.352E-09	2.994E-09
NNE	8.555E-06	1.769E-06	5.130E-07	2.535E-07	1.556E-07	6.782E-08	2.360E-08	1.124E-08	6.914E-09	4.792E-09
NE	1.225E-05	2.548E-06	7.531E-07	3.777E-07	2.344E-07	1.043E-07	3.754E-08	1.835E-08	1.146E-08	8.033E-09
ENE	1.312E-05	2.730E-06	8.089E-07	4.063E-07	2.525E-07	1.125E-07	4.058E-08	1.984E-08	1.238E-08	8.664E-09
E	1.360E-05	2.829E-06	8.394E-07	4.221E-07	2.625E-07	1.171E-07	4.224E-08	2.062E-08	1.283E-08	8.954E-09
ESE	1.334E-05	2.775E-06	8.266E-07	4.169E-07	2.599E-07	1.165E-07	4.242E-08	2.088E-08	1.307E-08	9.165E-09
SE	1.110E-05	2.308E-06	6.860E-07	3.454E-07	2.150E-07	9.610E-08	3.476E-08	1.699E-08	1.058E-08	7.385E-09
SSE	1.047E-05	2.180E-06	6.496E-07	3.276E-07	2.043E-07	9.151E-08	3.325E-08	1.632E-08	1.019E-08	7.125E-09
S	7.128E-06	1.486E-06	4.428E-07	2.234E-07	1.392E-07	6.232E-08	2.261E-08	1.109E-08	6.923E-09	4.846E-09
SSW	4.243E-06	8.825E-07	2.605E-07	1.305E-07	8.091E-08	3.589E-08	1.282E-08	6.211E-09	3.848E-09	2.676E-09
SW	2.821E-06	5.763E-07	1.627E-07	7.870E-08	4.749E-08	2.012E-08	6.667E-09	3.058E-09	1.838E-09	1.253E-09
WSW	2.106E-06	4.311E-07	1.225E-07	5.963E-08	3.615E-08	1.545E-08	5.196E-09	2.413E-09	1.461E-09	1.001E-09
W	2.611E-06	5.359E-07	1.535E-07	7.515E-08	4.578E-08	1.972E-08	6.726E-09	3.158E-09	1.926E-09	1.328E-09
WNW	3.987E-06	8.201E-07	2.365E-07	1.164E-07	7.125E-08	3.094E-08	1.071E-08	5.097E-09	3.136E-09	2.176E-09
NW	4.651E-06	9.571E-07	2.764E-07	1.362E-07	8.346E-08	3.633E-08	1.264E-08	6.043E-09	3.731E-09	2.597E-09
NNW	4.335E-06	8.962E-07	2.593E-07	1.279E-07	7.832E-08	3.401E-08	1.174E-08	5.554E-09	3.399E-09	2.348E-09

Insert Table 2.3-xxx    Annual Average X/Q Values (8.0 Day Decay, Undepleted) for Ground Level Release (Sheet 1 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	3.805E-05	1.072E-05	5.132E-06	2.400E-06	8.712E-07	4.431E-07	2.682E-07	1.805E-07	1.303E-07	9.894E-08	7.799E-08
NNE	5.682E-05	1.600E-05	7.646E-06	3.577E-06	1.302E-06	6.637E-07	4.027E-07	2.716E-07	1.965E-07	1.494E-07	1.180E-07
NE	8.151E-05	2.298E-05	1.091E-05	5.119E-06	1.880E-06	9.677E-07	5.922E-07	4.023E-07	2.930E-07	2.242E-07	1.780E-07
ENE	8.742E-05	2.462E-05	1.168E-05	5.482E-06	2.016E-06	1.039E-06	6.364E-07	4.328E-07	3.154E-07	2.415E-07	1.918E-07
E	9.100E-05	2.557E-05	1.210E-05	5.681E-06	2.091E-06	1.079E-06	6.614E-07	4.501E-07	3.283E-07	2.515E-07	1.999E-07
ESE	8.960E-05	2.511E-05	1.185E-05	5.565E-06	2.052E-06	1.060E-06	6.512E-07	4.438E-07	3.241E-07	2.486E-07	1.978E-07
SE	7.441E-05	2.088E-05	9.863E-06	4.632E-06	1.707E-06	8.812E-07	5.408E-07	3.683E-07	2.688E-07	2.061E-07	1.639E-07
SSE	7.016E-05	1.969E-05	9.299E-06	4.370E-06	1.612E-06	8.333E-07	5.119E-07	3.489E-07	2.548E-07	1.955E-07	1.555E-07
S	4.768E-05	1.340E-05	6.336E-06	2.978E-06	1.099E-06	5.682E-07	3.490E-07	2.379E-07	1.737E-07	1.332E-07	1.060E-07
SSW	2.819E-05	7.957E-06	3.783E-06	1.775E-06	6.516E-07	3.353E-07	2.051E-07	1.393E-07	1.014E-07	7.757E-08	6.156E-08
SW	1.900E-05	5.281E-06	2.522E-06	1.175E-06	4.222E-07	2.124E-07	1.274E-07	8.498E-08	6.089E-08	4.592E-08	3.597E-08
WSW	1.417E-05	3.945E-06	1.881E-06	8.775E-07	3.162E-07	1.596E-07	9.602E-08	6.425E-08	4.616E-08	3.490E-08	2.740E-08
W	1.758E-05	4.896E-06	2.332E-06	1.088E-06	3.936E-07	1.995E-07	1.204E-07	8.084E-08	5.824E-08	4.414E-08	3.474E-08
WNW	2.682E-05	7.481E-06	3.557E-06	1.662E-06	6.029E-07	3.066E-07	1.856E-07	1.249E-07	9.025E-08	6.856E-08	5.407E-08
NW	3.129E-05	8.728E-06	4.146E-06	1.938E-06	7.035E-07	3.580E-07	2.169E-07	1.460E-07	1.055E-07	8.019E-08	6.327E-08
NNW	2.883E-05	8.112E-06	3.873E-06	1.814E-06	6.595E-07	3.360E-07	2.037E-07	1.372E-07	9.920E-08	7.539E-08	5.949E-08

Insert Table 2.3-xxx    Annual Average X/Q Values (8.0 Day Decay, Undepleted) for Ground Level Release (Sheet 2 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	6.330E-08	3.021E-08	1.844E-08	9.640E-09	6.063E-09	4.214E-09	3.120E-09	2.413E-09	1.926E-09	1.575E-09	1.313E-09
NNE	9.591E-08	4.606E-08	2.825E-08	1.487E-08	9.406E-09	6.567E-09	4.881E-09	3.787E-09	3.032E-09	2.487E-09	2.079E-09
NE	1.454E-07	7.116E-08	4.427E-08	2.377E-08	1.523E-08	1.074E-08	8.052E-09	6.291E-09	5.068E-09	4.179E-09	3.509E-09
ENE	1.568E-07	7.691E-08	4.791E-08	2.578E-08	1.654E-08	1.168E-08	8.760E-09	6.849E-09	5.520E-09	4.553E-09	3.825E-09
E	1.635E-07	8.039E-08	5.016E-08	2.704E-08	1.738E-08	1.228E-08	9.215E-09	7.206E-09	5.809E-09	4.791E-09	4.025E-09
ESE	1.619E-07	7.996E-08	5.005E-08	2.711E-08	1.748E-08	1.239E-08	9.320E-09	7.305E-09	5.899E-09	4.875E-09	4.102E-09
SE	1.341E-07	6.606E-08	4.128E-08	2.230E-08	1.435E-08	1.015E-08	7.624E-09	5.966E-09	4.812E-09	3.971E-09	3.337E-09
SSE	1.273E-07	6.283E-08	3.931E-08	2.128E-08	1.371E-08	9.711E-09	7.300E-09	5.718E-09	4.616E-09	3.812E-09	3.206E-09
S	8.676E-08	4.279E-08	2.675E-08	1.447E-08	9.312E-09	6.590E-09	4.951E-09	3.876E-09	3.127E-09	2.581E-09	2.170E-09
SSW	5.027E-08	2.458E-08	1.527E-08	8.182E-09	5.234E-09	3.686E-09	2.757E-09	2.151E-09	1.730E-09	1.424E-09	1.195E-09
SW	2.904E-08	1.358E-08	8.164E-09	4.178E-09	2.592E-09	1.783E-09	1.308E-09	1.005E-09	7.972E-10	6.486E-10	5.383E-10
WSW	2.216E-08	1.045E-08	6.320E-09	3.265E-09	2.040E-09	1.411E-09	1.041E-09	8.025E-10	6.390E-10	5.215E-10	4.340E-10
W	2.816E-08	1.338E-08	8.147E-09	4.246E-09	2.669E-09	1.854E-09	1.373E-09	1.062E-09	8.476E-10	6.935E-10	5.783E-10
WNW	4.391E-08	2.102E-08	1.287E-08	6.763E-09	4.277E-09	2.987E-09	2.220E-09	1.723E-09	1.380E-09	1.133E-09	9.471E-10
NW	5.140E-08	2.465E-08	1.511E-08	7.957E-09	5.041E-09	3.525E-09	2.624E-09	2.039E-09	1.635E-09	1.342E-09	1.123E-09
NNW	4.832E-08	2.314E-08	1.416E-08	7.431E-09	4.688E-09	3.267E-09	2.424E-09	1.878E-09	1.502E-09	1.230E-09	1.027E-09

Insert Table 2.3-xxx    Annual Average X/Q Values (8.0 Day Decay, Undepleted) for Ground Level Release (Sheet 3 of 3) (Based on 1985-1989 met data)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Segment Boundaries in Miles from the Site										
Sector	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.160E-06	1.021E-06	2.798E-07	1.327E-07	7.876E-08	3.233E-08	1.001E-08	4.270E-09	2.429E-09	1.582E-09
NNE	7.695E-06	1.524E-06	4.198E-07	2.000E-07	1.191E-07	4.922E-08	1.542E-08	6.650E-09	3.812E-09	2.497E-09
NE	1.102E-05	2.194E-06	6.164E-07	2.980E-07	1.796E-07	7.570E-08	2.453E-08	1.086E-08	6.328E-09	4.194E-09
ENE	1.180E-05	2.352E-06	6.623E-07	3.208E-07	1.936E-07	8.177E-08	2.659E-08	1.181E-08	6.889E-09	4.570E-09
E	1.224E-05	2.439E-06	6.881E-07	3.338E-07	2.017E-07	8.542E-08	2.788E-08	1.241E-08	7.248E-09	4.809E-09
ESE	1.200E-05	2.392E-06	6.774E-07	3.296E-07	1.996E-07	8.488E-08	2.793E-08	1.252E-08	7.345E-09	4.892E-09
SE	9.986E-06	1.990E-06	5.626E-07	2.733E-07	1.653E-07	7.016E-08	2.299E-08	1.026E-08	6.000E-09	3.985E-09
SSE	9.417E-06	1.879E-06	5.324E-07	2.591E-07	1.569E-07	6.670E-08	2.192E-08	9.813E-09	5.750E-09	3.826E-09
S	6.414E-06	1.281E-06	3.630E-07	1.766E-07	1.070E-07	4.543E-08	1.491E-08	6.660E-09	3.898E-09	2.591E-09
SSW	3.818E-06	7.606E-07	2.135E-07	1.032E-07	6.212E-08	2.615E-08	8.447E-09	3.727E-09	2.164E-09	1.430E-09
SW	2.537E-06	4.963E-07	1.331E-07	6.207E-08	3.635E-08	1.461E-08	4.359E-09	1.809E-09	1.012E-09	6.518E-10
WSW	1.894E-06	3.713E-07	1.003E-07	4.704E-08	2.768E-08	1.122E-08	3.400E-09	1.431E-09	8.083E-10	5.239E-10
W	2.349E-06	4.617E-07	1.257E-07	5.933E-08	3.509E-08	1.434E-08	4.412E-09	1.879E-09	1.069E-09	6.965E-10
WNW	3.587E-06	7.065E-07	1.936E-07	9.190E-08	5.460E-08	2.248E-08	7.015E-09	3.024E-09	1.735E-09	1.137E-09
NW	4.183E-06	8.242E-07	2.262E-07	1.074E-07	6.389E-08	2.635E-08	8.250E-09	3.569E-09	2.052E-09	1.348E-09
NNW	3.900E-06	7.722E-07	2.124E-07	1.010E-07	6.007E-08	2.474E-08	7.707E-09	3.308E-09	1.891E-09	1.236E-09

Insert Table 2.3-xxx Annual Average D/Q Values for Ground Level Release (Sheet 1 of 3) (Based on 1985-1989 met data)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors											
Sector	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	1.437E-07	4.859E-08	2.495E-08	1.186E-08	4.261E-09	2.113E-09	1.244E-09	8.146E-10	5.732E-10	4.248E-10	3.274E-10
NNE	2.233E-07	7.550E-08	3.877E-08	1.843E-08	6.620E-09	3.283E-09	1.933E-09	1.266E-09	8.907E-10	6.601E-10	5.087E-10
NE	2.287E-07	7.732E-08	3.970E-08	1.887E-08	6.779E-09	3.362E-09	1.980E-09	1.296E-09	9.121E-10	6.760E-10	5.209E-10
ENE	2.089E-07	7.064E-08	3.627E-08	1.724E-08	6.194E-09	3.072E-09	1.809E-09	1.184E-09	8.333E-10	6.175E-10	4.759E-10
E	1.918E-07	6.487E-08	3.331E-08	1.584E-08	5.688E-09	2.821E-09	1.661E-09	1.088E-09	7.653E-10	5.672E-10	4.371E-10
ESE	1.839E-07	6.218E-08	3.192E-08	1.518E-08	5.452E-09	2.704E-09	1.592E-09	1.042E-09	7.335E-10	5.436E-10	4.189E-10
SE	1.554E-07	5.256E-08	2.698E-08	1.283E-08	4.608E-09	2.285E-09	1.346E-09	8.811E-10	6.200E-10	4.595E-10	3.541E-10
SSE	1.428E-07	4.828E-08	2.479E-08	1.178E-08	4.233E-09	2.099E-09	1.236E-09	8.094E-10	5.695E-10	4.221E-10	3.253E-10
S	1.002E-07	3.387E-08	1.739E-08	8.267E-09	2.970E-09	1.473E-09	8.672E-10	5.678E-10	3.995E-10	2.961E-10	2.282E-10
SSW	7.383E-08	2.497E-08	1.282E-08	6.094E-09	2.189E-09	1.086E-09	6.392E-10	4.185E-10	2.945E-10	2.183E-10	1.682E-10
SW	1.228E-07	4.152E-08	2.132E-08	1.014E-08	3.641E-09	1.806E-09	1.063E-09	6.961E-10	4.898E-10	3.630E-10	2.797E-10
WSW	8.181E-08	2.766E-08	1.420E-08	6.753E-09	2.426E-09	1.203E-09	7.083E-10	4.638E-10	3.263E-10	2.419E-10	1.864E-10
W	9.348E-08	3.161E-08	1.623E-08	7.716E-09	2.772E-09	1.375E-09	8.093E-10	5.300E-10	3.729E-10	2.764E-10	2.130E-10
WNW	1.214E-07	4.106E-08	2.108E-08	1.002E-08	3.601E-09	1.786E-09	1.051E-09	6.884E-10	4.844E-10	3.590E-10	2.767E-10
NW	1.354E-07	4.578E-08	2.351E-08	1.118E-08	4.014E-09	1.991E-09	1.172E-09	7.675E-10	5.401E-10	4.002E-10	3.084E-10
NNW	1.087E-07	3.677E-08	1.888E-08	8.975E-09	3.224E-09	1.599E-09	9.414E-10	6.164E-10	4.338E-10	3.215E-10	2.477E-10

Insert Table 2.3-xxx Annual Average D/Q Values for Ground Level Release (Sheet 2 of 3) (Based on 1985-1989 met data)

Relative Deposition per Unit Area ( $m^{-2}$ ) at Fixed Points by Downwind Sectors												
Sector	Distance in Miles from the Site											
	5	7.5	10	15	20	25	30	35	40	45	50	
N	2.601E-10	1.155E-10	6.998E-11	3.537E-11	2.141E-11	1.435E-11	1.029E-11	7.724E-12	6.005E-12	4.797E-12	3.916E-12	
NNE	4.041E-10	1.795E-10	1.087E-10	5.496E-11	3.327E-11	2.230E-11	1.598E-11	1.200E-11	9.331E-12	7.454E-12	6.084E-12	
NE	4.138E-10	1.838E-10	1.114E-10	5.629E-11	3.407E-11	2.284E-11	1.637E-11	1.229E-11	9.556E-12	7.633E-12	6.230E-12	
ENE	3.781E-10	1.680E-10	1.017E-10	5.142E-11	3.112E-11	2.087E-11	1.495E-11	1.123E-11	8.730E-12	6.974E-12	5.692E-12	
E	3.472E-10	1.542E-10	9.344E-11	4.723E-11	2.858E-11	1.917E-11	1.373E-11	1.031E-11	8.018E-12	6.405E-12	5.228E-12	
ESE	3.328E-10	1.478E-10	8.955E-11	4.526E-11	2.740E-11	1.837E-11	1.316E-11	9.883E-12	7.684E-12	6.138E-12	5.010E-12	
SE	2.813E-10	1.250E-10	7.570E-11	3.826E-11	2.316E-11	1.553E-11	1.113E-11	8.354E-12	6.495E-12	5.189E-12	4.235E-12	
SSE	2.584E-10	1.148E-10	6.953E-11	3.515E-11	2.127E-11	1.426E-11	1.022E-11	7.674E-12	5.967E-12	4.766E-12	3.890E-12	
S	1.813E-10	8.053E-11	4.878E-11	2.466E-11	1.492E-11	1.001E-11	7.169E-12	5.383E-12	4.186E-12	3.344E-12	2.729E-12	
SSW	1.336E-10	5.936E-11	3.596E-11	1.817E-11	1.100E-11	7.375E-12	5.285E-12	3.968E-12	3.085E-12	2.465E-12	2.012E-12	
SW	2.222E-10	9.873E-11	5.981E-11	3.023E-11	1.830E-11	1.227E-11	8.790E-12	6.600E-12	5.132E-12	4.099E-12	3.346E-12	
WSW	1.481E-10	6.578E-11	3.984E-11	2.014E-11	1.219E-11	8.173E-12	5.856E-12	4.397E-12	3.419E-12	2.731E-12	2.229E-12	
W	1.692E-10	7.516E-11	4.553E-11	2.301E-11	1.393E-11	9.338E-12	6.691E-12	5.025E-12	3.907E-12	3.121E-12	2.547E-12	
WNW	2.198E-10	9.764E-11	5.914E-11	2.989E-11	1.809E-11	1.213E-11	8.693E-12	6.527E-12	5.075E-12	4.054E-12	3.309E-12	
NW	2.450E-10	1.089E-10	6.594E-11	3.333E-11	2.017E-11	1.353E-11	9.691E-12	7.277E-12	5.658E-12	4.520E-12	3.689E-12	
NNW	1.968E-10	8.742E-11	5.296E-11	2.677E-11	1.620E-11	1.086E-11	7.783E-12	5.845E-12	4.544E-12	3.630E-12	2.963E-12	

Insert Table 2.3-xxx Annual Average D/Q Values for Ground Level Release (Sheet 3 of 3) (Based on 1985-1989 met data)

**Relative Deposition per Unit Area ( $m^2$ ) at Fixed Points by Downwind Sectors**

<b>Sector</b>	<b>Segment Boundaries in Miles from the Site</b>									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	2.439E-08	4.995E-09	1.304E-09	5.857E-10	3.313E-10	1.274E-10	3.686E-11	1.461E-11	7.801E-12	4.829E-12
NNE	3.789E-08	7.761E-09	2.026E-09	9.100E-10	5.148E-10	1.980E-10	5.727E-11	2.270E-11	1.212E-11	7.503E-12
NE	3.880E-08	7.948E-09	2.075E-09	9.319E-10	5.272E-10	2.027E-10	5.865E-11	2.325E-11	1.241E-11	7.683E-12
ENE	3.545E-08	7.261E-09	1.896E-09	8.514E-10	4.816E-10	1.852E-10	5.358E-11	2.124E-11	1.134E-11	7.019E-12
E	3.256E-08	6.669E-09	1.741E-09	7.819E-10	4.423E-10	1.701E-10	4.921E-11	1.950E-11	1.042E-11	6.447E-12
ESE	3.120E-08	6.391E-09	1.669E-09	7.494E-10	4.239E-10	1.630E-10	4.716E-11	1.869E-11	9.982E-12	6.178E-12
SE	2.638E-08	5.403E-09	1.410E-09	6.334E-10	3.583E-10	1.378E-10	3.987E-11	1.580E-11	8.438E-12	5.223E-12
SSE	2.423E-08	4.963E-09	1.296E-09	5.819E-10	3.292E-10	1.266E-10	3.662E-11	1.451E-11	7.751E-12	4.798E-12
S	1.700E-08	3.482E-09	9.089E-10	4.082E-10	2.309E-10	8.881E-11	2.569E-11	1.018E-11	5.438E-12	3.366E-12
SSW	1.253E-08	2.566E-09	6.700E-10	3.009E-10	1.702E-10	6.546E-11	1.894E-11	7.506E-12	4.008E-12	2.481E-12
SW	2.084E-08	4.269E-09	1.114E-09	5.005E-10	2.831E-10	1.089E-10	3.150E-11	1.248E-11	6.666E-12	4.126E-12
WSW	1.388E-08	2.844E-09	7.424E-10	3.334E-10	1.886E-10	7.254E-11	2.098E-11	8.317E-12	4.441E-12	2.749E-12
W	1.586E-08	3.250E-09	8.483E-10	3.810E-10	2.155E-10	8.289E-11	2.398E-11	9.504E-12	5.075E-12	3.141E-12
WNW	2.061E-08	4.221E-09	1.102E-09	4.949E-10	2.800E-10	1.077E-10	3.115E-11	1.235E-11	6.593E-12	4.081E-12
NW	2.298E-08	4.706E-09	1.229E-09	5.518E-10	3.122E-10	1.200E-10	3.473E-11	1.376E-11	7.350E-12	4.549E-12
NNW	1.845E-08	3.780E-09	9.867E-10	4.432E-10	2.507E-10	9.641E-11	2.789E-11	1.105E-11	5.903E-12	3.654E-12

Insert Table 2.3-xxx    Annual Average X/Q Values (no Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.181E-06	8.309E-07	5.494E-07	3.436E-07	1.817E-07	1.156E-07	8.120E-08	6.078E-08	4.761E-08	3.857E-08	3.224E-08
NNE	3.826E-06	1.402E-06	8.670E-07	5.074E-07	2.560E-07	1.608E-07	1.125E-07	8.426E-08	6.758E-08	5.596E-08	4.680E-08
NE	5.537E-06	1.893E-06	1.089E-06	5.947E-07	2.742E-07	1.665E-07	1.157E-07	8.693E-08	6.878E-08	5.643E-08	4.757E-08
ENE	4.315E-06	1.509E-06	8.787E-07	4.863E-07	2.308E-07	1.432E-07	1.010E-07	7.676E-08	6.125E-08	5.059E-08	4.287E-08
E	3.637E-06	1.284E-06	7.471E-07	4.131E-07	1.966E-07	1.228E-07	8.720E-08	6.671E-08	5.356E-08	4.450E-08	3.791E-08
ESE	3.687E-06	1.289E-06	7.375E-07	4.022E-07	1.882E-07	1.158E-07	8.131E-08	6.165E-08	4.917E-08	4.065E-08	3.450E-08
SE	3.068E-06	1.082E-06	6.246E-07	3.430E-07	1.617E-07	1.001E-07	7.049E-08	5.357E-08	4.280E-08	3.541E-08	3.007E-08
SSE	3.002E-06	1.038E-06	5.959E-07	3.271E-07	1.549E-07	9.586E-08	6.738E-08	5.104E-08	4.063E-08	3.351E-08	2.838E-08
S	2.535E-06	8.430E-07	4.731E-07	2.552E-07	1.180E-07	7.221E-08	5.049E-08	3.817E-08	3.038E-08	2.506E-08	2.124E-08
SSW	1.685E-06	5.886E-07	3.439E-07	1.908E-07	9.013E-08	5.559E-08	3.897E-08	2.944E-08	2.337E-08	1.921E-08	1.620E-08
SW	1.485E-06	6.187E-07	4.325E-07	2.710E-07	1.370E-07	8.347E-08	5.662E-08	4.123E-08	3.157E-08	2.510E-08	2.055E-08
WSW	1.095E-06	4.500E-07	3.107E-07	1.929E-07	9.623E-08	5.838E-08	3.956E-08	2.881E-08	2.209E-08	1.758E-08	1.456E-08
W	1.419E-06	5.546E-07	3.699E-07	2.275E-07	1.128E-07	6.845E-08	4.646E-08	3.391E-08	2.605E-08	2.078E-08	1.706E-08
WNW	1.957E-06	7.444E-07	4.875E-07	2.986E-07	1.487E-07	9.108E-08	6.237E-08	4.588E-08	3.549E-08	2.849E-08	2.353E-08
NW	2.141E-06	8.304E-07	5.508E-07	3.389E-07	1.696E-07	1.040E-07	7.118E-08	5.235E-08	4.048E-08	3.248E-08	2.693E-08
NNW	1.815E-06	6.758E-07	4.463E-07	2.772E-07	1.432E-07	8.973E-08	6.235E-08	4.635E-08	3.613E-08	2.918E-08	2.444E-08

Insert Table 2.3-xxx    Annual Average X/Q Values (no Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.752E-08	1.614E-08	1.135E-08	7.253E-09	5.258E-09	4.042E-09	3.201E-09	2.603E-09	2.175E-09	1.856E-09	1.612E-09
NNE	3.997E-08	2.253E-08	1.539E-08	9.406E-09	6.634E-09	5.060E-09	4.057E-09	3.368E-09	2.868E-09	2.490E-09	2.195E-09
NE	4.097E-08	2.458E-08	1.761E-08	1.152E-08	8.522E-09	6.745E-09	5.575E-09	4.749E-09	4.136E-09	3.663E-09	3.288E-09
ENE	3.709E-08	2.265E-08	1.641E-08	1.091E-08	8.171E-09	6.533E-09	5.448E-09	4.677E-09	4.102E-09	3.657E-09	3.301E-09
E	3.296E-08	2.019E-08	1.461E-08	9.626E-09	7.119E-09	5.613E-09	4.613E-09	3.903E-09	3.374E-09	2.966E-09	2.641E-09
ESE	2.992E-08	1.836E-08	1.338E-08	8.965E-09	6.741E-09	5.398E-09	4.499E-09	3.857E-09	3.376E-09	3.002E-09	2.704E-09
SE	2.608E-08	1.605E-08	1.172E-08	7.876E-09	5.944E-09	4.779E-09	4.002E-09	3.448E-09	3.032E-09	2.710E-09	2.452E-09
SSE	2.454E-08	1.561E-08	1.185E-08	8.679E-09	7.102E-09	6.124E-09	5.421E-09	4.860E-09	4.377E-09	3.943E-09	3.543E-09
S	1.838E-08	1.148E-08	8.534E-09	5.961E-09	4.665E-09	3.879E-09	3.347E-09	2.957E-09	2.655E-09	2.411E-09	2.205E-09
SSW	1.396E-08	8.444E-09	6.082E-09	4.016E-09	2.998E-09	2.394E-09	1.995E-09	1.712E-09	1.501E-09	1.337E-09	1.205E-09
SW	1.722E-08	9.213E-09	6.062E-09	3.516E-09	2.393E-09	1.775E-09	1.392E-09	1.134E-09	9.500E-10	8.129E-10	7.074E-10
WSW	1.233E-08	6.668E-09	4.436E-09	2.628E-09	1.824E-09	1.377E-09	1.096E-09	9.032E-10	7.633E-10	6.569E-10	5.729E-10
W	1.435E-08	8.097E-09	5.579E-09	3.499E-09	2.513E-09	1.908E-09	1.498E-09	1.217E-09	1.017E-09	8.681E-10	7.540E-10
WNW	1.988E-08	1.168E-08	8.323E-09	5.467E-09	3.973E-09	2.987E-09	2.343E-09	1.909E-09	1.600E-09	1.370E-09	1.192E-09
NW	2.285E-08	1.314E-08	9.218E-09	5.953E-09	4.387E-09	3.421E-09	2.736E-09	2.238E-09	1.877E-09	1.607E-09	1.400E-09
NNW	2.091E-08	1.238E-08	8.847E-09	5.815E-09	4.248E-09	3.216E-09	2.520E-09	2.049E-09	1.714E-09	1.465E-09	1.274E-09

Insert Table 2.3-xxx    Annual Average X/Q Values (no Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3) (Based on 1985-1989 met data)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.205E-07	1.883E-07	8.222E-08	4.793E-08	3.237E-08	1.654E-08	7.277E-09	4.030E-09	2.611E-09	1.860E-09
NNE	8.261E-07	2.695E-07	1.141E-07	6.792E-08	4.699E-08	2.323E-08	9.504E-09	5.078E-09	3.374E-09	2.493E-09
NE	1.048E-06	2.976E-07	1.177E-07	6.926E-08	4.775E-08	2.513E-08	1.154E-08	6.751E-09	4.752E-09	3.664E-09
ENE	8.444E-07	2.487E-07	1.026E-07	6.162E-08	4.302E-08	2.309E-08	1.092E-08	6.536E-09	4.678E-09	3.657E-09
E	7.181E-07	2.119E-07	8.849E-08	5.387E-08	3.803E-08	2.055E-08	9.619E-09	5.615E-09	3.904E-09	2.967E-09
ESE	7.112E-07	2.036E-07	8.266E-08	4.949E-08	3.463E-08	1.871E-08	8.957E-09	5.397E-09	3.857E-09	3.003E-09
SE	6.011E-07	1.746E-07	7.161E-08	4.306E-08	3.017E-08	1.635E-08	7.871E-09	4.779E-09	3.448E-09	2.710E-09
SSE	5.747E-07	1.669E-07	6.844E-08	4.089E-08	2.848E-08	1.592E-08	8.684E-09	6.104E-09	4.836E-09	3.924E-09
S	4.585E-07	1.282E-07	5.135E-08	3.058E-08	2.131E-08	1.170E-08	5.957E-09	3.876E-09	2.954E-09	2.407E-09
SSW	3.302E-07	9.716E-08	3.959E-08	2.352E-08	1.626E-08	8.620E-09	4.023E-09	2.395E-09	1.712E-09	1.336E-09
SW	4.021E-07	1.430E-07	5.762E-08	3.187E-08	2.066E-08	9.592E-09	3.582E-09	1.787E-09	1.138E-09	8.144E-10
WSW	2.893E-07	1.009E-07	4.028E-08	2.229E-08	1.463E-08	6.933E-09	2.672E-09	1.383E-09	9.049E-10	6.573E-10
W	3.476E-07	1.186E-07	4.730E-08	2.629E-08	1.716E-08	8.366E-09	3.523E-09	1.905E-09	1.221E-09	8.699E-10
WNW	4.606E-07	1.564E-07	6.343E-08	3.579E-08	2.365E-08	1.201E-08	5.438E-09	2.992E-09	1.915E-09	1.372E-09
NW	5.188E-07	1.781E-07	7.240E-08	4.082E-08	2.706E-08	1.356E-08	5.983E-09	3.405E-09	2.243E-09	1.610E-09
NNW	4.222E-07	1.492E-07	6.325E-08	3.640E-08	2.454E-08	1.270E-08	5.793E-09	3.213E-09	2.056E-09	1.468E-09

Insert Table 2.3-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.181E-06	8.302E-07	5.488E-07	3.431E-07	1.813E-07	1.153E-07	8.090E-08	6.050E-08	4.735E-08	3.833E-08	3.201E-08
NNE	3.824E-06	1.401E-06	8.660E-07	5.066E-07	2.555E-07	1.603E-07	1.121E-07	8.390E-08	6.724E-08	5.564E-08	4.649E-08
NE	5.535E-06	1.892E-06	1.088E-06	5.939E-07	2.736E-07	1.661E-07	1.153E-07	8.656E-08	6.844E-08	5.611E-08	4.726E-08
ENE	4.313E-06	1.508E-06	8.776E-07	4.855E-07	2.303E-07	1.428E-07	1.006E-07	7.641E-08	6.092E-08	5.028E-08	4.258E-08
E	3.636E-06	1.283E-06	7.461E-07	4.124E-07	1.962E-07	1.224E-07	8.685E-08	6.638E-08	5.326E-08	4.421E-08	3.763E-08
ESE	3.686E-06	1.288E-06	7.366E-07	4.015E-07	1.877E-07	1.155E-07	8.098E-08	6.135E-08	4.889E-08	4.038E-08	3.425E-08
SE	3.066E-06	1.081E-06	6.238E-07	3.425E-07	1.613E-07	9.973E-08	7.020E-08	5.331E-08	4.255E-08	3.518E-08	2.985E-08
SSE	3.000E-06	1.037E-06	5.951E-07	3.266E-07	1.545E-07	9.556E-08	6.711E-08	5.080E-08	4.041E-08	3.330E-08	2.817E-08
S	2.534E-06	8.423E-07	4.726E-07	2.548E-07	1.178E-07	7.199E-08	5.030E-08	3.800E-08	3.022E-08	2.491E-08	2.109E-08
SSW	1.684E-06	5.882E-07	3.435E-07	1.906E-07	8.994E-08	5.543E-08	3.883E-08	2.931E-08	2.325E-08	1.909E-08	1.610E-08
SW	1.484E-06	6.183E-07	4.321E-07	2.707E-07	1.367E-07	8.327E-08	5.645E-08	4.108E-08	3.144E-08	2.498E-08	2.043E-08
WSW	1.094E-06	4.497E-07	3.104E-07	1.927E-07	9.606E-08	5.824E-08	3.944E-08	2.871E-08	2.199E-08	1.749E-08	1.447E-08
W	1.418E-06	5.542E-07	3.695E-07	2.272E-07	1.126E-07	6.828E-08	4.631E-08	3.378E-08	2.593E-08	2.067E-08	1.696E-08
WNW	1.957E-06	7.438E-07	4.870E-07	2.982E-07	1.484E-07	9.083E-08	6.215E-08	4.569E-08	3.531E-08	2.832E-08	2.337E-08
NW	2.140E-06	8.298E-07	5.502E-07	3.385E-07	1.693E-07	1.037E-07	7.094E-08	5.213E-08	4.028E-08	3.230E-08	2.676E-08
NNW	1.814E-06	6.753E-07	4.458E-07	2.768E-07	1.429E-07	8.948E-08	6.213E-08	4.615E-08	3.595E-08	2.901E-08	2.428E-08

Insert Table 2.3-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3) (Based on 1985-1989 met data)

Annual Average X/Q (sec/m <sup>3</sup> )												
Sector	Distance in Miles from the Site											
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50	
N	2.729E-08	1.593E-08	1.115E-08	7.054E-09	5.061E-09	3.850E-09	3.018E-09	2.430E-09	2.011E-09	1.701E-09	1.463E-09	
NNE	3.968E-08	2.228E-08	1.516E-08	9.189E-09	6.428E-09	4.862E-09	3.867E-09	3.183E-09	2.689E-09	2.315E-09	2.025E-09	
NE	4.067E-08	2.431E-08	1.735E-08	1.126E-08	8.260E-09	6.485E-09	5.317E-09	4.493E-09	3.882E-09	3.410E-09	3.036E-09	
ENE	3.681E-08	2.238E-08	1.616E-08	1.066E-08	7.912E-09	6.273E-09	5.186E-09	4.415E-09	3.839E-09	3.393E-09	3.036E-09	
E	3.269E-08	1.993E-08	1.436E-08	9.372E-09	6.867E-09	5.364E-09	4.367E-09	3.660E-09	3.134E-09	2.729E-09	2.408E-09	
ESE	2.968E-08	1.813E-08	1.315E-08	8.729E-09	6.503E-09	5.158E-09	4.259E-09	3.617E-09	3.137E-09	2.763E-09	2.466E-09	
SE	2.586E-08	1.585E-08	1.151E-08	7.668E-09	5.732E-09	4.564E-09	3.785E-09	3.229E-09	2.812E-09	2.488E-09	2.229E-09	
SSE	2.435E-08	1.541E-08	1.166E-08	8.454E-09	6.851E-09	5.847E-09	5.122E-09	4.542E-09	4.047E-09	3.607E-09	3.206E-09	
S	1.824E-08	1.134E-08	8.397E-09	5.812E-09	4.507E-09	3.711E-09	3.171E-09	2.774E-09	2.465E-09	2.215E-09	2.005E-09	
SSW	1.386E-08	8.347E-09	5.988E-09	3.920E-09	2.899E-09	2.294E-09	1.894E-09	1.610E-09	1.397E-09	1.232E-09	1.099E-09	
SW	1.711E-08	9.119E-09	5.977E-09	3.439E-09	2.321E-09	1.708E-09	1.328E-09	1.072E-09	8.904E-10	7.553E-10	6.515E-10	
WSW	1.224E-08	6.599E-09	4.373E-09	2.569E-09	1.767E-09	1.323E-09	1.043E-09	8.518E-10	7.131E-10	6.080E-10	5.254E-10	
W	1.425E-08	8.014E-09	5.499E-09	3.416E-09	2.428E-09	1.823E-09	1.417E-09	1.140E-09	9.434E-10	7.981E-10	6.869E-10	
WNW	1.973E-08	1.154E-08	8.192E-09	5.331E-09	3.836E-09	2.855E-09	2.219E-09	1.792E-09	1.488E-09	1.263E-09	1.090E-09	
NW	2.268E-08	1.300E-08	9.080E-09	5.816E-09	4.249E-09	3.283E-09	2.602E-09	2.109E-09	1.754E-09	1.490E-09	1.287E-09	
NNW	2.075E-08	1.223E-08	8.698E-09	5.661E-09	4.094E-09	3.068E-09	2.381E-09	1.919E-09	1.590E-09	1.347E-09	1.161E-09	

Insert Table 2.3-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3) (Based on 1985-1989 met data)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.199E-07	1.879E-07	8.191E-08	4.767E-08	3.214E-08	1.633E-08	7.079E-09	3.841E-09	2.439E-09	1.705E-09
NNE	8.253E-07	2.690E-07	1.137E-07	6.758E-08	4.668E-08	2.298E-08	9.289E-09	4.881E-09	3.190E-09	2.318E-09
NE	1.047E-06	2.970E-07	1.173E-07	6.892E-08	4.744E-08	2.485E-08	1.128E-08	6.492E-09	4.496E-09	3.411E-09
ENE	8.434E-07	2.481E-07	1.022E-07	6.129E-08	4.272E-08	2.282E-08	1.066E-08	6.275E-09	4.416E-09	3.393E-09
E	7.172E-07	2.114E-07	8.814E-08	5.356E-08	3.775E-08	2.029E-08	9.367E-09	5.366E-09	3.662E-09	2.731E-09
ESE	7.103E-07	2.031E-07	8.233E-08	4.921E-08	3.437E-08	1.848E-08	8.721E-09	5.157E-09	3.617E-09	2.764E-09
SE	6.003E-07	1.742E-07	7.132E-08	4.282E-08	2.995E-08	1.615E-08	7.662E-09	4.564E-09	3.229E-09	2.488E-09
SSE	5.740E-07	1.666E-07	6.817E-08	4.067E-08	2.827E-08	1.573E-08	8.453E-09	5.825E-09	4.519E-09	3.589E-09
S	4.579E-07	1.279E-07	5.116E-08	3.042E-08	2.117E-08	1.157E-08	5.806E-09	3.707E-09	2.770E-09	2.212E-09
SSW	3.299E-07	9.696E-08	3.945E-08	2.340E-08	1.616E-08	8.523E-09	3.926E-09	2.295E-09	1.610E-09	1.232E-09
SW	4.017E-07	1.427E-07	5.745E-08	3.173E-08	2.055E-08	9.498E-09	3.506E-09	1.719E-09	1.076E-09	7.569E-10
WSW	2.890E-07	1.007E-07	4.016E-08	2.219E-08	1.454E-08	6.864E-09	2.614E-09	1.329E-09	8.535E-10	6.085E-10
W	3.473E-07	1.184E-07	4.716E-08	2.617E-08	1.706E-08	8.282E-09	3.440E-09	1.822E-09	1.144E-09	7.999E-10
WNW	4.602E-07	1.561E-07	6.321E-08	3.561E-08	2.349E-08	1.187E-08	5.302E-09	2.862E-09	1.798E-09	1.266E-09
NW	5.182E-07	1.777E-07	7.215E-08	4.062E-08	2.689E-08	1.341E-08	5.845E-09	3.268E-09	2.115E-09	1.493E-09
NNW	4.217E-07	1.489E-07	6.303E-08	3.622E-08	2.437E-08	1.255E-08	5.640E-09	3.067E-09	1.926E-09	1.350E-09

Insert Table 2.3-xxx    Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	2.070E-06	7.678E-07	5.048E-07	3.168E-07	1.677E-07	1.065E-07	7.445E-08	5.548E-08	4.326E-08	3.491E-08	2.907E-08
NNE	3.630E-06	1.294E-06	7.908E-07	4.620E-07	2.328E-07	1.458E-07	1.017E-07	7.584E-08	6.072E-08	5.019E-08	4.183E-08
NE	5.244E-06	1.739E-06	9.819E-07	5.312E-07	2.425E-07	1.465E-07	1.015E-07	7.605E-08	6.005E-08	4.917E-08	4.137E-08
ENE	4.087E-06	1.387E-06	7.940E-07	4.361E-07	2.057E-07	1.274E-07	8.978E-08	6.816E-08	5.433E-08	4.484E-08	3.797E-08
E	3.447E-06	1.183E-06	6.770E-07	3.716E-07	1.758E-07	1.096E-07	7.779E-08	5.950E-08	4.777E-08	3.967E-08	3.379E-08
ESE	3.495E-06	1.188E-06	6.682E-07	3.614E-07	1.677E-07	1.028E-07	7.203E-08	5.453E-08	4.343E-08	3.586E-08	3.041E-08
SE	2.907E-06	9.967E-07	5.659E-07	3.084E-07	1.444E-07	8.907E-08	6.265E-08	4.757E-08	3.796E-08	3.138E-08	2.663E-08
SSE	2.843E-06	9.541E-07	5.382E-07	2.932E-07	1.379E-07	8.513E-08	5.972E-08	4.517E-08	3.591E-08	2.958E-08	2.502E-08
S	2.400E-06	7.726E-07	4.252E-07	2.271E-07	1.040E-07	6.332E-08	4.415E-08	3.332E-08	2.647E-08	2.181E-08	1.845E-08
SSW	1.596E-06	5.404E-07	3.101E-07	1.709E-07	8.022E-08	4.938E-08	3.457E-08	2.609E-08	2.068E-08	1.698E-08	1.431E-08
SW	1.413E-06	5.763E-07	4.023E-07	2.525E-07	1.270E-07	7.680E-08	5.168E-08	3.733E-08	2.838E-08	2.240E-08	1.821E-08
WSW	1.041E-06	4.188E-07	2.886E-07	1.794E-07	8.895E-08	5.354E-08	3.598E-08	2.600E-08	1.979E-08	1.564E-08	1.288E-08
W	1.349E-06	5.151E-07	3.420E-07	2.103E-07	1.036E-07	6.242E-08	4.203E-08	3.045E-08	2.323E-08	1.841E-08	1.502E-08
WNW	1.861E-06	6.910E-07	4.504E-07	2.758E-07	1.366E-07	8.306E-08	5.647E-08	4.127E-08	3.173E-08	2.532E-08	2.079E-08
NW	2.034E-06	7.713E-07	5.096E-07	3.134E-07	1.559E-07	9.487E-08	6.445E-08	4.706E-08	3.615E-08	2.883E-08	2.379E-08
NNW	1.720E-06	6.237E-07	4.101E-07	2.554E-07	1.317E-07	8.212E-08	5.674E-08	4.193E-08	3.251E-08	2.612E-08	2.179E-08

Insert Table 2.3-xxx    Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.472E-08	1.433E-08	9.997E-09	6.219E-09	4.263E-09	3.115E-09	2.377E-09	1.870E-09	1.515E-09	1.257E-09	1.063E-09
NNE	3.562E-08	1.980E-08	1.337E-08	8.024E-09	5.578E-09	4.205E-09	3.337E-09	2.744E-09	2.306E-09	1.979E-09	1.721E-09
NE	3.557E-08	2.126E-08	1.516E-08	9.839E-09	7.232E-09	5.695E-09	4.687E-09	3.976E-09	3.433E-09	3.016E-09	2.679E-09
ENE	3.281E-08	2.001E-08	1.446E-08	9.573E-09	7.140E-09	5.691E-09	4.732E-09	4.051E-09	3.526E-09	3.121E-09	2.794E-09
E	2.936E-08	1.795E-08	1.295E-08	8.477E-09	6.230E-09	4.883E-09	3.991E-09	3.358E-09	2.874E-09	2.505E-09	2.209E-09
ESE	2.635E-08	1.613E-08	1.172E-08	7.811E-09	5.845E-09	4.659E-09	3.868E-09	3.302E-09	2.865E-09	2.529E-09	2.258E-09
SE	2.308E-08	1.418E-08	1.033E-08	6.912E-09	5.195E-09	4.163E-09	3.475E-09	2.983E-09	2.603E-09	2.310E-09	2.073E-09
SSE	2.161E-08	1.378E-08	1.049E-08	7.730E-09	6.349E-09	5.419E-09	4.638E-09	4.009E-09	3.487E-09	3.047E-09	2.674E-09
S	1.594E-08	9.967E-09	7.411E-09	5.182E-09	4.061E-09	3.379E-09	2.908E-09	2.533E-09	2.216E-09	1.957E-09	1.743E-09
SSW	1.231E-08	7.428E-09	5.334E-09	3.504E-09	2.604E-09	2.072E-09	1.718E-09	1.463E-09	1.261E-09	1.098E-09	9.656E-10
SW	1.517E-08	7.907E-09	5.093E-09	2.856E-09	1.892E-09	1.373E-09	1.055E-09	8.406E-10	6.880E-10	5.748E-10	4.879E-10
WSW	1.085E-08	5.727E-09	3.739E-09	2.150E-09	1.450E-09	1.059E-09	8.133E-10	6.474E-10	5.293E-10	4.420E-10	3.753E-10
W	1.256E-08	6.962E-09	4.728E-09	2.848E-09	1.936E-09	1.409E-09	1.066E-09	8.366E-10	6.771E-10	5.614E-10	4.742E-10
WNW	1.748E-08	1.014E-08	7.153E-09	4.502E-09	3.096E-09	2.232E-09	1.687E-09	1.329E-09	1.079E-09	8.976E-10	7.604E-10
NW	2.008E-08	1.138E-08	7.897E-09	4.949E-09	3.456E-09	2.565E-09	1.978E-09	1.565E-09	1.272E-09	1.059E-09	8.972E-10
NNW	1.857E-08	1.087E-08	7.702E-09	4.877E-09	3.360E-09	2.437E-09	1.840E-09	1.447E-09	1.174E-09	9.753E-10	8.254E-10

Insert Table 2.3-xxx Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3) (Based on 1985-1989 met data)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	4.797E-07	1.736E-07	7.539E-08	4.357E-08	2.919E-08	1.471E-08	6.189E-09	3.126E-09	1.880E-09	1.262E-09
NNE	7.564E-07	2.451E-07	1.031E-07	6.103E-08	4.201E-08	2.046E-08	8.125E-09	4.224E-09	2.746E-09	1.980E-09
NE	9.498E-07	2.640E-07	1.033E-07	6.048E-08	4.153E-08	2.173E-08	9.862E-09	5.702E-09	3.972E-09	3.015E-09
ENE	7.667E-07	2.221E-07	9.117E-08	5.467E-08	3.809E-08	2.039E-08	9.578E-09	5.694E-09	4.045E-09	3.120E-09
E	6.537E-07	1.899E-07	7.896E-08	4.803E-08	3.389E-08	1.826E-08	8.472E-09	4.885E-09	3.354E-09	2.505E-09
ESE	6.474E-07	1.819E-07	7.325E-08	4.372E-08	3.052E-08	1.644E-08	7.805E-09	4.659E-09	3.297E-09	2.528E-09
SE	5.472E-07	1.562E-07	6.366E-08	3.820E-08	2.672E-08	1.444E-08	6.908E-09	4.163E-09	2.979E-09	2.309E-09
SSE	5.217E-07	1.490E-07	6.068E-08	3.615E-08	2.511E-08	1.406E-08	7.731E-09	5.355E-09	3.990E-09	3.039E-09
S	4.144E-07	1.133E-07	4.493E-08	2.665E-08	1.852E-08	1.016E-08	5.179E-09	3.372E-09	2.519E-09	1.955E-09
SSW	2.994E-07	8.666E-08	3.513E-08	2.081E-08	1.436E-08	7.582E-09	3.511E-09	2.072E-09	1.459E-09	1.097E-09
SW	3.744E-07	1.326E-07	5.264E-08	2.866E-08	1.833E-08	8.269E-09	2.925E-09	1.384E-09	8.436E-10	5.762E-10
WSW	2.690E-07	9.331E-08	3.667E-08	1.998E-08	1.294E-08	5.981E-09	2.192E-09	1.065E-09	6.498E-10	4.432E-10
W	3.219E-07	1.090E-07	4.284E-08	2.345E-08	1.511E-08	7.213E-09	2.861E-09	1.412E-09	8.414E-10	5.634E-10
WNW	4.263E-07	1.437E-07	5.748E-08	3.201E-08	2.091E-08	1.044E-08	4.466E-09	2.245E-09	1.336E-09	9.007E-10
NW	4.806E-07	1.638E-07	6.561E-08	3.648E-08	2.391E-08	1.176E-08	4.941E-09	2.568E-09	1.571E-09	1.062E-09
NNW	3.888E-07	1.372E-07	5.758E-08	3.277E-08	2.188E-08	1.117E-08	4.830E-09	2.444E-09	1.456E-09	9.787E-10

Insert Table 2.3-xxx Annual Average D/Q Values for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3) (Based on 1985-1989 met data)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors											
Sector	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	2.669E-08	1.250E-08	7.768E-09	4.236E-09	1.748E-09	9.373E-10	5.808E-10	3.948E-10	2.855E-10	2.159E-10	1.689E-10
NNE	4.999E-08	2.240E-08	1.322E-08	6.947E-09	2.776E-09	1.460E-09	8.932E-10	6.019E-10	4.329E-10	3.263E-10	2.548E-10
NE	5.748E-08	2.242E-08	1.213E-08	5.990E-09	2.246E-09	1.145E-09	6.876E-10	4.572E-10	3.257E-10	2.439E-10	1.895E-10
ENE	4.317E-08	1.732E-08	9.486E-09	4.725E-09	1.786E-09	9.153E-10	5.514E-10	3.676E-10	2.624E-10	1.968E-10	1.531E-10
E	3.717E-08	1.551E-08	8.514E-09	4.241E-09	1.601E-09	8.225E-10	4.967E-10	3.319E-10	2.374E-10	1.783E-10	1.390E-10
ESE	3.642E-08	1.529E-08	8.365E-09	4.155E-09	1.564E-09	8.025E-10	4.841E-10	3.232E-10	2.311E-10	1.736E-10	1.353E-10
SE	3.065E-08	1.282E-08	7.013E-09	3.489E-09	1.318E-09	6.771E-10	4.089E-10	2.732E-10	1.954E-10	1.468E-10	1.144E-10
SSE	2.763E-08	1.114E-08	6.084E-09	3.023E-09	1.140E-09	5.839E-10	3.517E-10	2.345E-10	1.674E-10	1.255E-10	9.771E-11
S	2.188E-08	8.274E-09	4.447E-09	2.185E-09	8.135E-10	4.128E-10	2.470E-10	1.638E-10	1.164E-10	8.701E-11	6.752E-11
SSW	1.761E-08	6.746E-09	3.618E-09	1.775E-09	6.588E-10	3.350E-10	2.008E-10	1.334E-10	9.501E-11	7.109E-11	5.522E-11
SW	3.097E-08	1.552E-08	9.773E-09	5.325E-09	2.202E-09	1.170E-09	7.187E-10	4.857E-10	3.500E-10	2.642E-10	2.065E-10
WSW	2.014E-08	1.011E-08	6.374E-09	3.467E-09	1.429E-09	7.570E-10	4.643E-10	3.134E-10	2.256E-10	1.702E-10	1.331E-10
W	2.469E-08	1.160E-08	6.975E-09	3.895E-09	1.570E-09	8.213E-10	4.998E-10	3.356E-10	2.408E-10	1.813E-10	1.415E-10
WNW	3.070E-08	1.451E-08	8.634E-09	4.794E-09	1.924E-09	1.006E-09	6.126E-10	4.114E-10	2.953E-10	2.224E-10	1.736E-10
NW	2.965E-08	1.457E-08	8.994E-09	5.157E-09	2.103E-09	1.105E-09	6.742E-10	4.534E-10	3.257E-10	2.454E-10	1.916E-10
NNW	2.115E-08	9.980E-09	6.314E-09	3.473E-09	1.448E-09	7.750E-10	4.790E-10	3.248E-10	2.346E-10	1.772E-10	1.385E-10

Insert Table 2.3-xxx Annual Average D/Q Values for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3) (Based on 1985-1989 met data)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors												
Sector	Distance in Miles from the Site											
	5	7.5	10	15	20	25	30	35	40	45	50	
N	1.357E-10	6.352E-11	4.010E-11	4.356E-11	2.986E-11	1.816E-11	1.357E-11	1.028E-11	8.012E-12	6.410E-12	5.233E-12	
NNE	2.045E-10	9.317E-11	5.640E-11	2.884E-11	1.814E-11	1.283E-11	1.001E-11	8.053E-12	7.489E-12	6.328E-12	6.459E-12	
NE	1.516E-10	6.868E-11	4.164E-11	2.157E-11	1.362E-11	9.711E-12	7.568E-12	6.599E-12	5.657E-12	5.805E-12	6.680E-12	
ENE	1.226E-10	5.569E-11	3.376E-11	1.753E-11	1.113E-11	8.002E-12	6.312E-12	5.473E-12	4.768E-12	4.790E-12	5.176E-12	
E	1.115E-10	5.092E-11	3.098E-11	1.625E-11	1.038E-11	7.565E-12	6.007E-12	5.051E-12	4.419E-12	3.931E-12	3.596E-12	
ESE	1.085E-10	4.959E-11	3.019E-11	1.587E-11	1.016E-11	7.413E-12	5.895E-12	4.959E-12	4.342E-12	3.865E-12	3.525E-12	
SE	9.179E-11	4.192E-11	2.551E-11	1.339E-11	8.563E-12	6.240E-12	4.931E-12	4.145E-12	3.632E-12	3.236E-12	3.012E-12	
SSE	7.827E-11	3.559E-11	2.169E-11	1.173E-11	1.270E-11	2.390E-11	1.990E-11	1.464E-11	1.080E-11	7.381E-12	5.786E-12	
S	5.396E-11	2.435E-11	1.475E-11	7.612E-12	5.163E-12	4.527E-12	7.056E-12	9.753E-12	8.461E-12	6.698E-12	5.353E-12	
SSW	4.417E-11	2.003E-11	1.218E-11	6.334E-12	4.298E-12	3.942E-12	4.383E-12	4.907E-12	5.502E-12	4.801E-12	3.977E-12	
SW	1.659E-10	7.547E-11	4.529E-11	2.292E-11	1.442E-11	1.040E-11	8.230E-12	7.013E-12	6.102E-12	5.171E-12	4.325E-12	
WSW	1.085E-10	4.906E-11	2.921E-11	1.642E-11	1.185E-11	9.409E-12	7.045E-12	5.357E-12	4.267E-12	3.488E-12	2.918E-12	
W	1.136E-10	5.180E-11	3.578E-11	2.629E-11	1.642E-11	1.135E-11	8.465E-12	6.365E-12	4.954E-12	3.961E-12	3.233E-12	
WNW	1.395E-10	6.369E-11	5.202E-11	3.526E-11	2.220E-11	1.527E-11	1.104E-11	8.315E-12	6.471E-12	5.169E-12	4.221E-12	
NW	1.539E-10	7.006E-11	4.687E-11	3.841E-11	2.552E-11	1.693E-11	1.209E-11	9.336E-12	7.304E-12	5.850E-12	4.780E-12	
NNW	1.143E-10	5.192E-11	4.356E-11	3.328E-11	2.045E-11	1.405E-11	1.014E-11	7.637E-12	5.951E-12	4.760E-12	3.885E-12	

Insert Table 2.3-xxx Annual Average D/Q Values for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3) (Based on 1985-1989 met data)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	7.250E-09	1.941E-09	6.015E-10	2.902E-10	1.705E-10	6.915E-11	3.670E-11	1.945E-11	1.036E-11	6.449E-12
NNE	1.247E-08	3.118E-09	9.278E-10	4.406E-10	2.573E-10	1.016E-10	3.021E-11	1.312E-11	8.398E-12	6.720E-12
NE	1.169E-08	2.589E-09	7.174E-10	3.321E-10	1.916E-10	7.509E-11	2.249E-11	9.896E-12	6.517E-12	6.085E-12
ENE	9.110E-09	2.052E-09	5.749E-10	2.674E-10	1.547E-10	6.082E-11	1.829E-11	8.160E-12	5.444E-12	4.927E-12
E	8.170E-09	1.842E-09	5.176E-10	2.419E-10	1.404E-10	5.551E-11	1.692E-11	7.693E-12	5.083E-12	3.952E-12
ESE	8.032E-09	1.801E-09	5.047E-10	2.355E-10	1.367E-10	5.407E-11	1.651E-11	7.538E-12	4.991E-12	3.880E-12
SE	6.736E-09	1.515E-09	4.262E-10	1.991E-10	1.156E-10	4.571E-11	1.394E-11	6.336E-12	4.174E-12	3.270E-12
SSE	5.847E-09	1.311E-09	3.667E-10	1.706E-10	9.876E-11	3.890E-11	1.437E-11	1.931E-11	1.468E-11	7.804E-12
S	4.292E-09	9.401E-10	2.579E-10	1.187E-10	6.827E-11	2.666E-11	8.110E-12	5.708E-12	8.490E-12	6.722E-12
SSW	3.494E-09	7.628E-10	2.096E-10	9.688E-11	5.583E-11	2.190E-11	6.728E-12	4.214E-12	4.984E-12	4.703E-12
SW	9.074E-09	2.437E-09	7.457E-10	3.561E-10	2.086E-10	8.216E-11	2.412E-11	1.061E-11	7.014E-12	5.134E-12
WSW	5.913E-09	1.583E-09	4.819E-10	2.296E-10	1.350E-10	5.346E-11	1.723E-11	9.115E-12	5.424E-12	3.508E-12
W	6.635E-09	1.754E-09	5.199E-10	2.452E-10	1.429E-10	5.841E-11	2.401E-11	1.155E-11	6.427E-12	3.986E-12
WNW	8.233E-09	2.154E-09	6.371E-10	3.007E-10	1.754E-10	7.534E-11	3.318E-11	1.543E-11	8.393E-12	5.204E-12
NW	8.527E-09	2.338E-09	7.008E-10	3.316E-10	1.936E-10	7.839E-11	3.456E-11	1.729E-11	9.349E-12	5.885E-12
NNW	5.866E-09	1.599E-09	4.963E-10	2.385E-10	1.410E-10	6.206E-11	2.986E-11	1.419E-11	7.710E-12	4.789E-12

Insert Table 2.3-xxx    Annual Average X/Q Values (No Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	2.685E-06	9.507E-07	5.689E-07	3.271E-07	1.618E-07	1.014E-07	7.097E-08	5.315E-08	4.169E-08	3.384E-08	2.831E-08
NNE	4.793E-06	1.652E-06	9.517E-07	5.226E-07	2.445E-07	1.492E-07	1.031E-07	7.675E-08	6.104E-08	5.025E-08	4.197E-08
NE	7.155E-06	2.341E-06	1.292E-06	6.831E-07	2.952E-07	1.713E-07	1.152E-07	8.451E-08	6.571E-08	5.321E-08	4.441E-08
ENE	5.722E-06	1.895E-06	1.053E-06	5.581E-07	2.443E-07	1.438E-07	9.777E-08	7.243E-08	5.675E-08	4.624E-08	3.879E-08
E	4.888E-06	1.623E-06	8.990E-07	4.765E-07	2.088E-07	1.232E-07	8.406E-08	6.249E-08	4.913E-08	4.018E-08	3.382E-08
ESE	4.934E-06	1.629E-06	8.913E-07	4.674E-07	2.026E-07	1.189E-07	8.059E-08	5.956E-08	4.658E-08	3.792E-08	3.179E-08
SE	4.034E-06	1.343E-06	7.417E-07	3.911E-07	1.705E-07	1.003E-07	6.817E-08	5.049E-08	3.957E-08	3.226E-08	2.708E-08
SSE	3.980E-06	1.309E-06	7.195E-07	3.778E-07	1.647E-07	9.712E-08	6.607E-08	4.892E-08	3.829E-08	3.116E-08	2.611E-08
S	3.320E-06	1.063E-06	5.754E-07	2.999E-07	1.290E-07	7.528E-08	5.086E-08	3.749E-08	2.927E-08	2.379E-08	1.991E-08
SSW	2.171E-06	7.236E-07	4.060E-07	2.154E-07	9.393E-08	5.500E-08	3.727E-08	2.752E-08	2.150E-08	1.747E-08	1.462E-08
SW	1.645E-06	6.291E-07	3.935E-07	2.337E-07	1.167E-07	7.188E-08	4.931E-08	3.624E-08	2.795E-08	2.235E-08	1.838E-08
WSW	1.237E-06	4.642E-07	2.869E-07	1.689E-07	8.304E-08	5.082E-08	3.476E-08	2.552E-08	1.968E-08	1.574E-08	1.307E-08
W	1.691E-06	6.100E-07	3.685E-07	2.124E-07	1.019E-07	6.171E-08	4.200E-08	3.076E-08	2.369E-08	1.895E-08	1.559E-08
WNW	2.317E-06	8.164E-07	4.858E-07	2.788E-07	1.337E-07	8.149E-08	5.583E-08	4.114E-08	3.188E-08	2.563E-08	2.119E-08
NW	2.543E-06	9.051E-07	5.422E-07	3.134E-07	1.515E-07	9.261E-08	6.349E-08	4.678E-08	3.623E-08	2.911E-08	2.414E-08
NNW	2.247E-06	7.769E-07	4.599E-07	2.644E-07	1.295E-07	8.037E-08	5.577E-08	4.149E-08	3.238E-08	2.618E-08	2.191E-08

Insert Table 2.3-xxx    Annual Average X/Q Values (No Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3) (Based on 1985-1989 met data)

Annual Average X/Q (sec/m <sup>3</sup> )												
Sector	Distance in Miles from the Site											
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50	
N	2.418E-08	1.415E-08	9.930E-09	6.340E-09	4.633E-09	3.619E-09	2.925E-09	2.405E-09	2.012E-09	1.717E-09	1.491E-09	
NNE	3.581E-08	2.020E-08	1.381E-08	8.440E-09	5.952E-09	4.538E-09	3.637E-09	3.018E-09	2.570E-09	2.231E-09	1.967E-09	
NE	3.794E-08	2.216E-08	1.567E-08	1.012E-08	7.432E-09	5.858E-09	4.829E-09	4.107E-09	3.573E-09	3.163E-09	2.839E-09	
ENE	3.329E-08	1.977E-08	1.413E-08	9.259E-09	6.878E-09	5.471E-09	4.547E-09	3.896E-09	3.413E-09	3.041E-09	2.746E-09	
E	2.913E-08	1.737E-08	1.241E-08	8.090E-09	5.957E-09	4.687E-09	3.848E-09	3.254E-09	2.812E-09	2.472E-09	2.202E-09	
ESE	2.728E-08	1.616E-08	1.154E-08	7.559E-09	5.614E-09	4.461E-09	3.699E-09	3.159E-09	2.757E-09	2.447E-09	2.200E-09	
SE	2.327E-08	1.386E-08	9.941E-09	6.551E-09	4.890E-09	3.904E-09	3.254E-09	2.794E-09	2.452E-09	2.188E-09	1.978E-09	
SSE	2.238E-08	1.355E-08	9.934E-09	6.941E-09	5.552E-09	4.762E-09	4.248E-09	3.870E-09	3.564E-09	3.294E-09	3.043E-09	
S	1.706E-08	1.020E-08	7.383E-09	4.988E-09	3.832E-09	3.154E-09	2.711E-09	2.397E-09	2.162E-09	1.977E-09	1.825E-09	
SSW	1.252E-08	7.394E-09	5.266E-09	3.435E-09	2.548E-09	2.027E-09	1.687E-09	1.447E-09	1.270E-09	1.133E-09	1.025E-09	
SW	1.546E-08	8.361E-09	5.530E-09	3.221E-09	2.196E-09	1.631E-09	1.279E-09	1.043E-09	8.738E-10	7.480E-10	6.513E-10	
WSW	1.109E-08	6.041E-09	4.027E-09	2.384E-09	1.653E-09	1.247E-09	9.934E-10	8.208E-10	6.962E-10	6.020E-10	5.281E-10	
W	1.313E-08	7.383E-09	5.059E-09	3.153E-09	2.282E-09	1.767E-09	1.409E-09	1.148E-09	9.586E-10	8.183E-10	7.107E-10	
WNW	1.792E-08	1.039E-08	7.324E-09	4.794E-09	3.574E-09	2.773E-09	2.188E-09	1.782E-09	1.494E-09	1.279E-09	1.113E-09	
NW	2.047E-08	1.166E-08	8.092E-09	5.169E-09	3.828E-09	3.038E-09	2.492E-09	2.074E-09	1.745E-09	1.495E-09	1.302E-09	
NNW	1.872E-08	1.095E-08	7.744E-09	5.068E-09	3.775E-09	2.952E-09	2.344E-09	1.907E-09	1.596E-09	1.364E-09	1.186E-09	

Insert Table 2.3-xxx Annual Average X/Q Values (No Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3) (Based on 1985-1989 met data)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.463E-07	1.717E-07	7.195E-08	4.198E-08	2.842E-08	1.450E-08	6.379E-09	3.612E-09	2.404E-09	1.721E-09
NNE	9.165E-07	2.639E-07	1.049E-07	6.142E-08	4.214E-08	2.083E-08	8.527E-09	4.555E-09	3.024E-09	2.234E-09
NE	1.255E-06	3.263E-07	1.179E-07	6.632E-08	4.462E-08	2.278E-08	1.016E-08	5.866E-09	4.110E-09	3.165E-09
ENE	1.020E-06	2.693E-07	9.990E-08	5.723E-08	3.896E-08	2.027E-08	9.284E-09	5.476E-09	3.898E-09	3.042E-09
E	8.722E-07	2.303E-07	8.588E-08	4.954E-08	3.397E-08	1.778E-08	8.103E-09	4.690E-09	3.255E-09	2.473E-09
ESE	8.667E-07	2.242E-07	8.238E-08	4.699E-08	3.194E-08	1.658E-08	7.579E-09	4.463E-09	3.160E-09	2.448E-09
SE	7.195E-07	1.883E-07	6.966E-08	3.990E-08	2.720E-08	1.421E-08	6.566E-09	3.907E-09	2.795E-09	2.188E-09
SSE	6.986E-07	1.820E-07	6.749E-08	3.861E-08	2.623E-08	1.391E-08	6.989E-09	4.767E-09	3.861E-09	3.281E-09
S	5.613E-07	1.431E-07	5.202E-08	2.953E-08	2.001E-08	1.047E-08	5.006E-09	3.157E-09	2.397E-09	1.975E-09
SSW	3.919E-07	1.036E-07	3.810E-08	2.169E-08	1.469E-08	7.586E-09	3.448E-09	2.030E-09	1.448E-09	1.134E-09
SW	3.749E-07	1.228E-07	5.010E-08	2.819E-08	1.847E-08	8.680E-09	3.279E-09	1.641E-09	1.046E-09	7.495E-10
WSW	2.739E-07	8.781E-08	3.535E-08	1.985E-08	1.313E-08	6.268E-09	2.424E-09	1.254E-09	8.227E-10	6.025E-10
W	3.528E-07	1.086E-07	4.276E-08	2.390E-08	1.568E-08	7.628E-09	3.189E-09	1.761E-09	1.150E-09	8.200E-10
WNW	4.673E-07	1.428E-07	5.680E-08	3.215E-08	2.129E-08	1.070E-08	4.814E-09	2.752E-09	1.788E-09	1.281E-09
NW	5.211E-07	1.613E-07	6.457E-08	3.653E-08	2.425E-08	1.203E-08	5.222E-09	3.030E-09	2.068E-09	1.497E-09
NNW	4.435E-07	1.377E-07	5.662E-08	3.262E-08	2.199E-08	1.125E-08	5.088E-09	2.928E-09	1.913E-09	1.367E-09

Insert Table 2.3-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	2.684E-06	9.499E-07	5.682E-07	3.265E-07	1.614E-07	1.011E-07	7.071E-08	5.291E-08	4.147E-08	3.364E-08	2.812E-08
NNE	4.791E-06	1.650E-06	9.507E-07	5.218E-07	2.440E-07	1.488E-07	1.028E-07	7.643E-08	6.074E-08	4.997E-08	4.170E-08
NE	7.152E-06	2.340E-06	1.291E-06	6.821E-07	2.946E-07	1.708E-07	1.147E-07	8.414E-08	6.537E-08	5.290E-08	4.411E-08
ENE	5.719E-06	1.894E-06	1.052E-06	5.571E-07	2.436E-07	1.433E-07	9.737E-08	7.208E-08	5.643E-08	4.595E-08	3.851E-08
E	4.885E-06	1.622E-06	8.978E-07	4.756E-07	2.082E-07	1.228E-07	8.369E-08	6.216E-08	4.883E-08	3.990E-08	3.356E-08
ESE	4.932E-06	1.627E-06	8.900E-07	4.666E-07	2.021E-07	1.184E-07	8.023E-08	5.924E-08	4.630E-08	3.765E-08	3.154E-08
SE	4.032E-06	1.342E-06	7.407E-07	3.904E-07	1.701E-07	9.993E-08	6.787E-08	5.023E-08	3.933E-08	3.204E-08	2.687E-08
SSE	3.978E-06	1.308E-06	7.186E-07	3.772E-07	1.643E-07	9.679E-08	6.580E-08	4.867E-08	3.807E-08	3.096E-08	2.591E-08
S	3.319E-06	1.062E-06	5.746E-07	2.994E-07	1.287E-07	7.503E-08	5.065E-08	3.731E-08	2.910E-08	2.364E-08	1.977E-08
SSW	2.171E-06	7.230E-07	4.055E-07	2.151E-07	9.372E-08	5.484E-08	3.713E-08	2.740E-08	2.139E-08	1.737E-08	1.452E-08
SW	1.644E-06	6.287E-07	3.932E-07	2.334E-07	1.165E-07	7.171E-08	4.916E-08	3.611E-08	2.783E-08	2.224E-08	1.828E-08
WSW	1.237E-06	4.639E-07	2.866E-07	1.687E-07	8.289E-08	5.070E-08	3.466E-08	2.543E-08	1.960E-08	1.566E-08	1.300E-08
W	1.690E-06	6.096E-07	3.681E-07	2.122E-07	1.017E-07	6.156E-08	4.187E-08	3.064E-08	2.359E-08	1.885E-08	1.550E-08
WNW	2.316E-06	8.158E-07	4.852E-07	2.785E-07	1.334E-07	8.127E-08	5.564E-08	4.097E-08	3.172E-08	2.548E-08	2.105E-08
NW	2.542E-06	9.044E-07	5.416E-07	3.129E-07	1.512E-07	9.235E-08	6.327E-08	4.658E-08	3.605E-08	2.895E-08	2.399E-08
NNW	2.246E-06	7.764E-07	4.594E-07	2.640E-07	1.292E-07	8.014E-08	5.558E-08	4.132E-08	3.222E-08	2.603E-08	2.177E-08

Insert Table 2.3-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.400E-08	1.398E-08	9.770E-09	6.182E-09	4.476E-09	3.464E-09	2.774E-09	2.261E-09	1.874E-09	1.586E-09	1.365E-09
NNE	3.556E-08	1.998E-08	1.361E-08	8.256E-09	5.778E-09	4.372E-09	3.477E-09	2.864E-09	2.420E-09	2.085E-09	1.824E-09
NE	3.766E-08	2.192E-08	1.544E-08	9.894E-09	7.215E-09	5.644E-09	4.618E-09	3.898E-09	3.366E-09	2.958E-09	2.635E-09
ENE	3.302E-08	1.954E-08	1.391E-08	9.043E-09	6.664E-09	5.260E-09	4.337E-09	3.687E-09	3.204E-09	2.833E-09	2.538E-09
E	2.887E-08	1.714E-08	1.220E-08	7.883E-09	5.754E-09	4.487E-09	3.652E-09	3.061E-09	2.622E-09	2.285E-09	2.017E-09
ESE	2.705E-08	1.595E-08	1.134E-08	7.362E-09	5.420E-09	4.268E-09	3.507E-09	2.969E-09	2.569E-09	2.260E-09	2.015E-09
SE	2.307E-08	1.369E-08	9.772E-09	6.384E-09	4.723E-09	3.738E-09	3.088E-09	2.628E-09	2.286E-09	2.021E-09	1.811E-09
SSE	2.220E-08	1.338E-08	9.771E-09	6.771E-09	5.370E-09	4.566E-09	4.035E-09	3.643E-09	3.323E-09	3.042E-09	2.783E-09
S	1.693E-08	1.008E-08	7.266E-09	4.869E-09	3.709E-09	3.027E-09	2.579E-09	2.261E-09	2.021E-09	1.831E-09	1.675E-09
SSW	1.242E-08	7.312E-09	5.187E-09	3.358E-09	2.471E-09	1.950E-09	1.609E-09	1.369E-09	1.192E-09	1.054E-09	9.448E-10
SW	1.536E-08	8.281E-09	5.458E-09	3.157E-09	2.136E-09	1.575E-09	1.226E-09	9.913E-10	8.243E-10	7.001E-10	6.048E-10
WSW	1.102E-08	5.983E-09	3.974E-09	2.336E-09	1.607E-09	1.203E-09	9.507E-10	7.791E-10	6.554E-10	5.619E-10	4.887E-10
W	1.305E-08	7.312E-09	4.991E-09	3.086E-09	2.213E-09	1.697E-09	1.340E-09	1.081E-09	8.956E-10	7.582E-10	6.530E-10
WNW	1.779E-08	1.028E-08	7.216E-09	4.685E-09	3.462E-09	2.662E-09	2.081E-09	1.682E-09	1.398E-09	1.187E-09	1.026E-09
NW	2.033E-08	1.153E-08	7.977E-09	5.057E-09	3.717E-09	2.927E-09	2.381E-09	1.964E-09	1.639E-09	1.394E-09	1.204E-09
NNW	1.859E-08	1.083E-08	7.626E-09	4.947E-09	3.652E-09	2.830E-09	2.227E-09	1.797E-09	1.491E-09	1.264E-09	1.090E-09

Insert Table 2.3-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3) (Based on 1985-1989 met data)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.456E-07	1.713E-07	7.169E-08	4.176E-08	2.823E-08	1.434E-08	6.221E-09	3.458E-09	2.260E-09	1.590E-09
NNE	9.156E-07	2.634E-07	1.045E-07	6.112E-08	4.188E-08	2.061E-08	8.344E-09	4.389E-09	2.870E-09	2.087E-09
NE	1.253E-06	3.257E-07	1.174E-07	6.598E-08	4.433E-08	2.254E-08	9.936E-09	5.652E-09	3.901E-09	2.959E-09
ENE	1.019E-06	2.687E-07	9.949E-08	5.691E-08	3.868E-08	2.003E-08	9.068E-09	5.265E-09	3.689E-09	2.834E-09
E	8.710E-07	2.297E-07	8.550E-08	4.924E-08	3.370E-08	1.755E-08	7.896E-09	4.491E-09	3.063E-09	2.286E-09
ESE	8.656E-07	2.237E-07	8.203E-08	4.670E-08	3.169E-08	1.637E-08	7.383E-09	4.271E-09	2.971E-09	2.261E-09
SE	7.186E-07	1.879E-07	6.936E-08	3.966E-08	2.699E-08	1.403E-08	6.399E-09	3.741E-09	2.629E-09	2.022E-09
SSE	6.977E-07	1.816E-07	6.721E-08	3.839E-08	2.603E-08	1.374E-08	6.815E-09	4.568E-09	3.633E-09	3.029E-09
S	5.606E-07	1.428E-07	5.182E-08	2.937E-08	1.986E-08	1.035E-08	4.886E-09	3.030E-09	2.260E-09	1.829E-09
SSW	3.914E-07	1.034E-07	3.796E-08	2.158E-08	1.459E-08	7.503E-09	3.371E-09	1.953E-09	1.370E-09	1.054E-09
SW	3.745E-07	1.226E-07	4.995E-08	2.807E-08	1.837E-08	8.600E-09	3.215E-09	1.585E-09	9.947E-10	7.016E-10
WSW	2.736E-07	8.766E-08	3.524E-08	1.976E-08	1.305E-08	6.210E-09	2.376E-09	1.210E-09	7.810E-10	5.625E-10
W	3.525E-07	1.084E-07	4.263E-08	2.380E-08	1.559E-08	7.555E-09	3.121E-09	1.692E-09	1.084E-09	7.599E-10
WNW	4.668E-07	1.425E-07	5.661E-08	3.199E-08	2.116E-08	1.059E-08	4.704E-09	2.643E-09	1.688E-09	1.190E-09
NW	5.206E-07	1.610E-07	6.435E-08	3.635E-08	2.410E-08	1.191E-08	5.111E-09	2.919E-09	1.960E-09	1.396E-09
NNW	4.430E-07	1.374E-07	5.643E-08	3.246E-08	2.185E-08	1.113E-08	4.967E-09	2.808E-09	1.803E-09	1.267E-09

Insert Table 2.3-xxx    Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.545E-06	8.741E-07	5.153E-07	2.954E-07	1.459E-07	9.116E-08	6.355E-08	4.737E-08	3.698E-08	2.987E-08	2.488E-08
NNE	4.543E-06	1.517E-06	8.587E-07	4.677E-07	2.172E-07	1.319E-07	9.069E-08	6.716E-08	5.325E-08	4.371E-08	3.635E-08
NE	6.773E-06	2.145E-06	1.159E-06	6.039E-07	2.558E-07	1.464E-07	9.744E-08	7.096E-08	5.482E-08	4.415E-08	3.667E-08
ENE	5.417E-06	1.738E-06	9.455E-07	4.942E-07	2.125E-07	1.237E-07	8.353E-08	6.153E-08	4.799E-08	3.895E-08	3.256E-08
E	4.628E-06	1.490E-06	8.088E-07	4.230E-07	1.822E-07	1.063E-07	7.202E-08	5.325E-08	4.170E-08	3.398E-08	2.852E-08
ESE	4.672E-06	1.495E-06	8.019E-07	4.149E-07	1.765E-07	1.023E-07	6.873E-08	5.045E-08	3.924E-08	3.179E-08	2.654E-08
SE	3.819E-06	1.233E-06	6.674E-07	3.473E-07	1.487E-07	8.648E-08	5.832E-08	4.294E-08	3.348E-08	2.719E-08	2.274E-08
SSE	3.768E-06	1.200E-06	6.458E-07	3.345E-07	1.433E-07	8.353E-08	5.637E-08	4.148E-08	3.230E-08	2.617E-08	2.184E-08
S	3.143E-06	9.727E-07	5.148E-07	2.644E-07	1.114E-07	6.410E-08	4.287E-08	3.136E-08	2.433E-08	1.967E-08	1.639E-08
SSW	2.056E-06	6.629E-07	3.640E-07	1.905E-07	8.155E-08	4.723E-08	3.176E-08	2.332E-08	1.814E-08	1.468E-08	1.224E-08
SW	1.562E-06	5.816E-07	3.601E-07	2.140E-07	1.066E-07	6.535E-08	4.453E-08	3.249E-08	2.488E-08	1.976E-08	1.613E-08
WSW	1.174E-06	4.288E-07	2.623E-07	1.544E-07	7.567E-08	4.604E-08	3.127E-08	2.279E-08	1.745E-08	1.386E-08	1.144E-08
W	1.605E-06	5.627E-07	3.354E-07	1.928E-07	9.195E-08	5.529E-08	3.735E-08	2.714E-08	2.075E-08	1.648E-08	1.346E-08
WNW	2.199E-06	7.530E-07	4.421E-07	2.531E-07	1.207E-07	7.303E-08	4.968E-08	3.635E-08	2.797E-08	2.233E-08	1.835E-08
NW	2.412E-06	8.351E-07	4.942E-07	2.849E-07	1.370E-07	8.314E-08	5.657E-08	4.137E-08	3.181E-08	2.538E-08	2.091E-08
NNW	2.128E-06	7.133E-07	4.163E-07	2.389E-07	1.167E-07	7.206E-08	4.972E-08	3.675E-08	2.851E-08	2.291E-08	1.907E-08

Insert Table 2.3-xxx    Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3) (Based on 1985-1989 met data)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.116E-08	1.222E-08	8.483E-09	5.337E-09	3.819E-09	2.863E-09	2.222E-09	1.770E-09	1.437E-09	1.194E-09	1.010E-09
NNE	3.089E-08	1.712E-08	1.152E-08	6.874E-09	4.756E-09	3.570E-09	2.824E-09	2.315E-09	1.943E-09	1.666E-09	1.450E-09
NE	3.120E-08	1.801E-08	1.261E-08	8.026E-09	5.837E-09	4.565E-09	3.740E-09	3.163E-09	2.728E-09	2.398E-09	2.134E-09
ENE	2.786E-08	1.642E-08	1.166E-08	7.567E-09	5.583E-09	4.419E-09	3.659E-09	3.124E-09	2.718E-09	2.408E-09	2.160E-09
E	2.450E-08	1.450E-08	1.029E-08	6.628E-09	4.832E-09	3.769E-09	3.070E-09	2.578E-09	2.212E-09	1.932E-09	1.709E-09
ESE	2.270E-08	1.330E-08	9.413E-09	6.088E-09	4.479E-09	3.531E-09	2.909E-09	2.471E-09	2.144E-09	1.893E-09	1.693E-09
SE	1.948E-08	1.151E-08	8.196E-09	5.348E-09	3.963E-09	3.147E-09	2.612E-09	2.234E-09	1.948E-09	1.728E-09	1.551E-09
SSE	1.865E-08	1.123E-08	8.215E-09	5.754E-09	4.636E-09	4.010E-09	3.601E-09	3.268E-09	2.944E-09	2.655E-09	2.392E-09
S	1.398E-08	8.290E-09	5.965E-09	4.011E-09	3.080E-09	2.540E-09	2.189E-09	1.941E-09	1.747E-09	1.592E-09	1.455E-09
SSW	1.045E-08	6.126E-09	4.334E-09	2.802E-09	2.066E-09	1.636E-09	1.357E-09	1.162E-09	1.013E-09	8.986E-10	8.064E-10
SW	1.348E-08	7.098E-09	4.588E-09	2.576E-09	1.705E-09	1.235E-09	9.488E-10	7.577E-10	6.223E-10	5.230E-10	4.469E-10
WSW	9.647E-09	5.118E-09	3.338E-09	1.912E-09	1.292E-09	9.563E-10	7.468E-10	6.026E-10	4.974E-10	4.187E-10	3.577E-10
W	1.127E-08	6.199E-09	4.175E-09	2.539E-09	1.769E-09	1.312E-09	1.010E-09	7.956E-10	6.441E-10	5.341E-10	4.513E-10
WNW	1.542E-08	8.792E-09	6.119E-09	3.925E-09	2.793E-09	2.076E-09	1.579E-09	1.244E-09	1.010E-09	8.404E-10	7.120E-10
NW	1.763E-08	9.840E-09	6.728E-09	4.223E-09	3.064E-09	2.342E-09	1.848E-09	1.490E-09	1.217E-09	1.014E-09	8.605E-10
NNW	1.622E-08	9.339E-09	6.532E-09	4.212E-09	3.017E-09	2.255E-09	1.727E-09	1.360E-09	1.104E-09	9.171E-10	7.765E-10

Insert Table 2.3-xxx Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3) (Based on 1985-1989 met data)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	4.973E-07	1.548E-07	6.444E-08	3.724E-08	2.498E-08	1.255E-08	5.361E-09	2.861E-09	1.772E-09	1.198E-09
NNE	8.313E-07	2.350E-07	9.226E-08	5.359E-08	3.651E-08	1.769E-08	6.965E-09	3.588E-09	2.319E-09	1.668E-09
NE	1.131E-06	2.845E-07	9.990E-08	5.537E-08	3.686E-08	1.854E-08	8.071E-09	4.574E-09	3.162E-09	2.398E-09
ENE	9.210E-07	2.357E-07	8.545E-08	4.841E-08	3.271E-08	1.685E-08	7.595E-09	4.425E-09	3.122E-09	2.408E-09
E	7.888E-07	2.020E-07	7.367E-08	4.206E-08	2.865E-08	1.485E-08	6.643E-09	3.773E-09	2.579E-09	1.932E-09
ESE	7.840E-07	1.965E-07	7.037E-08	3.960E-08	2.667E-08	1.366E-08	6.112E-09	3.535E-09	2.472E-09	1.893E-09
SE	6.509E-07	1.652E-07	5.967E-08	3.379E-08	2.285E-08	1.181E-08	5.365E-09	3.151E-09	2.233E-09	1.728E-09
SSE	6.306E-07	1.592E-07	5.766E-08	3.258E-08	2.194E-08	1.154E-08	5.804E-09	4.013E-09	3.240E-09	2.643E-09
S	5.053E-07	1.244E-07	4.393E-08	2.456E-08	1.647E-08	8.522E-09	4.032E-09	2.544E-09	1.938E-09	1.587E-09
SSW	3.533E-07	9.051E-08	3.251E-08	1.830E-08	1.230E-08	6.289E-09	2.815E-09	1.639E-09	1.161E-09	8.982E-10
SW	3.444E-07	1.121E-07	4.526E-08	2.510E-08	1.622E-08	7.400E-09	2.636E-09	1.246E-09	7.607E-10	5.242E-10
WSW	2.513E-07	7.999E-08	3.182E-08	1.760E-08	1.149E-08	5.334E-09	1.954E-09	9.621E-10	6.037E-10	4.194E-10
W	3.225E-07	9.806E-08	3.805E-08	2.095E-08	1.354E-08	6.425E-09	2.560E-09	1.313E-09	7.991E-10	5.360E-10
WNW	4.272E-07	1.289E-07	5.057E-08	2.821E-08	1.844E-08	9.077E-09	3.910E-09	2.069E-09	1.251E-09	8.432E-10
NW	4.769E-07	1.459E-07	5.758E-08	3.209E-08	2.102E-08	1.019E-08	4.265E-09	2.337E-09	1.489E-09	1.018E-09
NNW	4.035E-07	1.240E-07	5.049E-08	2.873E-08	1.915E-08	9.620E-09	4.196E-09	2.247E-09	1.367E-09	9.203E-10

Insert Table 2.3-xxx    Annual Average D/Q Values for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3) (Based on 1985-1989 met data)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors											
Sector	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	2.765E-08	1.153E-08	7.216E-09	3.951E-09	1.625E-09	8.936E-10	5.656E-10	3.900E-10	2.846E-10	2.164E-10	1.697E-10
NNE	5.129E-08	2.093E-08	1.227E-08	6.502E-09	2.568E-09	1.388E-09	8.697E-10	5.958E-10	4.371E-10	3.353E-10	2.624E-10
NE	6.475E-08	2.432E-08	1.330E-08	6.599E-09	2.436E-09	1.249E-09	7.543E-10	5.040E-10	3.602E-10	2.702E-10	2.103E-10
ENE	4.778E-08	1.835E-08	1.017E-08	5.090E-09	1.892E-09	9.768E-10	5.931E-10	3.978E-10	2.851E-10	2.144E-10	1.670E-10
E	3.941E-08	1.587E-08	8.962E-09	4.513E-09	1.672E-09	8.643E-10	5.256E-10	3.531E-10	2.536E-10	1.910E-10	1.491E-10
ESE	3.832E-08	1.556E-08	8.798E-09	4.425E-09	1.634E-09	8.431E-10	5.120E-10	3.438E-10	2.468E-10	1.859E-10	1.452E-10
SE	3.211E-08	1.300E-08	7.355E-09	3.706E-09	1.372E-09	7.094E-10	4.314E-10	2.899E-10	2.082E-10	1.569E-10	1.225E-10
SSE	3.073E-08	1.188E-08	6.595E-09	3.298E-09	1.222E-09	6.298E-10	3.820E-10	2.561E-10	1.835E-10	1.380E-10	1.075E-10
S	2.532E-08	9.258E-09	4.993E-09	2.456E-09	9.030E-10	4.602E-10	2.768E-10	1.843E-10	1.313E-10	9.831E-11	7.635E-11
SSW	2.053E-08	7.652E-09	4.146E-09	2.039E-09	7.477E-10	3.803E-10	2.283E-10	1.519E-10	1.082E-10	8.103E-11	6.296E-11
SW	2.861E-08	1.292E-08	8.666E-09	4.786E-09	1.980E-09	1.079E-09	6.775E-10	4.647E-10	3.381E-10	2.567E-10	2.013E-10
WSW	1.856E-08	8.272E-09	5.513E-09	3.041E-09	1.256E-09	6.867E-10	4.324E-10	2.971E-10	2.165E-10	1.645E-10	1.335E-10
W	2.451E-08	1.109E-08	6.617E-09	3.708E-09	1.482E-09	7.895E-10	4.882E-10	3.315E-10	2.397E-10	1.812E-10	1.418E-10
WNW	2.936E-08	1.354E-08	8.467E-09	4.474E-09	1.784E-09	9.530E-10	5.909E-10	4.021E-10	2.911E-10	2.204E-10	1.725E-10
NW	2.813E-08	1.310E-08	8.119E-09	4.721E-09	1.914E-09	1.030E-09	6.416E-10	4.378E-10	3.176E-10	2.407E-10	1.886E-10
NNW	2.201E-08	8.907E-09	5.592E-09	3.098E-09	1.294E-09	7.174E-10	4.563E-10	3.155E-10	2.306E-10	1.754E-10	1.416E-10

Insert Table 2.3-xxx    Annual Average D/Q Values for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3) (Based on 1985-1989 met data)

**Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors**

<b>Sector</b>	<b>Distance in Miles from the Site</b>										
	<b>5</b>	<b>7.5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	<b>45</b>	<b>50</b>
N	1.364E-10	6.574E-11	3.996E-11	2.105E-11	2.895E-11	2.092E-11	1.361E-11	1.056E-11	8.277E-12	6.632E-12	5.417E-12
NNE	2.107E-10	9.883E-11	5.986E-11	3.098E-11	1.950E-11	1.378E-11	1.050E-11	8.413E-12	6.976E-12	5.945E-12	5.189E-12
NE	1.683E-10	7.727E-11	4.722E-11	2.456E-11	1.539E-11	1.090E-11	8.410E-12	6.876E-12	5.845E-12	5.089E-12	4.558E-12
ENE	1.339E-10	6.177E-11	3.780E-11	1.972E-11	1.240E-11	8.871E-12	6.932E-12	5.752E-12	4.958E-12	4.373E-12	3.970E-12
E	1.197E-10	5.551E-11	3.412E-11	1.794E-11	1.127E-11	8.109E-12	6.156E-12	4.855E-12	3.938E-12	3.263E-12	2.755E-12
ESE	1.166E-10	5.409E-11	3.330E-11	1.752E-11	1.103E-11	7.967E-12	6.093E-12	4.858E-12	3.998E-12	3.425E-12	3.212E-12
SE	9.837E-11	4.570E-11	2.807E-11	1.479E-11	9.318E-12	6.704E-12	5.267E-12	4.368E-12	3.782E-12	3.359E-12	3.062E-12
SSE	8.619E-11	3.991E-11	2.449E-11	1.278E-11	8.090E-12	5.787E-12	9.466E-12	1.413E-11	1.202E-11	9.480E-12	7.206E-12
S	6.103E-11	2.786E-11	1.703E-11	8.808E-12	5.503E-12	3.905E-12	3.037E-12	2.521E-12	3.209E-12	3.650E-12	5.129E-12
SSW	5.036E-11	2.303E-11	1.408E-11	7.300E-12	4.574E-12	3.248E-12	2.514E-12	2.067E-12	1.774E-12	1.705E-12	1.993E-12
SW	1.619E-10	7.624E-11	4.581E-11	2.359E-11	1.475E-11	1.031E-11	7.719E-12	6.045E-12	4.906E-12	4.128E-12	3.646E-12
WSW	1.073E-10	5.018E-11	2.988E-11	1.523E-11	9.519E-12	6.752E-12	6.160E-12	5.460E-12	4.419E-12	3.579E-12	2.971E-12
W	1.139E-10	5.332E-11	3.228E-11	2.195E-11	1.703E-11	1.165E-11	8.529E-12	6.465E-12	5.032E-12	4.023E-12	3.284E-12
WNW	1.387E-10	6.622E-11	3.962E-11	3.293E-11	2.289E-11	1.552E-11	1.118E-11	8.433E-12	6.563E-12	5.243E-12	4.281E-12
NW	1.517E-10	7.161E-11	4.338E-11	2.266E-11	2.469E-11	1.806E-11	1.301E-11	9.672E-12	7.554E-12	6.050E-12	4.943E-12
NNW	1.137E-10	5.372E-11	3.236E-11	2.460E-11	2.173E-11	1.439E-11	1.030E-11	7.814E-12	6.088E-12	4.869E-12	3.976E-12

Insert Table 2.3-xxx Annual Average D/Q Values for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3) (Based on 1985-1989 met data)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	6.723E-09	1.817E-09	5.828E-10	2.887E-10	1.712E-10	6.998E-11	2.876E-11	2.014E-11	1.056E-11	6.669E-12
NNE	1.163E-08	2.918E-09	8.983E-10	4.437E-10	2.648E-10	1.064E-10	3.229E-11	1.399E-11	8.461E-12	5.970E-12
NE	1.277E-08	2.834E-09	7.861E-10	3.670E-10	2.125E-10	8.414E-11	2.552E-11	1.110E-11	6.922E-12	5.116E-12
ENE	9.728E-09	2.196E-09	6.173E-10	2.904E-10	1.688E-10	6.714E-11	2.049E-11	9.037E-12	5.787E-12	4.397E-12
E	8.520E-09	1.944E-09	5.469E-10	2.582E-10	1.507E-10	6.028E-11	1.857E-11	8.171E-12	4.878E-12	3.275E-12
ESE	8.356E-09	1.902E-09	5.330E-10	2.513E-10	1.466E-10	5.874E-11	1.814E-11	8.034E-12	4.883E-12	3.516E-12
SE	6.987E-09	1.596E-09	4.489E-10	2.120E-10	1.237E-10	4.957E-11	1.531E-11	6.827E-12	4.402E-12	3.374E-12
SSE	6.304E-09	1.420E-09	3.977E-10	1.869E-10	1.086E-10	4.334E-11	1.330E-11	7.873E-12	1.199E-11	9.390E-12
S	4.813E-09	1.051E-09	2.887E-10	1.339E-10	7.718E-11	3.042E-11	9.166E-12	3.984E-12	2.931E-12	4.067E-12
SSW	3.989E-09	8.713E-10	2.383E-10	1.103E-10	6.365E-11	2.512E-11	7.594E-12	3.308E-12	2.083E-12	1.832E-12
SW	7.887E-09	2.203E-09	6.995E-10	3.433E-10	2.031E-10	8.175E-11	2.460E-11	1.046E-11	6.089E-12	4.180E-12
WSW	5.027E-09	1.400E-09	4.461E-10	2.197E-10	1.329E-10	5.384E-11	1.595E-11	7.253E-12	5.264E-12	3.603E-12
W	6.317E-09	1.669E-09	5.059E-10	2.437E-10	1.432E-10	5.744E-11	2.206E-11	1.184E-11	6.509E-12	4.048E-12
WNW	7.819E-09	2.012E-09	6.119E-10	2.959E-10	1.742E-10	7.050E-11	2.995E-11	1.575E-11	8.504E-12	5.278E-12
NW	7.716E-09	2.145E-09	6.637E-10	3.227E-10	1.904E-10	7.686E-11	2.817E-11	1.781E-11	9.820E-12	6.086E-12
NNW	5.220E-09	1.439E-09	4.696E-10	2.338E-10	1.413E-10	5.755E-11	2.505E-11	1.471E-11	7.867E-12	4.899E-12

**Markup of Detroit Edison ER**  
(following 105 pages)

The following markup represents how Detroit Edison intends to reflect these RAI responses in a future submittal of the Fermi 3 ER. However, the same COLA content may be impacted by revisions to the ESBWR DCD, responses to other COLA RAIs, other COLA changes, plant design changes, editorial or typographical corrections, etc. As a result, the final COLA content that appears in a future submittal may be different than presented here.

- Type of release: Ground-level
- Wind sensor height: 10 meters
- Vertical temperature difference: between 10 m to 60 m
- Number of wind speed categories: 9 ← 14
- Release height: 10 meters (default height)
- Distances from release point to Dose Calculation EAB for all downwind sectors: 740 meters
- Distances from release point to Dose Calculation LPZ for all downwind sectors: 4670 meters

PAVAN Modeling Results

This

5.675E-05

4.026E-06

Based on the upper envelope of the ordered 5-percent overall site limit X/Q values as calculated by the PAVAN model, the 50-percentile overall site (i.e., non-direction specific) X/Qs at the Dose Calculation EAB and LPZ are estimated to be ~~5.779 × 10<sup>-5</sup>~~ sec/m<sup>3</sup> and ~~4.011 × 10<sup>-6</sup>~~ sec/m<sup>3</sup>, respectively. These model predicted X/Q values represent a 0- to 2-hour time interval. The LPZ X/Q values for intermediate time periods (i.e., 8 hours, 16 hours, 72 hours, and 624 hours) were determined by logarithmic interpolation between the 50-percentile 0- to 2-hour X/Q value at the Dose Calculation LPZ and the corresponding annual average X/Qs. These results, along with the 50-percentile, 0- to 2-hour and the annual average X/Q values, are summarized below:

5.675E-05	Location	0-2 hours X/Q (sec/m <sup>3</sup> )	0-8 hours X/Q (sec/m <sup>3</sup> )	8-24 hours X/Q (sec/m <sup>3</sup> )	1-4 days X/Q (sec/m <sup>3</sup> )	4-30 days X/Q (sec/m <sup>3</sup> )	Annual Average X/Q (sec/m <sup>3</sup> )	4.09E-05
	Dose Calculation EAB	<del>5.779E-05</del>					<del>4.09E-05</del>	
	Dose Calculation LPZ	<del>4.011E-06</del> <del>3.046E-06</del> <del>2.654E-06</del> <del>1.060E-06</del> <del>1.282E-06</del> <del>7.59E-07</del>	4.026E-06	3.057E-06	2.664E-06	1.977E-06	1.287E-06	7.62E-07

### 2.7.6.2 Long-Term (Routine) Diffusion Estimates

#### Basis

The NRC-sponsored XOQDOQ computer program, as described in NUREG/CR-2919 (Reference 2.7-47), is used to estimate X/Q values due to routine releases of gaseous effluents to the atmosphere. The XOQDOQ program has the primary function of calculating annual average X/Q values and annual average relative deposition (D/Q) values at receptors of interest (e.g., at the site boundary and at the nearest residence, vegetable garden, etc.). The X/Q and D/Q values due to intermittent releases, which occur during routine operation, may also be evaluated using the XOQDOQ program.

The meteorological tower is located east of a grove of trees that is located less than ten times the obstruction height recommended in Regulatory Guide 1.23. The impact of the trees, for upwind sectors, is to reduce the indicated wind speed at the 10 meter elevation. For determination of the atmospheric dispersion factors used in the analysis of off-site routine releases the XOQDOQ program was run for both the 2002-2007 and 1985-1989 met data and both sets of results are reported.

The XOQDOQ program implements the assumptions outlined in Regulatory Guide 1.111. The program assumes that the material released to the atmosphere follows a Gaussian distribution around the plume centerline. In estimating concentrations for longer time periods, the Gaussian distribution is assumed to be evenly distributed within a given directional sector. A straight-line trajectory is assumed between the release point and all receptors. ~~Long term X/Q models are conservatively determined to apply broadly within compass sector and radial ring regions; thus, the very local impacts of over-water wind trajectory changes will not have a significant impact on the X/Q values. The only potential impact of the trajectories over Lake Erie is to the collective dose for the population within 50 miles of the site, and based on the small percentage of the population that is potentially impacted by this trajectory, no specific modeling conditions are included for this trajectory condition.~~

The XOQDOQ program input data and assumptions are presented below:

- Meteorological data: 6-year (2002-2007) composite onsite joint frequency distributions of wind speed, wind direction, and atmospheric stability
  - Type of release: Ground-level (Radwaste Building stack); mixed-mode (Reactor Building/Fuel Building and Turbine Building stacks)
  - Wind sensor height: 10 meters
  - Vertical temperature difference: between 10 m to 60 m
  - Number of wind speed categories: 9 → 14
  - Release height: 10 meters (default height) for ground-level release; ~~52.62~~ m for Reactor Building/Fuel Building stack (mixed-mode); 71.30 m for Turbine Building stack (mixed-mode)
  - Building area: 350 m<sup>2</sup> for ground-level release, conservatively set to zero to neglect the building wake credit for the mixed-mode releases
  - Adjacent building height: N/A for ground-level release; ~~48.05~~ m for Reactor Building/Fuel Building stack (mixed-mode); 52.0 m for Turbine Building stack (mixed-mode)
  - Average Vent Velocity: N/A for ground-level release; 17.78 m/s for Reactor Building/Fuel Building stack (mixed-mode); 17.78 m/s for Turbine Building stack (mixed-mode)
  - Inside Vent Diameter: N/A for ground-level release; 2.40 m for Reactor Building/Fuel Building stack (mixed-mode); 1.95 m for Turbine Building stack (mixed-mode)
  - Distances from release point to site boundary, nearest residence, nearest garden, nearest sheep, nearest goat, nearest meat cow, and nearest milk cow for all downwind sectors
  - Dry deposition is considered for all releases
  - Continuous release is assumed
  - Site and regional topography are included
- and 5-year  
(1985-1989)      52.77      48.20

As discussed in Regulatory Guide 1.111, Section C.3.c, for long term averages, dose calculations considering dry deposition only are not usually changed significantly by consideration of wet deposition. The effects of wet deposition would be considered for sites that have a well-defined rainy season corresponding to the grazing season. Based on examination of the meteorological data, the precipitation at the Fermi site is spread through-out the year, thus dry deposition is appropriate.

The distances from the release point to the site boundary, nearest residence, garden, sheep, goat, meat cow, and milk cow receptors in each downwind sector are presented in Table 2.7-80 through Table 2.7-86.

XOQDOQ Modeling Results

and 2.7-XX through 2.7-XX and  
Tables 2.7-xx through 2.7-XX

Table 2.7-87 through Table 2.7-95 summarize the maximum relative concentration and relative deposition (i.e., X/Q and D/Q) values predicted by the XOQDOQ program for the site boundary and identified goat and milk cow receptors in the Fermi 3 area due to routine releases of gaseous effluents assuming a ground-level release from the Radwaste Building stack and mixed-mode releases from the Reactor Building/Fuel Building stack and the Turbine Building stack. Only results for the receptors used in the limiting 10 CFR 50, Appendix I maximum individual dose analysis are reported. For the nearest residence, vegetable garden, sheep, and meat cow, the receptor is assumed to be at the site boundary (Table 2.7-87). For the goat milk and cow milk, the receptor is taken at the limiting location noted from the site annual land use census. These distances are shown in Table 2.7-84 for the goat milk and Table 2.7-86 for the cow milk. The listed X/Q values reflect several plume depletion scenarios that account for radioactive decay (i.e., no decay, and the default half-life decay periods of 2.26 and 8 days). In Table 2.7-87 through Table 2.7-95, X/Q and D/Q values are presented for those sectors identified in Table 2.7-80 through Table 2.7-86.

the

and 2.7-  
XX  
through  
2.7-XX

The maximum annual average X/Q values (with no decay along with the direction and distance of the receptor locations relative to Fermi 3) for the various receptor types are:

- $9.3E-06 \text{ sec/m}^3$  occurring at a distance of 1131 m for the site boundary receptor in the SSE sector for a ground-level release
- $5.0E-07 \text{ sec/m}^3$  occurring at a distance of 919 m for the site boundary receptor sector for a mixed-mode release from the Reactor Building/Fuel Building stack
- $5.5E-07 \text{ sec/m}^3$  occurring at a distance of 919 m for the site boundary receptor sector for a mixed-mode release from the Turbine Building stack
- $2.6E-07 \text{ sec/m}^3$  occurring at a distance of 3704 m for the nearest goat receptor sector for a ground-level release
- $6.1E-08 \text{ sec/m}^3$  occurring at a distance of 3704 m for the nearest goat receptor in the WNW sector for a mixed-mode release from the Reactor Building/Fuel Building stack
- $5.4E-08 \text{ sec/m}^3$  occurring at a distance of 3704 m for the nearest goat receptor in the WNW sector for a mixed-mode release from the Turbine Building stack

Tables 2.7-XX  
through 2.7-XX  
provide  
corresponding  
results based on  
the 1985-1989 met  
data.

Distances to the receptors  
are shown in Tables 2.7-80  
through 2.7-86 and are  
determined from a circle  
that encompasses the  
possible release locations.

- ~~• 3.0E-07 sec/m<sup>3</sup> occurring at a distance of 3513 m for the nearest milk cow receptor in the WNW sector for a ground-level release~~
- ~~• 6.7E-08 sec/m<sup>3</sup> occurring at a distance of 3513 m for the nearest milk cow receptor in the WNW sector for a mixed-mode release from the Reactor Building/Fuel Building stack~~
- ~~• 5.8E-08 sec/m<sup>3</sup> occurring at a distance of 3513 m for the nearest milk cow receptor in the WNW sector for a mixed-mode release from the Turbine Building stack~~

Table 2.7-96 through Table 2.7-107 summarize annual average X/Q values (no decay and undepleted; 2.26 day decayed and undepleted; 8 day decayed and depleted) and D/Q values for the XOQDOQ program's 22 standard radial distances between 0.25 and 50 miles and for the program's 10 distance-segment boundaries between 0.5 and 50 miles downwind along each of the 16 standard direction radials (i.e., separated by 22.5°)

based on the 2002-2007 met data. Tables 2.7-XXX through 2.7-XXX provide similar results based on the 1985-1989 met data.

## 2.7.7 References

- 2.7-1 National Climatic Data Center (NCDC), "2006 Local Climatological Data Annual Summary with Comparative Data for Detroit Metropolitan Airport," January 2007.
- 2.7-2 National Climatic Data Center (NCDC), "2006 Local Climatological Data Annual Summary with Comparative Data for Flint, Michigan," January 2007.
- 2.7-3 National Climatic Data Center (NCDC), "2006 Local Climatological Data Annual Summary with Comparative Data for Toledo, Ohio," January 2007.
- 2.7-4 National Climatic Data Center (NCDC), "Climatography of the United States No. 20 for Monroe, Michigan 1971-2000," February 2004.
- 2.7-5 Environment Canada, "Canadian Climate Normals 1971-2000 for Windsor, Ontario," (25 February 2004),  
[http://www.climate.weatheroffice.ec.gc.ca/climate\\_normals/results\\_e.html?Province=ALL&StationName=windsor&SearchType=BeginsWith&LocateBy=Province&Proximity=25&ProximityFrom=City&StationNumber=&IDType=MSC&CityName=&ParkName=&LatitudeDegrees=&LatitudeMinutes=&LongitudeDegrees=&LongitudeMinutes=&NormalsClass=A&SelNormals=&StnId=4716&](http://www.climate.weatheroffice.ec.gc.ca/climate_normals/results_e.html?Province=ALL&StationName=windsor&SearchType=BeginsWith&LocateBy=Province&Proximity=25&ProximityFrom=City&StationNumber=&IDType=MSC&CityName=&ParkName=&LatitudeDegrees=&LatitudeMinutes=&LongitudeDegrees=&LongitudeMinutes=&NormalsClass=A&SelNormals=&StnId=4716&), accessed 2 July 2008.
- 2.7-6 Fermi 3 is located on the shore of Lake Erie and a portion of the effluent could be transported across Lake Erie prior to reaching populations. Trajectories over extensive water surfaces could result in larger atmospheric diffusion rates (i.e., decreased dispersion) when compared to over land trajectories due to differences in surface roughness and static stability (Reference 2.7-XXX). To account for this decreased dispersion, the stability classifications for the met data for the upwind sectors were adjusted to the next higher stability classification. For example, for upwind sectors, the hours in stability class A were moved to stability class B and so forth. The annual average X/Q results are based on the Joint Frequency Distributions based on these stability adjustments.
- 2.7-7 Add new Reference 2.7-XXX
- 2.7-8 NRPB-W2, Atmospheric Dispersion Modeling Liaison Committee, Annual Report 1999/2000, Review of Dispersion Over Bodies of Water, Published February 2002.

**Table 2.7-87 Site Boundary X/Q and D/Q Factors for Ground-Level Release**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	7.9E-06	7.9E-06	7.1E-06	2.8E-08
NNE	5.6E-06	5.6E-06	4.9E-06	2.3E-08
NE	3.0E-06	3.0E-06	2.6E-06	1.1E-08
SSE	9.3E-06	9.3E-06	8.3E-06	2.6E-08
S	6.7E-06	6.7E-06	6.0E-06	2.1E-08
SSW	4.6E-06	Insert Table 2.7-87		4.1E-06
SW	2.2E-06	2.2E-06	1.9E-06	1.2E-08
WSW	2.2E-06	2.2E-06	2.0E-06	1.5E-08
W	4.3E-06	4.3E-06	3.9E-06	2.8E-08
WNW	6.2E-06	6.2E-06	5.6E-06	3.5E-08
NW	6.5E-06	6.5E-06	5.9E-06	3.4E-08
NNW	7.2E-06	7.2E-06	6.5E-06	3.0E-08

Note: There are no values listed for the ENE, E, ESE and SE sectors because these sectors are directly towards Lake Erie.

**Table 2.7-88 Site Boundary X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	4.3E-07	4.3E-07	3.9E-07	8.6E-09
NNE	4.9E-07	4.9E-07	4.5E-07	8.6E-09
NE	2.8E-07	2.8E-07	2.6E-07	4.8E-09
SSE	2.9E-07	2.9E-07	2.8E-07	7.7E-09
S	3.0E-07	3.0E-07	2.8E-07	6.2E-09
SSW	2.3E-07	Insert Table 2.7-88		5.0E-09
SW	2.4E-07	2.4E-07	2.3E-07	4.9E-09
WSW	2.7E-07	2.7E-07	2.5E-07	6.7E-09
W	4.6E-07	4.6E-07	4.3E-07	1.2E-08
WNW	5.0E-07	5.0E-07	4.7E-07	1.4E-08
NW	4.9E-07	4.9E-07	4.6E-07	1.4E-08
NNW	4.5E-07	4.5E-07	4.2E-07	1.1E-08

Note: There are no values listed for the ENE, E, ESE and SE sectors because these sectors are directly towards Lake Erie.

**Table 2.7-89 Site Boundary X/Q and D/Q Factors for Mixed-Mode Release from the Turbine Building Stack**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	4.9E-07	4.9E-07	4.5E-07	8.2E-09
NNE	5.1E-07	5.1E-07	4.6E-07	8.2E-09
NE	2.6E-07	2.6E-07	2.3E-07	4.1E-09
SSE	3.6E-07	3.6E-07	3.3E-07	7.0E-09
S	3.5E-07	3.5E-07	3.2E-07	5.5E-09
SSW	2.6E-07	2.6E-07	2.3E-07	4.4E-09
SW	2.1E-07	2.1E-07	2.0E-07	4.0E-09
WSW	2.5E-07	2.5E-07	2.3E-07	5.8E-09
W	4.8E-07	4.8E-07	4.4E-07	1.1E-08
WNW	5.5E-07	5.5E-07	5.1E-07	1.3E-08
NW	5.4E-07	5.4E-07	5.0E-07	1.2E-08
NNW	5.2E-07	5.2E-07	4.8E-07	1.0E-08

Insert Table 2.7-89

Note: There are no values listed for the ENE, E, ESE and SE sectors because these sectors are directly towards Lake Erie.

(Based on  
2002-2007 met  
data)

Insert Table 2.7-87 Site Boundary X/Q and D/Q Factors for Ground-Level Release

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	9.6E-06	9.5E-06	8.7E-06	3.5E-08
NNE	6.8E-06	6.8E-06	6.0E-06	2.9E-08
NE	3.5E-06	3.4E-06	3.0E-06	1.3E-08
SSE	1.1E-05	1.1E-05	1.0E-05	3.3E-08
S	8.2E-06	8.2E-06	7.4E-06	2.6E-08
SSW	5.8E-06	5.8E-06	5.2E-06	2.1E-08
SW	2.7E-06	2.7E-06	2.4E-06	1.5E-08
WSW	2.6E-06	2.6E-06	2.3E-06	1.9E-08
W	5.5E-06	5.5E-06	5.1E-06	3.7E-08
WNW	8.1E-06	8.1E-06	7.4E-06	4.6E-08
NW	7.9E-06	7.9E-06	7.2E-06	4.4E-08
NNW	9.2E-06	9.2E-06	8.4E-06	3.9E-08

Note: There are no values listed for the ENE, E, ESE and SE sectors because these sectors are directly towards Lake Erie.

(Based on  
2002-2007 met  
data)

Insert Table 2.7-88 Site Boundary X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	5.3E-07	5.3E-07	4.9E-07	1.0E-08
NNE	6.0E-07	6.0E-07	5.5E-07	1.1E-08
NE	3.3E-07	3.3E-07	3.1E-07	5.8E-09
SSE	3.8E-07	3.8E-07	3.5E-07	9.2E-09
S	3.8E-07	3.8E-07	3.5E-07	7.4E-09
SSW	2.8E-07	2.8E-07	2.6E-07	5.8E-09
SW	2.9E-07	2.9E-07	2.7E-07	6.0E-09
WSW	3.2E-07	3.2E-07	2.9E-07	8.1E-09
W	5.7E-07	5.7E-07	5.3E-07	1.5E-08
WNW	6.6E-07	6.6E-07	6.2E-07	1.7E-08
NW	6.4E-07	6.4E-07	6.1E-07	1.6E-08
NNW	6.0E-07	6.0E-07	5.6E-07	1.3E-08

Note: There are no values listed for the ENE, E, ESE and SE sectors because these sectors are directly towards Lake Erie.

2.8E-07

(Based on  
2002-2007 met  
data)

Insert Table 2.7-89 Site Boundary X/Q and D/Q Factors for Mixed-Mode Release from the Turbine Building Stack

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	6.1E-07	6.1E-07	5.6E-07	9.6E-09
NNE	6.3E-07	6.3E-07	5.7E-07	1.0E-08
NE	2.9E-07	2.9E-07	2.7E-07	4.8E-09
SSE	4.3E-07	4.3E-07	3.9E-07	8.1E-09
S	4.2E-07	4.2E-07	3.9E-07	6.3E-09
SSW	3.0E-07	3.0E-07	2.8E-07	5.1E-09
SW	2.6E-07	2.6E-07	2.3E-07	5.0E-09
WSW	3.0E-07	3.0E-07	2.7E-07	7.0E-09
W	6.2E-07	6.2E-07	5.7E-07	1.4E-08
WNW	7.2E-07	7.2E-07	6.7E-07	1.5E-08
NW	7.1E-07	7.1E-07	6.6E-07	1.5E-08
NNW	6.8E-07	6.8E-07	6.3E-07	1.2E-08

Note: There are no values listed for the ENE, E, ESE and SE sectors because these sectors are directly towards Lake Erie.

**Table 2.7-90 Nearest Goat X/Q and D/Q Factors for Ground-Level Release**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	<del>2.6E-07</del>	2.7E-07	<del>2.6E-07</del>	<del>2.7E-07</del>
NNW	1.7E-07	1.7E-07	1.3E-07	<del>5.0E-10</del>

**Table 2.7-91 Nearest Goat X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )				
WNW	6.1E-08	6.6E-08	6.1E-08	6.5E-08	5.6E-08	6.0E-08	7.7E-10	8.4E-10
NNW	3.4E-08	3.5E-08	3.3E-08	3.5E-08	3.1E-08	3.2E-08	2.9E-10	3.0E-10

Table 2.7-92 Nearest Goat X/Q and D/Q Factors for Mixed-Mode Release from the  
Turbine Building Stack

Sector	Distance (miles)	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )					
WNW	2.00	2.21	5.4E-08	5.7E-08	5.7E-08	4.8E-08	5.1E-08	7.4E-10	7.9E-10	
NNW	0.00	2.99	2.9E-08	3.0E-08	2.9E-08	3.0E-08	2.0E-08	2.7E-08	2.9E-10	3.0E-10

Table 2.7-93 Nearest Milk Cow X/Q and D/Q Factors for Ground-Level Release

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )				
WNW	<del>3.0E-07</del>	3.1E-07	<del>2.9E-07</del>	3.1E-07	<del>2.4E-07</del>	2.5E-07	<del>1.5E-09</del>	1.7E-09
NW	<del>1.1E-07</del>	1.0E-07	<del>1.1E-07</del>	1.0E-07	<del>8.5E-08</del>	7.9E-08	<del>4.5E-10</del>	4.7E-10

**Table 2.7-94 Nearest Milk Cow X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	0.70E-08	7.2E-08	0.00E-08	7.2E-08
NW	2.70E-08	2.8E-08	2.70E-08	2.7E-08

2.5E-08

**Table 2.7-95 Nearest Milk Cow X/Q and D/Q Factors for Mixed-Mode Release from the Turbine Building Stack**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	5.80E-08	6.2E-08	5.80E-08	6.2E-08
NW	2.40E-08	2.4E-08	2.30E-08	2.4E-08

5.6E-08

8.9E-10

2.7E-10

2.1E-08

Insert new X/Q and D/Q Receptor Tables  
after last 2.7 table.

(Based on  
2002-2007 met  
data)

**Insert Table 2.7-xxx Nearest Residence X/Q and D/Q Factors for Ground-Level Release**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	2.8E-06	2.8E-06	2.4E-06	1.2E-08
NE	3.0E-06	2.9E-06	2.5E-06	1.1E-08
SSE	6.1E-06	6.1E-06	5.4E-06	1.8E-08
SSW	3.5E-06	3.5E-06	3.1E-06	1.3E-08
SW	2.0E-06	2.0E-06	1.8E-06	1.1E-08
WSW	1.0E-06	1.0E-06	8.8E-07	7.3E-09
W	1.7E-06	1.7E-06	1.5E-06	1.2E-08
NW	5.3E-06	5.3E-06	4.8E-06	3.1E-08
NNW	1.5E-06	1.5E-06	1.3E-06	7.0E-09

**Insert Table 2.7-xxx Nearest Residence X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	3.3E-07	3.3E-07	3.0E-07	4.8E-09
NE	3.0E-07	3.0E-07	2.8E-07	5.0E-09
SSE	2.7E-07	2.7E-07	2.5E-07	5.9E-09
SSW	2.2E-07	2.2E-07	2.0E-07	4.1E-09
SW	2.4E-07	2.4E-07	2.3E-07	4.7E-09
WSW	1.8E-07	1.8E-07	1.7E-07	3.7E-09
W	2.7E-07	2.7E-07	2.5E-07	6.0E-09
NW	4.7E-07	4.7E-07	4.4E-07	1.2E-08
NNW	1.6E-07	1.6E-07	1.5E-07	2.9E-09

(Based on  
2002-2007 met  
data)

**Insert Table 2.7-xxx Nearest Residence X/Q and D/Q Factors for Mixed-Mode Release from the Turbine Building Stack**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	3.1E-07	3.1E-07	2.8E-07	4.5E-09
NE	2.6E-07	2.6E-07	2.4E-07	4.2E-09
SSE	2.7E-07	2.7E-07	2.5E-07	5.3E-09
SSW	2.2E-07	2.2E-07	2.0E-07	3.7E-09
SW	2.1E-07	2.1E-07	1.9E-07	4.0E-09
WSW	1.5E-07	1.5E-07	1.4E-07	3.2E-09
W	2.5E-07	2.5E-07	2.3E-07	5.9E-09
NW	5.1E-07	5.1E-07	4.7E-07	1.2E-08
NNW	1.6E-07	1.6E-07	1.4E-07	2.9E-09

**Insert Table 2.7-xxx Nearest Garden X/Q and D/Q Factors for Ground-Level Release**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	4.4E-07	4.3E-07	3.6E-07	1.5E-09
NNE	8.4E-07	8.4E-07	6.9E-07	3.2E-09
NE	8.9E-07	8.8E-07	7.3E-07	3.1E-09
S	1.8E-06	1.8E-06	1.5E-06	5.7E-09
WSW	2.0E-07	2.0E-07	1.7E-07	1.3E-09
W	5.4E-07	5.4E-07	4.6E-07	3.7E-09
NW	5.3E-06	5.3E-06	4.8E-06	3.1E-08
NNW	2.0E-06	2.0E-06	1.7E-06	9.0E-09

**Insert Table 2.7-xxx Nearest Garden X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack**

(Based on  
2002-2007 met  
data)

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	7.4E-08	7.3E-08	6.8E-08	6.0E-10
NNE	1.4E-07	1.4E-07	1.3E-07	1.4E-09
NE	1.4E-07	1.4E-07	1.3E-07	1.6E-09
S	1.4E-07	1.4E-07	1.3E-07	2.1E-09
WSW	6.0E-08	6.0E-08	5.6E-08	8.1E-10
W	1.2E-07	1.2E-07	1.1E-07	2.1E-09
NW	4.7E-07	4.7E-07	4.4E-07	1.2E-08
NNW	1.9E-07	1.9E-07	1.8E-07	3.7E-09

5.5E-08

**Insert Table 2.7-xxx Nearest Garden X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	6.2E-08	6.2E-08	5.6E-08	5.9E-10
NNE	1.3E-07	1.3E-07	1.1E-07	1.4E-09
NE	1.2E-07	1.2E-07	1.1E-07	1.4E-09
S	1.4E-07	1.3E-07	1.2E-07	1.9E-09
WSW	5.1E-08	5.1E-08	4.6E-08	7.3E-10
W	1.1E-07	1.1E-07	9.8E-08	2.0E-09
NW	5.0E-07	5.0E-07	4.7E-07	1.1E-08
NNW	1.9E-07	1.9E-07	1.7E-07	3.7E-09

**Insert Table 2.7-xxx Nearest Sheep X/Q and D/Q Factors for Ground Level Release**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	1.9E-07	1.8E-07	1.4E-07	5.7E-10
NNW	8.1E-08	8.0E-08	6.1E-08	2.6E-10

**Insert Table 2.7-xxx Nearest Sheep X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.8E-08	4.7E-08	4.3E-08	2.8E-10
NNW	2.0E-08	2.0E-08	1.8E-08	1.4E-10

**Insert Table 2.7-xxx Nearest Sheep X/Q and D/Q Factors for Mixed-Mode Release from the Turbine Building Stack**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.1E-08	4.0E-08	3.6E-08	2.8E-10
NNW	1.7E-08	1.7E-08	1.5E-08	1.4E-10

(Based on  
2002-2007 met  
data)

**Insert Table 2.7-xxx Nearest Meat Cow X/Q and D/Q Factors for Ground Level Release**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	1.9E-07	1.8E-07	1.4E-07	5.7E-10
NNW	1.7E-07	1.7E-07	1.4E-07	6.4E-10

**Insert Table 2.7-xxx Nearest Meat Cow X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.8E-08	4.7E-08	4.3E-08	2.8E-10
NNW	3.6E-08	3.6E-08	3.3E-08	3.1E-10

**Insert Table 2.7-xxx Nearest Meat Cow X/Q and D/Q Factors for Mixed-Mode Release from the Turbine Building Stack**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.1E-08	4.0E-08	3.6E-08	2.8E-10
NNW	3.1E-08	3.1E-08	2.7E-08	3.1E-10

**Table 2.7-96 Annual Average X/Q Values (No Decay, Undepleted) for Ground Level Release (Sheet 1 of 3)**

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	4.464E-05	1.291E-05	6.302E-06	3.000E-06	1.130E-06	5.929E-07	3.689E-07	2.544E-07	1.879E-07	1.456E-07	1.170E-07
NNE	7.320E-05	2.121E-05	1.036E-05	4.931E-06	1.854E-06	9.724E-07	6.046E-07	4.166E-07	3.074E-07	2.381E-07	1.912E-07
NE	8.036E-05	2.333E-05	1.140E-05	5.430E-06	2.038E-06	1.067E-06	6.621E-07	4.555E-07	3.356E-07	2.596E-07	2.082E-07
ENE	9.779E-05	2.840E-05	1.384E-05	6.605E-06	2.491E-06	1.309E-06	8.159E-07	5.633E-07	4.164E-07	3.230E-07	2.597E-07
E	9.458E-05	2.735E-05	1.326E-05	6.333E-06	2.396E-06	1.264E-06	7.898E-07	5.468E-07	4.051E-07	3.150E-07	2.538E-07
ESE	1.214E-04	3.511E-05	1.698E-05	8.117E-06	3.083E-06	1.632E-06	1.024E-06	7.107E-07	5.279E-07	4.113E-07	3.321E-07
SE	7.993E-05	2.313E-05	1.123E-05	5.3 [Insert new Tables 2.7-96 through 2.7-107]	7	4.627E-07	3.428E-07	2.665E-07	2.147E-07		
SSE	5.915E-05	1.711E-05	8.318E-06	3.968E-06	1.497E-06	7.872E-07	4.908E-07	3.391E-07	2.507E-07	1.946E-07	1.566E-07
S	4.212E-05	1.224E-05	5.968E-06	2.845E-06	1.070E-06	5.615E-07	3.493E-07	2.408E-07	1.777E-07	1.377E-07	1.106E-07
SSW	2.990E-05	8.693E-06	4.257E-06	2.027E-06	7.586E-07	3.959E-07	2.451E-07	1.682E-07	1.237E-07	9.553E-08	7.650E-08
SW	2.490E-05	7.149E-06	3.497E-06	1.661E-06	6.193E-07	3.216E-07	1.982E-07	1.355E-07	9.926E-08	7.638E-08	6.096E-08
WSW	1.860E-05	5.285E-06	2.573E-06	1.220E-06	4.547E-07	2.362E-07	1.456E-07	9.955E-08	7.295E-08	5.616E-08	4.484E-08
W	2.015E-05	5.745E-06	2.796E-06	1.328E-06	4.974E-07	2.597E-07	1.608E-07	1.104E-07	8.116E-08	6.266E-08	5.018E-08
WNW	2.792E-05	7.916E-06	3.832E-06	1.820E-06	6.839E-07	3.582E-07	2.225E-07	1.532E-07	1.130E-07	8.746E-08	7.020E-08
NW	2.942E-05	8.268E-06	3.981E-06	1.889E-06	7.115E-07	3.736E-07	2.326E-07	1.605E-07	1.185E-07	9.191E-08	7.388E-08
NNW	3.201E-05	9.137E-06	4.425E-06	2.105E-06	7.945E-07	4.181E-07	2.607E-07	1.802E-07	1.333E-07	1.035E-07	8.384E-08

(Based on 2002-2007 met data)

Insert Table 2.7-96 Annual Average X/Q Values (no Decay, Undepleted) for Ground Level Release (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	4.096E-05	1.188E-05	5.798E-06	2.761E-06	1.040E-06	5.456E-07	3.395E-07	2.341E-07	1.728E-07	1.339E-07	1.076E-07
NNE	6.801E-05	1.974E-05	9.639E-06	4.591E-06	1.728E-06	9.064E-07	5.639E-07	3.888E-07	2.870E-07	2.224E-07	1.786E-07
NE	1.148E-04	3.343E-05	1.621E-05	7.747E-06	2.938E-06	1.555E-06	9.749E-07	6.768E-07	5.027E-07	3.917E-07	3.162E-07
ENE	1.347E-04	3.915E-05	1.893E-05	9.055E-06	3.442E-06	1.825E-06	1.147E-06	7.972E-07	5.930E-07	4.627E-07	3.740E-07
E	1.255E-04	3.635E-05	1.753E-05	8.383E-06	3.190E-06	1.693E-06	1.065E-06	7.409E-07	5.516E-07	4.307E-07	3.484E-07
ESE	1.615E-04	4.668E-05	2.245E-05	1.075E-05	4.100E-06	2.182E-06	1.375E-06	9.584E-07	7.146E-07	5.587E-07	4.525E-07
SE	1.071E-04	3.100E-05	1.495E-05	7.149E-06	2.719E-06	1.443E-06	9.071E-07	6.313E-07	4.699E-07	3.669E-07	2.967E-07
SSE	7.788E-05	2.259E-05	1.092E-05	5.220E-06	1.982E-06	1.051E-06	6.596E-07	4.585E-07	3.410E-07	2.660E-07	2.149E-07
S	5.836E-05	1.696E-05	8.205E-06	3.923E-06	1.491E-06	7.900E-07	4.960E-07	3.448E-07	2.564E-07	2.000E-07	1.616E-07
SSW	4.414E-05	1.288E-05	6.263E-06	2.992E-06	1.133E-06	5.985E-07	3.747E-07	2.598E-07	1.928E-07	1.501E-07	1.210E-07
SW	2.330E-05	6.709E-06	3.284E-06	1.561E-06	5.814E-07	3.017E-07	1.858E-07	1.270E-07	9.297E-08	7.150E-08	5.705E-08
WSW	1.680E-05	4.797E-06	2.340E-06	1.110E-06	4.131E-07	2.143E-07	1.319E-07	9.013E-08	6.598E-08	5.075E-08	4.049E-08
W	1.891E-05	5.406E-06	2.634E-06	1.251E-06	4.682E-07	2.441E-07	1.510E-07	1.036E-07	7.614E-08	5.876E-08	4.703E-08
WNW	2.642E-05	7.499E-06	3.633E-06	1.725E-06	6.486E-07	3.398E-07	2.111E-07	1.454E-07	1.072E-07	8.298E-08	6.661E-08
NW	2.587E-05	7.292E-06	3.515E-06	1.668E-06	6.280E-07	3.296E-07	2.051E-07	1.415E-07	1.045E-07	8.100E-08	6.510E-08
NNW	2.956E-05	8.461E-06	4.103E-06	1.952E-06	7.363E-07	3.872E-07	2.414E-07	1.667E-07	1.233E-07	9.567E-08	7.696E-08

Insert Table 2.7-96 Annual Average X/Q Values (no Decay, Undepleted) for Ground Level Release (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	8.888E-08	4.550E-08	2.948E-08	1.695E-08	1.151E-08	8.550E-09	6.715E-09	5.480E-09	4.599E-09	3.943E-09	3.437E-09
NNE	1.476E-07	7.553E-08	4.894E-08	2.813E-08	1.911E-08	1.419E-08	1.115E-08	9.099E-09	7.636E-09	6.546E-09	5.706E-09
NE	2.625E-07	1.369E-07	8.997E-08	5.276E-08	3.634E-08	2.729E-08	2.162E-08	1.778E-08	1.502E-08	1.295E-08	1.135E-08
ENE	3.107E-07	1.628E-07	1.073E-07	6.319E-08	4.365E-08	3.285E-08	2.609E-08	2.149E-08	1.818E-08	1.569E-08	1.376E-08
E	2.897E-07	1.522E-07	1.005E-07	5.943E-08	4.116E-08	3.104E-08	2.469E-08	2.037E-08	1.725E-08	1.491E-08	1.309E-08
ESE	3.766E-07	1.988E-07	1.317E-07	7.817E-08	5.430E-08	4.104E-08	3.271E-08	2.702E-08	2.292E-08	1.983E-08	1.743E-08
SE	2.467E-07	1.297E-07	8.565E-08	5.062E-08	3.506E-08	2.644E-08	2.103E-08	1.734E-08	1.469E-08	1.270E-08	1.115E-08
SSE	1.786E-07	9.355E-08	6.166E-08	3.633E-08	2.511E-08	1.890E-08	1.501E-08	1.237E-08	1.047E-08	9.038E-09	7.930E-09
S	1.342E-07	7.026E-08	4.628E-08	2.724E-08	1.881E-08	1.415E-08	1.124E-08	9.253E-09	7.827E-09	6.756E-09	5.926E-09
SSW	1.004E-07	5.218E-08	3.420E-08	1.998E-08	1.372E-08	1.028E-08	8.132E-09	6.677E-09	5.633E-09	4.851E-09	4.245E-09
SW	4.684E-08	2.340E-08	1.488E-08	8.335E-09	5.559E-09	4.071E-09	3.160E-09	2.554E-09	2.126E-09	1.809E-09	1.567E-09
WSW	3.325E-08	1.663E-08	1.059E-08	5.943E-09	3.971E-09	2.912E-09	2.264E-09	1.832E-09	1.527E-09	1.300E-09	1.127E-09
W	3.872E-08	1.957E-08	1.257E-08	7.132E-09	4.803E-09	3.544E-09	2.769E-09	2.251E-09	1.882E-09	1.608E-09	1.398E-09
WNW	5.499E-08	2.810E-08	1.819E-08	1.045E-08	7.101E-09	5.277E-09	4.148E-09	3.387E-09	2.845E-09	2.441E-09	2.129E-09
NW	5.383E-08	2.768E-08	1.800E-08	1.041E-08	7.111E-09	5.305E-09	4.183E-09	3.426E-09	2.884E-09	2.480E-09	2.167E-09
NNW	6.366E-08	3.278E-08	2.134E-08	1.235E-08	8.427E-09	6.283E-09	4.952E-09	4.053E-09	3.410E-09	2.930E-09	2.559E-09

Insert Table 2.7-96 Annual Average X/Q Values (no Decay, Undepleted) for Ground Level Release (Sheet 3 of 3)

**X/Q (sec/m<sup>3</sup>) for Each Segment**

<b>Sector</b>	<b>Segment Boundaries in Miles from the Site</b>									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.799E-06	1.203E-06	3.523E-07	1.755E-07	1.085E-07	4.802E-08	1.732E-08	8.606E-09	5.497E-09	3.950E-09
NNE	9.640E-06	1.999E-06	5.852E-07	2.914E-07	1.801E-07	7.972E-08	2.875E-08	1.429E-08	9.127E-09	6.558E-09
NE	1.628E-05	3.392E-06	1.010E-06	5.101E-07	3.187E-07	1.440E-07	5.373E-08	2.744E-08	1.783E-08	1.297E-08
ENE	1.903E-05	3.971E-06	1.188E-06	6.017E-07	3.768E-07	1.710E-07	6.431E-08	3.303E-08	2.154E-08	1.571E-08
E	1.765E-05	3.679E-06	1.103E-06	5.596E-07	3.510E-07	1.598E-07	6.045E-08	3.120E-08	2.042E-08	1.493E-08
ESE	2.263E-05	4.725E-06	1.423E-06	7.249E-07	4.559E-07	2.085E-07	7.945E-08	4.124E-08	2.708E-08	1.986E-08
SE	1.505E-05	3.136E-06	9.397E-07	4.768E-07	2.990E-07	1.361E-07	5.149E-08	2.657E-08	1.739E-08	1.271E-08
SSE	1.098E-05	2.288E-06	6.834E-07	3.460E-07	2.166E-07	9.827E-08	3.697E-08	1.900E-08	1.240E-08	9.051E-09
S	8.247E-06	1.720E-06	5.139E-07	2.602E-07	1.628E-07	7.382E-08	2.772E-08	1.423E-08	9.276E-09	6.766E-09
SSW	6.280E-06	1.308E-06	3.884E-07	1.957E-07	1.220E-07	5.490E-08	2.036E-08	1.034E-08	6.695E-09	4.858E-09
SW	3.279E-06	6.747E-07	1.932E-07	9.451E-08	5.755E-08	2.482E-08	8.557E-09	4.103E-09	2.564E-09	1.813E-09
WSW	2.339E-06	4.796E-07	1.372E-07	6.708E-08	4.085E-08	1.764E-08	6.099E-09	2.936E-09	1.839E-09	1.303E-09
W	2.635E-06	5.426E-07	1.569E-07	7.737E-08	4.743E-08	2.071E-08	7.305E-09	3.570E-09	2.258E-09	1.612E-09
WNW	3.644E-06	7.507E-07	2.191E-07	1.089E-07	6.716E-08	2.967E-08	1.068E-08	5.312E-09	3.398E-09	2.445E-09
NW	3.533E-06	7.265E-07	2.128E-07	1.061E-07	6.564E-08	2.919E-08	1.063E-08	5.338E-09	3.436E-09	2.484E-09
NNW	4.115E-06	8.513E-07	2.504E-07	1.252E-07	7.758E-08	3.456E-08	1.260E-08	6.322E-09	4.065E-09	2.934E-09

(Based on 2002-2007 met data)

Insert Table 2.7-97      Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Ground Level Release (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	4.091E-05	1.185E-05	5.777E-06	2.748E-06	1.032E-06	5.403E-07	3.354E-07	2.307E-07	1.699E-07	1.313E-07	1.052E-07
NNE	6.794E-05	1.970E-05	9.608E-06	4.571E-06	1.716E-06	8.985E-07	5.578E-07	3.837E-07	2.826E-07	2.185E-07	1.751E-07
NE	1.147E-04	3.334E-05	1.615E-05	7.708E-06	2.916E-06	1.539E-06	9.624E-07	6.664E-07	4.937E-07	3.836E-07	3.089E-07
ENE	1.345E-04	3.902E-05	1.885E-05	8.999E-06	3.410E-06	1.803E-06	1.129E-06	7.824E-07	5.801E-07	4.512E-07	3.635E-07
E	1.253E-04	3.622E-05	1.744E-05	8.325E-06	3.156E-06	1.669E-06	1.046E-06	7.254E-07	5.381E-07	4.186E-07	3.374E-07
ESE	1.612E-04	4.652E-05	2.233E-05	1.067E-05	4.057E-06	2.151E-06	1.350E-06	9.382E-07	6.971E-07	5.431E-07	4.383E-07
SE	1.069E-04	3.090E-05	1.488E-05	7.103E-06	2.693E-06	1.424E-06	8.926E-07	6.191E-07	4.594E-07	3.575E-07	2.882E-07
SSE	7.777E-05	2.253E-05	1.088E-05	5.192E-06	1.966E-06	1.039E-06	6.507E-07	4.511E-07	3.345E-07	2.602E-07	2.097E-07
S	5.828E-05	1.692E-05	8.175E-06	3.904E-06	1.480E-06	7.824E-07	4.900E-07	3.398E-07	2.520E-07	1.961E-07	1.581E-07
SSW	4.409E-05	1.285E-05	6.240E-06	2.977E-06	1.124E-06	5.926E-07	3.701E-07	2.559E-07	1.894E-07	1.471E-07	1.183E-07
SW	2.328E-05	6.696E-06	3.275E-06	1.555E-06	5.781E-07	2.994E-07	1.841E-07	1.255E-07	9.172E-08	7.040E-08	5.606E-08
WSW	1.679E-05	4.789E-06	2.335E-06	1.107E-06	4.113E-07	2.130E-07	1.310E-07	8.932E-08	6.529E-08	5.014E-08	3.994E-08
W	1.890E-05	5.398E-06	2.628E-06	1.247E-06	4.661E-07	2.427E-07	1.499E-07	1.027E-07	7.533E-08	5.805E-08	4.639E-08
WNW	2.639E-05	7.486E-06	3.623E-06	1.720E-06	6.453E-07	3.375E-07	2.093E-07	1.439E-07	1.059E-07	8.184E-08	6.558E-08
NW	2.585E-05	7.280E-06	3.507E-06	1.663E-06	6.250E-07	3.275E-07	2.035E-07	1.402E-07	1.034E-07	8.001E-08	6.420E-08
NNW	2.953E-05	8.443E-06	4.090E-06	1.944E-06	7.316E-07	3.840E-07	2.389E-07	1.646E-07	1.215E-07	9.408E-08	7.552E-08

Insert Table 2.7-97      Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Ground Level Release (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	8.674E-08	4.387E-08	2.808E-08	1.576E-08	1.046E-08	7.590E-09	5.828E-09	4.652E-09	3.820E-09	3.205E-09	2.735E-09
NNE	1.443E-07	7.308E-08	4.683E-08	2.635E-08	1.752E-08	1.274E-08	9.806E-09	7.843E-09	6.453E-09	5.425E-09	4.639E-09
NE	2.557E-07	1.317E-07	8.540E-08	4.881E-08	3.278E-08	2.400E-08	1.856E-08	1.490E-08	1.229E-08	1.035E-08	8.860E-09
ENE	3.011E-07	1.553E-07	1.008E-07	5.754E-08	3.856E-08	2.816E-08	2.171E-08	1.737E-08	1.428E-08	1.199E-08	1.023E-08
E	2.796E-07	1.443E-07	9.366E-08	5.346E-08	3.578E-08	2.608E-08	2.006E-08	1.601E-08	1.313E-08	1.099E-08	9.348E-09
ESE	3.635E-07	1.885E-07	1.227E-07	7.034E-08	4.722E-08	3.451E-08	2.661E-08	2.128E-08	1.748E-08	1.465E-08	1.248E-08
SE	2.388E-07	1.235E-07	8.028E-08	4.596E-08	3.085E-08	2.256E-08	1.741E-08	1.394E-08	1.146E-08	9.624E-09	8.211E-09
SSE	1.738E-07	8.981E-08	5.839E-08	3.349E-08	2.254E-08	1.654E-08	1.280E-08	1.029E-08	8.491E-09	7.154E-09	6.126E-09
S	1.310E-07	6.773E-08	4.407E-08	2.533E-08	1.709E-08	1.256E-08	9.751E-09	7.854E-09	6.499E-09	5.490E-09	4.714E-09
SSW	9.788E-08	5.025E-08	3.252E-08	1.854E-08	1.243E-08	9.091E-09	7.026E-09	5.638E-09	4.650E-09	3.916E-09	3.353E-09
SW	4.594E-08	2.272E-08	1.431E-08	7.857E-09	5.138E-09	3.690E-09	2.810E-09	2.229E-09	1.820E-09	1.521E-09	1.293E-09
WSW	3.275E-08	1.625E-08	1.027E-08	5.678E-09	3.737E-09	2.700E-09	2.068E-09	1.649E-09	1.354E-09	1.137E-09	9.713E-10
W	3.814E-08	1.913E-08	1.219E-08	6.815E-09	4.521E-09	3.288E-09	2.532E-09	2.028E-09	1.672E-09	1.409E-09	1.208E-09
WNW	5.404E-08	2.738E-08	1.757E-08	9.924E-09	6.630E-09	4.846E-09	3.747E-09	3.011E-09	2.489E-09	2.101E-09	1.805E-09
NW	5.300E-08	2.705E-08	1.746E-08	9.947E-09	6.691E-09	4.918E-09	3.822E-09	3.085E-09	2.560E-09	2.169E-09	1.869E-09
NNW	6.234E-08	3.177E-08	2.046E-08	1.160E-08	7.763E-09	5.676E-09	4.388E-09	3.524E-09	2.910E-09	2.455E-09	2.106E-09

Insert Table 2.7-97      Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Ground Level Release (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.780E-06	1.195E-06	3.481E-07	1.726E-07	1.061E-07	4.638E-08	1.614E-08	7.650E-09	4.671E-09	3.213E-09
NNE	9.611E-06	1.987E-06	5.790E-07	2.871E-07	1.766E-07	7.725E-08	2.698E-08	1.284E-08	7.875E-09	5.439E-09
NE	1.622E-05	3.369E-06	9.977E-07	5.011E-07	3.114E-07	1.387E-07	4.982E-08	2.416E-08	1.495E-08	1.037E-08
ENE	1.895E-05	3.938E-06	1.170E-06	5.888E-07	3.664E-07	1.635E-07	5.871E-08	2.835E-08	1.744E-08	1.201E-08
E	1.756E-05	3.644E-06	1.084E-06	5.461E-07	3.401E-07	1.519E-07	5.453E-08	2.626E-08	1.607E-08	1.102E-08
ESE	2.252E-05	4.680E-06	1.399E-06	7.073E-07	4.416E-07	1.981E-07	7.170E-08	3.474E-08	2.135E-08	1.469E-08
SE	1.498E-05	3.109E-06	9.250E-07	4.662E-07	2.904E-07	1.299E-07	4.687E-08	2.271E-08	1.399E-08	9.646E-09
SSE	1.094E-05	2.271E-06	6.745E-07	3.395E-07	2.114E-07	9.450E-08	3.416E-08	1.665E-08	1.032E-08	7.169E-09
S	8.219E-06	1.709E-06	5.079E-07	2.558E-07	1.593E-07	7.128E-08	2.583E-08	1.264E-08	7.880E-09	5.502E-09
SSW	6.258E-06	1.300E-06	3.838E-07	1.923E-07	1.193E-07	5.295E-08	1.893E-08	9.154E-09	5.658E-09	3.925E-09
SW	3.270E-06	6.713E-07	1.914E-07	9.325E-08	5.656E-08	2.414E-08	8.082E-09	3.724E-09	2.239E-09	1.525E-09
WSW	2.335E-06	4.777E-07	1.362E-07	6.639E-08	4.030E-08	1.726E-08	5.836E-09	2.724E-09	1.656E-09	1.140E-09
W	2.630E-06	5.404E-07	1.557E-07	7.656E-08	4.678E-08	2.027E-08	6.990E-09	3.314E-09	2.036E-09	1.412E-09
WNW	3.636E-06	7.472E-07	2.173E-07	1.076E-07	6.612E-08	2.894E-08	1.016E-08	4.882E-09	3.022E-09	2.106E-09
NW	3.526E-06	7.235E-07	2.113E-07	1.050E-07	6.474E-08	2.855E-08	1.017E-08	4.952E-09	3.095E-09	2.174E-09
NNW	4.103E-06	8.465E-07	2.479E-07	1.234E-07	7.614E-08	3.354E-08	1.186E-08	5.717E-09	3.537E-09	2.461E-09

(Based on 2002-2007 met data)

Insert Table 2.7-98      Annual Average X/Q Values (8.0 Day Decay, Undepleted) for Ground Level Release (Sheet 1 of 3) ←

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	3.875E-05	1.084E-05	5.162E-06	2.414E-06	8.810E-07	4.505E-07	2.740E-07	1.852E-07	1.342E-07	1.022E-07	8.084E-08
NNE	6.435E-05	1.802E-05	8.582E-06	4.014E-06	1.464E-06	7.487E-07	4.554E-07	3.077E-07	2.230E-07	1.698E-07	1.343E-07
NE	1.086E-04	3.050E-05	1.443E-05	6.772E-06	2.490E-06	1.284E-06	7.868E-07	5.352E-07	3.902E-07	2.989E-07	2.375E-07
ENE	1.275E-04	3.572E-05	1.685E-05	7.912E-06	2.916E-06	1.506E-06	9.246E-07	6.299E-07	4.599E-07	3.526E-07	2.805E-07
E	1.187E-04	3.316E-05	1.560E-05	7.324E-06	2.701E-06	1.396E-06	8.580E-07	5.850E-07	4.274E-07	3.280E-07	2.610E-07
ESE	1.528E-04	4.259E-05	1.998E-05	9.390E-06	3.472E-06	1.799E-06	1.108E-06	7.567E-07	5.537E-07	4.255E-07	3.390E-07
SE	1.013E-04	2.829E-05	1.330E-05	6.246E-06	2.303E-06	1.190E-06	7.314E-07	4.987E-07	3.643E-07	2.796E-07	2.225E-07
SSE	7.367E-05	2.062E-05	9.720E-06	4.562E-06	1.680E-06	8.673E-07	5.323E-07	3.625E-07	2.646E-07	2.029E-07	1.614E-07
S	5.521E-05	1.547E-05	7.304E-06	3.429E-06	1.263E-06	6.524E-07	4.004E-07	2.727E-07	1.991E-07	1.527E-07	1.214E-07
SSW	4.176E-05	1.175E-05	5.575E-06	2.615E-06	9.601E-07	4.942E-07	3.025E-07	2.055E-07	1.497E-07	1.145E-07	9.092E-08
SW	2.205E-05	6.123E-06	2.924E-06	1.365E-06	4.930E-07	2.493E-07	1.501E-07	1.005E-07	7.226E-08	5.465E-08	4.292E-08
WSW	1.590E-05	4.378E-06	2.084E-06	9.708E-07	3.504E-07	1.772E-07	1.067E-07	7.141E-08	5.133E-08	3.882E-08	3.050E-08
W	1.789E-05	4.935E-06	2.346E-06	1.094E-06	3.971E-07	2.018E-07	1.221E-07	8.208E-08	5.923E-08	4.495E-08	3.542E-08
WNW	2.500E-05	6.845E-06	3.235E-06	1.509E-06	5.500E-07	2.808E-07	1.706E-07	1.151E-07	8.336E-08	6.345E-08	5.014E-08
NW	2.448E-05	6.656E-06	3.130E-06	1.459E-06	5.326E-07	2.724E-07	1.658E-07	1.121E-07	8.128E-08	6.196E-08	4.903E-08
NNW	2.797E-05	7.722E-06	3.653E-06	1.707E-06	6.242E-07	3.199E-07	1.949E-07	1.320E-07	9.580E-08	7.309E-08	5.788E-08

Insert Table 2.7-98      Annual Average X/Q Values (8.0 Day Decay, Undepleted) for Ground Level Release (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	6.579E-08	3.174E-08	1.953E-08	1.032E-08	6.537E-09	4.568E-09	3.396E-09	2.635E-09	2.109E-09	1.729E-09	1.445E-09
NNE	1.093E-07	5.275E-08	3.246E-08	1.716E-08	1.088E-08	7.608E-09	5.660E-09	4.395E-09	3.521E-09	2.888E-09	2.415E-09
NE	1.942E-07	9.546E-08	5.955E-08	3.208E-08	2.059E-08	1.454E-08	1.090E-08	8.516E-09	6.857E-09	5.651E-09	4.742E-09
ENE	2.296E-07	1.132E-07	7.079E-08	3.824E-08	2.459E-08	1.738E-08	1.303E-08	1.018E-08	8.201E-09	6.757E-09	5.669E-09
E	2.137E-07	1.057E-07	6.619E-08	3.584E-08	2.308E-08	1.633E-08	1.225E-08	9.578E-09	7.715E-09	6.357E-09	5.333E-09
ESE	2.779E-07	1.380E-07	8.669E-08	4.715E-08	3.045E-08	2.159E-08	1.623E-08	1.271E-08	1.025E-08	8.459E-09	7.104E-09
SE	1.822E-07	9.014E-08	5.648E-08	3.061E-08	1.973E-08	1.396E-08	1.049E-08	8.206E-09	6.615E-09	5.455E-09	4.580E-09
SSE	1.321E-07	6.519E-08	4.078E-08	2.207E-08	1.421E-08	1.006E-08	7.555E-09	5.913E-09	4.768E-09	3.935E-09	3.306E-09
S	9.937E-08	4.902E-08	3.066E-08	1.658E-08	1.068E-08	7.562E-09	5.682E-09	4.449E-09	3.590E-09	2.963E-09	2.491E-09
SSW	7.428E-08	3.639E-08	2.264E-08	1.216E-08	7.785E-09	5.486E-09	4.106E-09	3.204E-09	2.578E-09	2.123E-09	1.780E-09
SW	3.472E-08	1.635E-08	9.887E-09	5.095E-09	3.173E-09	2.189E-09	1.610E-09	1.239E-09	9.843E-10	8.019E-10	6.662E-10
WSW	2.468E-08	1.165E-08	7.053E-09	3.647E-09	2.279E-09	1.577E-09	1.163E-09	8.971E-10	7.147E-10	5.837E-10	4.861E-10
W	2.874E-08	1.371E-08	8.369E-09	4.378E-09	2.757E-09	1.919E-09	1.423E-09	1.102E-09	8.816E-10	7.224E-10	6.034E-10
WNW	4.079E-08	1.966E-08	1.210E-08	6.403E-09	4.065E-09	2.848E-09	2.123E-09	1.652E-09	1.326E-09	1.090E-09	9.134E-10
NW	3.995E-08	1.938E-08	1.199E-08	6.391E-09	4.081E-09	2.872E-09	2.150E-09	1.678E-09	1.351E-09	1.114E-09	9.355E-10
NNW	4.717E-08	2.290E-08	1.416E-08	7.541E-09	4.805E-09	3.375E-09	2.520E-09	1.963E-09	1.577E-09	1.297E-09	1.087E-09

Insert Table 2.7-98      Annual Average X/Q Values (8.0 Day Decay, Undepleted) for Ground Level Release (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.202E-06	1.030E-06	2.855E-07	1.366E-07	8.161E-08	3.388E-08	1.069E-08	4.624E-09	2.652E-09	1.736E-09
NNE	8.648E-06	1.713E-06	4.745E-07	2.269E-07	1.356E-07	5.630E-08	1.777E-08	7.702E-09	4.423E-09	2.900E-09
NE	1.460E-05	2.905E-06	8.187E-07	3.969E-07	2.397E-07	1.014E-07	3.308E-08	1.470E-08	8.565E-09	5.672E-09
ENE	1.707E-05	3.400E-06	9.618E-07	4.676E-07	2.830E-07	1.202E-07	3.941E-08	1.756E-08	1.024E-08	6.782E-09
E	1.582E-05	3.148E-06	8.924E-07	4.345E-07	2.633E-07	1.121E-07	3.691E-08	1.650E-08	9.632E-09	6.380E-09
ESE	2.030E-05	4.044E-06	1.152E-06	5.628E-07	3.420E-07	1.463E-07	4.851E-08	2.181E-08	1.278E-08	8.489E-09
SE	1.350E-05	2.685E-06	7.607E-07	3.704E-07	2.245E-07	9.564E-08	3.152E-08	1.411E-08	8.252E-09	5.475E-09
SSE	9.849E-06	1.959E-06	5.537E-07	2.691E-07	1.628E-07	6.920E-08	2.273E-08	1.016E-08	5.946E-09	3.949E-09
S	7.398E-06	1.473E-06	4.165E-07	2.025E-07	1.225E-07	5.205E-08	1.709E-08	7.642E-09	4.474E-09	2.974E-09
SSW	5.633E-06	1.121E-06	3.148E-07	1.522E-07	9.175E-08	3.870E-08	1.254E-08	5.547E-09	3.223E-09	2.131E-09
SW	2.942E-06	5.784E-07	1.567E-07	7.363E-08	4.336E-08	1.756E-08	5.306E-09	2.220E-09	1.248E-09	8.057E-10
WSW	2.099E-06	4.113E-07	1.114E-07	5.230E-08	3.081E-08	1.250E-08	3.796E-09	1.599E-09	9.037E-10	5.864E-10
W	2.365E-06	4.652E-07	1.273E-07	6.032E-08	3.577E-08	1.468E-08	4.544E-09	1.944E-09	1.110E-09	7.255E-10
WNW	3.270E-06	6.435E-07	1.778E-07	8.485E-08	5.062E-08	2.100E-08	6.630E-09	2.883E-09	1.663E-09	1.095E-09
NW	3.171E-06	6.228E-07	1.727E-07	8.272E-08	4.950E-08	2.067E-08	6.608E-09	2.906E-09	1.688E-09	1.118E-09
NNW	3.692E-06	7.295E-07	2.031E-07	9.748E-08	5.842E-08	2.441E-08	7.797E-09	3.414E-09	1.975E-09	1.302E-09

(Based on 2002-2007 met data)

Insert Table 2.7-99 Annual Average D/Q Values for Ground Level Release (Sheet 1 of 3) ←

**Relative Deposition per Unit Area ( $m^{-2}$ ) at Fixed Points by Downwind Sectors**

Sector	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	1.265E-07	4.279E-08	2.197E-08	1.045E-08	3.752E-09	1.861E-09	1.096E-09	7.174E-10	5.048E-10	3.741E-10	2.883E-10
NNE	2.385E-07	8.064E-08	4.141E-08	1.969E-08	7.071E-09	3.507E-09	2.065E-09	1.352E-09	9.513E-10	7.050E-10	5.433E-10
NE	2.472E-07	8.360E-08	4.292E-08	2.041E-08	7.330E-09	3.635E-09	2.140E-09	1.402E-09	9.862E-10	7.308E-10	5.632E-10
ENE	2.009E-07	6.795E-08	3.489E-08	1.659E-08	5.958E-09	2.954E-09	1.740E-09	1.139E-09	8.015E-10	5.940E-10	4.578E-10
E	1.646E-07	5.566E-08	2.858E-08	1.359E-08	4.880E-09	2.420E-09	1.425E-09	9.331E-10	6.566E-10	4.866E-10	3.750E-10
ESE	1.879E-07	6.354E-08	3.262E-08	1.551E-08	5.571E-09	2.763E-09	1.627E-09	1.065E-09	7.495E-10	5.555E-10	4.281E-10
SE	1.508E-07	5.099E-08	2.618E-08	1.245E-08	4.471E-09	2.217E-09	1.306E-09	8.549E-10	6.016E-10	4.458E-10	3.435E-10
SSE	1.345E-07	4.549E-08	2.335E-08	1.110E-08	3.988E-09	1.978E-09	1.165E-09	7.626E-10	5.366E-10	3.977E-10	3.064E-10
S	1.077E-07	3.641E-08	1.870E-08	8.888E-09	3.193E-09	1.583E-09	9.323E-10	6.105E-10	4.296E-10	3.183E-10	2.453E-10
SSW	8.994E-08	3.042E-08	1.562E-08	7.424E-09	2.667E-09	1.323E-09	7.787E-10	5.099E-10	3.588E-10	2.659E-10	2.049E-10
SW	1.059E-07	3.580E-08	1.838E-08	8.739E-09	3.139E-09	1.557E-09	9.166E-10	6.002E-10	4.223E-10	3.130E-10	2.412E-10
WSW	9.700E-08	3.280E-08	1.684E-08	8.007E-09	2.876E-09	1.426E-09	8.399E-10	5.499E-10	3.870E-10	2.868E-10	2.210E-10
W	1.075E-07	3.637E-08	1.867E-08	8.877E-09	3.189E-09	1.581E-09	9.311E-10	6.097E-10	4.290E-10	3.179E-10	2.450E-10
WNW	1.274E-07	4.308E-08	2.212E-08	1.052E-08	3.778E-09	1.873E-09	1.103E-09	7.223E-10	5.082E-10	3.767E-10	2.903E-10
NW	1.214E-07	4.105E-08	2.108E-08	1.002E-08	3.599E-09	1.785E-09	1.051E-09	6.882E-10	4.842E-10	3.589E-10	2.765E-10
NNW	1.082E-07	3.660E-08	1.879E-08	8.933E-09	3.209E-09	1.591E-09	9.370E-10	6.135E-10	4.317E-10	3.199E-10	2.466E-10

Insert Table 2.7-99 Annual Average D/Q Values for Ground Level Release (Sheet 2 of 3)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors												
Sector	Distance in Miles from the Site											
	5	7.5	10	15	20	25	30	35	40	45	50	
N	2.290E-10	1.017E-10	6.163E-11	3.115E-11	1.886E-11	1.264E-11	9.059E-12	6.802E-12	5.289E-12	4.225E-12	3.448E-12	
NNE	4.316E-10	1.917E-10	1.161E-10	5.871E-11	3.553E-11	2.382E-11	1.707E-11	1.282E-11	9.967E-12	7.961E-12	6.498E-12	
NE	4.474E-10	1.988E-10	1.204E-10	6.086E-11	3.683E-11	2.470E-11	1.770E-11	1.329E-11	1.033E-11	8.253E-12	6.736E-12	
ENE	3.637E-10	1.616E-10	9.786E-11	4.946E-11	2.994E-11	2.007E-11	1.438E-11	1.080E-11	8.397E-12	6.708E-12	5.475E-12	
E	2.979E-10	1.323E-10	8.017E-11	4.052E-11	2.452E-11	1.644E-11	1.178E-11	8.847E-12	6.879E-12	5.495E-12	4.485E-12	
ESE	3.401E-10	1.511E-10	9.151E-11	4.626E-11	2.800E-11	1.877E-11	1.345E-11	1.010E-11	7.853E-12	6.273E-12	5.120E-12	
SE	2.729E-10	1.212E-10	7.344E-11	3.712E-11	2.247E-11	1.506E-11	1.079E-11	8.106E-12	6.302E-12	5.034E-12	4.109E-12	
SSE	2.434E-10	1.081E-10	6.551E-11	3.311E-11	2.004E-11	1.344E-11	9.629E-12	7.230E-12	5.622E-12	4.491E-12	3.665E-12	
S	1.949E-10	8.658E-11	5.244E-11	2.651E-11	1.604E-11	1.076E-11	7.708E-12	5.788E-12	4.500E-12	3.595E-12	2.934E-12	
SSW	1.628E-10	7.232E-11	4.381E-11	2.214E-11	1.340E-11	8.985E-12	6.438E-12	4.835E-12	3.759E-12	3.003E-12	2.451E-12	
SW	1.916E-10	8.512E-11	5.156E-11	2.606E-11	1.577E-11	1.058E-11	7.578E-12	5.691E-12	4.425E-12	3.534E-12	2.885E-12	
WSW	1.756E-10	7.799E-11	4.724E-11	2.388E-11	1.445E-11	9.690E-12	6.944E-12	5.214E-12	4.054E-12	3.238E-12	2.643E-12	
W	1.946E-10	8.647E-11	5.238E-11	2.647E-11	1.602E-11	1.074E-11	7.698E-12	5.781E-12	4.495E-12	3.590E-12	2.930E-12	
WNW	2.306E-10	1.024E-10	6.205E-11	3.136E-11	1.898E-11	1.273E-11	9.120E-12	6.848E-12	5.325E-12	4.253E-12	3.472E-12	
NW	2.197E-10	9.760E-11	5.912E-11	2.988E-11	1.809E-11	1.213E-11	8.689E-12	6.525E-12	5.073E-12	4.052E-12	3.308E-12	
NNW	1.959E-10	8.701E-11	5.271E-11	2.664E-11	1.612E-11	1.081E-11	7.747E-12	5.817E-12	4.523E-12	3.613E-12	2.949E-12	

Insert Table 2.7-99 Annual Average D/Q Values for Ground Level Release (Sheet 3 of 3)

**Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors**

Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	2.148E-08	4.399E-09	1.148E-09	5.158E-10	2.918E-10	1.122E-10	3.246E-11	1.287E-11	6.870E-12	4.252E-12
NNE	4.047E-08	8.290E-09	2.164E-09	9.720E-10	5.499E-10	2.115E-10	6.117E-11	2.425E-11	1.295E-11	8.014E-12
NE	4.195E-08	8.594E-09	2.243E-09	1.008E-09	5.700E-10	2.192E-10	6.341E-11	2.513E-11	1.342E-11	8.307E-12
ENE	3.410E-08	6.985E-09	1.823E-09	8.189E-10	4.633E-10	1.782E-10	5.154E-11	2.043E-11	1.091E-11	6.752E-12
E	2.793E-08	5.722E-09	1.494E-09	6.708E-10	3.795E-10	1.459E-10	4.222E-11	1.673E-11	8.936E-12	5.531E-12
ESE	3.189E-08	6.532E-09	1.705E-09	7.658E-10	4.332E-10	1.666E-10	4.820E-11	1.910E-11	1.020E-11	6.314E-12
SE	2.559E-08	5.242E-09	1.368E-09	6.146E-10	3.477E-10	1.337E-10	3.868E-11	1.533E-11	8.187E-12	5.067E-12
SSE	2.283E-08	4.676E-09	1.221E-09	5.482E-10	3.101E-10	1.193E-10	3.450E-11	1.367E-11	7.303E-12	4.520E-12
S	1.827E-08	3.743E-09	9.772E-10	4.389E-10	2.483E-10	9.548E-11	2.762E-11	1.095E-11	5.846E-12	3.618E-12
SSW	1.526E-08	3.127E-09	8.162E-10	3.666E-10	2.074E-10	7.975E-11	2.307E-11	9.144E-12	4.883E-12	3.022E-12
SW	1.797E-08	3.680E-09	9.608E-10	4.315E-10	2.441E-10	9.387E-11	2.716E-11	1.076E-11	5.748E-12	3.558E-12
WSW	1.646E-08	3.372E-09	8.803E-10	3.954E-10	2.237E-10	8.601E-11	2.488E-11	9.862E-12	5.266E-12	3.260E-12
W	1.825E-08	3.738E-09	9.759E-10	4.383E-10	2.480E-10	9.536E-11	2.759E-11	1.093E-11	5.839E-12	3.614E-12
WNW	2.162E-08	4.429E-09	1.156E-09	5.193E-10	2.938E-10	1.130E-10	3.268E-11	1.295E-11	6.917E-12	4.281E-12
NW	2.060E-08	4.220E-09	1.102E-09	4.947E-10	2.799E-10	1.076E-10	3.114E-11	1.234E-11	6.590E-12	4.079E-12
NNW	1.837E-08	3.762E-09	9.821E-10	4.411E-10	2.495E-10	9.596E-11	2.776E-11	1.100E-11	5.875E-12	3.637E-12

(Based on 2002-2007 met data)

Insert Table 2.7-100 Annual Average X/Q Values (no Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	1.847E-06	6.419E-07	3.901E-07	2.390E-07	1.300E-07	8.553E-08	6.176E-08	4.731E-08	3.778E-08	3.111E-08	2.641E-08
NNE	3.700E-06	1.308E-06	7.853E-07	4.572E-07	2.338E-07	1.489E-07	1.057E-07	8.007E-08	6.514E-08	5.466E-08	4.612E-08
NE	4.753E-06	1.755E-06	1.028E-06	5.637E-07	2.628E-07	1.612E-07	1.128E-07	8.531E-08	6.785E-08	5.593E-08	4.733E-08
ENE	2.592E-06	1.040E-06	6.226E-07	3.489E-07	1.723E-07	1.114E-07	8.133E-08	6.357E-08	5.192E-08	4.374E-08	3.770E-08
E	1.792E-06	7.851E-07	4.809E-07	2.708E-07	1.335E-07	8.608E-08	6.270E-08	4.893E-08	3.994E-08	3.364E-08	2.900E-08
ESE	1.930E-06	8.467E-07	5.110E-07	2.833E-07	1.366E-07	8.712E-08	6.322E-08	4.935E-08	4.037E-08	3.412E-08	2.954E-08
SE	1.709E-06	7.440E-07	4.472E-07	2.474E-07	1.190E-07	7.593E-08	5.511E-08	4.300E-08	3.512E-08	2.961E-08	2.556E-08
SSE	2.063E-06	8.025E-07	4.717E-07	2.605E-07	1.251E-07	7.882E-08	5.630E-08	4.323E-08	3.479E-08	2.895E-08	2.470E-08
S	2.096E-06	7.468E-07	4.308E-07	2.364E-07	1.123E-07	6.997E-08	4.951E-08	3.774E-08	3.020E-08	2.502E-08	2.128E-08
SSW	1.650E-06	6.059E-07	3.574E-07	2.007E-07	9.800E-08	6.227E-08	4.466E-08	3.434E-08	2.764E-08	2.298E-08	1.957E-08
SW	1.167E-06	4.527E-07	3.182E-07	2.117E-07	1.177E-07	7.587E-08	5.335E-08	3.984E-08	3.110E-08	2.509E-08	2.078E-08
WSW	1.208E-06	4.555E-07	3.026E-07	1.913E-07	1.001E-07	6.246E-08	4.309E-08	3.178E-08	2.458E-08	1.971E-08	1.643E-08
W	1.618E-06	5.700E-07	3.591E-07	2.192E-07	1.106E-07	6.814E-08	4.679E-08	3.446E-08	2.667E-08	2.141E-08	1.768E-08
WNW	1.899E-06	6.393E-07	3.869E-07	2.372E-07	1.231E-07	7.735E-08	5.386E-08	4.011E-08	3.131E-08	2.532E-08	2.104E-08
NW	1.889E-06	6.269E-07	3.596E-07	2.129E-07	1.094E-07	6.886E-08	4.813E-08	3.599E-08	2.822E-08	2.290E-08	1.919E-08
NNW	1.757E-06	5.793E-07	3.291E-07	1.924E-07	1.002E-07	6.445E-08	4.598E-08	3.497E-08	2.780E-08	2.284E-08	1.947E-08

Insert Table 2.7-100 Annual Average X/Q Values (no Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.285E-08	1.424E-08	1.043E-08	7.007E-09	5.237E-09	4.107E-09	3.296E-09	2.698E-09	2.264E-09	1.941E-09	1.691E-09
NNE	3.972E-08	2.303E-08	1.602E-08	1.002E-08	7.161E-09	5.515E-09	4.455E-09	3.719E-09	3.182E-09	2.774E-09	2.454E-09
NE	4.094E-08	2.508E-08	1.825E-08	1.225E-08	9.247E-09	7.451E-09	6.258E-09	5.408E-09	4.773E-09	4.279E-09	3.884E-09
ENE	3.314E-08	2.158E-08	1.633E-08	1.151E-08	8.984E-09	7.421E-09	6.358E-09	5.588E-09	5.002E-09	4.542E-09	4.169E-09
E	2.553E-08	1.641E-08	1.227E-08	8.460E-09	6.457E-09	5.213E-09	4.366E-09	3.751E-09	3.286E-09	2.921E-09	2.627E-09
ESE	2.612E-08	1.735E-08	1.334E-08	9.618E-09	7.600E-09	6.316E-09	5.423E-09	4.765E-09	4.259E-09	3.857E-09	3.530E-09
SE	2.253E-08	1.480E-08	1.126E-08	7.987E-09	6.248E-09	5.161E-09	4.416E-09	3.874E-09	3.460E-09	3.134E-09	2.871E-09
SSE	2.153E-08	1.419E-08	1.101E-08	8.274E-09	6.887E-09	6.012E-09	5.373E-09	4.855E-09	4.401E-09	3.987E-09	3.599E-09
S	1.847E-08	1.173E-08	8.812E-09	6.256E-09	4.962E-09	4.171E-09	3.632E-09	3.234E-09	2.924E-09	2.669E-09	2.454E-09
SSW	1.701E-08	1.064E-08	7.833E-09	5.315E-09	4.040E-09	3.270E-09	2.756E-09	2.387E-09	2.108E-09	1.890E-09	1.713E-09
SW	1.758E-08	9.725E-09	6.525E-09	3.872E-09	2.670E-09	2.000E-09	1.580E-09	1.295E-09	1.090E-09	9.369E-10	8.183E-10
WSW	1.398E-08	7.668E-09	5.130E-09	3.040E-09	2.097E-09	1.570E-09	1.239E-09	1.014E-09	8.510E-10	7.284E-10	6.330E-10
W	1.493E-08	8.573E-09	5.942E-09	3.703E-09	2.619E-09	1.965E-09	1.537E-09	1.248E-09	1.043E-09	8.912E-10	7.744E-10
WNW	1.787E-08	1.072E-08	7.716E-09	5.098E-09	3.706E-09	2.786E-09	2.190E-09	1.788E-09	1.501E-09	1.288E-09	1.123E-09
NW	1.643E-08	9.815E-09	7.039E-09	4.658E-09	3.470E-09	2.722E-09	2.186E-09	1.793E-09	1.510E-09	1.299E-09	1.135E-09
NNW	1.693E-08	1.073E-08	7.992E-09	5.499E-09	4.109E-09	3.152E-09	2.489E-09	2.038E-09	1.715E-09	1.474E-09	1.288E-09

Insert Table 2.7-100 Annual Average X/Q Values (no Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	3.789E-07	1.345E-07	6.232E-08	3.796E-08	2.648E-08	1.446E-08	6.980E-09	4.084E-09	2.703E-09	1.944E-09
NNE	7.557E-07	2.457E-07	1.070E-07	6.541E-08	4.628E-08	2.363E-08	1.008E-08	5.530E-09	3.725E-09	2.777E-09
NE	9.831E-07	2.845E-07	1.147E-07	6.830E-08	4.751E-08	2.557E-08	1.225E-08	7.453E-09	5.409E-09	4.279E-09
ENE	5.938E-07	1.845E-07	8.224E-08	5.213E-08	3.780E-08	2.181E-08	1.146E-08	7.413E-09	5.585E-09	4.540E-09
E	4.551E-07	1.429E-07	6.343E-08	4.011E-08	2.909E-08	1.660E-08	8.417E-09	5.206E-09	3.749E-09	2.920E-09
ESE	4.844E-07	1.472E-07	6.405E-08	4.055E-08	2.963E-08	1.752E-08	9.548E-09	6.301E-09	4.760E-09	3.855E-09
SE	4.243E-07	1.284E-07	5.582E-08	3.527E-08	2.564E-08	1.495E-08	7.941E-09	5.153E-09	3.871E-09	3.133E-09
SSE	4.513E-07	1.346E-07	5.708E-08	3.498E-08	2.479E-08	1.441E-08	8.265E-09	5.990E-09	4.830E-09	3.966E-09
S	4.146E-07	1.211E-07	5.025E-08	3.038E-08	2.135E-08	1.193E-08	6.249E-09	4.166E-09	3.230E-09	2.665E-09
SSW	3.430E-07	1.049E-07	4.523E-08	2.778E-08	1.963E-08	1.081E-08	5.308E-09	3.270E-09	2.386E-09	1.889E-09
SW	3.007E-07	1.200E-07	5.395E-08	3.131E-08	2.088E-08	1.005E-08	3.928E-09	2.011E-09	1.298E-09	9.384E-10
WSW	2.871E-07	1.036E-07	4.373E-08	2.478E-08	1.649E-08	7.943E-09	3.085E-09	1.578E-09	1.016E-09	7.294E-10
W	3.438E-07	1.159E-07	4.755E-08	2.690E-08	1.777E-08	8.816E-09	3.719E-09	1.968E-09	1.253E-09	8.930E-10
WNW	3.764E-07	1.281E-07	5.462E-08	3.154E-08	2.113E-08	1.097E-08	5.061E-09	2.793E-09	1.793E-09	1.290E-09
NW	3.538E-07	1.144E-07	4.880E-08	2.841E-08	1.927E-08	1.005E-08	4.659E-09	2.707E-09	1.798E-09	1.301E-09
NNW	3.240E-07	1.048E-07	4.650E-08	2.796E-08	1.952E-08	1.089E-08	5.435E-09	3.142E-09	2.044E-09	1.476E-09

(Based on 2002-2007 met data)

Insert Table 2.7-101 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3) ←

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	1.846E-06	6.414E-07	3.896E-07	2.386E-07	1.297E-07	8.525E-08	6.150E-08	4.707E-08	3.755E-08	3.089E-08	2.620E-08
NNE	3.699E-06	1.307E-06	7.844E-07	4.565E-07	2.333E-07	1.485E-07	1.053E-07	7.970E-08	6.479E-08	5.431E-08	4.579E-08
NE	4.751E-06	1.753E-06	1.026E-06	5.628E-07	2.622E-07	1.607E-07	1.124E-07	8.494E-08	6.750E-08	5.559E-08	4.701E-08
ENE	2.591E-06	1.039E-06	6.218E-07	3.483E-07	1.718E-07	1.110E-07	8.097E-08	6.323E-08	5.160E-08	4.342E-08	3.739E-08
E	1.791E-06	7.844E-07	4.803E-07	2.703E-07	1.331E-07	8.576E-08	6.240E-08	4.866E-08	3.967E-08	3.337E-08	2.874E-08
ESE	1.929E-06	8.459E-07	5.103E-07	2.828E-07	1.362E-07	8.680E-08	6.293E-08	4.907E-08	4.010E-08	3.385E-08	2.928E-08
SE	1.709E-06	7.432E-07	4.465E-07	2.470E-07	1.187E-07	7.565E-08	5.486E-08	4.276E-08	3.489E-08	2.939E-08	2.534E-08
SSE	2.062E-06	8.018E-07	4.710E-07	2.600E-07	1.248E-07	7.855E-08	5.606E-08	4.300E-08	3.458E-08	2.875E-08	2.451E-08
S	2.095E-06	7.461E-07	4.302E-07	2.360E-07	1.120E-07	6.973E-08	4.930E-08	3.754E-08	3.002E-08	2.485E-08	2.111E-08
SSW	1.650E-06	6.053E-07	3.569E-07	2.003E-07	9.776E-08	6.206E-08	4.447E-08	3.417E-08	2.748E-08	2.282E-08	1.942E-08
SW	1.166E-06	4.523E-07	3.178E-07	2.113E-07	1.175E-07	7.564E-08	5.315E-08	3.966E-08	3.093E-08	2.493E-08	2.063E-08
WSW	1.208E-06	4.552E-07	3.023E-07	1.910E-07	9.987E-08	6.229E-08	4.294E-08	3.165E-08	2.446E-08	1.960E-08	1.632E-08
W	1.617E-06	5.696E-07	3.588E-07	2.189E-07	1.104E-07	6.796E-08	4.663E-08	3.432E-08	2.655E-08	2.129E-08	1.757E-08
WNW	1.898E-06	6.387E-07	3.864E-07	2.369E-07	1.229E-07	7.712E-08	5.366E-08	3.993E-08	3.115E-08	2.517E-08	2.089E-08
NW	1.888E-06	6.263E-07	3.591E-07	2.126E-07	1.092E-07	6.864E-08	4.795E-08	3.583E-08	2.806E-08	2.276E-08	1.905E-08
NNW	1.757E-06	5.788E-07	3.286E-07	1.921E-07	9.994E-08	6.424E-08	4.579E-08	3.480E-08	2.764E-08	2.268E-08	1.932E-08

Insert Table 2.7-101 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.264E-08	1.404E-08	1.023E-08	6.797E-09	5.021E-09	3.891E-09	3.086E-09	2.497E-09	2.073E-09	1.758E-09	1.516E-09
NNE	3.940E-08	2.274E-08	1.575E-08	9.752E-09	6.906E-09	5.268E-09	4.214E-09	3.485E-09	2.953E-09	2.550E-09	2.234E-09
NE	4.063E-08	2.478E-08	1.796E-08	1.193E-08	8.924E-09	7.118E-09	5.916E-09	5.058E-09	4.416E-09	3.916E-09	3.516E-09
ENE	3.283E-08	2.127E-08	1.600E-08	1.115E-08	8.598E-09	7.015E-09	5.935E-09	5.149E-09	4.550E-09	4.078E-09	3.694E-09
E	2.527E-08	1.615E-08	1.200E-08	8.171E-09	6.156E-09	4.905E-09	4.054E-09	3.437E-09	2.971E-09	2.606E-09	2.313E-09
ESE	2.586E-08	1.707E-08	1.305E-08	9.285E-09	7.241E-09	5.937E-09	5.029E-09	4.359E-09	3.843E-09	3.433E-09	3.099E-09
SE	2.232E-08	1.458E-08	1.103E-08	7.731E-09	5.975E-09	4.874E-09	4.118E-09	3.566E-09	3.145E-09	2.812E-09	2.542E-09
SSE	2.134E-08	1.400E-08	1.080E-08	8.031E-09	6.607E-09	5.697E-09	5.028E-09	4.485E-09	4.014E-09	3.589E-09	3.198E-09
S	1.832E-08	1.157E-08	8.655E-09	6.084E-09	4.777E-09	3.975E-09	3.424E-09	3.017E-09	2.698E-09	2.437E-09	2.215E-09
SSW	1.686E-08	1.051E-08	7.696E-09	5.171E-09	3.891E-09	3.117E-09	2.599E-09	2.227E-09	1.946E-09	1.725E-09	1.546E-09
SW	1.744E-08	9.604E-09	6.415E-09	3.771E-09	2.576E-09	1.911E-09	1.495E-09	1.213E-09	1.011E-09	8.604E-10	7.440E-10
WSW	1.388E-08	7.584E-09	5.053E-09	2.971E-09	2.033E-09	1.511E-09	1.183E-09	9.598E-10	7.993E-10	6.788E-10	5.852E-10
W	1.483E-08	8.480E-09	5.854E-09	3.620E-09	2.541E-09	1.892E-09	1.468E-09	1.183E-09	9.817E-10	8.323E-10	7.178E-10
WNW	1.773E-08	1.059E-08	7.592E-09	4.973E-09	3.583E-09	2.669E-09	2.080E-09	1.685E-09	1.403E-09	1.193E-09	1.032E-09
NW	1.630E-08	9.699E-09	6.929E-09	4.549E-09	3.363E-09	2.617E-09	2.086E-09	1.698E-09	1.419E-09	1.211E-09	1.050E-09
NNW	1.678E-08	1.058E-08	7.847E-09	5.345E-09	3.954E-09	3.002E-09	2.348E-09	1.904E-09	1.588E-09	1.352E-09	1.170E-09

Insert Table 2.7-101 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3)

X/Q (sec/m<sup>3</sup>) for Each Segment

Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	3.784E-07	1.341E-07	6.206E-08	3.773E-08	2.627E-08	1.426E-08	6.770E-09	3.870E-09	2.504E-09	1.762E-09
NNE	7.549E-07	2.452E-07	1.066E-07	6.506E-08	4.595E-08	2.334E-08	9.820E-09	5.283E-09	3.491E-09	2.552E-09
NE	9.820E-07	2.839E-07	1.143E-07	6.795E-08	4.719E-08	2.527E-08	1.194E-08	7.118E-09	5.059E-09	3.916E-09
ENE	5.930E-07	1.840E-07	8.188E-08	5.181E-08	3.749E-08	2.150E-08	1.109E-08	7.005E-09	5.145E-09	4.075E-09
E	4.545E-07	1.426E-07	6.313E-08	3.984E-08	2.883E-08	1.634E-08	8.127E-09	4.898E-09	3.436E-09	2.606E-09
ESE	4.838E-07	1.468E-07	6.375E-08	4.028E-08	2.937E-08	1.724E-08	9.213E-09	5.921E-09	4.354E-09	3.431E-09
SE	4.238E-07	1.281E-07	5.556E-08	3.504E-08	2.542E-08	1.472E-08	7.683E-09	4.866E-09	3.564E-09	2.811E-09
SSE	4.507E-07	1.343E-07	5.683E-08	3.476E-08	2.459E-08	1.421E-08	8.014E-09	5.672E-09	4.461E-09	3.570E-09
S	4.141E-07	1.208E-07	5.004E-08	3.020E-08	2.118E-08	1.177E-08	6.075E-09	3.969E-09	3.012E-09	2.432E-09
SSW	3.425E-07	1.047E-07	4.504E-08	2.762E-08	1.948E-08	1.067E-08	5.163E-09	3.116E-09	2.226E-09	1.724E-09
SW	3.004E-07	1.197E-07	5.375E-08	3.114E-08	2.073E-08	9.929E-09	3.828E-09	1.922E-09	1.217E-09	8.620E-10
WSW	2.868E-07	1.034E-07	4.358E-08	2.466E-08	1.639E-08	7.859E-09	3.017E-09	1.519E-09	9.624E-10	6.798E-10
W	3.434E-07	1.156E-07	4.740E-08	2.677E-08	1.766E-08	8.723E-09	3.637E-09	1.895E-09	1.188E-09	8.341E-10
WNW	3.760E-07	1.279E-07	5.442E-08	3.138E-08	2.099E-08	1.085E-08	4.937E-09	2.677E-09	1.690E-09	1.196E-09
NW	3.534E-07	1.141E-07	4.862E-08	2.826E-08	1.913E-08	9.936E-09	4.551E-09	2.604E-09	1.702E-09	1.213E-09
NNW	3.236E-07	1.046E-07	4.631E-08	2.780E-08	1.937E-08	1.074E-08	5.283E-09	2.994E-09	1.910E-09	1.354E-09

(Based on 2002-2007 met data)

Insert Table 2.7-102 Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3) ←

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	1.768E-06	5.978E-07	3.589E-07	2.202E-07	1.203E-07	7.917E-08	5.711E-08	4.367E-08	3.479E-08	2.859E-08	2.423E-08
NNE	3.529E-06	1.213E-06	7.185E-07	4.174E-07	2.134E-07	1.358E-07	9.611E-08	7.266E-08	5.909E-08	4.957E-08	4.174E-08
NE	4.506E-06	1.619E-06	9.319E-07	5.069E-07	2.347E-07	1.436E-07	1.004E-07	7.588E-08	6.031E-08	4.968E-08	4.202E-08
ENE	2.461E-06	9.670E-07	5.702E-07	3.176E-07	1.567E-07	1.016E-07	7.441E-08	5.830E-08	4.770E-08	4.023E-08	3.471E-08
E	1.704E-06	7.351E-07	4.442E-07	2.486E-07	1.224E-07	7.906E-08	5.772E-08	4.514E-08	3.690E-08	3.111E-08	2.685E-08
ESE	1.836E-06	7.937E-07	4.724E-07	2.600E-07	1.249E-07	7.974E-08	5.799E-08	4.536E-08	3.717E-08	3.146E-08	2.727E-08
SE	1.626E-06	6.973E-07	4.132E-07	2.269E-07	1.087E-07	6.945E-08	5.053E-08	3.950E-08	3.232E-08	2.729E-08	2.358E-08
SSE	1.958E-06	7.457E-07	4.316E-07	2.366E-07	1.131E-07	7.130E-08	5.096E-08	3.915E-08	3.152E-08	2.623E-08	2.238E-08
S	1.987E-06	6.891E-07	3.910E-07	2.129E-07	1.005E-07	6.247E-08	4.416E-08	3.364E-08	2.690E-08	2.227E-08	1.892E-08
SSW	1.565E-06	5.595E-07	3.247E-07	1.812E-07	8.830E-08	5.616E-08	4.032E-08	3.103E-08	2.498E-08	2.077E-08	1.768E-08
SW	1.117E-06	4.232E-07	2.971E-07	1.987E-07	1.105E-07	7.085E-08	4.952E-08	3.676E-08	2.852E-08	2.288E-08	1.885E-08
WSW	1.158E-06	4.260E-07	2.818E-07	1.785E-07	9.316E-08	5.780E-08	3.962E-08	2.903E-08	2.231E-08	1.778E-08	1.475E-08
W	1.548E-06	5.309E-07	3.320E-07	2.026E-07	1.018E-07	6.229E-08	4.248E-08	3.109E-08	2.392E-08	1.909E-08	1.567E-08
WNW	1.826E-06	5.991E-07	3.590E-07	2.200E-07	1.139E-07	7.116E-08	4.928E-08	3.649E-08	2.834E-08	2.281E-08	1.886E-08
NW	1.821E-06	5.900E-07	3.340E-07	1.971E-07	1.009E-07	6.319E-08	4.393E-08	3.268E-08	2.549E-08	2.059E-08	1.719E-08
NNW	1.687E-06	5.420E-07	3.033E-07	1.771E-07	9.217E-08	5.921E-08	4.214E-08	3.196E-08	2.534E-08	2.075E-08	1.766E-08

Insert Table 2.7-102 Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.092E-08	1.299E-08	9.471E-09	6.236E-09	4.388E-09	3.255E-09	2.514E-09	1.991E-09	1.621E-09	1.351E-09	1.147E-09
NNE	3.587E-08	2.060E-08	1.420E-08	8.752E-09	6.184E-09	4.715E-09	3.775E-09	3.124E-09	2.640E-09	2.275E-09	1.986E-09
NE	3.632E-08	2.223E-08	1.615E-08	1.080E-08	8.127E-09	6.530E-09	5.470E-09	4.713E-09	4.126E-09	3.672E-09	3.303E-09
ENE	3.053E-08	1.994E-08	1.509E-08	1.063E-08	8.276E-09	6.820E-09	5.829E-09	5.106E-09	4.533E-09	4.084E-09	3.714E-09
E	2.364E-08	1.521E-08	1.136E-08	7.803E-09	5.926E-09	4.761E-09	3.967E-09	3.391E-09	2.942E-09	2.593E-09	2.310E-09
ESE	2.414E-08	1.607E-08	1.237E-08	8.905E-09	7.018E-09	5.814E-09	4.975E-09	4.355E-09	3.857E-09	3.465E-09	3.141E-09
SE	2.080E-08	1.370E-08	1.042E-08	7.378E-09	5.755E-09	4.739E-09	4.042E-09	3.532E-09	3.127E-09	2.810E-09	2.550E-09
SSE	1.950E-08	1.291E-08	1.004E-08	7.581E-09	6.324E-09	5.474E-09	4.729E-09	4.112E-09	3.595E-09	3.151E-09	2.775E-09
S	1.642E-08	1.044E-08	7.850E-09	5.579E-09	4.429E-09	3.725E-09	3.235E-09	2.845E-09	2.506E-09	2.225E-09	1.989E-09
SSW	1.536E-08	9.620E-09	7.069E-09	4.782E-09	3.623E-09	2.924E-09	2.455E-09	2.115E-09	1.840E-09	1.613E-09	1.426E-09
SW	1.587E-08	8.593E-09	5.667E-09	3.273E-09	2.209E-09	1.625E-09	1.264E-09	1.018E-09	8.400E-10	7.055E-10	6.010E-10
WSW	1.250E-08	6.708E-09	4.408E-09	2.540E-09	1.702E-09	1.228E-09	9.312E-10	7.328E-10	5.934E-10	4.920E-10	4.158E-10
W	1.317E-08	7.447E-09	5.094E-09	3.042E-09	2.026E-09	1.454E-09	1.095E-09	8.596E-10	6.962E-10	5.776E-10	4.883E-10
WNW	1.595E-08	9.470E-09	6.750E-09	4.259E-09	2.918E-09	2.104E-09	1.593E-09	1.258E-09	1.024E-09	8.530E-10	7.240E-10
NW	1.466E-08	8.657E-09	6.151E-09	3.941E-09	2.763E-09	2.054E-09	1.588E-09	1.259E-09	1.028E-09	8.582E-10	7.300E-10
NNW	1.532E-08	9.679E-09	7.182E-09	4.747E-09	3.318E-09	2.434E-09	1.853E-09	1.467E-09	1.197E-09	9.993E-10	8.497E-10

Insert Table 2.7-102 Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	3.504E-07	1.242E-07	5.761E-08	3.497E-08	2.430E-08	1.319E-08	6.134E-09	3.261E-09	2.000E-09	1.355E-09
NNE	6.946E-07	2.242E-07	9.731E-08	5.934E-08	4.189E-08	2.115E-08	8.822E-09	4.731E-09	3.126E-09	2.276E-09
NE	8.957E-07	2.547E-07	1.021E-07	6.071E-08	4.218E-08	2.266E-08	1.080E-08	6.532E-09	4.706E-09	3.670E-09
ENE	5.461E-07	1.680E-07	7.522E-08	4.788E-08	3.480E-08	2.014E-08	1.057E-08	6.812E-09	5.094E-09	4.080E-09
E	4.219E-07	1.312E-07	5.838E-08	3.705E-08	2.692E-08	1.538E-08	7.760E-09	4.754E-09	3.384E-09	2.592E-09
ESE	4.494E-07	1.348E-07	5.874E-08	3.733E-08	2.735E-08	1.622E-08	8.836E-09	5.800E-09	4.342E-09	3.461E-09
SE	3.935E-07	1.175E-07	5.117E-08	3.246E-08	2.365E-08	1.382E-08	7.333E-09	4.731E-09	3.523E-09	2.808E-09
SSE	4.147E-07	1.220E-07	5.166E-08	3.168E-08	2.246E-08	1.310E-08	7.569E-09	5.403E-09	4.091E-09	3.143E-09
S	3.781E-07	1.086E-07	4.483E-08	2.706E-08	1.899E-08	1.062E-08	5.573E-09	3.717E-09	2.828E-09	2.221E-09
SSW	3.131E-07	9.467E-08	4.083E-08	2.510E-08	1.774E-08	9.762E-09	4.775E-09	2.923E-09	2.107E-09	1.611E-09
SW	2.814E-07	1.125E-07	5.011E-08	2.873E-08	1.894E-08	8.909E-09	3.332E-09	1.636E-09	1.020E-09	7.066E-10
WSW	2.680E-07	9.642E-08	4.023E-08	2.250E-08	1.481E-08	6.973E-09	2.583E-09	1.236E-09	7.364E-10	4.939E-10
W	3.186E-07	1.066E-07	4.321E-08	2.413E-08	1.576E-08	7.673E-09	3.047E-09	1.463E-09	8.646E-10	5.796E-10
WNW	3.506E-07	1.185E-07	5.000E-08	2.856E-08	1.895E-08	9.701E-09	4.217E-09	2.117E-09	1.264E-09	8.558E-10
NW	3.301E-07	1.055E-07	4.457E-08	2.568E-08	1.726E-08	8.878E-09	3.909E-09	2.057E-09	1.265E-09	8.609E-10
NNW	3.003E-07	9.639E-08	4.262E-08	2.548E-08	1.771E-08	9.824E-09	4.653E-09	2.437E-09	1.474E-09	1.002E-09

(Based on 2002-2007 met data)

Insert Table 2.7-103 Annual Average D/Q Values for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3) ←

**Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors**

Sector	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	2.364E-08	1.178E-08	7.038E-09	3.670E-09	1.420E-09	7.470E-10	4.586E-10	3.104E-10	2.242E-10	1.697E-10	1.331E-10
NNE	5.332E-08	2.515E-08	1.463E-08	7.556E-09	2.945E-09	1.539E-09	9.392E-10	6.324E-10	4.550E-10	3.433E-10	2.685E-10
NE	5.519E-08	2.258E-08	1.225E-08	6.026E-09	2.233E-09	1.138E-09	6.832E-10	4.548E-10	3.246E-10	2.434E-10	1.896E-10
ENE	2.995E-08	1.358E-08	7.554E-09	3.752E-09	1.387E-09	7.122E-10	4.308E-10	2.887E-10	2.072E-10	1.562E-10	1.222E-10
E	2.453E-08	1.184E-08	6.741E-09	3.378E-09	1.245E-09	6.416E-10	3.893E-10	2.615E-10	1.882E-10	1.422E-10	1.115E-10
ESE	2.692E-08	1.302E-08	7.401E-09	3.704E-09	1.363E-09	7.023E-10	4.260E-10	2.862E-10	2.059E-10	1.556E-10	1.220E-10
SE	2.234E-08	1.093E-08	6.220E-09	3.107E-09	1.139E-09	5.857E-10	3.549E-10	2.383E-10	1.714E-10	1.295E-10	1.016E-10
SSE	2.249E-08	1.025E-08	5.700E-09	2.830E-09	1.044E-09	5.368E-10	3.250E-10	2.179E-10	1.565E-10	1.180E-10	9.236E-11
S	1.938E-08	8.156E-09	4.484E-09	2.222E-09	8.237E-10	4.219E-10	2.546E-10	1.701E-10	1.217E-10	9.153E-11	7.141E-11
SSW	1.621E-08	6.780E-09	3.746E-09	1.860E-09	6.893E-10	3.530E-10	2.129E-10	1.423E-10	1.018E-10	7.653E-11	5.970E-11
SW	1.930E-08	1.057E-08	6.902E-09	3.844E-09	1.607E-09	8.673E-10	5.395E-10	3.679E-10	2.668E-10	2.023E-10	1.586E-10
WSW	2.338E-08	1.207E-08	7.420E-09	3.971E-09	1.605E-09	8.498E-10	5.221E-10	3.531E-10	2.547E-10	1.925E-10	1.507E-10
W	3.030E-08	1.463E-08	8.627E-09	4.628E-09	1.832E-09	9.540E-10	5.795E-10	3.888E-10	2.789E-10	2.100E-10	1.640E-10
WNW	3.191E-08	1.623E-08	9.548E-09	5.154E-09	2.009E-09	1.044E-09	6.345E-10	4.261E-10	3.061E-10	2.308E-10	1.805E-10
NW	2.936E-08	1.541E-08	9.074E-09	4.877E-09	1.875E-09	9.712E-10	5.896E-10	3.959E-10	2.844E-10	2.146E-10	1.680E-10
NNW	2.469E-08	1.246E-08	7.217E-09	3.674E-09	1.387E-09	7.224E-10	4.410E-10	2.975E-10	2.146E-10	1.624E-10	1.274E-10

Insert Table 2.7-103 Annual Average D/Q Values for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3)

Relative Deposition per Unit Area ( $m^{-2}$ ) at Fixed Points by Downwind Sectors												
Sector	Distance in Miles from the Site											
	5	7.5	10	15	20	25	30	35	40	45	50	
N	1.073E-10	5.070E-11	3.196E-11	3.925E-11	2.843E-11	1.732E-11	1.203E-11	9.077E-12	7.072E-12	5.648E-12	4.611E-12	
NNE	2.160E-10	9.930E-11	6.062E-11	3.165E-11	2.024E-11	1.455E-11	1.137E-11	9.229E-12	8.176E-12	6.981E-12	6.995E-12	
NE	1.520E-10	6.948E-11	4.242E-11	2.232E-11	1.432E-11	1.039E-11	8.218E-12	7.131E-12	6.185E-12	6.383E-12	6.951E-12	
ENE	9.834E-11	4.567E-11	2.812E-11	1.510E-11	9.901E-12	7.379E-12	6.003E-12	5.204E-12	4.635E-12	4.323E-12	4.469E-12	
E	8.991E-11	4.210E-11	2.601E-11	1.406E-11	9.159E-12	6.919E-12	5.595E-12	4.733E-12	4.136E-12	3.664E-12	3.325E-12	
ESE	9.842E-11	4.611E-11	2.850E-11	1.542E-11	1.007E-11	7.645E-12	6.232E-12	5.323E-12	4.699E-12	4.206E-12	3.833E-12	
SE	8.197E-11	3.845E-11	2.380E-11	1.291E-11	8.444E-12	6.421E-12	5.171E-12	4.403E-12	3.887E-12	3.475E-12	3.183E-12	
SSE	7.438E-11	3.460E-11	2.147E-11	1.163E-11	9.941E-12	2.015E-11	1.913E-11	1.418E-11	1.073E-11	7.424E-12	5.631E-12	
S	5.735E-11	2.640E-11	1.617E-11	8.597E-12	5.701E-12	5.069E-12	7.181E-12	9.852E-12	9.158E-12	7.359E-12	5.944E-12	
SSW	4.793E-11	2.206E-11	1.351E-11	7.166E-12	4.757E-12	4.190E-12	4.211E-12	4.727E-12	6.495E-12	5.983E-12	5.108E-12	
SW	1.277E-10	5.875E-11	3.573E-11	1.821E-11	1.147E-11	8.171E-12	6.310E-12	5.609E-12	5.635E-12	4.878E-12	4.113E-12	
WSW	1.239E-10	5.634E-11	3.370E-11	1.868E-11	1.395E-11	1.193E-11	8.926E-12	6.830E-12	5.323E-12	4.255E-12	3.504E-12	
W	1.318E-10	6.028E-11	3.950E-11	3.013E-11	1.939E-11	1.321E-11	9.685E-12	7.286E-12	5.670E-12	4.530E-12	3.698E-12	
WNW	1.453E-10	6.670E-11	5.189E-11	3.731E-11	2.311E-11	1.601E-11	1.157E-11	8.703E-12	6.771E-12	5.409E-12	4.416E-12	
NW	1.353E-10	6.230E-11	4.100E-11	3.548E-11	2.398E-11	1.572E-11	1.102E-11	8.303E-12	6.449E-12	5.155E-12	4.211E-12	
NNW	1.056E-10	4.865E-11	3.939E-11	3.506E-11	2.147E-11	1.393E-11	1.005E-11	7.564E-12	5.886E-12	4.701E-12	3.837E-12	

Insert Table 2.7-103 Annual Average D/Q Values for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	6.596E-09	1.621E-09	4.762E-10	2.281E-10	1.344E-10	5.494E-11	3.282E-11	1.817E-11	9.158E-12	5.686E-12
NNE	1.382E-08	3.345E-09	9.764E-10	4.631E-10	2.712E-10	1.080E-10	3.302E-11	1.479E-11	9.440E-12	7.340E-12
NE	1.178E-08	2.589E-09	7.130E-10	3.309E-10	1.916E-10	7.580E-11	2.323E-11	1.057E-11	7.081E-12	6.535E-12
ENE	7.203E-09	1.613E-09	4.490E-10	2.110E-10	1.234E-10	4.958E-11	1.568E-11	7.501E-12	5.215E-12	4.469E-12
E	6.379E-09	1.451E-09	4.055E-10	1.916E-10	1.126E-10	4.557E-11	1.454E-11	6.986E-12	4.752E-12	3.678E-12
ESE	7.006E-09	1.590E-09	4.438E-10	2.097E-10	1.232E-10	4.991E-11	1.595E-11	7.728E-12	5.345E-12	4.214E-12
SE	5.884E-09	1.330E-09	3.698E-10	1.745E-10	1.026E-10	4.161E-11	1.334E-11	6.461E-12	4.426E-12	3.489E-12
SSE	5.435E-09	1.216E-09	3.387E-10	1.594E-10	9.330E-11	3.760E-11	1.307E-11	1.702E-11	1.428E-11	7.740E-12
S	4.295E-09	9.558E-10	2.654E-10	1.241E-10	7.216E-11	2.873E-11	8.994E-12	6.082E-12	8.824E-12	7.368E-12
SSW	3.582E-09	8.000E-10	2.220E-10	1.037E-10	6.033E-11	2.401E-11	7.506E-12	4.350E-12	5.253E-12	5.811E-12
SW	6.359E-09	1.775E-09	5.583E-10	2.711E-10	1.601E-10	6.383E-11	1.911E-11	8.305E-12	5.819E-12	4.819E-12
WSW	6.920E-09	1.795E-09	5.419E-10	2.591E-10	1.532E-10	6.128E-11	1.991E-11	1.127E-11	6.855E-12	4.294E-12
W	8.185E-09	2.063E-09	6.031E-10	2.841E-10	1.657E-10	6.694E-11	2.744E-11	1.345E-11	7.356E-12	4.560E-12
WNW	9.080E-09	2.279E-09	6.603E-10	3.117E-10	1.824E-10	7.758E-11	3.424E-11	1.613E-11	8.787E-12	5.445E-12
NW	8.617E-09	2.140E-09	6.139E-10	2.897E-10	1.697E-10	6.905E-11	3.159E-11	1.604E-11	8.373E-12	5.189E-12
NNW	6.809E-09	1.600E-09	4.587E-10	2.184E-10	1.297E-10	5.719E-11	2.998E-11	1.438E-11	7.634E-12	4.732E-12

(Based on 2002-2007 met data)

Insert Table 2.7-104 Annual Average X/Q Values (No Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3) ←

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.201E-06	7.406E-07	4.177E-07	2.335E-07	1.153E-07	7.323E-08	5.214E-08	3.971E-08	3.164E-08	2.604E-08	2.209E-08
NNE	4.384E-06	1.491E-06	8.431E-07	4.603E-07	2.169E-07	1.335E-07	9.317E-08	6.999E-08	5.630E-08	4.687E-08	3.947E-08
NE	6.279E-06	2.172E-06	1.227E-06	6.467E-07	2.789E-07	1.622E-07	1.094E-07	8.056E-08	6.285E-08	5.106E-08	4.273E-08
ENE	3.470E-06	1.266E-06	7.259E-07	3.856E-07	1.707E-07	1.026E-07	7.140E-08	5.407E-08	4.321E-08	3.583E-08	3.053E-08
E	2.338E-06	9.151E-07	5.385E-07	2.882E-07	1.281E-07	7.707E-08	5.369E-08	4.068E-08	3.252E-08	2.697E-08	2.299E-08
ESE	2.623E-06	1.018E-06	5.898E-07	3.125E-07	1.366E-07	8.125E-08	5.613E-08	4.230E-08	3.370E-08	2.790E-08	2.376E-08
SE	2.306E-06	8.907E-07	5.144E-07	2.726E-07	1.189E-07	7.060E-08	4.875E-08	3.674E-08	2.928E-08	2.424E-08	2.064E-08
SSE	2.739E-06	9.777E-07	5.517E-07	2.912E-07	1.274E-07	7.564E-08	5.197E-08	3.887E-08	3.071E-08	2.520E-08	2.127E-08
S	2.821E-06	9.464E-07	5.235E-07	2.752E-07	1.197E-07	7.059E-08	4.811E-08	3.571E-08	2.803E-08	2.288E-08	1.923E-08
SSW	2.205E-06	7.580E-07	4.273E-07	2.272E-07	1.003E-07	5.973E-08	4.112E-08	3.079E-08	2.434E-08	1.998E-08	1.686E-08
SW	1.297E-06	4.751E-07	2.927E-07	1.795E-07	9.708E-08	6.307E-08	4.485E-08	3.382E-08	2.659E-08	2.159E-08	1.797E-08
WSW	1.299E-06	4.660E-07	2.781E-07	1.644E-07	8.402E-08	5.278E-08	3.675E-08	2.733E-08	2.128E-08	1.716E-08	1.435E-08
W	1.811E-06	6.138E-07	3.526E-07	2.011E-07	9.778E-08	5.999E-08	4.129E-08	3.052E-08	2.370E-08	1.908E-08	1.579E-08
WNW	2.106E-06	6.937E-07	3.857E-07	2.186E-07	1.080E-07	6.724E-08	4.682E-08	3.493E-08	2.733E-08	2.214E-08	1.843E-08
NW	2.088E-06	6.839E-07	3.671E-07	2.023E-07	9.803E-08	6.078E-08	4.232E-08	3.162E-08	2.479E-08	2.013E-08	1.686E-08
NNW	2.006E-06	6.514E-07	3.496E-07	1.901E-07	9.111E-08	5.674E-08	3.987E-08	3.010E-08	2.383E-08	1.953E-08	1.658E-08

Insert Table 2.7-104 Annual Average X/Q Values (No Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3)

Annual Average X/Q (sec/m <sup>3</sup> )												
Sector	Distance in Miles from the Site											
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50	
N	1.910E-08	1.187E-08	8.698E-09	5.886E-09	4.463E-09	3.575E-09	2.941E-09	2.446E-09	2.058E-09	1.764E-09	1.537E-09	
NNE	3.395E-08	1.970E-08	1.373E-08	8.609E-09	6.170E-09	4.760E-09	3.850E-09	3.219E-09	2.757E-09	2.406E-09	2.131E-09	
NE	3.663E-08	2.175E-08	1.556E-08	1.024E-08	7.650E-09	6.119E-09	5.114E-09	4.406E-09	3.881E-09	3.476E-09	3.156E-09	
ENE	2.661E-08	1.686E-08	1.258E-08	8.741E-09	6.775E-09	5.576E-09	4.771E-09	4.193E-09	3.758E-09	3.419E-09	3.148E-09	
E	2.006E-08	1.258E-08	9.287E-09	6.322E-09	4.800E-09	3.866E-09	3.234E-09	2.778E-09	2.434E-09	2.164E-09	1.948E-09	
ESE	2.074E-08	1.318E-08	9.878E-09	6.930E-09	5.408E-09	4.465E-09	3.822E-09	3.354E-09	2.998E-09	2.717E-09	2.489E-09	
SE	1.801E-08	1.145E-08	8.561E-09	5.968E-09	4.631E-09	3.809E-09	3.253E-09	2.851E-09	2.547E-09	2.310E-09	2.119E-09	
SSE	1.838E-08	1.158E-08	8.712E-09	6.301E-09	5.162E-09	4.508E-09	4.077E-09	3.757E-09	3.492E-09	3.252E-09	3.023E-09	
S	1.654E-08	1.006E-08	7.361E-09	5.053E-09	3.934E-09	3.277E-09	2.846E-09	2.541E-09	2.311E-09	2.129E-09	1.980E-09	
SSW	1.456E-08	8.902E-09	6.482E-09	4.355E-09	3.295E-09	2.662E-09	2.243E-09	1.945E-09	1.723E-09	1.551E-09	1.413E-09	
SW	1.527E-08	8.546E-09	5.769E-09	3.444E-09	2.382E-09	1.787E-09	1.413E-09	1.159E-09	9.769E-10	8.403E-10	7.346E-10	
WSW	1.226E-08	6.802E-09	4.579E-09	2.732E-09	1.892E-09	1.422E-09	1.126E-09	9.239E-10	7.781E-10	6.684E-10	5.829E-10	
W	1.336E-08	7.676E-09	5.319E-09	3.327E-09	2.383E-09	1.821E-09	1.439E-09	1.170E-09	9.776E-10	8.350E-10	7.256E-10	
WNW	1.568E-08	9.327E-09	6.666E-09	4.417E-09	3.300E-09	2.561E-09	2.022E-09	1.651E-09	1.386E-09	1.189E-09	1.037E-09	
NW	1.443E-08	8.538E-09	6.074E-09	3.992E-09	2.999E-09	2.400E-09	1.979E-09	1.653E-09	1.394E-09	1.199E-09	1.048E-09	
NNW	1.438E-08	8.993E-09	6.673E-09	4.634E-09	3.562E-09	2.835E-09	2.275E-09	1.864E-09	1.569E-09	1.349E-09	1.178E-09	

Insert Table 2.7-104 Annual Average X/Q Values (No Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	4.076E-07	1.229E-07	5.279E-08	3.181E-08	2.215E-08	1.207E-08	5.879E-09	3.558E-09	2.439E-09	1.767E-09
NNE	8.168E-07	2.339E-07	9.466E-08	5.662E-08	3.962E-08	2.021E-08	8.663E-09	4.772E-09	3.223E-09	2.408E-09
NE	1.179E-06	3.088E-07	1.119E-07	6.342E-08	4.294E-08	2.231E-08	1.027E-08	6.126E-09	4.408E-09	3.477E-09
ENE	6.947E-07	1.882E-07	7.278E-08	4.350E-08	3.065E-08	1.712E-08	8.720E-09	5.574E-09	4.192E-09	3.419E-09
E	5.110E-07	1.410E-07	5.472E-08	3.274E-08	2.308E-08	1.278E-08	6.304E-09	3.862E-09	2.777E-09	2.164E-09
ESE	5.617E-07	1.511E-07	5.730E-08	3.395E-08	2.387E-08	1.339E-08	6.909E-09	4.459E-09	3.352E-09	2.716E-09
SE	4.905E-07	1.316E-07	4.977E-08	2.949E-08	2.073E-08	1.162E-08	5.950E-09	3.806E-09	2.850E-09	2.309E-09
SSE	5.306E-07	1.408E-07	5.304E-08	3.094E-08	2.137E-08	1.182E-08	6.331E-09	4.510E-09	3.748E-09	3.238E-09
S	5.071E-07	1.324E-07	4.914E-08	2.826E-08	1.931E-08	1.030E-08	5.068E-09	3.280E-09	2.540E-09	2.128E-09
SSW	4.119E-07	1.105E-07	4.195E-08	2.452E-08	1.693E-08	9.083E-09	4.357E-09	2.663E-09	1.946E-09	1.551E-09
SW	2.829E-07	1.003E-07	4.530E-08	2.675E-08	1.804E-08	8.805E-09	3.489E-09	1.796E-09	1.162E-09	8.416E-10
WSW	2.693E-07	8.799E-08	3.726E-08	2.144E-08	1.441E-08	7.026E-09	2.769E-09	1.429E-09	9.261E-10	6.692E-10
W	3.433E-07	1.039E-07	4.197E-08	2.388E-08	1.586E-08	7.892E-09	3.350E-09	1.818E-09	1.173E-09	8.367E-10
WNW	3.799E-07	1.144E-07	4.751E-08	2.752E-08	1.851E-08	9.556E-09	4.420E-09	2.543E-09	1.656E-09	1.191E-09
NW	3.642E-07	1.046E-07	4.296E-08	2.497E-08	1.693E-08	8.752E-09	4.013E-09	2.391E-09	1.647E-09	1.201E-09
NNW	3.458E-07	9.784E-08	4.046E-08	2.398E-08	1.664E-08	9.158E-09	4.611E-09	2.805E-09	1.869E-09	1.351E-09

(Based on 2002-2007 met data)

Insert Table 2.7-105 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3) ←

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.200E-06	7.400E-07	4.172E-07	2.331E-07	1.150E-07	7.299E-08	5.193E-08	3.951E-08	3.145E-08	2.587E-08	2.192E-08
NNE	4.382E-06	1.489E-06	8.420E-07	4.595E-07	2.164E-07	1.331E-07	9.282E-08	6.967E-08	5.600E-08	4.659E-08	3.920E-08
NE	6.277E-06	2.170E-06	1.225E-06	6.457E-07	2.782E-07	1.616E-07	1.089E-07	8.018E-08	6.251E-08	5.075E-08	4.244E-08
ENE	3.468E-06	1.265E-06	7.248E-07	3.848E-07	1.702E-07	1.022E-07	7.106E-08	5.377E-08	4.293E-08	3.557E-08	3.028E-08
E	2.337E-06	9.142E-07	5.377E-07	2.876E-07	1.277E-07	7.677E-08	5.343E-08	4.044E-08	3.230E-08	2.677E-08	2.279E-08
ESE	2.622E-06	1.017E-06	5.890E-07	3.118E-07	1.362E-07	8.093E-08	5.586E-08	4.205E-08	3.347E-08	2.769E-08	2.356E-08
SE	2.305E-06	8.898E-07	5.136E-07	2.720E-07	1.185E-07	7.031E-08	4.851E-08	3.652E-08	2.908E-08	2.406E-08	2.046E-08
SSE	2.737E-06	9.767E-07	5.509E-07	2.906E-07	1.270E-07	7.535E-08	5.173E-08	3.865E-08	3.051E-08	2.502E-08	2.110E-08
S	2.820E-06	9.455E-07	5.228E-07	2.747E-07	1.194E-07	7.033E-08	4.789E-08	3.552E-08	2.786E-08	2.272E-08	1.907E-08
SSW	2.204E-06	7.573E-07	4.267E-07	2.268E-07	1.000E-07	5.952E-08	4.094E-08	3.062E-08	2.419E-08	1.984E-08	1.673E-08
SW	1.296E-06	4.747E-07	2.923E-07	1.792E-07	9.686E-08	6.288E-08	4.468E-08	3.367E-08	2.645E-08	2.146E-08	1.785E-08
WSW	1.298E-06	4.656E-07	2.777E-07	1.641E-07	8.385E-08	5.263E-08	3.663E-08	2.722E-08	2.118E-08	1.706E-08	1.427E-08
W	1.810E-06	6.134E-07	3.522E-07	2.008E-07	9.759E-08	5.983E-08	4.115E-08	3.039E-08	2.358E-08	1.897E-08	1.569E-08
WNW	2.105E-06	6.931E-07	3.853E-07	2.182E-07	1.077E-07	6.704E-08	4.664E-08	3.477E-08	2.718E-08	2.201E-08	1.830E-08
NW	2.087E-06	6.833E-07	3.666E-07	2.019E-07	9.779E-08	6.059E-08	4.215E-08	3.147E-08	2.465E-08	2.001E-08	1.674E-08
NNW	2.005E-06	6.508E-07	3.491E-07	1.898E-07	9.088E-08	5.655E-08	3.970E-08	2.995E-08	2.369E-08	1.940E-08	1.646E-08

Insert Table 2.7-105 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	1.894E-08	1.172E-08	8.547E-09	5.728E-09	4.299E-09	3.408E-09	2.774E-09	2.283E-09	1.901E-09	1.614E-09	1.393E-09
NNE	3.369E-08	1.947E-08	1.351E-08	8.401E-09	5.969E-09	4.565E-09	3.661E-09	3.034E-09	2.576E-09	2.229E-09	1.957E-09
NE	3.635E-08	2.150E-08	1.532E-08	1.000E-08	7.406E-09	5.873E-09	4.865E-09	4.153E-09	3.624E-09	3.216E-09	2.891E-09
ENE	2.637E-08	1.663E-08	1.235E-08	8.495E-09	6.517E-09	5.307E-09	4.492E-09	3.904E-09	3.461E-09	3.114E-09	2.834E-09
E	1.987E-08	1.240E-08	9.105E-09	6.131E-09	4.605E-09	3.667E-09	3.033E-09	2.576E-09	2.232E-09	1.962E-09	1.746E-09
ESE	2.054E-08	1.298E-08	9.682E-09	6.719E-09	5.184E-09	4.232E-09	3.581E-09	3.106E-09	2.743E-09	2.457E-09	2.225E-09
SE	1.784E-08	1.128E-08	8.398E-09	5.795E-09	4.450E-09	3.621E-09	3.059E-09	2.652E-09	2.343E-09	2.101E-09	1.906E-09
SSE	1.822E-08	1.142E-08	8.557E-09	6.131E-09	4.973E-09	4.298E-09	3.846E-09	3.505E-09	3.221E-09	2.966E-09	2.725E-09
S	1.639E-08	9.931E-09	7.233E-09	4.921E-09	3.797E-09	3.134E-09	2.697E-09	2.385E-09	2.149E-09	1.961E-09	1.806E-09
SSW	1.443E-08	8.789E-09	6.373E-09	4.244E-09	3.183E-09	2.548E-09	2.127E-09	1.828E-09	1.604E-09	1.429E-09	1.289E-09
SW	1.515E-08	8.446E-09	5.678E-09	3.361E-09	2.304E-09	1.714E-09	1.343E-09	1.092E-09	9.120E-10	7.774E-10	6.736E-10
WSW	1.217E-08	6.731E-09	4.514E-09	2.674E-09	1.839E-09	1.372E-09	1.078E-09	8.781E-10	7.342E-10	6.260E-10	5.419E-10
W	1.327E-08	7.596E-09	5.245E-09	3.258E-09	2.316E-09	1.757E-09	1.379E-09	1.113E-09	9.236E-10	7.835E-10	6.760E-10
WNW	1.556E-08	9.221E-09	6.565E-09	4.316E-09	3.198E-09	2.462E-09	1.929E-09	1.563E-09	1.302E-09	1.108E-09	9.590E-10
NW	1.432E-08	8.438E-09	5.980E-09	3.902E-09	2.910E-09	2.312E-09	1.893E-09	1.570E-09	1.315E-09	1.123E-09	9.745E-10
NNW	1.426E-08	8.880E-09	6.560E-09	4.515E-09	3.440E-09	2.713E-09	2.158E-09	1.752E-09	1.462E-09	1.246E-09	1.080E-09

Insert Table 2.7-105 Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	4.071E-07	1.226E-07	5.258E-08	3.163E-08	2.199E-08	1.191E-08	5.719E-09	3.392E-09	2.278E-09	1.617E-09
NNE	8.159E-07	2.334E-07	9.431E-08	5.632E-08	3.935E-08	1.998E-08	8.456E-09	4.578E-09	3.039E-09	2.231E-09
NE	1.178E-06	3.081E-07	1.115E-07	6.308E-08	4.264E-08	2.205E-08	1.003E-08	5.879E-09	4.155E-09	3.217E-09
ENE	6.937E-07	1.877E-07	7.244E-08	4.322E-08	3.040E-08	1.689E-08	8.472E-09	5.304E-09	3.903E-09	3.113E-09
E	5.102E-07	1.406E-07	5.446E-08	3.252E-08	2.289E-08	1.259E-08	6.114E-09	3.664E-09	2.576E-09	1.962E-09
ESE	5.609E-07	1.507E-07	5.702E-08	3.372E-08	2.366E-08	1.320E-08	6.695E-09	4.226E-09	3.104E-09	2.456E-09
SE	4.898E-07	1.312E-07	4.953E-08	2.929E-08	2.055E-08	1.146E-08	5.776E-09	3.617E-09	2.651E-09	2.101E-09
SSE	5.298E-07	1.404E-07	5.280E-08	3.074E-08	2.119E-08	1.166E-08	6.156E-09	4.297E-09	3.494E-09	2.952E-09
S	5.064E-07	1.321E-07	4.893E-08	2.809E-08	1.916E-08	1.017E-08	4.935E-09	3.136E-09	2.384E-09	1.959E-09
SSW	4.113E-07	1.102E-07	4.177E-08	2.437E-08	1.680E-08	8.969E-09	4.246E-09	2.549E-09	1.828E-09	1.429E-09
SW	2.826E-07	1.001E-07	4.513E-08	2.661E-08	1.792E-08	8.706E-09	3.406E-09	1.723E-09	1.095E-09	7.788E-10
WSW	2.690E-07	8.782E-08	3.713E-08	2.134E-08	1.432E-08	6.955E-09	2.712E-09	1.379E-09	8.804E-10	6.269E-10
W	3.430E-07	1.037E-07	4.183E-08	2.377E-08	1.577E-08	7.813E-09	3.281E-09	1.755E-09	1.117E-09	7.852E-10
WNW	3.794E-07	1.142E-07	4.733E-08	2.738E-08	1.839E-08	9.449E-09	4.319E-09	2.445E-09	1.568E-09	1.110E-09
NW	3.638E-07	1.044E-07	4.279E-08	2.483E-08	1.681E-08	8.653E-09	3.923E-09	2.304E-09	1.565E-09	1.125E-09
NNW	3.453E-07	9.760E-08	4.029E-08	2.384E-08	1.651E-08	9.044E-09	4.492E-09	2.685E-09	1.758E-09	1.249E-09

(Based on 2002-2007 met data)

Insert Table 2.7-106 Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.100E-06	6.859E-07	3.794E-07	2.108E-07	1.038E-07	6.583E-08	4.678E-08	3.555E-08	2.824E-08	2.318E-08	1.962E-08
NNE	4.171E-06	1.376E-06	7.631E-07	4.131E-07	1.934E-07	1.185E-07	8.241E-08	6.168E-08	4.956E-08	4.121E-08	3.460E-08
NE	5.946E-06	1.996E-06	1.105E-06	5.742E-07	2.430E-07	1.397E-07	9.347E-08	6.845E-08	5.317E-08	4.303E-08	3.590E-08
ENE	3.288E-06	1.170E-06	6.586E-07	3.453E-07	1.507E-07	9.000E-08	6.249E-08	4.727E-08	3.776E-08	3.132E-08	2.668E-08
E	2.217E-06	8.506E-07	4.923E-07	2.603E-07	1.141E-07	6.828E-08	4.747E-08	3.594E-08	2.872E-08	2.382E-08	2.030E-08
ESE	2.488E-06	9.466E-07	5.394E-07	2.821E-07	1.215E-07	7.168E-08	4.934E-08	3.711E-08	2.954E-08	2.445E-08	2.081E-08
SE	2.187E-06	8.283E-07	4.703E-07	2.460E-07	1.056E-07	6.221E-08	4.280E-08	3.220E-08	2.564E-08	2.122E-08	1.807E-08
SSE	2.595E-06	9.033E-07	5.004E-07	2.606E-07	1.121E-07	6.601E-08	4.513E-08	3.363E-08	2.650E-08	2.170E-08	1.828E-08
S	2.672E-06	8.699E-07	4.717E-07	2.446E-07	1.045E-07	6.091E-08	4.119E-08	3.040E-08	2.376E-08	1.932E-08	1.618E-08
SSW	2.088E-06	6.971E-07	3.851E-07	2.021E-07	8.778E-08	5.185E-08	3.552E-08	2.651E-08	2.090E-08	1.713E-08	1.443E-08
SW	1.238E-06	4.410E-07	2.686E-07	1.653E-07	8.976E-08	5.821E-08	4.122E-08	3.091E-08	2.417E-08	1.951E-08	1.615E-08
WSW	1.241E-06	4.331E-07	2.549E-07	1.508E-07	7.707E-08	4.823E-08	3.341E-08	2.469E-08	1.911E-08	1.531E-08	1.275E-08
W	1.727E-06	5.682E-07	3.211E-07	1.824E-07	8.826E-08	5.383E-08	3.680E-08	2.702E-08	2.084E-08	1.667E-08	1.372E-08
WNW	2.017E-06	6.461E-07	3.527E-07	1.991E-07	9.796E-08	6.072E-08	4.204E-08	3.118E-08	2.426E-08	1.955E-08	1.618E-08
NW	2.004E-06	6.395E-07	3.367E-07	1.843E-07	8.878E-08	5.474E-08	3.789E-08	2.815E-08	2.194E-08	1.772E-08	1.477E-08
NNW	1.919E-06	6.061E-07	3.185E-07	1.718E-07	8.178E-08	5.071E-08	3.549E-08	2.668E-08	2.104E-08	1.718E-08	1.455E-08

Insert Table 2.7-106 Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	1.694E-08	1.048E-08	7.645E-09	5.142E-09	3.843E-09	2.946E-09	2.319E-09	1.867E-09	1.526E-09	1.273E-09	1.082E-09
NNE	2.968E-08	1.701E-08	1.172E-08	7.221E-09	5.101E-09	3.888E-09	3.112E-09	2.576E-09	2.178E-09	1.879E-09	1.644E-09
NE	3.069E-08	1.810E-08	1.288E-08	8.413E-09	6.250E-09	4.981E-09	4.151E-09	3.567E-09	3.122E-09	2.781E-09	2.508E-09
ENE	2.325E-08	1.477E-08	1.102E-08	7.657E-09	5.928E-09	4.874E-09	4.165E-09	3.655E-09	3.256E-09	2.947E-09	2.694E-09
E	1.771E-08	1.111E-08	8.190E-09	5.551E-09	4.193E-09	3.360E-09	2.797E-09	2.391E-09	2.084E-09	1.844E-09	1.651E-09
ESE	1.816E-08	1.155E-08	8.657E-09	6.066E-09	4.724E-09	3.893E-09	3.324E-09	2.910E-09	2.593E-09	2.343E-09	2.140E-09
SE	1.576E-08	1.003E-08	7.502E-09	5.221E-09	4.042E-09	3.317E-09	2.826E-09	2.471E-09	2.198E-09	1.983E-09	1.806E-09
SSE	1.577E-08	9.948E-09	7.494E-09	5.448E-09	4.493E-09	3.949E-09	3.590E-09	3.296E-09	2.991E-09	2.712E-09	2.454E-09
S	1.388E-08	8.403E-09	6.126E-09	4.196E-09	3.269E-09	2.730E-09	2.378E-09	2.128E-09	1.931E-09	1.773E-09	1.632E-09
SSW	1.243E-08	7.588E-09	5.510E-09	3.685E-09	2.779E-09	2.240E-09	1.884E-09	1.631E-09	1.435E-09	1.285E-09	1.162E-09
SW	1.365E-08	7.475E-09	4.954E-09	2.871E-09	1.938E-09	1.426E-09	1.109E-09	8.945E-10	7.408E-10	6.274E-10	5.398E-10
WSW	1.084E-08	5.877E-09	3.881E-09	2.246E-09	1.519E-09	1.119E-09	8.678E-10	6.921E-10	5.650E-10	4.707E-10	3.987E-10
W	1.154E-08	6.511E-09	4.445E-09	2.717E-09	1.866E-09	1.360E-09	1.035E-09	8.132E-10	6.589E-10	5.467E-10	4.623E-10
WNW	1.370E-08	8.038E-09	5.683E-09	3.692E-09	2.622E-09	1.946E-09	1.481E-09	1.169E-09	9.520E-10	7.934E-10	6.736E-10
NW	1.258E-08	7.330E-09	5.149E-09	3.330E-09	2.449E-09	1.878E-09	1.484E-09	1.200E-09	9.822E-10	8.212E-10	6.992E-10
NNW	1.258E-08	7.832E-09	5.786E-09	3.990E-09	2.935E-09	2.221E-09	1.719E-09	1.363E-09	1.113E-09	9.296E-10	7.910E-10

Insert Table 2.7-106 Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	3.725E-07	1.107E-07	4.737E-08	2.840E-08	1.968E-08	1.065E-08	5.121E-09	2.935E-09	1.866E-09	1.277E-09
NNE	7.437E-07	2.089E-07	8.376E-08	4.984E-08	3.474E-08	1.748E-08	7.279E-09	3.901E-09	2.578E-09	1.881E-09
NE	1.067E-06	2.707E-07	9.578E-08	5.367E-08	3.608E-08	1.858E-08	8.445E-09	4.987E-09	3.564E-09	2.781E-09
ENE	6.331E-07	1.670E-07	6.374E-08	3.802E-08	2.679E-08	1.499E-08	7.637E-09	4.872E-09	3.649E-09	2.945E-09
E	4.688E-07	1.262E-07	4.841E-08	2.892E-08	2.039E-08	1.128E-08	5.534E-09	3.357E-09	2.390E-09	1.843E-09
ESE	5.155E-07	1.350E-07	5.041E-08	2.976E-08	2.091E-08	1.173E-08	6.046E-09	3.887E-09	2.908E-09	2.342E-09
SE	4.502E-07	1.175E-07	4.374E-08	2.583E-08	1.815E-08	1.018E-08	5.204E-09	3.314E-09	2.468E-09	1.981E-09
SSE	4.833E-07	1.246E-07	4.610E-08	2.671E-08	1.837E-08	1.015E-08	5.478E-09	3.950E-09	3.264E-09	2.699E-09
S	4.592E-07	1.162E-07	4.213E-08	2.397E-08	1.626E-08	8.608E-09	4.213E-09	2.733E-09	2.124E-09	1.767E-09
SSW	3.731E-07	9.722E-08	3.627E-08	2.107E-08	1.449E-08	7.741E-09	3.688E-09	2.241E-09	1.629E-09	1.284E-09
SW	2.610E-07	9.252E-08	4.163E-08	2.432E-08	1.622E-08	7.726E-09	2.919E-09	1.436E-09	8.971E-10	6.286E-10
WSW	2.482E-07	8.063E-08	3.388E-08	1.926E-08	1.280E-08	6.092E-09	2.286E-09	1.125E-09	6.939E-10	4.719E-10
W	3.144E-07	9.387E-08	3.743E-08	2.102E-08	1.379E-08	6.711E-09	2.723E-09	1.365E-09	8.178E-10	5.487E-10
WNW	3.496E-07	1.039E-07	4.268E-08	2.444E-08	1.626E-08	8.249E-09	3.659E-09	1.940E-09	1.175E-09	7.960E-10
NW	3.362E-07	9.487E-08	3.849E-08	2.211E-08	1.483E-08	7.528E-09	3.343E-09	1.873E-09	1.198E-09	8.237E-10
NNW	3.172E-07	8.797E-08	3.602E-08	2.118E-08	1.460E-08	7.978E-09	3.920E-09	2.211E-09	1.369E-09	9.325E-10

(Based on 2002-2007 met data)

Insert Table 2.7-107 Annual Average D/Q Values for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3)

Sector	Relative Deposition per Unit Area ( $m^{-2}$ ) at Fixed Points by Downwind Sectors										
	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	2.322E-08	1.111E-08	6.853E-09	3.611E-09	1.379E-09	7.339E-10	4.555E-10	3.107E-10	2.257E-10	1.714E-10	1.347E-10
NNE	5.010E-08	2.258E-08	1.354E-08	7.118E-09	2.730E-09	1.457E-09	9.061E-10	6.186E-10	4.530E-10	3.476E-10	2.725E-10
NE	6.121E-08	2.429E-08	1.354E-08	6.723E-09	2.451E-09	1.251E-09	7.538E-10	5.032E-10	3.598E-10	2.703E-10	2.107E-10
ENE	3.019E-08	1.357E-08	7.927E-09	4.002E-09	1.453E-09	7.468E-10	4.525E-10	3.038E-10	2.184E-10	1.649E-10	1.291E-10
E	2.414E-08	1.163E-08	6.950E-09	3.538E-09	1.283E-09	6.618E-10	4.022E-10	2.707E-10	1.951E-10	1.476E-10	1.159E-10
ESE	2.671E-08	1.288E-08	7.696E-09	3.914E-09	1.417E-09	7.300E-10	4.433E-10	2.983E-10	2.149E-10	1.626E-10	1.276E-10
SE	2.176E-08	1.069E-08	6.415E-09	3.260E-09	1.175E-09	6.045E-10	3.666E-10	2.465E-10	1.776E-10	1.344E-10	1.055E-10
SSE	2.277E-08	1.030E-08	6.030E-09	3.044E-09	1.103E-09	5.668E-10	3.433E-10	2.304E-10	1.657E-10	1.251E-10	9.798E-11
S	2.165E-08	8.836E-09	4.987E-09	2.491E-09	9.095E-10	4.660E-10	2.815E-10	1.884E-10	1.350E-10	1.015E-10	7.926E-11
SSW	1.841E-08	7.440E-09	4.173E-09	2.081E-09	7.613E-10	3.901E-10	2.357E-10	1.577E-10	1.129E-10	8.493E-11	6.627E-11
SW	1.715E-08	8.392E-09	5.677E-09	3.243E-09	1.365E-09	7.678E-10	4.932E-10	3.435E-10	2.525E-10	1.930E-10	1.520E-10
WSW	2.025E-08	9.844E-09	6.443E-09	3.517E-09	1.416E-09	7.714E-10	4.853E-10	3.336E-10	2.434E-10	1.852E-10	1.498E-10
W	2.787E-08	1.351E-08	8.102E-09	4.448E-09	1.741E-09	9.184E-10	5.645E-10	3.820E-10	2.758E-10	2.085E-10	1.632E-10
WNW	2.820E-08	1.463E-08	9.352E-09	4.883E-09	1.865E-09	9.836E-10	6.058E-10	4.111E-10	2.976E-10	2.257E-10	1.772E-10
NW	2.596E-08	1.394E-08	8.683E-09	4.622E-09	1.725E-09	9.056E-10	5.569E-10	3.779E-10	2.738E-10	2.080E-10	1.636E-10
NNW	2.224E-08	1.136E-08	7.031E-09	3.653E-09	1.354E-09	7.097E-10	4.361E-10	2.958E-10	2.143E-10	1.627E-10	1.292E-10

Insert Table 2.7-107 Annual Average D/Q Values for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors											
Sector	Distance in Miles from the Site										
	5	7.5	10	15	20	25	30	35	40	45	50
N	1.086E-10	5.232E-11	3.223E-11	1.741E-11	2.664E-11	2.025E-11	1.314E-11	9.403E-12	7.323E-12	5.855E-12	4.783E-12
NNE	2.194E-10	1.037E-10	6.323E-11	3.323E-11	2.124E-11	1.531E-11	1.184E-11	9.588E-12	7.997E-12	6.846E-12	5.991E-12
NE	1.690E-10	7.830E-11	4.806E-11	2.525E-11	1.598E-11	1.153E-11	9.038E-12	7.483E-12	6.416E-12	5.628E-12	5.068E-12
ENE	1.041E-10	4.895E-11	3.029E-11	1.621E-11	1.040E-11	7.738E-12	6.287E-12	5.387E-12	4.752E-12	4.262E-12	3.922E-12
E	9.359E-11	4.431E-11	2.751E-11	1.482E-11	9.493E-12	7.090E-12	5.515E-12	4.418E-12	3.620E-12	3.018E-12	2.554E-12
ESE	1.031E-10	4.880E-11	3.031E-11	1.633E-11	1.047E-11	7.835E-12	6.117E-12	4.929E-12	4.067E-12	3.416E-12	3.104E-12
SE	8.528E-11	4.047E-11	2.515E-11	1.360E-11	8.742E-12	6.551E-12	5.220E-12	4.369E-12	3.836E-12	3.472E-12	3.186E-12
SSE	7.899E-11	3.719E-11	2.302E-11	1.238E-11	8.078E-12	5.937E-12	7.790E-12	1.267E-11	1.174E-11	9.306E-12	7.244E-12
S	6.367E-11	2.958E-11	1.822E-11	9.658E-12	6.160E-12	4.495E-12	3.559E-12	2.976E-12	3.582E-12	3.866E-12	5.308E-12
SSW	5.320E-11	2.473E-11	1.522E-11	8.024E-12	5.105E-12	3.722E-12	2.944E-12	2.467E-12	2.148E-12	2.029E-12	2.158E-12
SW	1.225E-10	5.866E-11	3.567E-11	1.871E-11	1.177E-11	8.328E-12	6.301E-12	4.985E-12	4.081E-12	3.432E-12	2.980E-12
WSW	1.206E-10	5.709E-11	3.432E-11	1.783E-11	1.131E-11	8.048E-12	7.466E-12	7.044E-12	5.680E-12	4.603E-12	3.747E-12
W	1.313E-10	6.159E-11	3.735E-11	2.432E-11	1.986E-11	1.381E-11	9.800E-12	7.404E-12	5.763E-12	4.604E-12	3.758E-12
WNW	1.430E-10	6.886E-11	4.172E-11	3.502E-11	2.473E-11	1.628E-11	1.173E-11	8.833E-12	6.872E-12	5.490E-12	4.482E-12
NW	1.323E-10	6.351E-11	3.934E-11	2.124E-11	2.325E-11	1.739E-11	1.235E-11	8.593E-12	6.668E-12	5.329E-12	4.354E-12
NNW	1.044E-10	4.982E-11	3.078E-11	2.296E-11	2.358E-11	1.464E-11	1.021E-11	7.713E-12	6.001E-12	4.793E-12	3.913E-12

Insert Table 2.7-107 Annual Average D/Q Values for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3)

**Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors**

<b>Sector</b>	<b>Segment Boundaries in Miles from the Site</b>									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	6.359E-09	1.588E-09	4.718E-10	2.293E-10	1.359E-10	5.591E-11	2.481E-11	1.911E-11	9.679E-12	5.893E-12
NNE	1.270E-08	3.140E-09	9.381E-10	4.601E-10	2.751E-10	1.114E-10	3.457E-11	1.550E-11	9.624E-12	6.870E-12
NE	1.290E-08	2.867E-09	7.862E-10	3.667E-10	2.129E-10	8.502E-11	2.620E-11	1.172E-11	7.521E-12	5.654E-12
ENE	7.437E-09	1.706E-09	4.715E-10	2.224E-10	1.304E-10	5.291E-11	1.676E-11	7.868E-12	5.402E-12	4.281E-12
E	6.473E-09	1.508E-09	4.188E-10	1.986E-10	1.170E-10	4.779E-11	1.527E-11	7.101E-12	4.428E-12	3.024E-12
ESE	7.167E-09	1.667E-09	4.617E-10	2.188E-10	1.289E-10	5.264E-11	1.683E-11	7.851E-12	4.940E-12	3.494E-12
SE	5.963E-09	1.385E-09	3.820E-10	1.808E-10	1.066E-10	4.362E-11	1.401E-11	6.603E-12	4.409E-12	3.474E-12
SSE	5.653E-09	1.296E-09	3.578E-10	1.687E-10	9.898E-11	4.018E-11	1.283E-11	7.249E-12	1.092E-11	9.262E-12
S	4.733E-09	1.064E-09	2.934E-10	1.375E-10	8.009E-11	3.211E-11	1.000E-11	4.564E-12	3.373E-12	4.316E-12
SSW	3.969E-09	8.896E-10	2.457E-10	1.150E-10	6.696E-11	2.683E-11	8.325E-12	3.780E-12	2.482E-12	2.112E-12
SW	5.198E-09	1.517E-09	5.065E-10	2.558E-10	1.532E-10	6.263E-11	1.939E-11	8.435E-12	5.017E-12	3.457E-12
WSW	5.899E-09	1.596E-09	5.009E-10	2.470E-10	1.495E-10	6.109E-11	1.860E-11	8.684E-12	6.645E-12	4.605E-12
W	7.679E-09	1.977E-09	5.859E-10	2.805E-10	1.648E-10	6.631E-11	2.523E-11	1.382E-11	7.464E-12	4.634E-12
WNW	8.539E-09	2.144E-09	6.287E-10	3.026E-10	1.789E-10	7.327E-11	3.193E-11	1.671E-11	8.913E-12	5.526E-12
NW	8.045E-09	2.005E-09	5.783E-10	2.785E-10	1.651E-10	6.805E-11	2.616E-11	1.694E-11	8.933E-12	5.365E-12
NNW	6.492E-09	1.578E-09	4.529E-10	2.179E-10	1.300E-10	5.349E-11	2.497E-11	1.525E-11	7.775E-12	4.825E-12

**Insert Table 2.7-xxx Site Boundary X/Q and D/Q Factors for Ground-Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	9.50E-06	9.50E-06	8.60E-06	4.00E-08
NNE	6.10E-06	6.00E-06	5.40E-06	2.70E-08
NE	2.60E-06	2.60E-06	2.20E-06	1.20E-08
SSE	1.10E-05	1.10E-05	9.90E-06	3.50E-08
S	7.20E-06	7.20E-06	6.50E-06	2.40E-08
SSW	4.00E-06	4.00E-06	3.60E-06	1.70E-08
SW	2.40E-06	2.30E-06	2.10E-06	1.80E-08
WSW	2.40E-06	2.40E-06	2.10E-06	1.60E-08
W	5.50E-06	5.50E-06	5.00E-06	3.20E-08
WNW	8.90E-06	8.90E-06	8.10E-06	4.40E-08
NW	1.00E-05	1.00E-05	9.50E-06	4.90E-08
NNW	9.60E-06	9.60E-06	8.80E-06	4.00E-08

**Insert Table 2.7-xxx Site Boundary X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	7.20E-07	7.20E-07	6.60E-07	1.10E-08
NNE	6.70E-07	6.70E-07	6.10E-07	9.80E-09
NE	3.50E-07	3.50E-07	3.20E-07	5.40E-09
SSE	5.20E-07	5.20E-07	4.80E-07	1.00E-08
S	4.20E-07	4.20E-07	3.80E-07	7.00E-09
SSW	2.80E-07	2.80E-07	2.60E-07	5.60E-09
SW	3.80E-07	3.80E-07	3.60E-07	8.40E-09
WSW	3.30E-07	3.30E-07	3.00E-07	6.90E-09
W	5.60E-07	5.60E-07	5.20E-07	1.20E-08
WNW	7.80E-07	7.80E-07	7.30E-07	1.50E-08
NW	8.70E-07	8.70E-07	8.10E-07	1.50E-08
NNW	7.10E-07	7.10E-07	6.60E-07	1.00E-08

**Insert Table 2.7-xxx Site Boundary X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack**  
**(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	8.10E-07	8.10E-07	7.40E-07	9.90E-09
NNE	7.20E-07	7.10E-07	6.40E-07	9.20E-09
NE	3.30E-07	3.30E-07	3.00E-07	4.70E-09
SSE	5.80E-07	5.80E-07	5.30E-07	8.50E-09
S	4.80E-07	4.80E-07	4.40E-07	6.00E-09
SSW	2.90E-07	2.90E-07	2.60E-07	4.70E-09
SW	3.40E-07	3.40E-07	3.10E-07	7.50E-09
WSW	3.10E-07	3.10E-07	2.80E-07	5.90E-09
W	6.20E-07	6.20E-07	5.70E-07	1.10E-08
WNW	8.60E-07	8.60E-07	8.00E-07	1.40E-08
NW	9.60E-07	9.60E-07	8.90E-07	1.40E-08
NNW	8.30E-07	8.30E-07	7.60E-07	9.40E-09

**Insert Table 2.7-xxx Nearest Residence X/Q and D/Q Factors for Ground-Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	2.50E-06	2.50E-06	2.20E-06	1.10E-08
NE	2.20E-06	2.20E-06	1.90E-06	1.00E-08
SSE	6.00E-06	5.90E-06	5.30E-06	1.90E-08
SSW	2.40E-06	2.40E-06	2.20E-06	1.10E-08
SW	1.70E-06	1.70E-06	1.50E-06	1.30E-08
WSW	9.10E-07	9.10E-07	8.00E-07	6.10E-09
W	1.70E-06	1.70E-06	1.50E-06	1.10E-08
NW	7.00E-06	7.00E-06	6.30E-06	3.40E-08
NNW	1.60E-06	1.60E-06	1.40E-06	7.00E-09

**Insert Table 2.7-xxx Nearest Residence X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	3.60E-07	3.60E-07	3.30E-07	4.50E-09
NE	3.20E-07	3.20E-07	2.90E-07	4.60E-09
SSE	3.60E-07	3.60E-07	3.30E-07	6.50E-09
SSW	2.10E-07	2.10E-07	2.00E-07	3.90E-09
SW	3.20E-07	3.20E-07	3.00E-07	6.60E-09
WSW	1.80E-07	1.80E-07	1.70E-07	3.20E-09
W	2.80E-07	2.80E-07	2.60E-07	4.90E-09
NW	6.80E-07	6.80E-07	6.30E-07	1.20E-08
NNW	2.40E-07	2.40E-07	2.20E-07	2.80E-09

**Insert Table 2.7-xxx Nearest Residence X/Q and D/Q Factors for Mixed-Mode Release from the Turbine Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	3.60E-07	3.60E-07	3.20E-07	4.10E-09
NE	2.90E-07	2.90E-07	2.60E-07	4.10E-09
SSE	3.70E-07	3.70E-07	3.40E-07	5.60E-09
SSW	2.00E-07	2.00E-07	1.90E-07	3.40E-09
SW	2.80E-07	2.80E-07	2.50E-07	5.90E-09
WSW	1.60E-07	1.60E-07	1.40E-07	2.80E-09
W	2.70E-07	2.70E-07	2.40E-07	4.90E-09
NW	7.20E-07	7.20E-07	6.60E-07	1.10E-08
NNW	2.20E-07	2.20E-07	2.00E-07	2.50E-09

**Insert Table 2.7-xxx Nearest Garden X/Q and D/Q Factors for Ground-Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	4.30E-07	4.30E-07	3.50E-07	1.70E-09
NNE	7.50E-07	7.40E-07	6.20E-07	3.00E-09
NE	6.60E-07	6.50E-07	5.40E-07	2.80E-09
S	1.50E-06	1.50E-06	1.30E-06	5.30E-09
WSW	1.80E-07	1.80E-07	1.50E-07	1.10E-09
W	5.40E-07	5.30E-07	4.60E-07	3.20E-09
NW	7.00E-06	7.00E-06	6.30E-06	3.40E-08
NNW	2.10E-06	2.10E-06	1.80E-06	9.00E-09

**Insert Table 2.7-xxx Nearest Garden X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	9.80E-08	9.80E-08	9.00E-08	7.50E-10
NNE	1.50E-07	1.50E-07	1.40E-07	1.40E-09
NE	1.40E-07	1.40E-07	1.30E-07	1.40E-09
S	1.50E-07	1.50E-07	1.40E-07	2.00E-09
WSW	5.60E-08	5.60E-08	5.10E-08	7.20E-10
W	1.30E-07	1.20E-07	1.20E-07	1.80E-09
NW	6.80E-07	6.80E-07	6.30E-07	1.20E-08
NNW	2.80E-07	2.80E-07	2.60E-07	3.50E-09

**Insert Table 2.7-xxx Nearest Garden X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack**  
**(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
N	8.60E-08	8.60E-08	7.70E-08	7.20E-10
NNE	1.40E-07	1.40E-07	1.20E-07	1.30E-09
NE	1.20E-07	1.20E-07	1.10E-07	1.30E-09
S	1.50E-07	1.50E-07	1.30E-07	1.70E-09
WSW	4.90E-08	4.90E-08	4.40E-08	6.50E-10
W	1.10E-07	1.10E-07	1.00E-07	1.70E-09
NW	7.10E-07	7.10E-07	6.50E-07	1.10E-08
NNW	2.70E-07	2.60E-07	2.40E-07	3.10E-09

**Insert Table 2.7-xxx Nearest Sheep X/Q and D/Q Factors for Ground Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	1.60E-07	1.60E-07	1.20E-07	5.30E-10
NNW	8.40E-08	8.20E-08	6.30E-08	2.70E-10

**Insert Table 2.7-xxx Nearest Sheep X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.80E-08	4.80E-08	4.30E-08	2.70E-10
NNW	2.60E-08	2.50E-08	2.30E-08	1.50E-10

**Insert Table 2.7-xxx Nearest Sheep X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.30E-08	4.30E-08	3.80E-08	2.70E-10
NNW	2.30E-08	2.30E-08	2.00E-08	1.50E-10

**Insert Table 2.7-xxx Nearest Goat X/Q and D/Q Factors for Ground Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	3.00E-07	3.00E-07	2.40E-07	1.40E-09
NNW	1.70E-07	1.70E-07	1.40E-07	6.20E-10

**Insert Table 2.7-xxx Nearest Goat X/Q and D/Q Factors for Mixed-Mode Release  
from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	7.70E-08	7.70E-08	7.00E-08	8.10E-10
NNW	4.70E-08	4.60E-08	4.20E-08	3.30E-10

**Insert Table 2.7-xxx Nearest Goat X/Q and D/Q Factors for Mixed-Mode Release  
from the Turbine Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	6.90E-08	6.90E-08	6.10E-08	7.70E-10
NNW	4.20E-08	4.20E-08	3.70E-08	3.20E-10

**Insert Table 2.7-xxx Nearest Meat Cow X/Q and D/Q Factors for Ground Level Release**  
**(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	1.60E-07	1.60E-07	1.20E-07	5.30E-10
NNW	1.80E-07	1.80E-07	1.40E-07	6.40E-10

**Insert Table 2.7-xxx Nearest Meat Cow X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack**  
**(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.80E-08	4.80E-08	4.30E-08	2.70E-10
NNW	4.80E-08	4.70E-08	4.30E-08	3.40E-10

**Insert Table 2.7-xxx Nearest Meat Cow X/Q and D/Q Factors for Mixed-Mode Release from the Turbine Building Stack**  
**(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
NNE	4.30E-08	4.30E-08	3.80E-08	2.70E-10
NNW	4.30E-08	4.20E-08	3.80E-08	3.30E-10

**Insert Table 2.7-xxx Nearest Milk Cow X/Q and D/Q Factors for Ground Level Release  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	3.40E-07	3.30E-07	2.80E-07	1.60E-09
NW	1.30E-07	1.30E-07	1.00E-07	5.20E-10

**Insert Table 2.7-xxx Nearest Milk Cow X/Q and D/Q Factors for Mixed-Mode Release from the Reactor Building/Fuel Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	8.40E-08	8.40E-08	7.70E-08	9.10E-10
NW	3.90E-08	3.90E-08	3.50E-08	3.20E-10

**Insert Table 2.7-xxx Nearest Milk Cow X/Q and D/Q Factors for Mixed-Mode Release from the Turbine Building Stack  
(Based on 1985-1989 met data)**

Sector	No Decay, Undepleted X/Q (sec/m <sup>3</sup> )	2.26 Day Decay, Undepleted X/Q (sec/m <sup>3</sup> )	8.0 Day Decay, Depleted X/Q (sec/m <sup>3</sup> )	D/Q (m <sup>-2</sup> )
WNW	7.60E-08	7.50E-08	6.80E-08	8.70E-10
NW	3.50E-08	3.50E-08	3.10E-08	3.10E-10

Insert Table 2.7-xxx Annual Average X/Q Values (no Decay, Undepleted) for Ground Level Release (Sheet 1 of 3)  
 (1985-1989)

Annual Average X/Q (sec/m <sup>3</sup> )											
Distance in Miles from the Site											
Sector	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	4.021E-05	1.175E-05	5.764E-06	2.745E-06	1.028E-06	5.364E-07	3.321E-07	2.280E-07	1.677E-07	1.295E-07	1.037E-07
NNE	6.006E-05	1.753E-05	8.587E-06	4.091E-06	1.535E-06	8.031E-07	4.984E-07	3.429E-07	2.527E-07	1.954E-07	1.568E-07
NE	8.615E-05	2.517E-05	1.225E-05	5.855E-06	2.217E-06	1.171E-06	7.330E-07	5.081E-07	3.768E-07	2.932E-07	2.365E-07
ENE	9.240E-05	2.698E-05	1.312E-05	6.270E-06	2.378E-06	1.257E-06	7.879E-07	5.466E-07	4.058E-07	3.160E-07	2.550E-07
E	9.619E-05	2.802E-05	1.359E-05	6.498E-06	2.467E-06	1.306E-06	8.192E-07	5.689E-07	4.227E-07	3.294E-07	2.660E-07
ESE	9.470E-05	2.751E-05	1.330E-05	6.365E-06	2.420E-06	1.284E-06	8.065E-07	5.609E-07	4.172E-07	3.255E-07	2.631E-07
SE	7.865E-05	2.288E-05	1.108E-05	5.299E-06	2.014E-06	1.067E-06	6.699E-07	4.656E-07	3.462E-07	2.699E-07	2.181E-07
SSE	7.415E-05	2.158E-05	1.044E-05	4.999E-06	1.902E-06	1.009E-06	6.339E-07	4.409E-07	3.280E-07	2.559E-07	2.069E-07
S	5.040E-05	1.469E-05	7.117E-06	3.407E-06	1.297E-06	6.879E-07	4.322E-07	3.006E-07	2.236E-07	1.745E-07	1.410E-07
SSW	2.980E-05	8.719E-06	4.249E-06	2.030E-06	7.686E-07	4.059E-07	2.540E-07	1.760E-07	1.305E-07	1.016E-07	8.188E-08
SW	2.008E-05	5.786E-06	2.832E-06	1.344E-06	4.978E-07	2.570E-07	1.576E-07	1.073E-07	7.830E-08	6.005E-08	4.779E-08
WSW	1.497E-05	4.322E-06	2.112E-06	1.003E-06	3.728E-07	1.932E-07	1.188E-07	8.113E-08	5.936E-08	4.564E-08	3.640E-08
W	1.858E-05	5.364E-06	2.619E-06	1.245E-06	4.642E-07	2.415E-07	1.491E-07	1.021E-07	7.493E-08	5.776E-08	4.618E-08
WNW	2.835E-05	8.196E-06	3.995E-06	1.901E-06	7.111E-07	3.711E-07	2.298E-07	1.578E-07	1.161E-07	8.969E-08	7.186E-08
NW	3.307E-05	9.562E-06	4.656E-06	2.216E-06	8.295E-07	4.331E-07	2.684E-07	1.844E-07	1.357E-07	1.049E-07	8.405E-08
NNW	3.047E-05	8.888E-06	4.350E-06	2.074E-06	7.779E-07	4.067E-07	2.522E-07	1.734E-07	1.276E-07	9.867E-08	7.909E-08

Insert Table 2.7-xxx Annual Average X/Q Values (no Decay, Undepleted) for Ground Level Release (Sheet 2 of 3)  
 (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	8.544E-08	4.325E-08	2.779E-08	1.579E-08	1.064E-08	7.853E-09	6.137E-09	4.987E-09	4.170E-09	3.563E-09	3.097E-09
NNE	1.293E-07	6.584E-08	4.248E-08	2.429E-08	1.644E-08	1.218E-08	9.542E-09	7.773E-09	6.513E-09	5.576E-09	4.854E-09
NE	1.960E-07	1.017E-07	6.658E-08	3.882E-08	2.663E-08	1.993E-08	1.575E-08	1.292E-08	1.089E-08	9.375E-09	8.200E-09
ENE	2.115E-07	1.100E-07	7.212E-08	4.216E-08	2.897E-08	2.171E-08	1.718E-08	1.411E-08	1.190E-08	1.025E-08	8.973E-09
E	2.208E-07	1.152E-07	7.566E-08	4.437E-08	3.056E-08	2.295E-08	1.818E-08	1.495E-08	1.263E-08	1.089E-08	9.542E-09
ESE	2.186E-07	1.145E-07	7.544E-08	4.443E-08	3.070E-08	2.311E-08	1.835E-08	1.512E-08	1.279E-08	1.104E-08	9.686E-09
SE	1.811E-07	9.470E-08	6.231E-08	3.663E-08	2.527E-08	1.900E-08	1.507E-08	1.241E-08	1.049E-08	9.051E-09	7.935E-09
SSE	1.719E-07	8.999E-08	5.928E-08	3.489E-08	2.410E-08	1.813E-08	1.439E-08	1.185E-08	1.003E-08	8.655E-09	7.591E-09
S	1.172E-07	6.129E-08	4.035E-08	2.373E-08	1.637E-08	1.231E-08	9.763E-09	8.036E-09	6.794E-09	5.862E-09	5.139E-09
SSW	6.787E-08	3.520E-08	2.302E-08	1.341E-08	9.193E-09	6.877E-09	5.433E-09	4.455E-09	3.755E-09	3.231E-09	2.825E-09
SW	3.915E-08	1.941E-08	1.228E-08	6.823E-09	4.531E-09	3.307E-09	2.561E-09	2.065E-09	1.715E-09	1.457E-09	1.260E-09
WSW	2.989E-08	1.493E-08	9.506E-09	5.335E-09	3.569E-09	2.620E-09	2.039E-09	1.651E-09	1.376E-09	1.173E-09	1.017E-09
W	3.799E-08	1.915E-08	1.227E-08	6.948E-09	4.678E-09	3.451E-09	2.697E-09	2.191E-09	1.832E-09	1.566E-09	1.361E-09
WNW	5.923E-08	3.006E-08	1.937E-08	1.106E-08	7.487E-09	5.549E-09	4.351E-09	3.547E-09	2.974E-09	2.548E-09	2.220E-09
NW	6.930E-08	3.522E-08	2.271E-08	1.299E-08	8.807E-09	6.534E-09	5.128E-09	4.184E-09	3.510E-09	3.009E-09	2.622E-09
NNW	6.520E-08	3.310E-08	2.132E-08	1.216E-08	8.217E-09	6.079E-09	4.760E-09	3.875E-09	3.245E-09	2.777E-09	2.416E-09

Insert Table 2.7-xxx Annual Average X/Q Values (no Decay, Undepleted) for Ground Level Release (Sheet 3 of 3)  
(1985-1989)

X/Q (sec/m<sup>3</sup>) for Each Segment

Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.752E-06	1.191E-06	3.449E-07	1.704E-07	1.046E-07	4.575E-08	1.617E-08	7.910E-09	5.004E-09	3.570E-09
NNE	8.576E-06	1.778E-06	5.175E-07	2.567E-07	1.581E-07	6.957E-08	2.484E-08	1.226E-08	7.799E-09	5.586E-09
NE	1.228E-05	2.561E-06	7.599E-07	3.825E-07	2.383E-07	1.071E-07	3.957E-08	2.004E-08	1.296E-08	9.390E-09
ENE	1.315E-05	2.745E-06	8.166E-07	4.118E-07	2.569E-07	1.157E-07	4.295E-08	2.183E-08	1.414E-08	1.027E-08
E	1.364E-05	2.847E-06	8.489E-07	4.289E-07	2.680E-07	1.211E-07	4.519E-08	2.307E-08	1.499E-08	1.091E-08
ESE	1.338E-05	2.792E-06	8.355E-07	4.233E-07	2.651E-07	1.203E-07	4.522E-08	2.323E-08	1.515E-08	1.106E-08
SE	1.113E-05	2.323E-06	6.941E-07	3.513E-07	2.198E-07	9.951E-08	3.729E-08	1.910E-08	1.244E-08	9.064E-09
SSE	1.050E-05	2.193E-06	6.567E-07	3.328E-07	2.085E-07	9.454E-08	3.551E-08	1.823E-08	1.188E-08	8.668E-09
S	7.150E-06	1.495E-06	4.478E-07	2.269E-07	1.421E-07	6.440E-08	2.415E-08	1.237E-08	8.057E-09	5.870E-09
SSW	4.256E-06	8.877E-07	2.633E-07	1.325E-07	8.252E-08	3.704E-08	1.367E-08	6.917E-09	4.468E-09	3.236E-09
SW	2.827E-06	5.788E-07	1.640E-07	7.963E-08	4.823E-08	2.063E-08	7.016E-09	3.335E-09	2.073E-09	1.460E-09
WSW	2.110E-06	4.331E-07	1.236E-07	6.035E-08	3.673E-08	1.584E-08	5.477E-09	2.640E-09	1.657E-09	1.175E-09
W	2.618E-06	5.386E-07	1.549E-07	7.615E-08	4.658E-08	2.028E-08	7.121E-09	3.477E-09	2.199E-09	1.569E-09
WNW	3.998E-06	8.243E-07	2.387E-07	1.180E-07	7.246E-08	3.179E-08	1.132E-08	5.587E-09	3.559E-09	2.553E-09
NW	4.662E-06	9.615E-07	2.787E-07	1.379E-07	8.476E-08	3.724E-08	1.329E-08	6.578E-09	4.197E-09	3.014E-09
NNW	4.347E-06	9.010E-07	2.619E-07	1.297E-07	7.975E-08	3.500E-08	1.244E-08	6.122E-09	3.888E-09	2.782E-09

Insert Table 2.7-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Ground Level Release (Sheet 1 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	4.017E-05	1.172E-05	5.746E-06	2.734E-06	1.021E-06	5.319E-07	3.286E-07	2.252E-07	1.652E-07	1.273E-07	1.018E-07
NNE	6.000E-05	1.750E-05	8.564E-06	4.076E-06	1.527E-06	7.974E-07	4.940E-07	3.393E-07	2.495E-07	1.927E-07	1.543E-07
NE	8.607E-05	2.513E-05	1.222E-05	5.833E-06	2.205E-06	1.163E-06	7.263E-07	5.025E-07	3.721E-07	2.890E-07	2.326E-07
ENE	9.231E-05	2.692E-05	1.308E-05	6.246E-06	2.364E-06	1.248E-06	7.803E-07	5.403E-07	4.003E-07	3.111E-07	2.505E-07
E	9.608E-05	2.796E-05	1.354E-05	6.468E-06	2.450E-06	1.294E-06	8.097E-07	5.610E-07	4.158E-07	3.233E-07	2.605E-07
ESE	9.460E-05	2.745E-05	1.326E-05	6.337E-06	2.405E-06	1.272E-06	7.976E-07	5.535E-07	4.108E-07	3.198E-07	2.579E-07
SE	7.855E-05	2.282E-05	1.104E-05	5.274E-06	1.999E-06	1.057E-06	6.618E-07	4.589E-07	3.403E-07	2.647E-07	2.134E-07
SSE	7.407E-05	2.153E-05	1.041E-05	4.976E-06	1.889E-06	9.999E-07	6.268E-07	4.350E-07	3.229E-07	2.513E-07	2.027E-07
S	5.034E-05	1.465E-05	7.093E-06	3.391E-06	1.288E-06	6.817E-07	4.273E-07	2.965E-07	2.201E-07	1.713E-07	1.382E-07
SSW	2.977E-05	8.700E-06	4.235E-06	2.021E-06	7.636E-07	4.024E-07	2.512E-07	1.737E-07	1.285E-07	9.979E-08	8.028E-08
SW	2.006E-05	5.776E-06	2.825E-06	1.340E-06	4.953E-07	2.553E-07	1.563E-07	1.062E-07	7.738E-08	5.924E-08	4.706E-08
WSW	1.496E-05	4.314E-06	2.107E-06	1.000E-06	3.709E-07	1.918E-07	1.178E-07	8.029E-08	5.864E-08	4.500E-08	3.583E-08
W	1.856E-05	5.354E-06	2.611E-06	1.240E-06	4.616E-07	2.396E-07	1.477E-07	1.009E-07	7.393E-08	5.687E-08	4.538E-08
WNW	2.832E-05	8.181E-06	3.983E-06	1.893E-06	7.071E-07	3.683E-07	2.276E-07	1.560E-07	1.146E-07	8.834E-08	7.064E-08
NW	3.304E-05	9.546E-06	4.644E-06	2.209E-06	8.253E-07	4.302E-07	2.661E-07	1.825E-07	1.341E-07	1.034E-07	8.276E-08
NNW	3.044E-05	8.871E-06	4.337E-06	2.066E-06	7.733E-07	4.035E-07	2.497E-07	1.713E-07	1.259E-07	9.709E-08	7.767E-08

Insert Table 2.7-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Ground Level Release (Sheet 2 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	8.365E-08	4.190E-08	2.664E-08	1.483E-08	9.793E-09	7.088E-09	5.434E-09	4.334E-09	3.558E-09	2.986E-09	2.550E-09
NNE	1.270E-07	6.410E-08	4.100E-08	2.303E-08	1.532E-08	1.115E-08	8.596E-09	6.886E-09	5.676E-09	4.780E-09	4.095E-09
NE	1.925E-07	9.899E-08	6.420E-08	3.677E-08	2.478E-08	1.823E-08	1.416E-08	1.142E-08	9.470E-09	8.017E-09	6.899E-09
ENE	2.074E-07	1.068E-07	6.936E-08	3.977E-08	2.681E-08	1.971E-08	1.531E-08	1.234E-08	1.022E-08	8.646E-09	7.433E-09
E	2.157E-07	1.112E-07	7.223E-08	4.140E-08	2.789E-08	2.048E-08	1.589E-08	1.279E-08	1.058E-08	8.935E-09	7.671E-09
ESE	2.138E-07	1.108E-07	7.219E-08	4.161E-08	2.815E-08	2.075E-08	1.614E-08	1.303E-08	1.081E-08	9.147E-09	7.869E-09
SE	1.768E-07	9.130E-08	5.936E-08	3.407E-08	2.297E-08	1.688E-08	1.309E-08	1.054E-08	8.724E-09	7.369E-09	6.327E-09
SSE	1.680E-07	8.698E-08	5.665E-08	3.261E-08	2.202E-08	1.621E-08	1.260E-08	1.016E-08	8.411E-09	7.111E-09	6.109E-09
S	1.145E-07	5.923E-08	3.855E-08	2.217E-08	1.497E-08	1.101E-08	8.557E-09	6.900E-09	5.717E-09	4.836E-09	4.158E-09
SSW	6.639E-08	3.405E-08	2.203E-08	1.256E-08	8.423E-09	6.168E-09	4.772E-09	3.834E-09	3.166E-09	2.670E-09	2.290E-09
SW	3.849E-08	1.890E-08	1.185E-08	6.471E-09	4.223E-09	3.029E-09	2.306E-09	1.829E-09	1.494E-09	1.249E-09	1.063E-09
WSW	2.936E-08	1.454E-08	9.169E-09	5.052E-09	3.318E-09	2.392E-09	1.828E-09	1.455E-09	1.192E-09	9.985E-10	8.514E-10
W	3.726E-08	1.859E-08	1.179E-08	6.549E-09	4.325E-09	3.132E-09	2.402E-09	1.918E-09	1.576E-09	1.324E-09	1.132E-09
WNW	5.811E-08	2.922E-08	1.864E-08	1.045E-08	6.947E-09	5.058E-09	3.898E-09	3.124E-09	2.576E-09	2.171E-09	1.861E-09
NW	6.811E-08	3.432E-08	2.194E-08	1.233E-08	8.220E-09	5.997E-09	4.630E-09	3.717E-09	3.070E-09	2.590E-09	2.223E-09
NNW	6.390E-08	3.212E-08	2.048E-08	1.145E-08	7.589E-09	5.509E-09	4.234E-09	3.385E-09	2.785E-09	2.342E-09	2.003E-09

Insert Table 2.7-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Ground Level Release (Sheet 3 of 3) (1985-1989)

X/Q (sec/m<sup>3</sup>) for Each Segment

Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.735E-06	1.184E-06	3.414E-07	1.679E-07	1.026E-07	4.440E-08	1.522E-08	7.147E-09	4.352E-09	2.994E-09
NNE	8.555E-06	1.769E-06	5.130E-07	2.535E-07	1.556E-07	6.782E-08	2.360E-08	1.124E-08	6.914E-09	4.792E-09
NE	1.225E-05	2.548E-06	7.531E-07	3.777E-07	2.344E-07	1.043E-07	3.754E-08	1.835E-08	1.146E-08	8.033E-09
ENE	1.312E-05	2.730E-06	8.089E-07	4.063E-07	2.525E-07	1.125E-07	4.058E-08	1.984E-08	1.238E-08	8.664E-09
E	1.360E-05	2.829E-06	8.394E-07	4.221E-07	2.625E-07	1.171E-07	4.224E-08	2.062E-08	1.283E-08	8.954E-09
ESE	1.334E-05	2.775E-06	8.266E-07	4.169E-07	2.599E-07	1.165E-07	4.242E-08	2.088E-08	1.307E-08	9.165E-09
SE	1.110E-05	2.308E-06	6.860E-07	3.454E-07	2.150E-07	9.610E-08	3.476E-08	1.699E-08	1.058E-08	7.385E-09
SSE	1.047E-05	2.180E-06	6.496E-07	3.276E-07	2.043E-07	9.151E-08	3.325E-08	1.632E-08	1.019E-08	7.125E-09
S	7.128E-06	1.486E-06	4.428E-07	2.234E-07	1.392E-07	6.232E-08	2.261E-08	1.109E-08	6.923E-09	4.846E-09
SSW	4.243E-06	8.825E-07	2.605E-07	1.305E-07	8.091E-08	3.589E-08	1.282E-08	6.211E-09	3.848E-09	2.676E-09
SW	2.821E-06	5.763E-07	1.627E-07	7.870E-08	4.749E-08	2.012E-08	6.667E-09	3.058E-09	1.838E-09	1.253E-09
WSW	2.106E-06	4.311E-07	1.225E-07	5.963E-08	3.615E-08	1.545E-08	5.196E-09	2.413E-09	1.461E-09	1.001E-09
W	2.611E-06	5.359E-07	1.535E-07	7.515E-08	4.578E-08	1.972E-08	6.726E-09	3.158E-09	1.926E-09	1.328E-09
WNW	3.987E-06	8.201E-07	2.365E-07	1.164E-07	7.125E-08	3.094E-08	1.071E-08	5.097E-09	3.136E-09	2.176E-09
NW	4.651E-06	9.571E-07	2.764E-07	1.362E-07	8.346E-08	3.633E-08	1.264E-08	6.043E-09	3.731E-09	2.597E-09
NNW	4.335E-06	8.962E-07	2.593E-07	1.279E-07	7.832E-08	3.401E-08	1.174E-08	5.554E-09	3.399E-09	2.348E-09

Insert Table 2.7-xxx Annual Average X/Q Values (8.0 Day Decay, Undepleted) for Ground Level Release (Sheet 1 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	3.805E-05	1.072E-05	5.132E-06	2.400E-06	8.712E-07	4.431E-07	2.682E-07	1.805E-07	1.303E-07	9.894E-08	7.799E-08
NNE	5.682E-05	1.600E-05	7.646E-06	3.577E-06	1.302E-06	6.637E-07	4.027E-07	2.716E-07	1.965E-07	1.494E-07	1.180E-07
NE	8.151E-05	2.298E-05	1.091E-05	5.119E-06	1.880E-06	9.677E-07	5.922E-07	4.023E-07	2.930E-07	2.242E-07	1.780E-07
ENE	8.742E-05	2.462E-05	1.168E-05	5.482E-06	2.016E-06	1.039E-06	6.364E-07	4.328E-07	3.154E-07	2.415E-07	1.918E-07
E	9.100E-05	2.557E-05	1.210E-05	5.681E-06	2.091E-06	1.079E-06	6.614E-07	4.501E-07	3.283E-07	2.515E-07	1.999E-07
ESE	8.960E-05	2.511E-05	1.185E-05	5.565E-06	2.052E-06	1.060E-06	6.512E-07	4.438E-07	3.241E-07	2.486E-07	1.978E-07
SE	7.441E-05	2.088E-05	9.863E-06	4.632E-06	1.707E-06	8.812E-07	5.408E-07	3.683E-07	2.688E-07	2.061E-07	1.639E-07
SSE	7.016E-05	1.969E-05	9.299E-06	4.370E-06	1.612E-06	8.333E-07	5.119E-07	3.489E-07	2.548E-07	1.955E-07	1.555E-07
S	4.768E-05	1.340E-05	6.336E-06	2.978E-06	1.099E-06	5.682E-07	3.490E-07	2.379E-07	1.737E-07	1.332E-07	1.060E-07
SSW	2.819E-05	7.957E-06	3.783E-06	1.775E-06	6.516E-07	3.353E-07	2.051E-07	1.393E-07	1.014E-07	7.757E-08	6.156E-08
SW	1.900E-05	5.281E-06	2.522E-06	1.175E-06	4.222E-07	2.124E-07	1.274E-07	8.498E-08	6.089E-08	4.592E-08	3.597E-08
WSW	1.417E-05	3.945E-06	1.881E-06	8.775E-07	3.162E-07	1.596E-07	9.602E-08	6.425E-08	4.616E-08	3.490E-08	2.740E-08
W	1.758E-05	4.896E-06	2.332E-06	1.088E-06	3.936E-07	1.995E-07	1.204E-07	8.084E-08	5.824E-08	4.414E-08	3.474E-08
WNW	2.682E-05	7.481E-06	3.557E-06	1.662E-06	6.029E-07	3.066E-07	1.856E-07	1.249E-07	9.025E-08	6.856E-08	5.407E-08
NW	3.129E-05	8.728E-06	4.146E-06	1.938E-06	7.035E-07	3.580E-07	2.169E-07	1.460E-07	1.055E-07	8.019E-08	6.327E-08
NNW	2.883E-05	8.112E-06	3.873E-06	1.814E-06	6.595E-07	3.360E-07	2.037E-07	1.372E-07	9.920E-08	7.539E-08	5.949E-08

Insert Table 2.7-xxx Annual Average X/Q Values (8.0 Day Decay, Undepleted) for Ground Level Release (Sheet 2 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	6.330E-08	3.021E-08	1.844E-08	9.640E-09	6.063E-09	4.214E-09	3.120E-09	2.413E-09	1.926E-09	1.575E-09	1.313E-09
NNE	9.591E-08	4.606E-08	2.825E-08	1.487E-08	9.406E-09	6.567E-09	4.881E-09	3.787E-09	3.032E-09	2.487E-09	2.079E-09
NE	1.454E-07	7.116E-08	4.427E-08	2.377E-08	1.523E-08	1.074E-08	8.052E-09	6.291E-09	5.068E-09	4.179E-09	3.509E-09
ENE	1.568E-07	7.691E-08	4.791E-08	2.578E-08	1.654E-08	1.168E-08	8.760E-09	6.849E-09	5.520E-09	4.553E-09	3.825E-09
E	1.635E-07	8.039E-08	5.016E-08	2.704E-08	1.738E-08	1.228E-08	9.215E-09	7.206E-09	5.809E-09	4.791E-09	4.025E-09
ESE	1.619E-07	7.996E-08	5.005E-08	2.711E-08	1.748E-08	1.239E-08	9.320E-09	7.305E-09	5.899E-09	4.875E-09	4.102E-09
SE	1.341E-07	6.606E-08	4.128E-08	2.230E-08	1.435E-08	1.015E-08	7.624E-09	5.966E-09	4.812E-09	3.971E-09	3.337E-09
SSE	1.273E-07	6.283E-08	3.931E-08	2.128E-08	1.371E-08	9.711E-09	7.300E-09	5.718E-09	4.616E-09	3.812E-09	3.206E-09
S	8.676E-08	4.279E-08	2.675E-08	1.447E-08	9.312E-09	6.590E-09	4.951E-09	3.876E-09	3.127E-09	2.581E-09	2.170E-09
SSW	5.027E-08	2.458E-08	1.527E-08	8.182E-09	5.234E-09	3.686E-09	2.757E-09	2.151E-09	1.730E-09	1.424E-09	1.195E-09
SW	2.904E-08	1.358E-08	8.164E-09	4.178E-09	2.592E-09	1.783E-09	1.308E-09	1.005E-09	7.972E-10	6.486E-10	5.383E-10
WSW	2.216E-08	1.045E-08	6.320E-09	3.265E-09	2.040E-09	1.411E-09	1.041E-09	8.025E-10	6.390E-10	5.215E-10	4.340E-10
W	2.816E-08	1.338E-08	8.147E-09	4.246E-09	2.669E-09	1.854E-09	1.373E-09	1.062E-09	8.476E-10	6.935E-10	5.783E-10
WNW	4.391E-08	2.102E-08	1.287E-08	6.763E-09	4.277E-09	2.987E-09	2.220E-09	1.723E-09	1.380E-09	1.133E-09	9.471E-10
NW	5.140E-08	2.465E-08	1.511E-08	7.957E-09	5.041E-09	3.525E-09	2.624E-09	2.039E-09	1.635E-09	1.342E-09	1.123E-09
NNW	4.832E-08	2.314E-08	1.416E-08	7.431E-09	4.688E-09	3.267E-09	2.424E-09	1.878E-09	1.502E-09	1.230E-09	1.027E-09

Insert Table 2.7-xxx Annual Average X/Q Values (8.0 Day Decay, Undepleted) for Ground Level Release (Sheet 3 of 3) (1985-1989)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.160E-06	1.021E-06	2.798E-07	1.327E-07	7.876E-08	3.233E-08	1.001E-08	4.270E-09	2.429E-09	1.582E-09
NNE	7.695E-06	1.524E-06	4.198E-07	2.000E-07	1.191E-07	4.922E-08	1.542E-08	6.650E-09	3.812E-09	2.497E-09
NE	1.102E-05	2.194E-06	6.164E-07	2.980E-07	1.796E-07	7.570E-08	2.453E-08	1.086E-08	6.328E-09	4.194E-09
ENE	1.180E-05	2.352E-06	6.623E-07	3.208E-07	1.936E-07	8.177E-08	2.659E-08	1.181E-08	6.889E-09	4.570E-09
E	1.224E-05	2.439E-06	6.881E-07	3.338E-07	2.017E-07	8.542E-08	2.788E-08	1.241E-08	7.248E-09	4.809E-09
ESE	1.200E-05	2.392E-06	6.774E-07	3.296E-07	1.996E-07	8.488E-08	2.793E-08	1.252E-08	7.345E-09	4.892E-09
SE	9.986E-06	1.990E-06	5.626E-07	2.733E-07	1.653E-07	7.016E-08	2.299E-08	1.026E-08	6.000E-09	3.985E-09
SSE	9.417E-06	1.879E-06	5.324E-07	2.591E-07	1.569E-07	6.670E-08	2.192E-08	9.813E-09	5.750E-09	3.826E-09
S	6.414E-06	1.281E-06	3.630E-07	1.766E-07	1.070E-07	4.543E-08	1.491E-08	6.660E-09	3.898E-09	2.591E-09
SSW	3.818E-06	7.606E-07	2.135E-07	1.032E-07	6.212E-08	2.615E-08	8.447E-09	3.727E-09	2.164E-09	1.430E-09
SW	2.537E-06	4.963E-07	1.331E-07	6.207E-08	3.635E-08	1.461E-08	4.359E-09	1.809E-09	1.012E-09	6.518E-10
WSW	1.894E-06	3.713E-07	1.003E-07	4.704E-08	2.768E-08	1.122E-08	3.400E-09	1.431E-09	8.083E-10	5.239E-10
W	2.349E-06	4.617E-07	1.257E-07	5.933E-08	3.509E-08	1.434E-08	4.412E-09	1.879E-09	1.069E-09	6.965E-10
WNW	3.587E-06	7.065E-07	1.936E-07	9.190E-08	5.460E-08	2.248E-08	7.015E-09	3.024E-09	1.735E-09	1.137E-09
NW	4.183E-06	8.242E-07	2.262E-07	1.074E-07	6.389E-08	2.635E-08	8.250E-09	3.569E-09	2.052E-09	1.348E-09
NNW	3.900E-06	7.722E-07	2.124E-07	1.010E-07	6.007E-08	2.474E-08	7.707E-09	3.308E-09	1.891E-09	1.236E-09

Insert Table 2.7-xxx Annual Average D/Q Values for Ground Level Release (Sheet 1 of 3) (1985-1989)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors											
Sector	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	1.437E-07	4.859E-08	2.495E-08	1.186E-08	4.261E-09	2.113E-09	1.244E-09	8.146E-10	5.732E-10	4.248E-10	3.274E-10
NNE	2.233E-07	7.550E-08	3.877E-08	1.843E-08	6.620E-09	3.283E-09	1.933E-09	1.266E-09	8.907E-10	6.601E-10	5.087E-10
NE	2.287E-07	7.732E-08	3.970E-08	1.887E-08	6.779E-09	3.362E-09	1.980E-09	1.296E-09	9.121E-10	6.760E-10	5.209E-10
ENE	2.089E-07	7.064E-08	3.627E-08	1.724E-08	6.194E-09	3.072E-09	1.809E-09	1.184E-09	8.333E-10	6.175E-10	4.759E-10
E	1.918E-07	6.487E-08	3.331E-08	1.584E-08	5.688E-09	2.821E-09	1.661E-09	1.088E-09	7.653E-10	5.672E-10	4.371E-10
ESE	1.839E-07	6.218E-08	3.192E-08	1.518E-08	5.452E-09	2.704E-09	1.592E-09	1.042E-09	7.335E-10	5.436E-10	4.189E-10
SE	1.554E-07	5.256E-08	2.698E-08	1.283E-08	4.608E-09	2.285E-09	1.346E-09	8.811E-10	6.200E-10	4.595E-10	3.541E-10
SSE	1.428E-07	4.828E-08	2.479E-08	1.178E-08	4.233E-09	2.099E-09	1.236E-09	8.094E-10	5.695E-10	4.221E-10	3.253E-10
S	1.002E-07	3.387E-08	1.739E-08	8.267E-09	2.970E-09	1.473E-09	8.672E-10	5.678E-10	3.995E-10	2.961E-10	2.282E-10
SSW	7.383E-08	2.497E-08	1.282E-08	6.094E-09	2.189E-09	1.086E-09	6.392E-10	4.185E-10	2.945E-10	2.183E-10	1.682E-10
SW	1.228E-07	4.152E-08	2.132E-08	1.014E-08	3.641E-09	1.806E-09	1.063E-09	6.961E-10	4.898E-10	3.630E-10	2.797E-10
WSW	8.181E-08	2.766E-08	1.420E-08	6.753E-09	2.426E-09	1.203E-09	7.083E-10	4.638E-10	3.263E-10	2.419E-10	1.864E-10
W	9.348E-08	3.161E-08	1.623E-08	7.716E-09	2.772E-09	1.375E-09	8.093E-10	5.300E-10	3.729E-10	2.764E-10	2.130E-10
WNW	1.214E-07	4.106E-08	2.108E-08	1.002E-08	3.601E-09	1.786E-09	1.051E-09	6.884E-10	4.844E-10	3.590E-10	2.767E-10
NW	1.354E-07	4.578E-08	2.351E-08	1.118E-08	4.014E-09	1.991E-09	1.172E-09	7.675E-10	5.401E-10	4.002E-10	3.084E-10
NNW	1.087E-07	3.677E-08	1.888E-08	8.975E-09	3.224E-09	1.599E-09	9.414E-10	6.164E-10	4.338E-10	3.215E-10	2.477E-10

Insert Table 2.7-xxx Annual Average D/Q Values for Ground Level Release (Sheet 2 of 3) (1985-1989)

Relative Deposition per Unit Area ( $m^{-2}$ ) at Fixed Points by Downwind Sectors												
Sector	Distance in Miles from the Site											
	5	7.5	10	15	20	25	30	35	40	45	50	
N	2.601E-10	1.155E-10	6.998E-11	3.537E-11	2.141E-11	1.435E-11	1.029E-11	7.724E-12	6.005E-12	4.797E-12	3.916E-12	
NNE	4.041E-10	1.795E-10	1.087E-10	5.496E-11	3.327E-11	2.230E-11	1.598E-11	1.200E-11	9.331E-12	7.454E-12	6.084E-12	
NE	4.138E-10	1.838E-10	1.114E-10	5.629E-11	3.407E-11	2.284E-11	1.637E-11	1.229E-11	9.556E-12	7.633E-12	6.230E-12	
ENE	3.781E-10	1.680E-10	1.017E-10	5.142E-11	3.112E-11	2.087E-11	1.495E-11	1.123E-11	8.730E-12	6.974E-12	5.692E-12	
E	3.472E-10	1.542E-10	9.344E-11	4.723E-11	2.858E-11	1.917E-11	1.373E-11	1.031E-11	8.018E-12	6.405E-12	5.228E-12	
ESE	3.328E-10	1.478E-10	8.955E-11	4.526E-11	2.740E-11	1.837E-11	1.316E-11	9.883E-12	7.684E-12	6.138E-12	5.010E-12	
SE	2.813E-10	1.250E-10	7.570E-11	3.826E-11	2.316E-11	1.553E-11	1.113E-11	8.354E-12	6.495E-12	5.189E-12	4.235E-12	
SSE	2.584E-10	1.148E-10	6.953E-11	3.515E-11	2.127E-11	1.426E-11	1.022E-11	7.674E-12	5.967E-12	4.766E-12	3.890E-12	
S	1.813E-10	8.053E-11	4.878E-11	2.466E-11	1.492E-11	1.001E-11	7.169E-12	5.383E-12	4.186E-12	3.344E-12	2.729E-12	
SSW	1.336E-10	5.936E-11	3.596E-11	1.817E-11	1.100E-11	7.375E-12	5.285E-12	3.968E-12	3.085E-12	2.465E-12	2.012E-12	
SW	2.222E-10	9.873E-11	5.981E-11	3.023E-11	1.830E-11	1.227E-11	8.790E-12	6.600E-12	5.132E-12	4.099E-12	3.346E-12	
WSW	1.481E-10	6.578E-11	3.984E-11	2.014E-11	1.219E-11	8.173E-12	5.856E-12	4.397E-12	3.419E-12	2.731E-12	2.229E-12	
W	1.692E-10	7.516E-11	4.553E-11	2.301E-11	1.393E-11	9.338E-12	6.691E-12	5.025E-12	3.907E-12	3.121E-12	2.547E-12	
WNW	2.198E-10	9.764E-11	5.914E-11	2.989E-11	1.809E-11	1.213E-11	8.693E-12	6.527E-12	5.075E-12	4.054E-12	3.309E-12	
NW	2.450E-10	1.089E-10	6.594E-11	3.333E-11	2.017E-11	1.353E-11	9.691E-12	7.277E-12	5.658E-12	4.520E-12	3.689E-12	
NNW	1.968E-10	8.742E-11	5.296E-11	2.677E-11	1.620E-11	1.086E-11	7.783E-12	5.845E-12	4.544E-12	3.630E-12	2.963E-12	

Insert Table 2.7-xxx Annual Average D/Q Values for Ground Level Release (Sheet 3 of 3) (1985-1989)

**Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors**

Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	2.439E-08	4.995E-09	1.304E-09	5.857E-10	3.313E-10	1.274E-10	3.686E-11	1.461E-11	7.801E-12	4.829E-12
NNE	3.789E-08	7.761E-09	2.026E-09	9.100E-10	5.148E-10	1.980E-10	5.727E-11	2.270E-11	1.212E-11	7.503E-12
NE	3.880E-08	7.948E-09	2.075E-09	9.319E-10	5.272E-10	2.027E-10	5.865E-11	2.325E-11	1.241E-11	7.683E-12
ENE	3.545E-08	7.261E-09	1.896E-09	8.514E-10	4.816E-10	1.852E-10	5.358E-11	2.124E-11	1.134E-11	7.019E-12
E	3.256E-08	6.669E-09	1.741E-09	7.819E-10	4.423E-10	1.701E-10	4.921E-11	1.950E-11	1.042E-11	6.447E-12
ESE	3.120E-08	6.391E-09	1.669E-09	7.494E-10	4.239E-10	1.630E-10	4.716E-11	1.869E-11	9.982E-12	6.178E-12
SE	2.638E-08	5.403E-09	1.410E-09	6.334E-10	3.583E-10	1.378E-10	3.987E-11	1.580E-11	8.438E-12	5.223E-12
SSE	2.423E-08	4.963E-09	1.296E-09	5.819E-10	3.292E-10	1.266E-10	3.662E-11	1.451E-11	7.751E-12	4.798E-12
S	1.700E-08	3.482E-09	9.089E-10	4.082E-10	2.309E-10	8.881E-11	2.569E-11	1.018E-11	5.438E-12	3.366E-12
SSW	1.253E-08	2.566E-09	6.700E-10	3.009E-10	1.702E-10	6.546E-11	1.894E-11	7.506E-12	4.008E-12	2.481E-12
SW	2.084E-08	4.269E-09	1.114E-09	5.005E-10	2.831E-10	1.089E-10	3.150E-11	1.248E-11	6.666E-12	4.126E-12
WSW	1.388E-08	2.844E-09	7.424E-10	3.334E-10	1.886E-10	7.254E-11	2.098E-11	8.317E-12	4.441E-12	2.749E-12
W	1.586E-08	3.250E-09	8.483E-10	3.810E-10	2.155E-10	8.289E-11	2.398E-11	9.504E-12	5.075E-12	3.141E-12
WNW	2.061E-08	4.221E-09	1.102E-09	4.949E-10	2.800E-10	1.077E-10	3.115E-11	1.235E-11	6.593E-12	4.081E-12
NW	2.298E-08	4.706E-09	1.229E-09	5.518E-10	3.122E-10	1.200E-10	3.473E-11	1.376E-11	7.350E-12	4.549E-12
NNW	1.845E-08	3.780E-09	9.867E-10	4.432E-10	2.507E-10	9.641E-11	2.789E-11	1.105E-11	5.903E-12	3.654E-12

Insert Table 2.7-xxx    Annual Average X/Q Values (no Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3) (Based on 1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.181E-06	8.309E-07	5.494E-07	3.436E-07	1.817E-07	1.156E-07	8.120E-08	6.078E-08	4.761E-08	3.857E-08	3.224E-08
NNE	3.826E-06	1.402E-06	8.670E-07	5.074E-07	2.560E-07	1.608E-07	1.125E-07	8.426E-08	6.758E-08	5.596E-08	4.680E-08
NE	5.537E-06	1.893E-06	1.089E-06	5.947E-07	2.742E-07	1.665E-07	1.157E-07	8.693E-08	6.878E-08	5.643E-08	4.757E-08
ENE	4.315E-06	1.509E-06	8.787E-07	4.863E-07	2.308E-07	1.432E-07	1.010E-07	7.676E-08	6.125E-08	5.059E-08	4.287E-08
E	3.637E-06	1.284E-06	7.471E-07	4.131E-07	1.966E-07	1.228E-07	8.720E-08	6.671E-08	5.356E-08	4.450E-08	3.791E-08
ESE	3.687E-06	1.289E-06	7.375E-07	4.022E-07	1.882E-07	1.158E-07	8.131E-08	6.165E-08	4.917E-08	4.065E-08	3.450E-08
SE	3.068E-06	1.082E-06	6.246E-07	3.430E-07	1.617E-07	1.001E-07	7.049E-08	5.357E-08	4.280E-08	3.541E-08	3.007E-08
SSE	3.002E-06	1.038E-06	5.959E-07	3.271E-07	1.549E-07	9.586E-08	6.738E-08	5.104E-08	4.063E-08	3.351E-08	2.838E-08
S	2.535E-06	8.430E-07	4.731E-07	2.552E-07	1.180E-07	7.221E-08	5.049E-08	3.817E-08	3.038E-08	2.506E-08	2.124E-08
SSW	1.685E-06	5.886E-07	3.439E-07	1.908E-07	9.013E-08	5.559E-08	3.897E-08	2.944E-08	2.337E-08	1.921E-08	1.620E-08
SW	1.485E-06	6.187E-07	4.325E-07	2.710E-07	1.370E-07	8.347E-08	5.662E-08	4.123E-08	3.157E-08	2.510E-08	2.055E-08
WSW	1.095E-06	4.500E-07	3.107E-07	1.929E-07	9.623E-08	5.838E-08	3.956E-08	2.881E-08	2.209E-08	1.758E-08	1.456E-08
W	1.419E-06	5.546E-07	3.699E-07	2.275E-07	1.128E-07	6.845E-08	4.646E-08	3.391E-08	2.605E-08	2.078E-08	1.706E-08
WNW	1.957E-06	7.444E-07	4.875E-07	2.986E-07	1.487E-07	9.108E-08	6.237E-08	4.588E-08	3.549E-08	2.849E-08	2.353E-08
NW	2.141E-06	8.304E-07	5.508E-07	3.389E-07	1.696E-07	1.040E-07	7.118E-08	5.235E-08	4.048E-08	3.248E-08	2.693E-08
NNW	1.815E-06	6.758E-07	4.463E-07	2.772E-07	1.432E-07	8.973E-08	6.235E-08	4.635E-08	3.613E-08	2.918E-08	2.444E-08

Insert Table 2.7-xxx Annual Average X/Q Values (no Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3) (Based on 1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.752E-08	1.614E-08	1.135E-08	7.253E-09	5.258E-09	4.042E-09	3.201E-09	2.603E-09	2.175E-09	1.856E-09	1.612E-09
NNE	3.997E-08	2.253E-08	1.539E-08	9.406E-09	6.634E-09	5.060E-09	4.057E-09	3.368E-09	2.868E-09	2.490E-09	2.195E-09
NE	4.097E-08	2.458E-08	1.761E-08	1.152E-08	8.522E-09	6.745E-09	5.575E-09	4.749E-09	4.136E-09	3.663E-09	3.288E-09
ENE	3.709E-08	2.265E-08	1.641E-08	1.091E-08	8.171E-09	6.533E-09	5.448E-09	4.677E-09	4.102E-09	3.657E-09	3.301E-09
E	3.296E-08	2.019E-08	1.461E-08	9.626E-09	7.119E-09	5.613E-09	4.613E-09	3.903E-09	3.374E-09	2.966E-09	2.641E-09
ESE	2.992E-08	1.836E-08	1.338E-08	8.965E-09	6.741E-09	5.398E-09	4.499E-09	3.857E-09	3.376E-09	3.002E-09	2.704E-09
SE	2.608E-08	1.605E-08	1.172E-08	7.876E-09	5.944E-09	4.779E-09	4.002E-09	3.448E-09	3.032E-09	2.710E-09	2.452E-09
SSE	2.454E-08	1.561E-08	1.185E-08	8.679E-09	7.102E-09	6.124E-09	5.421E-09	4.860E-09	4.377E-09	3.943E-09	3.543E-09
S	1.838E-08	1.148E-08	8.534E-09	5.961E-09	4.665E-09	3.879E-09	3.347E-09	2.957E-09	2.655E-09	2.411E-09	2.205E-09
SSW	1.396E-08	8.444E-09	6.082E-09	4.016E-09	2.998E-09	2.394E-09	1.995E-09	1.712E-09	1.501E-09	1.337E-09	1.205E-09
SW	1.722E-08	9.213E-09	6.062E-09	3.516E-09	2.393E-09	1.775E-09	1.392E-09	1.134E-09	9.500E-10	8.129E-10	7.074E-10
WSW	1.233E-08	6.668E-09	4.436E-09	2.628E-09	1.824E-09	1.377E-09	1.096E-09	9.032E-10	7.633E-10	6.569E-10	5.729E-10
W	1.435E-08	8.097E-09	5.579E-09	3.499E-09	2.513E-09	1.908E-09	1.498E-09	1.217E-09	1.017E-09	8.681E-10	7.540E-10
WNW	1.988E-08	1.168E-08	8.323E-09	5.467E-09	3.973E-09	2.987E-09	2.343E-09	1.909E-09	1.600E-09	1.370E-09	1.192E-09
NW	2.285E-08	1.314E-08	9.218E-09	5.953E-09	4.387E-09	3.421E-09	2.736E-09	2.238E-09	1.877E-09	1.607E-09	1.400E-09
NNW	2.091E-08	1.238E-08	8.847E-09	5.815E-09	4.248E-09	3.216E-09	2.520E-09	2.049E-09	1.714E-09	1.465E-09	1.274E-09

Insert Table 2.7-xxx Annual Average X/Q Values (no Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3) (Based on 1985-1989)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.205E-07	1.883E-07	8.222E-08	4.793E-08	3.237E-08	1.654E-08	7.277E-09	4.030E-09	2.611E-09	1.860E-09
NNE	8.261E-07	2.695E-07	1.141E-07	6.792E-08	4.699E-08	2.323E-08	9.504E-09	5.078E-09	3.374E-09	2.493E-09
NE	1.048E-06	2.976E-07	1.177E-07	6.926E-08	4.775E-08	2.513E-08	1.154E-08	6.751E-09	4.752E-09	3.664E-09
ENE	8.444E-07	2.487E-07	1.026E-07	6.162E-08	4.302E-08	2.309E-08	1.092E-08	6.536E-09	4.678E-09	3.657E-09
E	7.181E-07	2.119E-07	8.849E-08	5.387E-08	3.803E-08	2.055E-08	9.619E-09	5.615E-09	3.904E-09	2.967E-09
ESE	7.112E-07	2.036E-07	8.266E-08	4.949E-08	3.463E-08	1.871E-08	8.957E-09	5.397E-09	3.857E-09	3.003E-09
SE	6.011E-07	1.746E-07	7.161E-08	4.306E-08	3.017E-08	1.635E-08	7.871E-09	4.779E-09	3.448E-09	2.710E-09
SSE	5.747E-07	1.669E-07	6.844E-08	4.089E-08	2.848E-08	1.592E-08	8.684E-09	6.104E-09	4.836E-09	3.924E-09
S	4.585E-07	1.282E-07	5.135E-08	3.058E-08	2.131E-08	1.170E-08	5.957E-09	3.876E-09	2.954E-09	2.407E-09
SSW	3.302E-07	9.716E-08	3.959E-08	2.352E-08	1.626E-08	8.620E-09	4.023E-09	2.395E-09	1.712E-09	1.336E-09
SW	4.021E-07	1.430E-07	5.762E-08	3.187E-08	2.066E-08	9.592E-09	3.582E-09	1.787E-09	1.138E-09	8.144E-10
WSW	2.893E-07	1.009E-07	4.028E-08	2.229E-08	1.463E-08	6.933E-09	2.672E-09	1.383E-09	9.049E-10	6.573E-10
W	3.476E-07	1.186E-07	4.730E-08	2.629E-08	1.716E-08	8.366E-09	3.523E-09	1.905E-09	1.221E-09	8.699E-10
WNW	4.606E-07	1.564E-07	6.343E-08	3.579E-08	2.365E-08	1.201E-08	5.438E-09	2.992E-09	1.915E-09	1.372E-09
NW	5.188E-07	1.781E-07	7.240E-08	4.082E-08	2.706E-08	1.356E-08	5.983E-09	3.405E-09	2.243E-09	1.610E-09
NNW	4.222E-07	1.492E-07	6.325E-08	3.640E-08	2.454E-08	1.270E-08	5.793E-09	3.213E-09	2.056E-09	1.468E-09

Insert Table 2.7-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.181E-06	8.302E-07	5.488E-07	3.431E-07	1.813E-07	1.153E-07	8.090E-08	6.050E-08	4.735E-08	3.833E-08	3.201E-08
NNE	3.824E-06	1.401E-06	8.660E-07	5.066E-07	2.555E-07	1.603E-07	1.121E-07	8.390E-08	6.724E-08	5.564E-08	4.649E-08
NE	5.535E-06	1.892E-06	1.088E-06	5.939E-07	2.736E-07	1.661E-07	1.153E-07	8.656E-08	6.844E-08	5.611E-08	4.726E-08
ENE	4.313E-06	1.508E-06	8.776E-07	4.855E-07	2.303E-07	1.428E-07	1.006E-07	7.641E-08	6.092E-08	5.028E-08	4.258E-08
E	3.636E-06	1.283E-06	7.461E-07	4.124E-07	1.962E-07	1.224E-07	8.685E-08	6.638E-08	5.326E-08	4.421E-08	3.763E-08
ESE	3.686E-06	1.288E-06	7.366E-07	4.015E-07	1.877E-07	1.155E-07	8.098E-08	6.135E-08	4.889E-08	4.038E-08	3.425E-08
SE	3.066E-06	1.081E-06	6.238E-07	3.425E-07	1.613E-07	9.973E-08	7.020E-08	5.331E-08	4.255E-08	3.518E-08	2.985E-08
SSE	3.000E-06	1.037E-06	5.951E-07	3.266E-07	1.545E-07	9.556E-08	6.711E-08	5.080E-08	4.041E-08	3.330E-08	2.817E-08
S	2.534E-06	8.423E-07	4.726E-07	2.548E-07	1.178E-07	7.199E-08	5.030E-08	3.800E-08	3.022E-08	2.491E-08	2.109E-08
SSW	1.684E-06	5.882E-07	3.435E-07	1.906E-07	8.994E-08	5.543E-08	3.883E-08	2.931E-08	2.325E-08	1.909E-08	1.610E-08
SW	1.484E-06	6.183E-07	4.321E-07	2.707E-07	1.367E-07	8.327E-08	5.645E-08	4.108E-08	3.144E-08	2.498E-08	2.043E-08
WSW	1.094E-06	4.497E-07	3.104E-07	1.927E-07	9.606E-08	5.824E-08	3.944E-08	2.871E-08	2.199E-08	1.749E-08	1.447E-08
W	1.418E-06	5.542E-07	3.695E-07	2.272E-07	1.126E-07	6.828E-08	4.631E-08	3.378E-08	2.593E-08	2.067E-08	1.696E-08
WNW	1.957E-06	7.438E-07	4.870E-07	2.982E-07	1.484E-07	9.083E-08	6.215E-08	4.569E-08	3.531E-08	2.832E-08	2.337E-08
NW	2.140E-06	8.298E-07	5.502E-07	3.385E-07	1.693E-07	1.037E-07	7.094E-08	5.213E-08	4.028E-08	3.230E-08	2.676E-08
NNW	1.814E-06	6.753E-07	4.458E-07	2.768E-07	1.429E-07	8.948E-08	6.213E-08	4.615E-08	3.595E-08	2.901E-08	2.428E-08

Insert Table 2.7-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.729E-08	1.593E-08	1.115E-08	7.054E-09	5.061E-09	3.850E-09	3.018E-09	2.430E-09	2.011E-09	1.701E-09	1.463E-09
NNE	3.968E-08	2.228E-08	1.516E-08	9.189E-09	6.428E-09	4.862E-09	3.867E-09	3.183E-09	2.689E-09	2.315E-09	2.025E-09
NE	4.067E-08	2.431E-08	1.735E-08	1.126E-08	8.260E-09	6.485E-09	5.317E-09	4.493E-09	3.882E-09	3.410E-09	3.036E-09
ENE	3.681E-08	2.238E-08	1.616E-08	1.066E-08	7.912E-09	6.273E-09	5.186E-09	4.415E-09	3.839E-09	3.393E-09	3.036E-09
E	3.269E-08	1.993E-08	1.436E-08	9.372E-09	6.867E-09	5.364E-09	4.367E-09	3.660E-09	3.134E-09	2.729E-09	2.408E-09
ESE	2.968E-08	1.813E-08	1.315E-08	8.729E-09	6.503E-09	5.158E-09	4.259E-09	3.617E-09	3.137E-09	2.763E-09	2.466E-09
SE	2.586E-08	1.585E-08	1.151E-08	7.668E-09	5.732E-09	4.564E-09	3.785E-09	3.229E-09	2.812E-09	2.488E-09	2.229E-09
SSE	2.435E-08	1.541E-08	1.166E-08	8.454E-09	6.851E-09	5.847E-09	5.122E-09	4.542E-09	4.047E-09	3.607E-09	3.206E-09
S	1.824E-08	1.134E-08	8.397E-09	5.812E-09	4.507E-09	3.711E-09	3.171E-09	2.774E-09	2.465E-09	2.215E-09	2.005E-09
SSW	1.386E-08	8.347E-09	5.988E-09	3.920E-09	2.899E-09	2.294E-09	1.894E-09	1.610E-09	1.397E-09	1.232E-09	1.099E-09
SW	1.711E-08	9.119E-09	5.977E-09	3.439E-09	2.321E-09	1.708E-09	1.328E-09	1.072E-09	8.904E-10	7.553E-10	6.515E-10
WSW	1.224E-08	6.599E-09	4.373E-09	2.569E-09	1.767E-09	1.323E-09	1.043E-09	8.518E-10	7.131E-10	6.080E-10	5.254E-10
W	1.425E-08	8.014E-09	5.499E-09	3.416E-09	2.428E-09	1.823E-09	1.417E-09	1.140E-09	9.434E-10	7.981E-10	6.869E-10
WNW	1.973E-08	1.154E-08	8.192E-09	5.331E-09	3.836E-09	2.855E-09	2.219E-09	1.792E-09	1.488E-09	1.263E-09	1.090E-09
NW	2.268E-08	1.300E-08	9.080E-09	5.816E-09	4.249E-09	3.283E-09	2.602E-09	2.109E-09	1.754E-09	1.490E-09	1.287E-09
NNW	2.075E-08	1.223E-08	8.698E-09	5.661E-09	4.094E-09	3.068E-09	2.381E-09	1.919E-09	1.590E-09	1.347E-09	1.161E-09

Insert Table 2.7-xxx Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3) (1985-1989)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.199E-07	1.879E-07	8.191E-08	4.767E-08	3.214E-08	1.633E-08	7.079E-09	3.841E-09	2.439E-09	1.705E-09
NNE	8.253E-07	2.690E-07	1.137E-07	6.758E-08	4.668E-08	2.298E-08	9.289E-09	4.881E-09	3.190E-09	2.318E-09
NE	1.047E-06	2.970E-07	1.173E-07	6.892E-08	4.744E-08	2.485E-08	1.128E-08	6.492E-09	4.496E-09	3.411E-09
ENE	8.434E-07	2.481E-07	1.022E-07	6.129E-08	4.272E-08	2.282E-08	1.066E-08	6.275E-09	4.416E-09	3.393E-09
E	7.172E-07	2.114E-07	8.814E-08	5.356E-08	3.775E-08	2.029E-08	9.367E-09	5.366E-09	3.662E-09	2.731E-09
ESE	7.103E-07	2.031E-07	8.233E-08	4.921E-08	3.437E-08	1.848E-08	8.721E-09	5.157E-09	3.617E-09	2.764E-09
SE	6.003E-07	1.742E-07	7.132E-08	4.282E-08	2.995E-08	1.615E-08	7.662E-09	4.564E-09	3.229E-09	2.488E-09
SSE	5.740E-07	1.666E-07	6.817E-08	4.067E-08	2.827E-08	1.573E-08	8.453E-09	5.825E-09	4.519E-09	3.589E-09
S	4.579E-07	1.279E-07	5.116E-08	3.042E-08	2.117E-08	1.157E-08	5.806E-09	3.707E-09	2.770E-09	2.212E-09
SSW	3.299E-07	9.696E-08	3.945E-08	2.340E-08	1.616E-08	8.523E-09	3.926E-09	2.295E-09	1.610E-09	1.232E-09
SW	4.017E-07	1.427E-07	5.745E-08	3.173E-08	2.055E-08	9.498E-09	3.506E-09	1.719E-09	1.076E-09	7.569E-10
WSW	2.890E-07	1.007E-07	4.016E-08	2.219E-08	1.454E-08	6.864E-09	2.614E-09	1.329E-09	8.535E-10	6.085E-10
W	3.473E-07	1.184E-07	4.716E-08	2.617E-08	1.706E-08	8.282E-09	3.440E-09	1.822E-09	1.144E-09	7.999E-10
WNW	4.602E-07	1.561E-07	6.321E-08	3.561E-08	2.349E-08	1.187E-08	5.302E-09	2.862E-09	1.798E-09	1.266E-09
NW	5.182E-07	1.777E-07	7.215E-08	4.062E-08	2.689E-08	1.341E-08	5.845E-09	3.268E-09	2.115E-09	1.493E-09
NNW	4.217E-07	1.489E-07	6.303E-08	3.622E-08	2.437E-08	1.255E-08	5.640E-09	3.067E-09	1.926E-09	1.350E-09

Insert Table 2.7-xxx    Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.070E-06	7.678E-07	5.048E-07	3.168E-07	1.677E-07	1.065E-07	7.445E-08	5.548E-08	4.326E-08	3.491E-08	2.907E-08
NNE	3.630E-06	1.294E-06	7.908E-07	4.620E-07	2.328E-07	1.458E-07	1.017E-07	7.584E-08	6.072E-08	5.019E-08	4.183E-08
NE	5.244E-06	1.739E-06	9.819E-07	5.312E-07	2.425E-07	1.465E-07	1.015E-07	7.605E-08	6.005E-08	4.917E-08	4.137E-08
ENE	4.087E-06	1.387E-06	7.940E-07	4.361E-07	2.057E-07	1.274E-07	8.978E-08	6.816E-08	5.433E-08	4.484E-08	3.797E-08
E	3.447E-06	1.183E-06	6.770E-07	3.716E-07	1.758E-07	1.096E-07	7.779E-08	5.950E-08	4.777E-08	3.967E-08	3.379E-08
ESE	3.495E-06	1.188E-06	6.682E-07	3.614E-07	1.677E-07	1.028E-07	7.203E-08	5.453E-08	4.343E-08	3.586E-08	3.041E-08
SE	2.907E-06	9.967E-07	5.659E-07	3.084E-07	1.444E-07	8.907E-08	6.265E-08	4.757E-08	3.796E-08	3.138E-08	2.663E-08
SSE	2.843E-06	9.541E-07	5.382E-07	2.932E-07	1.379E-07	8.513E-08	5.972E-08	4.517E-08	3.591E-08	2.958E-08	2.502E-08
S	2.400E-06	7.726E-07	4.252E-07	2.271E-07	1.040E-07	6.332E-08	4.415E-08	3.332E-08	2.647E-08	2.181E-08	1.845E-08
SSW	1.596E-06	5.404E-07	3.101E-07	1.709E-07	8.022E-08	4.938E-08	3.457E-08	2.609E-08	2.068E-08	1.698E-08	1.431E-08
SW	1.413E-06	5.763E-07	4.023E-07	2.525E-07	1.270E-07	7.680E-08	5.168E-08	3.733E-08	2.838E-08	2.240E-08	1.821E-08
WSW	1.041E-06	4.188E-07	2.886E-07	1.794E-07	8.895E-08	5.354E-08	3.598E-08	2.600E-08	1.979E-08	1.564E-08	1.288E-08
W	1.349E-06	5.151E-07	3.420E-07	2.103E-07	1.036E-07	6.242E-08	4.203E-08	3.045E-08	2.323E-08	1.841E-08	1.502E-08
WNW	1.861E-06	6.910E-07	4.504E-07	2.758E-07	1.366E-07	8.306E-08	5.647E-08	4.127E-08	3.173E-08	2.532E-08	2.079E-08
NW	2.034E-06	7.713E-07	5.096E-07	3.134E-07	1.559E-07	9.487E-08	6.445E-08	4.706E-08	3.615E-08	2.883E-08	2.379E-08
NNW	1.720E-06	6.237E-07	4.101E-07	2.554E-07	1.317E-07	8.212E-08	5.674E-08	4.193E-08	3.251E-08	2.612E-08	2.179E-08

Insert Table 2.7-xxx Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3) (1985-1989)

Annual Average X/Q (sec/m <sup>3</sup> )												
Sector	Distance in Miles from the Site											
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50	
N	2.472E-08	1.433E-08	9.997E-09	6.219E-09	4.263E-09	3.115E-09	2.377E-09	1.870E-09	1.515E-09	1.257E-09	1.063E-09	
NNE	3.562E-08	1.980E-08	1.337E-08	8.024E-09	5.578E-09	4.205E-09	3.337E-09	2.744E-09	2.306E-09	1.979E-09	1.721E-09	
NE	3.557E-08	2.126E-08	1.516E-08	9.839E-09	7.232E-09	5.695E-09	4.687E-09	3.976E-09	3.433E-09	3.016E-09	2.679E-09	
ENE	3.281E-08	2.001E-08	1.446E-08	9.573E-09	7.140E-09	5.691E-09	4.732E-09	4.051E-09	3.526E-09	3.121E-09	2.794E-09	
E	2.936E-08	1.795E-08	1.295E-08	8.477E-09	6.230E-09	4.883E-09	3.991E-09	3.358E-09	2.874E-09	2.505E-09	2.209E-09	
ESE	2.635E-08	1.613E-08	1.172E-08	7.811E-09	5.845E-09	4.659E-09	3.868E-09	3.302E-09	2.865E-09	2.529E-09	2.258E-09	
SE	2.308E-08	1.418E-08	1.033E-08	6.912E-09	5.195E-09	4.163E-09	3.475E-09	2.983E-09	2.603E-09	2.310E-09	2.073E-09	
SSE	2.161E-08	1.378E-08	1.049E-08	7.730E-09	6.349E-09	5.419E-09	4.638E-09	4.009E-09	3.487E-09	3.047E-09	2.674E-09	
S	1.594E-08	9.967E-09	7.411E-09	5.182E-09	4.061E-09	3.379E-09	2.908E-09	2.533E-09	2.216E-09	1.957E-09	1.743E-09	
SSW	1.231E-08	7.428E-09	5.334E-09	3.504E-09	2.604E-09	2.072E-09	1.718E-09	1.463E-09	1.261E-09	1.098E-09	9.656E-10	
SW	1.517E-08	7.907E-09	5.093E-09	2.856E-09	1.892E-09	1.373E-09	1.055E-09	8.406E-10	6.880E-10	5.748E-10	4.879E-10	
WSW	1.085E-08	5.727E-09	3.739E-09	2.150E-09	1.450E-09	1.059E-09	8.133E-10	6.474E-10	5.293E-10	4.420E-10	3.753E-10	
W	1.256E-08	6.962E-09	4.728E-09	2.848E-09	1.936E-09	1.409E-09	1.066E-09	8.366E-10	6.771E-10	5.614E-10	4.742E-10	
WNW	1.748E-08	1.014E-08	7.153E-09	4.502E-09	3.096E-09	2.232E-09	1.687E-09	1.329E-09	1.079E-09	8.976E-10	7.604E-10	
NW	2.008E-08	1.138E-08	7.897E-09	4.949E-09	3.456E-09	2.565E-09	1.978E-09	1.565E-09	1.272E-09	1.059E-09	8.972E-10	
NNW	1.857E-08	1.087E-08	7.702E-09	4.877E-09	3.360E-09	2.437E-09	1.840E-09	1.447E-09	1.174E-09	9.753E-10	8.254E-10	

Insert Table 2.7-xxx    Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3) (1985-1989)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	4.797E-07	1.736E-07	7.539E-08	4.357E-08	2.919E-08	1.471E-08	6.189E-09	3.126E-09	1.880E-09	1.262E-09
NNE	7.564E-07	2.451E-07	1.031E-07	6.103E-08	4.201E-08	2.046E-08	8.125E-09	4.224E-09	2.746E-09	1.980E-09
NE	9.498E-07	2.640E-07	1.033E-07	6.048E-08	4.153E-08	2.173E-08	9.862E-09	5.702E-09	3.972E-09	3.015E-09
ENE	7.667E-07	2.221E-07	9.117E-08	5.467E-08	3.809E-08	2.039E-08	9.578E-09	5.694E-09	4.045E-09	3.120E-09
E	6.537E-07	1.899E-07	7.896E-08	4.803E-08	3.389E-08	1.826E-08	8.472E-09	4.885E-09	3.354E-09	2.505E-09
ESE	6.474E-07	1.819E-07	7.325E-08	4.372E-08	3.052E-08	1.644E-08	7.805E-09	4.659E-09	3.297E-09	2.528E-09
SE	5.472E-07	1.562E-07	6.366E-08	3.820E-08	2.672E-08	1.444E-08	6.908E-09	4.163E-09	2.979E-09	2.309E-09
SSE	5.217E-07	1.490E-07	6.068E-08	3.615E-08	2.511E-08	1.406E-08	7.731E-09	5.355E-09	3.990E-09	3.039E-09
S	4.144E-07	1.133E-07	4.493E-08	2.665E-08	1.852E-08	1.016E-08	5.179E-09	3.372E-09	2.519E-09	1.955E-09
SSW	2.994E-07	8.666E-08	3.513E-08	2.081E-08	1.436E-08	7.582E-09	3.511E-09	2.072E-09	1.459E-09	1.097E-09
SW	3.744E-07	1.326E-07	5.264E-08	2.866E-08	1.833E-08	8.269E-09	2.925E-09	1.384E-09	8.436E-10	5.762E-10
WSW	2.690E-07	9.331E-08	3.667E-08	1.998E-08	1.294E-08	5.981E-09	2.192E-09	1.065E-09	6.498E-10	4.432E-10
W	3.219E-07	1.090E-07	4.284E-08	2.345E-08	1.511E-08	7.213E-09	2.861E-09	1.412E-09	8.414E-10	5.634E-10
WNW	4.263E-07	1.437E-07	5.748E-08	3.201E-08	2.091E-08	1.044E-08	4.466E-09	2.245E-09	1.336E-09	9.007E-10
NW	4.806E-07	1.638E-07	6.561E-08	3.648E-08	2.391E-08	1.176E-08	4.941E-09	2.568E-09	1.571E-09	1.062E-09
NNW	3.888E-07	1.372E-07	5.758E-08	3.277E-08	2.188E-08	1.117E-08	4.830E-09	2.444E-09	1.456E-09	9.787E-10

Insert Table 2.7-xxx Annual Average D/Q Values for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 1 of 3) (1985-1989)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors											
Sector	Distance in Miles from the Site										
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
N	2.669E-08	1.250E-08	7.768E-09	4.236E-09	1.748E-09	9.373E-10	5.808E-10	3.948E-10	2.855E-10	2.159E-10	1.689E-10
NNE	4.999E-08	2.240E-08	1.322E-08	6.947E-09	2.776E-09	1.460E-09	8.932E-10	6.019E-10	4.329E-10	3.263E-10	2.548E-10
NE	5.748E-08	2.242E-08	1.213E-08	5.990E-09	2.246E-09	1.145E-09	6.876E-10	4.572E-10	3.257E-10	2.439E-10	1.895E-10
ENE	4.317E-08	1.732E-08	9.486E-09	4.725E-09	1.786E-09	9.153E-10	5.514E-10	3.676E-10	2.624E-10	1.968E-10	1.531E-10
E	3.717E-08	1.551E-08	8.514E-09	4.241E-09	1.601E-09	8.225E-10	4.967E-10	3.319E-10	2.374E-10	1.783E-10	1.390E-10
ESE	3.642E-08	1.529E-08	8.365E-09	4.155E-09	1.564E-09	8.025E-10	4.841E-10	3.232E-10	2.311E-10	1.736E-10	1.353E-10
SE	3.065E-08	1.282E-08	7.013E-09	3.489E-09	1.318E-09	6.771E-10	4.089E-10	2.732E-10	1.954E-10	1.468E-10	1.144E-10
SSE	2.763E-08	1.114E-08	6.084E-09	3.023E-09	1.140E-09	5.839E-10	3.517E-10	2.345E-10	1.674E-10	1.255E-10	9.771E-11
S	2.188E-08	8.274E-09	4.447E-09	2.185E-09	8.135E-10	4.128E-10	2.470E-10	1.638E-10	1.164E-10	8.701E-11	6.752E-11
SSW	1.761E-08	6.746E-09	3.618E-09	1.775E-09	6.588E-10	3.350E-10	2.008E-10	1.334E-10	9.501E-11	7.109E-11	5.522E-11
SW	3.097E-08	1.552E-08	9.773E-09	5.325E-09	2.202E-09	1.170E-09	7.187E-10	4.857E-10	3.500E-10	2.642E-10	2.065E-10
WSW	2.014E-08	1.011E-08	6.374E-09	3.467E-09	1.429E-09	7.570E-10	4.643E-10	3.134E-10	2.256E-10	1.702E-10	1.331E-10
W	2.469E-08	1.160E-08	6.975E-09	3.895E-09	1.570E-09	8.213E-10	4.998E-10	3.356E-10	2.408E-10	1.813E-10	1.415E-10
WNW	3.070E-08	1.451E-08	8.634E-09	4.794E-09	1.924E-09	1.006E-09	6.126E-10	4.114E-10	2.953E-10	2.224E-10	1.736E-10
NW	2.965E-08	1.457E-08	8.994E-09	5.157E-09	2.103E-09	1.105E-09	6.742E-10	4.534E-10	3.257E-10	2.454E-10	1.916E-10
NNW	2.115E-08	9.980E-09	6.314E-09	3.473E-09	1.448E-09	7.750E-10	4.790E-10	3.248E-10	2.346E-10	1.772E-10	1.385E-10

Insert Table 2.7-xxx Annual Average D/Q Values for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 2 of 3) (1985-1989)

**Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors**

<b>Sector</b>	<b>Distance in Miles from the Site</b>										
	<b>5</b>	<b>7.5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	<b>45</b>	<b>50</b>
N	1.357E-10	6.352E-11	4.010E-11	4.356E-11	2.986E-11	1.816E-11	1.357E-11	1.028E-11	8.012E-12	6.410E-12	5.233E-12
NNE	2.045E-10	9.317E-11	5.640E-11	2.884E-11	1.814E-11	1.283E-11	1.001E-11	8.053E-12	7.489E-12	6.328E-12	6.459E-12
NE	1.516E-10	6.868E-11	4.164E-11	2.157E-11	1.362E-11	9.711E-12	7.568E-12	6.599E-12	5.657E-12	5.805E-12	6.680E-12
ENE	1.226E-10	5.569E-11	3.376E-11	1.753E-11	1.113E-11	8.002E-12	6.312E-12	5.473E-12	4.768E-12	4.790E-12	5.176E-12
E	1.115E-10	5.092E-11	3.098E-11	1.625E-11	1.038E-11	7.565E-12	6.007E-12	5.051E-12	4.419E-12	3.931E-12	3.596E-12
ESE	1.085E-10	4.959E-11	3.019E-11	1.587E-11	1.016E-11	7.413E-12	5.895E-12	4.959E-12	4.342E-12	3.865E-12	3.525E-12
SE	9.179E-11	4.192E-11	2.551E-11	1.339E-11	8.563E-12	6.240E-12	4.931E-12	4.145E-12	3.632E-12	3.236E-12	3.012E-12
SSE	7.827E-11	3.559E-11	2.169E-11	1.173E-11	1.270E-11	2.390E-11	1.990E-11	1.464E-11	1.080E-11	7.381E-12	5.786E-12
S	5.396E-11	2.435E-11	1.475E-11	7.612E-12	5.163E-12	4.527E-12	7.056E-12	9.753E-12	8.461E-12	6.698E-12	5.353E-12
SSW	4.417E-11	2.003E-11	1.218E-11	6.334E-12	4.298E-12	3.942E-12	4.383E-12	4.907E-12	5.502E-12	4.801E-12	3.977E-12
SW	1.659E-10	7.547E-11	4.529E-11	2.292E-11	1.442E-11	1.040E-11	8.230E-12	7.013E-12	6.102E-12	5.171E-12	4.325E-12
WSW	1.085E-10	4.906E-11	2.921E-11	1.642E-11	1.185E-11	9.409E-12	7.045E-12	5.357E-12	4.267E-12	3.488E-12	2.918E-12
W	1.136E-10	5.180E-11	3.578E-11	2.629E-11	1.642E-11	1.135E-11	8.465E-12	6.365E-12	4.954E-12	3.961E-12	3.233E-12
WNW	1.395E-10	6.369E-11	5.202E-11	3.526E-11	2.220E-11	1.527E-11	1.104E-11	8.315E-12	6.471E-12	5.169E-12	4.221E-12
NW	1.539E-10	7.006E-11	4.687E-11	3.841E-11	2.552E-11	1.693E-11	1.209E-11	9.336E-12	7.304E-12	5.850E-12	4.780E-12
NNW	1.143E-10	5.192E-11	4.356E-11	3.328E-11	2.045E-11	1.405E-11	1.014E-11	7.637E-12	5.951E-12	4.760E-12	3.885E-12

Insert Table 2.7-xxx Annual Average D/Q Values for Mixed-Mode Release from the Reactor Building/Fuel Building Stack (Sheet 3 of 3) (1985-1989)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	7.250E-09	1.941E-09	6.015E-10	2.902E-10	1.705E-10	6.915E-11	3.670E-11	1.945E-11	1.036E-11	6.449E-12
NNE	1.247E-08	3.118E-09	9.278E-10	4.406E-10	2.573E-10	1.016E-10	3.021E-11	1.312E-11	8.398E-12	6.720E-12
NE	1.169E-08	2.589E-09	7.174E-10	3.321E-10	1.916E-10	7.509E-11	2.249E-11	9.896E-12	6.517E-12	6.085E-12
ENE	9.110E-09	2.052E-09	5.749E-10	2.674E-10	1.547E-10	6.082E-11	1.829E-11	8.160E-12	5.444E-12	4.927E-12
E	8.170E-09	1.842E-09	5.176E-10	2.419E-10	1.404E-10	5.551E-11	1.692E-11	7.693E-12	5.083E-12	3.952E-12
ESE	8.032E-09	1.801E-09	5.047E-10	2.355E-10	1.367E-10	5.407E-11	1.651E-11	7.538E-12	4.991E-12	3.880E-12
SE	6.736E-09	1.515E-09	4.262E-10	1.991E-10	1.156E-10	4.571E-11	1.394E-11	6.336E-12	4.174E-12	3.270E-12
SSE	5.847E-09	1.311E-09	3.667E-10	1.706E-10	9.876E-11	3.890E-11	1.437E-11	1.931E-11	1.468E-11	7.804E-12
S	4.292E-09	9.401E-10	2.579E-10	1.187E-10	6.827E-11	2.666E-11	8.110E-12	5.708E-12	8.490E-12	6.722E-12
SSW	3.494E-09	7.628E-10	2.096E-10	9.688E-11	5.583E-11	2.190E-11	6.728E-12	4.214E-12	4.984E-12	4.703E-12
SW	9.074E-09	2.437E-09	7.457E-10	3.561E-10	2.086E-10	8.216E-11	2.412E-11	1.061E-11	7.014E-12	5.134E-12
WSW	5.913E-09	1.583E-09	4.819E-10	2.296E-10	1.350E-10	5.346E-11	1.723E-11	9.115E-12	5.424E-12	3.508E-12
W	6.635E-09	1.754E-09	5.199E-10	2.452E-10	1.429E-10	5.841E-11	2.401E-11	1.155E-11	6.427E-12	3.986E-12
WNW	8.233E-09	2.154E-09	6.371E-10	3.007E-10	1.754E-10	7.534E-11	3.318E-11	1.543E-11	8.393E-12	5.204E-12
NW	8.527E-09	2.338E-09	7.008E-10	3.316E-10	1.936E-10	7.839E-11	3.456E-11	1.729E-11	9.349E-12	5.885E-12
NNW	5.866E-09	1.599E-09	4.963E-10	2.385E-10	1.410E-10	6.206E-11	2.986E-11	1.419E-11	7.710E-12	4.789E-12

Insert Table 2.7-xxx    Annual Average X/Q Values (No Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.685E-06	9.507E-07	5.689E-07	3.271E-07	1.618E-07	1.014E-07	7.097E-08	5.315E-08	4.169E-08	3.384E-08	2.831E-08
NNE	4.793E-06	1.652E-06	9.517E-07	5.226E-07	2.445E-07	1.492E-07	1.031E-07	7.675E-08	6.104E-08	5.025E-08	4.197E-08
NE	7.155E-06	2.341E-06	1.292E-06	6.831E-07	2.952E-07	1.713E-07	1.152E-07	8.451E-08	6.571E-08	5.321E-08	4.441E-08
ENE	5.722E-06	1.895E-06	1.053E-06	5.581E-07	2.443E-07	1.438E-07	9.777E-08	7.243E-08	5.675E-08	4.624E-08	3.879E-08
E	4.888E-06	1.623E-06	8.990E-07	4.765E-07	2.088E-07	1.232E-07	8.406E-08	6.249E-08	4.913E-08	4.018E-08	3.382E-08
ESE	4.934E-06	1.629E-06	8.913E-07	4.674E-07	2.026E-07	1.189E-07	8.059E-08	5.956E-08	4.658E-08	3.792E-08	3.179E-08
SE	4.034E-06	1.343E-06	7.417E-07	3.911E-07	1.705E-07	1.003E-07	6.817E-08	5.049E-08	3.957E-08	3.226E-08	2.708E-08
SSE	3.980E-06	1.309E-06	7.195E-07	3.778E-07	1.647E-07	9.712E-08	6.607E-08	4.892E-08	3.829E-08	3.116E-08	2.611E-08
S	3.320E-06	1.063E-06	5.754E-07	2.999E-07	1.290E-07	7.528E-08	5.086E-08	3.749E-08	2.927E-08	2.379E-08	1.991E-08
SSW	2.171E-06	7.236E-07	4.060E-07	2.154E-07	9.393E-08	5.500E-08	3.727E-08	2.752E-08	2.150E-08	1.747E-08	1.462E-08
SW	1.645E-06	6.291E-07	3.935E-07	2.337E-07	1.167E-07	7.188E-08	4.931E-08	3.624E-08	2.795E-08	2.235E-08	1.838E-08
WSW	1.237E-06	4.642E-07	2.869E-07	1.689E-07	8.304E-08	5.082E-08	3.476E-08	2.552E-08	1.968E-08	1.574E-08	1.307E-08
W	1.691E-06	6.100E-07	3.685E-07	2.124E-07	1.019E-07	6.171E-08	4.200E-08	3.076E-08	2.369E-08	1.895E-08	1.559E-08
WNW	2.317E-06	8.164E-07	4.858E-07	2.788E-07	1.337E-07	8.149E-08	5.583E-08	4.114E-08	3.188E-08	2.563E-08	2.119E-08
NW	2.543E-06	9.051E-07	5.422E-07	3.134E-07	1.515E-07	9.261E-08	6.349E-08	4.678E-08	3.623E-08	2.911E-08	2.414E-08
NNW	2.247E-06	7.769E-07	4.599E-07	2.644E-07	1.295E-07	8.037E-08	5.577E-08	4.149E-08	3.238E-08	2.618E-08	2.191E-08

Insert Table 2.7-xxx    Annual Average X/Q Values (No Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.418E-08	1.415E-08	9.930E-09	6.340E-09	4.633E-09	3.619E-09	2.925E-09	2.405E-09	2.012E-09	1.717E-09	1.491E-09
NNE	3.581E-08	2.020E-08	1.381E-08	8.440E-09	5.952E-09	4.538E-09	3.637E-09	3.018E-09	2.570E-09	2.231E-09	1.967E-09
NE	3.794E-08	2.216E-08	1.567E-08	1.012E-08	7.432E-09	5.858E-09	4.829E-09	4.107E-09	3.573E-09	3.163E-09	2.839E-09
ENE	3.329E-08	1.977E-08	1.413E-08	9.259E-09	6.878E-09	5.471E-09	4.547E-09	3.896E-09	3.413E-09	3.041E-09	2.746E-09
E	2.913E-08	1.737E-08	1.241E-08	8.090E-09	5.957E-09	4.687E-09	3.848E-09	3.254E-09	2.812E-09	2.472E-09	2.202E-09
ESE	2.728E-08	1.616E-08	1.154E-08	7.559E-09	5.614E-09	4.461E-09	3.699E-09	3.159E-09	2.757E-09	2.447E-09	2.200E-09
SE	2.327E-08	1.386E-08	9.941E-09	6.551E-09	4.890E-09	3.904E-09	3.254E-09	2.794E-09	2.452E-09	2.188E-09	1.978E-09
SSE	2.238E-08	1.355E-08	9.934E-09	6.941E-09	5.552E-09	4.762E-09	4.248E-09	3.870E-09	3.564E-09	3.294E-09	3.043E-09
S	1.706E-08	1.020E-08	7.383E-09	4.988E-09	3.832E-09	3.154E-09	2.711E-09	2.397E-09	2.162E-09	1.977E-09	1.825E-09
SSW	1.252E-08	7.394E-09	5.266E-09	3.435E-09	2.548E-09	2.027E-09	1.687E-09	1.447E-09	1.270E-09	1.133E-09	1.025E-09
SW	1.546E-08	8.361E-09	5.530E-09	3.221E-09	2.196E-09	1.631E-09	1.279E-09	1.043E-09	8.738E-10	7.480E-10	6.513E-10
WSW	1.109E-08	6.041E-09	4.027E-09	2.384E-09	1.653E-09	1.247E-09	9.934E-10	8.208E-10	6.962E-10	6.020E-10	5.281E-10
W	1.313E-08	7.383E-09	5.059E-09	3.153E-09	2.282E-09	1.767E-09	1.409E-09	1.148E-09	9.586E-10	8.183E-10	7.107E-10
WNW	1.792E-08	1.039E-08	7.324E-09	4.794E-09	3.574E-09	2.773E-09	2.188E-09	1.782E-09	1.494E-09	1.279E-09	1.113E-09
NW	2.047E-08	1.166E-08	8.092E-09	5.169E-09	3.828E-09	3.038E-09	2.492E-09	2.074E-09	1.745E-09	1.495E-09	1.302E-09
NNW	1.872E-08	1.095E-08	7.744E-09	5.068E-09	3.775E-09	2.952E-09	2.344E-09	1.907E-09	1.596E-09	1.364E-09	1.186E-09

Insert Table 2.7-xxx Annual Average X/Q Values (No Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3) (1985-1989)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.463E-07	1.717E-07	7.195E-08	4.198E-08	2.842E-08	1.450E-08	6.379E-09	3.612E-09	2.404E-09	1.721E-09
NNE	9.165E-07	2.639E-07	1.049E-07	6.142E-08	4.214E-08	2.083E-08	8.527E-09	4.555E-09	3.024E-09	2.234E-09
NE	1.255E-06	3.263E-07	1.179E-07	6.632E-08	4.462E-08	2.278E-08	1.016E-08	5.866E-09	4.110E-09	3.165E-09
ENE	1.020E-06	2.693E-07	9.990E-08	5.723E-08	3.896E-08	2.027E-08	9.284E-09	5.476E-09	3.898E-09	3.042E-09
E	8.722E-07	2.303E-07	8.588E-08	4.954E-08	3.397E-08	1.778E-08	8.103E-09	4.690E-09	3.255E-09	2.473E-09
ESE	8.667E-07	2.242E-07	8.238E-08	4.699E-08	3.194E-08	1.658E-08	7.579E-09	4.463E-09	3.160E-09	2.448E-09
SE	7.195E-07	1.883E-07	6.966E-08	3.990E-08	2.720E-08	1.421E-08	6.566E-09	3.907E-09	2.795E-09	2.188E-09
SSE	6.986E-07	1.820E-07	6.749E-08	3.861E-08	2.623E-08	1.391E-08	6.989E-09	4.767E-09	3.861E-09	3.281E-09
S	5.613E-07	1.431E-07	5.202E-08	2.953E-08	2.001E-08	1.047E-08	5.006E-09	3.157E-09	2.397E-09	1.975E-09
SSW	3.919E-07	1.036E-07	3.810E-08	2.169E-08	1.469E-08	7.586E-09	3.448E-09	2.030E-09	1.448E-09	1.134E-09
SW	3.749E-07	1.228E-07	5.010E-08	2.819E-08	1.847E-08	8.680E-09	3.279E-09	1.641E-09	1.046E-09	7.495E-10
WSW	2.739E-07	8.781E-08	3.535E-08	1.985E-08	1.313E-08	6.268E-09	2.424E-09	1.254E-09	8.227E-10	6.025E-10
W	3.528E-07	1.086E-07	4.276E-08	2.390E-08	1.568E-08	7.628E-09	3.189E-09	1.761E-09	1.150E-09	8.200E-10
WNW	4.673E-07	1.428E-07	5.680E-08	3.215E-08	2.129E-08	1.070E-08	4.814E-09	2.752E-09	1.788E-09	1.281E-09
NW	5.211E-07	1.613E-07	6.457E-08	3.653E-08	2.425E-08	1.203E-08	5.222E-09	3.030E-09	2.068E-09	1.497E-09
NNW	4.435E-07	1.377E-07	5.662E-08	3.262E-08	2.199E-08	1.125E-08	5.088E-09	2.928E-09	1.913E-09	1.367E-09

Insert Table 2.7-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.684E-06	9.499E-07	5.682E-07	3.265E-07	1.614E-07	1.011E-07	7.071E-08	5.291E-08	4.147E-08	3.364E-08	2.812E-08
NNE	4.791E-06	1.650E-06	9.507E-07	5.218E-07	2.440E-07	1.488E-07	1.028E-07	7.643E-08	6.074E-08	4.997E-08	4.170E-08
NE	7.152E-06	2.340E-06	1.291E-06	6.821E-07	2.946E-07	1.708E-07	1.147E-07	8.414E-08	6.537E-08	5.290E-08	4.411E-08
ENE	5.719E-06	1.894E-06	1.052E-06	5.571E-07	2.436E-07	1.433E-07	9.737E-08	7.208E-08	5.643E-08	4.595E-08	3.851E-08
E	4.885E-06	1.622E-06	8.978E-07	4.756E-07	2.082E-07	1.228E-07	8.369E-08	6.216E-08	4.883E-08	3.990E-08	3.356E-08
ESE	4.932E-06	1.627E-06	8.900E-07	4.666E-07	2.021E-07	1.184E-07	8.023E-08	5.924E-08	4.630E-08	3.765E-08	3.154E-08
SE	4.032E-06	1.342E-06	7.407E-07	3.904E-07	1.701E-07	9.993E-08	6.787E-08	5.023E-08	3.933E-08	3.204E-08	2.687E-08
SSE	3.978E-06	1.308E-06	7.186E-07	3.772E-07	1.643E-07	9.679E-08	6.580E-08	4.867E-08	3.807E-08	3.096E-08	2.591E-08
S	3.319E-06	1.062E-06	5.746E-07	2.994E-07	1.287E-07	7.503E-08	5.065E-08	3.731E-08	2.910E-08	2.364E-08	1.977E-08
SSW	2.171E-06	7.230E-07	4.055E-07	2.151E-07	9.372E-08	5.484E-08	3.713E-08	2.740E-08	2.139E-08	1.737E-08	1.452E-08
SW	1.644E-06	6.287E-07	3.932E-07	2.334E-07	1.165E-07	7.171E-08	4.916E-08	3.611E-08	2.783E-08	2.224E-08	1.828E-08
WSW	1.237E-06	4.639E-07	2.866E-07	1.687E-07	8.289E-08	5.070E-08	3.466E-08	2.543E-08	1.960E-08	1.566E-08	1.300E-08
W	1.690E-06	6.096E-07	3.681E-07	2.122E-07	1.017E-07	6.156E-08	4.187E-08	3.064E-08	2.359E-08	1.885E-08	1.550E-08
WNW	2.316E-06	8.158E-07	4.852E-07	2.785E-07	1.334E-07	8.127E-08	5.564E-08	4.097E-08	3.172E-08	2.548E-08	2.105E-08
NW	2.542E-06	9.044E-07	5.416E-07	3.129E-07	1.512E-07	9.235E-08	6.327E-08	4.658E-08	3.605E-08	2.895E-08	2.399E-08
NNW	2.246E-06	7.764E-07	4.594E-07	2.640E-07	1.292E-07	8.014E-08	5.558E-08	4.132E-08	3.222E-08	2.603E-08	2.177E-08

Insert Table 2.7-xxx    Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.400E-08	1.398E-08	9.770E-09	6.182E-09	4.476E-09	3.464E-09	2.774E-09	2.261E-09	1.874E-09	1.586E-09	1.365E-09
NNE	3.556E-08	1.998E-08	1.361E-08	8.256E-09	5.778E-09	4.372E-09	3.477E-09	2.864E-09	2.420E-09	2.085E-09	1.824E-09
NE	3.766E-08	2.192E-08	1.544E-08	9.894E-09	7.215E-09	5.644E-09	4.618E-09	3.898E-09	3.366E-09	2.958E-09	2.635E-09
ENE	3.302E-08	1.954E-08	1.391E-08	9.043E-09	6.664E-09	5.260E-09	4.337E-09	3.687E-09	3.204E-09	2.833E-09	2.538E-09
E	2.887E-08	1.714E-08	1.220E-08	7.883E-09	5.754E-09	4.487E-09	3.652E-09	3.061E-09	2.622E-09	2.285E-09	2.017E-09
ESE	2.705E-08	1.595E-08	1.134E-08	7.362E-09	5.420E-09	4.268E-09	3.507E-09	2.969E-09	2.569E-09	2.260E-09	2.015E-09
SE	2.307E-08	1.369E-08	9.772E-09	6.384E-09	4.723E-09	3.738E-09	3.088E-09	2.628E-09	2.286E-09	2.021E-09	1.811E-09
SSE	2.220E-08	1.338E-08	9.771E-09	6.771E-09	5.370E-09	4.566E-09	4.035E-09	3.643E-09	3.323E-09	3.042E-09	2.783E-09
S	1.693E-08	1.008E-08	7.266E-09	4.869E-09	3.709E-09	3.027E-09	2.579E-09	2.261E-09	2.021E-09	1.831E-09	1.675E-09
SSW	1.242E-08	7.312E-09	5.187E-09	3.358E-09	2.471E-09	1.950E-09	1.609E-09	1.369E-09	1.192E-09	1.054E-09	9.448E-10
SW	1.536E-08	8.281E-09	5.458E-09	3.157E-09	2.136E-09	1.575E-09	1.226E-09	9.913E-10	8.243E-10	7.001E-10	6.048E-10
WSW	1.102E-08	5.983E-09	3.974E-09	2.336E-09	1.607E-09	1.203E-09	9.507E-10	7.791E-10	6.554E-10	5.619E-10	4.887E-10
W	1.305E-08	7.312E-09	4.991E-09	3.086E-09	2.213E-09	1.697E-09	1.340E-09	1.081E-09	8.956E-10	7.582E-10	6.530E-10
WNW	1.779E-08	1.028E-08	7.216E-09	4.685E-09	3.462E-09	2.662E-09	2.081E-09	1.682E-09	1.398E-09	1.187E-09	1.026E-09
NW	2.033E-08	1.153E-08	7.977E-09	5.057E-09	3.717E-09	2.927E-09	2.381E-09	1.964E-09	1.639E-09	1.394E-09	1.204E-09
NNW	1.859E-08	1.083E-08	7.626E-09	4.947E-09	3.652E-09	2.830E-09	2.227E-09	1.797E-09	1.491E-09	1.264E-09	1.090E-09

Insert Table 2.7-xxx Annual Average X/Q Values (2.26 Day Decay, Undepleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3) (1985-1989)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	5.456E-07	1.713E-07	7.169E-08	4.176E-08	2.823E-08	1.434E-08	6.221E-09	3.458E-09	2.260E-09	1.590E-09
NNE	9.156E-07	2.634E-07	1.045E-07	6.112E-08	4.188E-08	2.061E-08	8.344E-09	4.389E-09	2.870E-09	2.087E-09
NE	1.253E-06	3.257E-07	1.174E-07	6.598E-08	4.433E-08	2.254E-08	9.936E-09	5.652E-09	3.901E-09	2.959E-09
ENE	1.019E-06	2.687E-07	9.949E-08	5.691E-08	3.868E-08	2.003E-08	9.068E-09	5.265E-09	3.689E-09	2.834E-09
E	8.710E-07	2.297E-07	8.550E-08	4.924E-08	3.370E-08	1.755E-08	7.896E-09	4.491E-09	3.063E-09	2.286E-09
ESE	8.656E-07	2.237E-07	8.203E-08	4.670E-08	3.169E-08	1.637E-08	7.383E-09	4.271E-09	2.971E-09	2.261E-09
SE	7.186E-07	1.879E-07	6.936E-08	3.966E-08	2.699E-08	1.403E-08	6.399E-09	3.741E-09	2.629E-09	2.022E-09
SSE	6.977E-07	1.816E-07	6.721E-08	3.839E-08	2.603E-08	1.374E-08	6.815E-09	4.568E-09	3.633E-09	3.029E-09
S	5.606E-07	1.428E-07	5.182E-08	2.937E-08	1.986E-08	1.035E-08	4.886E-09	3.030E-09	2.260E-09	1.829E-09
SSW	3.914E-07	1.034E-07	3.796E-08	2.158E-08	1.459E-08	7.503E-09	3.371E-09	1.953E-09	1.370E-09	1.054E-09
SW	3.745E-07	1.226E-07	4.995E-08	2.807E-08	1.837E-08	8.600E-09	3.215E-09	1.585E-09	9.947E-10	7.016E-10
WSW	2.736E-07	8.766E-08	3.524E-08	1.976E-08	1.305E-08	6.210E-09	2.376E-09	1.210E-09	7.810E-10	5.625E-10
W	3.525E-07	1.084E-07	4.263E-08	2.380E-08	1.559E-08	7.555E-09	3.121E-09	1.692E-09	1.084E-09	7.599E-10
WNW	4.668E-07	1.425E-07	5.661E-08	3.199E-08	2.116E-08	1.059E-08	4.704E-09	2.643E-09	1.688E-09	1.190E-09
NW	5.206E-07	1.610E-07	6.435E-08	3.635E-08	2.410E-08	1.191E-08	5.111E-09	2.919E-09	1.960E-09	1.396E-09
NNW	4.430E-07	1.374E-07	5.643E-08	3.246E-08	2.185E-08	1.113E-08	4.967E-09	2.808E-09	1.803E-09	1.267E-09

Insert Table 2.7-xxx    Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.545E-06	8.741E-07	5.153E-07	2.954E-07	1.459E-07	9.116E-08	6.355E-08	4.737E-08	3.698E-08	2.987E-08	2.488E-08
NNE	4.543E-06	1.517E-06	8.587E-07	4.677E-07	2.172E-07	1.319E-07	9.069E-08	6.716E-08	5.325E-08	4.371E-08	3.635E-08
NE	6.773E-06	2.145E-06	1.159E-06	6.039E-07	2.558E-07	1.464E-07	9.744E-08	7.096E-08	5.482E-08	4.415E-08	3.667E-08
ENE	5.417E-06	1.738E-06	9.455E-07	4.942E-07	2.125E-07	1.237E-07	8.353E-08	6.153E-08	4.799E-08	3.895E-08	3.256E-08
E	4.628E-06	1.490E-06	8.088E-07	4.230E-07	1.822E-07	1.063E-07	7.202E-08	5.325E-08	4.170E-08	3.398E-08	2.852E-08
ESE	4.672E-06	1.495E-06	8.019E-07	4.149E-07	1.765E-07	1.023E-07	6.873E-08	5.045E-08	3.924E-08	3.179E-08	2.654E-08
SE	3.819E-06	1.233E-06	6.674E-07	3.473E-07	1.487E-07	8.648E-08	5.832E-08	4.294E-08	3.348E-08	2.719E-08	2.274E-08
SSE	3.768E-06	1.200E-06	6.458E-07	3.345E-07	1.433E-07	8.353E-08	5.637E-08	4.148E-08	3.230E-08	2.617E-08	2.184E-08
S	3.143E-06	9.727E-07	5.148E-07	2.644E-07	1.114E-07	6.410E-08	4.287E-08	3.136E-08	2.433E-08	1.967E-08	1.639E-08
SSW	2.056E-06	6.629E-07	3.640E-07	1.905E-07	8.155E-08	4.723E-08	3.176E-08	2.332E-08	1.814E-08	1.468E-08	1.224E-08
SW	1.562E-06	5.816E-07	3.601E-07	2.140E-07	1.066E-07	6.535E-08	4.453E-08	3.249E-08	2.488E-08	1.976E-08	1.613E-08
WSW	1.174E-06	4.288E-07	2.623E-07	1.544E-07	7.567E-08	4.604E-08	3.127E-08	2.279E-08	1.745E-08	1.386E-08	1.144E-08
W	1.605E-06	5.627E-07	3.354E-07	1.928E-07	9.195E-08	5.529E-08	3.735E-08	2.714E-08	2.075E-08	1.648E-08	1.346E-08
WNW	2.199E-06	7.530E-07	4.421E-07	2.531E-07	1.207E-07	7.303E-08	4.968E-08	3.635E-08	2.797E-08	2.233E-08	1.835E-08
NW	2.412E-06	8.351E-07	4.942E-07	2.849E-07	1.370E-07	8.314E-08	5.657E-08	4.137E-08	3.181E-08	2.538E-08	2.091E-08
NNW	2.128E-06	7.133E-07	4.163E-07	2.389E-07	1.167E-07	7.206E-08	4.972E-08	3.675E-08	2.851E-08	2.291E-08	1.907E-08

Insert Table 2.7-xxx Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3) (1985-1989)

Sector	Annual Average X/Q (sec/m <sup>3</sup> )										
	Distance in Miles from the Site										
Sector	5	7.5	10	15.0	20	25.0	30	35.0	40	45.0	50
N	2.116E-08	1.222E-08	8.483E-09	5.337E-09	3.819E-09	2.863E-09	2.222E-09	1.770E-09	1.437E-09	1.194E-09	1.010E-09
NNE	3.089E-08	1.712E-08	1.152E-08	6.874E-09	4.756E-09	3.570E-09	2.824E-09	2.315E-09	1.943E-09	1.666E-09	1.450E-09
NE	3.120E-08	1.801E-08	1.261E-08	8.026E-09	5.837E-09	4.565E-09	3.740E-09	3.163E-09	2.728E-09	2.398E-09	2.134E-09
ENE	2.786E-08	1.642E-08	1.166E-08	7.567E-09	5.583E-09	4.419E-09	3.659E-09	3.124E-09	2.718E-09	2.408E-09	2.160E-09
E	2.450E-08	1.450E-08	1.029E-08	6.628E-09	4.832E-09	3.769E-09	3.070E-09	2.578E-09	2.212E-09	1.932E-09	1.709E-09
ESE	2.270E-08	1.330E-08	9.413E-09	6.088E-09	4.479E-09	3.531E-09	2.909E-09	2.471E-09	2.144E-09	1.893E-09	1.693E-09
SE	1.948E-08	1.151E-08	8.196E-09	5.348E-09	3.963E-09	3.147E-09	2.612E-09	2.234E-09	1.948E-09	1.728E-09	1.551E-09
SSE	1.865E-08	1.123E-08	8.215E-09	5.754E-09	4.636E-09	4.010E-09	3.601E-09	3.268E-09	2.944E-09	2.655E-09	2.392E-09
S	1.398E-08	8.290E-09	5.965E-09	4.011E-09	3.080E-09	2.540E-09	2.189E-09	1.941E-09	1.747E-09	1.592E-09	1.455E-09
SSW	1.045E-08	6.126E-09	4.334E-09	2.802E-09	2.066E-09	1.636E-09	1.357E-09	1.162E-09	1.013E-09	8.986E-10	8.064E-10
SW	1.348E-08	7.098E-09	4.588E-09	2.576E-09	1.705E-09	1.235E-09	9.488E-10	7.577E-10	6.223E-10	5.230E-10	4.469E-10
WSW	9.647E-09	5.118E-09	3.338E-09	1.912E-09	1.292E-09	9.563E-10	7.468E-10	6.026E-10	4.974E-10	4.187E-10	3.577E-10
W	1.127E-08	6.199E-09	4.175E-09	2.539E-09	1.769E-09	1.312E-09	1.010E-09	7.956E-10	6.441E-10	5.341E-10	4.513E-10
WNW	1.542E-08	8.792E-09	6.119E-09	3.925E-09	2.793E-09	2.076E-09	1.579E-09	1.244E-09	1.010E-09	8.404E-10	7.120E-10
NW	1.763E-08	9.840E-09	6.728E-09	4.223E-09	3.064E-09	2.342E-09	1.848E-09	1.490E-09	1.217E-09	1.014E-09	8.605E-10
NNW	1.622E-08	9.339E-09	6.532E-09	4.212E-09	3.017E-09	2.255E-09	1.727E-09	1.360E-09	1.104E-09	9.171E-10	7.765E-10

Insert Table 2.7-xxx Annual Average X/Q Values (8.0 Day Decay, Depleted) for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3) (1985-1989)

X/Q (sec/m <sup>3</sup> ) for Each Segment										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	4.973E-07	1.548E-07	6.444E-08	3.724E-08	2.498E-08	1.255E-08	5.361E-09	2.861E-09	1.772E-09	1.198E-09
NNE	8.313E-07	2.350E-07	9.226E-08	5.359E-08	3.651E-08	1.769E-08	6.965E-09	3.588E-09	2.319E-09	1.668E-09
NE	1.131E-06	2.845E-07	9.990E-08	5.537E-08	3.686E-08	1.854E-08	8.071E-09	4.574E-09	3.162E-09	2.398E-09
ENE	9.210E-07	2.357E-07	8.545E-08	4.841E-08	3.271E-08	1.685E-08	7.595E-09	4.425E-09	3.122E-09	2.408E-09
E	7.888E-07	2.020E-07	7.367E-08	4.206E-08	2.865E-08	1.485E-08	6.643E-09	3.773E-09	2.579E-09	1.932E-09
ESE	7.840E-07	1.965E-07	7.037E-08	3.960E-08	2.667E-08	1.366E-08	6.112E-09	3.535E-09	2.472E-09	1.893E-09
SE	6.509E-07	1.652E-07	5.967E-08	3.379E-08	2.285E-08	1.181E-08	5.365E-09	3.151E-09	2.233E-09	1.728E-09
SSE	6.306E-07	1.592E-07	5.766E-08	3.258E-08	2.194E-08	1.154E-08	5.804E-09	4.013E-09	3.240E-09	2.643E-09
S	5.053E-07	1.244E-07	4.393E-08	2.456E-08	1.647E-08	8.522E-09	4.032E-09	2.544E-09	1.938E-09	1.587E-09
SSW	3.533E-07	9.051E-08	3.251E-08	1.830E-08	1.230E-08	6.289E-09	2.815E-09	1.639E-09	1.161E-09	8.982E-10
SW	3.444E-07	1.121E-07	4.526E-08	2.510E-08	1.622E-08	7.400E-09	2.636E-09	1.246E-09	7.607E-10	5.242E-10
WSW	2.513E-07	7.999E-08	3.182E-08	1.760E-08	1.149E-08	5.334E-09	1.954E-09	9.621E-10	6.037E-10	4.194E-10
W	3.225E-07	9.806E-08	3.805E-08	2.095E-08	1.354E-08	6.425E-09	2.560E-09	1.313E-09	7.991E-10	5.360E-10
WNW	4.272E-07	1.289E-07	5.057E-08	2.821E-08	1.844E-08	9.077E-09	3.910E-09	2.069E-09	1.251E-09	8.432E-10
NW	4.769E-07	1.459E-07	5.758E-08	3.209E-08	2.102E-08	1.019E-08	4.265E-09	2.337E-09	1.489E-09	1.018E-09
NNW	4.035E-07	1.240E-07	5.049E-08	2.873E-08	1.915E-08	9.620E-09	4.196E-09	2.247E-09	1.367E-09	9.203E-10

Insert Table 2.7-xxx Annual Average D/Q Values for Mixed-Mode Release from the Turbine Building Stack (Sheet 1 of 3) (1985-1989)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors												
Sector	Distance in Miles from the Site											
	0.25	0.5	0.75	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	
N	2.765E-08	1.153E-08	7.216E-09	3.951E-09	1.625E-09	8.936E-10	5.656E-10	3.900E-10	2.846E-10	2.164E-10	1.697E-10	
NNE	5.129E-08	2.093E-08	1.227E-08	6.502E-09	2.568E-09	1.388E-09	8.697E-10	5.958E-10	4.371E-10	3.353E-10	2.624E-10	
NE	6.475E-08	2.432E-08	1.330E-08	6.599E-09	2.436E-09	1.249E-09	7.543E-10	5.040E-10	3.602E-10	2.702E-10	2.103E-10	
ENE	4.778E-08	1.835E-08	1.017E-08	5.090E-09	1.892E-09	9.768E-10	5.931E-10	3.978E-10	2.851E-10	2.144E-10	1.670E-10	
E	3.941E-08	1.587E-08	8.962E-09	4.513E-09	1.672E-09	8.643E-10	5.256E-10	3.531E-10	2.536E-10	1.910E-10	1.491E-10	
ESE	3.832E-08	1.556E-08	8.798E-09	4.425E-09	1.634E-09	8.431E-10	5.120E-10	3.438E-10	2.468E-10	1.859E-10	1.452E-10	
SE	3.211E-08	1.300E-08	7.355E-09	3.706E-09	1.372E-09	7.094E-10	4.314E-10	2.899E-10	2.082E-10	1.569E-10	1.225E-10	
SSE	3.073E-08	1.188E-08	6.595E-09	3.298E-09	1.222E-09	6.298E-10	3.820E-10	2.561E-10	1.835E-10	1.380E-10	1.075E-10	
S	2.532E-08	9.258E-09	4.993E-09	2.456E-09	9.030E-10	4.602E-10	2.768E-10	1.843E-10	1.313E-10	9.831E-11	7.635E-11	
SSW	2.053E-08	7.652E-09	4.146E-09	2.039E-09	7.477E-10	3.803E-10	2.283E-10	1.519E-10	1.082E-10	8.103E-11	6.296E-11	
SW	2.861E-08	1.292E-08	8.666E-09	4.786E-09	1.980E-09	1.079E-09	6.775E-10	4.647E-10	3.381E-10	2.567E-10	2.013E-10	
WSW	1.856E-08	8.272E-09	5.513E-09	3.041E-09	1.256E-09	6.867E-10	4.324E-10	2.971E-10	2.165E-10	1.645E-10	1.335E-10	
W	2.451E-08	1.109E-08	6.617E-09	3.708E-09	1.482E-09	7.895E-10	4.882E-10	3.315E-10	2.397E-10	1.812E-10	1.418E-10	
WNW	2.936E-08	1.354E-08	8.467E-09	4.474E-09	1.784E-09	9.530E-10	5.909E-10	4.021E-10	2.911E-10	2.204E-10	1.725E-10	
NW	2.813E-08	1.310E-08	8.119E-09	4.721E-09	1.914E-09	1.030E-09	6.416E-10	4.378E-10	3.176E-10	2.407E-10	1.886E-10	
NNW	2.201E-08	8.907E-09	5.592E-09	3.098E-09	1.294E-09	7.174E-10	4.563E-10	3.155E-10	2.306E-10	1.754E-10	1.416E-10	

Insert Table 2.7-xxx Annual Average D/Q Values for Mixed-Mode Release from the Turbine Building Stack (Sheet 2 of 3) (1985-1989)

Relative Deposition per Unit Area ( $\text{m}^{-2}$ ) at Fixed Points by Downwind Sectors												
Sector	Distance in Miles from the Site											
	5	7.5	10	15	20	25	30	35	40	45	50	
N	1.364E-10	6.574E-11	3.996E-11	2.105E-11	2.895E-11	2.092E-11	1.361E-11	1.056E-11	8.277E-12	6.632E-12	5.417E-12	
NNE	2.107E-10	9.883E-11	5.986E-11	3.098E-11	1.950E-11	1.378E-11	1.050E-11	8.413E-12	6.976E-12	5.945E-12	5.189E-12	
NE	1.683E-10	7.727E-11	4.722E-11	2.456E-11	1.539E-11	1.090E-11	8.410E-12	6.876E-12	5.845E-12	5.089E-12	4.558E-12	
ENE	1.339E-10	6.177E-11	3.780E-11	1.972E-11	1.240E-11	8.871E-12	6.932E-12	5.752E-12	4.958E-12	4.373E-12	3.970E-12	
E	1.197E-10	5.551E-11	3.412E-11	1.794E-11	1.127E-11	8.109E-12	6.156E-12	4.855E-12	3.938E-12	3.263E-12	2.755E-12	
ESE	1.166E-10	5.409E-11	3.330E-11	1.752E-11	1.103E-11	7.967E-12	6.093E-12	4.858E-12	3.998E-12	3.425E-12	3.212E-12	
SE	9.837E-11	4.570E-11	2.807E-11	1.479E-11	9.318E-12	6.704E-12	5.267E-12	4.368E-12	3.782E-12	3.359E-12	3.062E-12	
SSE	8.619E-11	3.991E-11	2.449E-11	1.278E-11	8.090E-12	5.787E-12	9.466E-12	1.413E-11	1.202E-11	9.480E-12	7.206E-12	
S	6.103E-11	2.786E-11	1.703E-11	8.808E-12	5.503E-12	3.905E-12	3.037E-12	2.521E-12	3.209E-12	3.650E-12	5.129E-12	
SSW	5.036E-11	2.303E-11	1.408E-11	7.300E-12	4.574E-12	3.248E-12	2.514E-12	2.067E-12	1.774E-12	1.705E-12	1.993E-12	
SW	1.619E-10	7.624E-11	4.581E-11	2.359E-11	1.475E-11	1.031E-11	7.719E-12	6.045E-12	4.906E-12	4.128E-12	3.646E-12	
WSW	1.073E-10	5.018E-11	2.988E-11	1.523E-11	9.519E-12	6.752E-12	6.160E-12	5.460E-12	4.419E-12	3.579E-12	2.971E-12	
W	1.139E-10	5.332E-11	3.228E-11	2.195E-11	1.703E-11	1.165E-11	8.529E-12	6.465E-12	5.032E-12	4.023E-12	3.284E-12	
WNW	1.387E-10	6.622E-11	3.962E-11	3.293E-11	2.289E-11	1.552E-11	1.118E-11	8.433E-12	6.563E-12	5.243E-12	4.281E-12	
NW	1.517E-10	7.161E-11	4.338E-11	2.266E-11	2.469E-11	1.806E-11	1.301E-11	9.672E-12	7.554E-12	6.050E-12	4.943E-12	
NNW	1.137E-10	5.372E-11	3.236E-11	2.460E-11	2.173E-11	1.439E-11	1.030E-11	7.814E-12	6.088E-12	4.869E-12	3.976E-12	

Insert Table 2.7-xxx Annual Average D/Q Values for Mixed-Mode Release from the Turbine Building Stack (Sheet 3 of 3) (1985-1989)

Relative Deposition per Unit Area ( $\text{m}^2$ ) at Fixed Points by Downwind Sectors										
Sector	Segment Boundaries in Miles from the Site									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
N	6.723E-09	1.817E-09	5.828E-10	2.887E-10	1.712E-10	6.998E-11	2.876E-11	2.014E-11	1.056E-11	6.669E-12
NNE	1.163E-08	2.918E-09	8.983E-10	4.437E-10	2.648E-10	1.064E-10	3.229E-11	1.399E-11	8.461E-12	5.970E-12
NE	1.277E-08	2.834E-09	7.861E-10	3.670E-10	2.125E-10	8.414E-11	2.552E-11	1.110E-11	6.922E-12	5.116E-12
ENE	9.728E-09	2.196E-09	6.173E-10	2.904E-10	1.688E-10	6.714E-11	2.049E-11	9.037E-12	5.787E-12	4.397E-12
E	8.520E-09	1.944E-09	5.469E-10	2.582E-10	1.507E-10	6.028E-11	1.857E-11	8.171E-12	4.878E-12	3.275E-12
ESE	8.356E-09	1.902E-09	5.330E-10	2.513E-10	1.466E-10	5.874E-11	1.814E-11	8.034E-12	4.883E-12	3.516E-12
SE	6.987E-09	1.596E-09	4.489E-10	2.120E-10	1.237E-10	4.957E-11	1.531E-11	6.827E-12	4.402E-12	3.374E-12
SSE	6.304E-09	1.420E-09	3.977E-10	1.869E-10	1.086E-10	4.334E-11	1.330E-11	7.873E-12	1.199E-11	9.390E-12
S	4.813E-09	1.051E-09	2.887E-10	1.339E-10	7.718E-11	3.042E-11	9.166E-12	3.984E-12	2.931E-12	4.067E-12
SSW	3.989E-09	8.713E-10	2.383E-10	1.103E-10	6.365E-11	2.512E-11	7.594E-12	3.308E-12	2.083E-12	1.832E-12
SW	7.887E-09	2.203E-09	6.995E-10	3.433E-10	2.031E-10	8.175E-11	2.460E-11	1.046E-11	6.089E-12	4.180E-12
WSW	5.027E-09	1.400E-09	4.461E-10	2.197E-10	1.329E-10	5.384E-11	1.595E-11	7.253E-12	5.264E-12	3.603E-12
W	6.317E-09	1.669E-09	5.059E-10	2.437E-10	1.432E-10	5.744E-11	2.206E-11	1.184E-11	6.509E-12	4.048E-12
WNW	7.819E-09	2.012E-09	6.119E-10	2.959E-10	1.742E-10	7.050E-11	2.995E-11	1.575E-11	8.504E-12	5.278E-12
NW	7.716E-09	2.145E-09	6.637E-10	3.227E-10	1.904E-10	7.686E-11	2.817E-11	1.781E-11	9.820E-12	6.086E-12
NNW	5.220E-09	1.439E-09	4.696E-10	2.338E-10	1.413E-10	5.755E-11	2.505E-11	1.471E-11	7.867E-12	4.899E-12

After the validation process is completed, the processed data are archived and permanently stored electronically.

The objective for the meteorological monitoring program is to maintain data recovery rates of at least 90 percent on an annual basis for all meteorological parameters in order to assess the relative concentrations and doses resulting from accidental or routine releases. Table 6.4-4 provides recovery rates for the meteorological parameters monitored on the onsite meteorological tower. The recovery rates for each parameter, including the joint data recovery of wind speed, wind direction, and  $\Delta T$ , exceed the 90 percent guidance criteria in NRC Regulatory Guide 1.23.

In addition, the onsite meteorological data are considered adequate to represent onsite meteorological conditions as required by 10 CFR 100.10 and 10 CFR 100.20, as well as to make estimates of atmospheric dispersion for design basis accident and routine releases from the reactor.

Therefore,

Insert 1 here.

Meteorological data are available in five different formats: instantaneous values, 1-minute blocked averages, 15-minute rolling averages, 15-minute blocked averages, and 1-hour blocked averages. Routine data summaries are generated for each day, calendar month, and calendar year and then archived on the IPCS computers. In addition, joint frequency distributions of wind speed and wind direction for each Pasquill stability category are created from the 1-hour blocked averages. The format of the annual onsite meteorological data summaries and joint frequency distribution tables conforms to the recommended format found in NRC Regulatory Guide 1.23.

#### 6.4.2 Fermi 3 Construction, Pre-Operational, and Operational Onsite Meteorological Monitoring Program

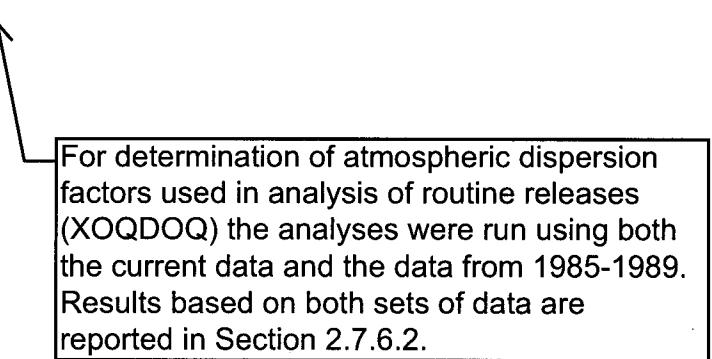
As described in Section 6.4 of NUREG-1555, the current meteorological program establishes a baseline for identifying and assessing the environmental impacts during preapplication meteorological monitoring. The NDCT for Fermi 3 will be built in the approximate location of the current onsite meteorological tower. Thus, a new meteorological tower will be erected in the southeast corner of the Fermi site prior to construction of Fermi 3. The new meteorological tower will be operational for at least one year and possibly two years prior to the decommissioning of the existing onsite meteorological tower. The meteorological data recorded concurrently from the current and new onsite meteorological towers will undergo a detailed analysis to ensure the meteorological parameters measured at the new meteorological tower are representative of the atmospheric conditions at the Fermi site. Actual and perceived data biases between the current and new meteorological towers will be documented and evaluated. The construction, pre-operational, and operational onsite meteorological monitoring program is described in greater detail in the following subsections.

##### 6.4.2.1 Tower and Instrument Siting

The new meteorological tower will be a guyed open-latticed tower built to ANSI/TIA/EIA- 222-G standards and will have a height of 60 m (197 ft). The location of the new onsite meteorological tower in respect to the current onsite meteorological tower and Fermi 3 site layout is provided in Figure 2.1-4. Regulatory Guide 1.23 estimates that a meteorological tower located at least a distance of 10-building-heights horizontal distance downwind from a nearby structure will not have

## **Insert 1**

The meteorological tower is located east of a grove of trees that is located less than ten times the obstruction height recommended in Regulatory Guide 1.23. The impact of the trees, for upwind sectors, is to reduce the indicated wind speed at the 10 meter elevation. Very little impact to the wind speed has been observed at the 60 meter elevation. The SACTI analysis (Section 5.3) uses the data from the 60 meter elevation and, thus, is not impacted by the presence of the trees. For determination of the atmospheric dispersion factors used in the analysis of off-site design basis accident (PAVAN) ~~and routine releases (XOQDOQ)~~, and Severe Accidents (MACCS2), using the lower indicated wind speed provides conservative results.



For determination of atmospheric dispersion factors used in analysis of routine releases (XOQDOQ) the analyses were run using both the current data and the data from 1985-1989. Results based on both sets of data are reported in Section 2.7.6.2.