

from the coal storage area likely overstate actual emission rates. Even so, predicted concentrations would be less than $80 \mu\text{g}/\text{m}^3$ on all but one day per year. Ninety-nine percent (99%) of the time (i.e., 361 of 365 days per year), the maximum predicted contribution to ambient SPM levels due to fugitive coal dust would be less than $27 \mu\text{g}/\text{m}^3$. Furthermore, the predicted SPM concentrations due to fugitive dust from coal and ash storage of $0.5 \mu\text{g}/\text{m}^3$ and $0.3 \mu\text{g}/\text{m}^3$ respectively are negligible at the nearest residential areas west of the plant, and less than $0.2 \mu\text{g}/\text{m}^3$ at the nearest residence east of the plant. Therefore, fugitive dust emissions from the Brandon G.S. alone would not be sufficient to account for the high PM_{10} (and by extension, SPM) concentrations that have been measured in Brandon.

6.5 Trace Contaminants

6.5.1 Mercury

As part of the Canada-wide Standard (CWS) proposed by the Canadian Council of Ministers of the Environment, Manitoba's mercury stack emissions from existing coal-fired electric power generation (EPG) plants are capped, commencing in the year 2010, at 20 kg/year. At this emission rate, the contribution of mercury emissions from the Brandon G.S. to total mercury deposition in the area surrounding the plant represents approximately 2-4% of the total mercury deposition including all global sources.

6.5.2 Other Trace Elements and Compounds

For the remaining trace contaminants in the exhaust emissions (i.e., VOCs, as well as trace organics and inorganics), only HCl, HF, formaldehyde, arsenic, cadmium, copper, lead, nickel, and zinc have established ambient air quality guidelines in Manitoba. The maximum predicted 24-hour average HF concentration is 1.5% of the guideline level. All other constituents are less than 0.1% of the Manitoba guideline values. Comparisons of maximum predicted concentrations for constituents with available air quality criteria from other jurisdictions indicate that all impacts are less than or equal to 0.6% of criteria levels, with the exception of the 1-hour average HF concentration at 3.7% of the Alberta objective level. The potential health impacts of these emissions are addressed in a separate document.

6.6 Greenhouse Gases

At 100% of capacity, the total potential greenhouse gas (GHG) emissions from Unit #5 is estimated at 1.04 megatonnes/year (Mt/yr). For the year 2000, the total emission of GHGs in Manitoba was estimated at 18.2 Mt/yr of CO_2 -equivalent (Manitoba Environment 1998). Thus, the maximum potential GHG emissions from the Brandon G.S. are estimated at 5.7% of

Manitoba's total GHG emissions, but on average the station will produce fewer emissions than this. Total GHG emissions in Manitoba represent approximately 3% of Canada's total GHG emissions, and Canada contributes approximately 2% of the world's GHG emissions.

6.7 COOLING TOWER EMISSIONS

From the modelling that was undertaken it was determined that the potential impact from the cooling tower, it was concluded that the water vapour and dissolved salt emissions have a minimal impact on adjacent areas. Fogging or icing were predicted to occur off-site on approximately 1 hour per year and thus there is only minimal impact on the nearby roads. Assuming that the plant operates 100% of the time, a visible plume from the cooling tower of 500 m in length is predicted to occur up to 175 hours per year, while a plume up to 2 km in length may be visible for up to 88 hours per year. The amount of water and salt that may be deposited from the plume is negligible.

REFERENCES

- ABB Alstom Ltd. 2000. *Expected Performance & Emissions Data*. Document HTCT 676315, July 25, 2000.
- ABB Alstom Ltd. 2002. Emission Compliance Test Report Unit 6 - 1AHX 702 161.
- ABB Alstom Ltd. 2002. Emission Compliance Test Report Unit 7 – 1AHX 702 163.
- Barry, R.G., and R.J. Chorley, 1971. *Atmosphere, Weather and Climate*. Butler & Tanner Ltd., Great Britain.
- Cope, D. and K.K. Bhattacharyya 2001. *A Study of Fugitive Coal Dust Emissions in Canada*. Prepared for the Canadian Council of Ministers of the Environment (CCME). Contract #208-2002.
- Electric Power Research Institute (EPRI) 1984. *User's Manual: Cooling-Tower-Plume Prediction Code*. Prepared by the Argonne National Laboratory, Argonne, IL. EPRI CS-3403-CCM.
- Electric Power Research Institute (EPRI) 1984. *Fugitive Emissions from Coal-Fired Power Plants*. EPRI Report No. CS-3455, 250pp.
- Environment Canada 1998. *Ambient Air Measurements of Polycyclic Aromatic Hydrocarbons (PAH), Polychlorinated Dibenzop-Dioxins (PCDD) and Polychlorinated Dibenzofurans in Canada (1987-1997)*. Environmental Technology Centre, Analysis and Air Quality Division. Report Series No. AAQD 98-3.
- Environment Canada 2005. *Climate Normals 1971 – 2000*.
http://www.climate.weatheroffice.ec.gc.ca/climateData/canada_e.html
- Federal/Provincial Research and Monitoring Coordinating Committee (RMCC) 1990. *Canadian Long Range Transport of Air Pollutants and Acid Deposition Assessment Report. Part 4 - Aquatic Effects*.
- Godish, T., 1991. *Air Quality*. Lewis Publishers Inc., 2nd Edition.
- Janssen et al, 1988. *A Classification of NO Oxidation Rates in Power Plant Plumes Based On Atmospheric Conditions*. Atmospheric Environment **22**, pp. 43 – 53.
- Manitoba Conservation 1995. *Manitoba Ambient Air Quality Data – 1995 Annual Pollutant Summary – Continuous Monitoring*.
<http://www.gov.mb.ca/conservation/airquality/brochures/index.html>

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Manitoba Conservation 1996. Manitoba Ambient Air Quality Data – 1996 Annual Pollutant Summary – Continuous Monitoring.

<http://www.gov.mb.ca/conservation/airquality/brochures/index.html>

Manitoba Conservation 1997. Manitoba Ambient Air Quality Data – 1997 Annual Pollutant Summary – Continuous Monitoring.

<http://www.gov.mb.ca/conservation/airquality/brochures/index.html>

Manitoba Conservation 1998. Manitoba Ambient Air Quality Data – 1998 Annual Pollutant Summary – Continuous Monitoring.

<http://www.gov.mb.ca/conservation/airquality/brochures/index.html>

Manitoba Conservation 1999. Manitoba Ambient Air Quality Data – 1999 Annual Pollutant Summary – Continuous Monitoring.

<http://www.gov.mb.ca/conservation/airquality/brochures/index.html>

Manitoba Conservation 2000. Manitoba Ambient Air Quality Data – 2000 Annual Pollutant Summary – Continuous Monitoring.

<http://www.gov.mb.ca/conservation/airquality/brochures/index.html>

Manitoba Conservation 2001. Manitoba Ambient Air Quality Data – 2001 Annual Pollutant Summary – Continuous Monitoring.

<http://www.gov.mb.ca/conservation/airquality/brochures/index.html>

Manitoba Conservation 2002. Manitoba Ambient Air Quality Data – 2002 Annual Pollutant Summary – Continuous Monitoring.

<http://www.gov.mb.ca/conservation/airquality/brochures/index.html>

Manitoba Conservation 2003. Manitoba Ambient Air Quality Data – 2003 Annual Pollutant Summary – Continuous Monitoring (Revised August 2005).

<http://www.gov.mb.ca/conservation/airquality/brochures/index.html>

Manitoba Conservation 2004. Manitoba Ambient Air Quality Data – 2004 Annual Pollutant Summary – Continuous Monitoring (Revised August 2005).

<http://www.gov.mb.ca/conservation/airquality/brochures/index.html>

Manitoba Conservation 2000. Personal communication.

Manitoba Conservation 2005. Personal communication, J. van Dusen.

de Oliveira, S. and R. M. Simonsen, 2003. *Utilization of a Method to Estimate NO₂ Concentrations from a NO_x Simulation for Thermal Power Plants*. Energy, Economic and Global Challenges Environment in the Balance: A&WMA 96th Annual Conference and Exhibition. San Diego, California, June 2003.

Brandon Generating Station Licence Review
Air Quality Impact Assessment

- ORTECH Environmental, 2005. *Comprehensive Stack Gas Emission Testing Program at Manitoba Hydro, Brandon Generating Station, Unit No. 5*. Prepared for Manitoba Hydro, Winnipeg, MB.
- Policastro, A.J., Dunn, W.E. and R.A. Carhart 1994. *A Model for Seasonal And Annual Cooling Tower Impacts*. Atmospheric Environment **28**, pp. 379-395.
- Radojevic, M. 1992. Chapter 3. *SO₂ and NO_x Oxidation Mechanisms in the Atmosphere*. In: Atmospheric Acidity. Sources, Consequences and Abatement. M. Radojevic and R.M. Harrison, eds. Elsevier Science Publishers, London, UK. ISBN 1-85166-777-6
- Seigneur, C., Vijayaraghavan, K., Lohman, K., Karamchandani, P. and C. Scott 2004. *Global Source Attribution for Mercury Deposition in the United States*. Environmental Science & Technology, Vol. 38(2):555-569.
- SENES Consultants Limited (SENES) 2001. *Selkirk Generating Station Fuel Switching Project. Appendix B: Air Quality Impact Assessment Gas Conversion Project*. Prepared for Manitoba Hydro, Winnipeg, MB.
- SENES Consultants Limited (SENES) 2005. *Selkirk Generating Station Licence Review. Appendix E: Air Quality Impact Assessment*. Prepared for Manitoba Hydro, Winnipeg, MB.
- Sullivan, T.M., Lipfert, F.D., Morris, S.M. and S. Renniger 2003. *Assessing the Mercury Health Risks Associated with Coal-fired Power Plants: Impacts of Local Deposition*. Brookhaven National Laboratory, Upton, NY.
- TRC Companies, Inc. 2006. *A User's Guide for the CALMET Meteorological Model*. Atmospheric Studies Group, Lowell, MA. <http://www.src.com/calpuff/calpuff1.htm>.
- UMA Engineering and Jacques Whitford Environment Ltd. 2000. *Environmental Impact Statement: Brandon Generating Station – Combustion Turbine Plant*. Prepared for Manitoba Hydro, Winnipeg, MB.
- U.S. Environmental Protection Agency (US EPA) 2005. *Guideline on Air Quality Model*. <http://www.epa.gov/scram001/tt22.htm>
- U.S. Environmental Protection Agency (US EPA) 1995. *Compilation of Air Pollutant Emission Factors. Volume 1: Stationary Point and Area Sources*. AP-42 Fifth Edition. Office of Air Quality Planning and Standards, Research Triangle Park, NC. <http://www.epa.gov/ttn/chief/ap42/>
- U.S. Environmental Protection Agency (US EPA) 1999. Report to Congress. *Wastes from the Combustion of Fossil Fuels. Volume 2 – Methods, Findings and Recommendations*. Office of Solid Waste and Emergency Response, Washington, DC. EPA 530-R-99-010.

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

- U.S. Environmental Protection Agency (US EPA) 1999. *Technical Background Document for the Report to Congress on Remaining Wastes from Fossil Fuel Combustion: Waste Characterization*. Office of Solid Waste and Emergency Response, Washington, DC. March 15, 1999.
- U.S. Environmental Protection Agency (US EPA) 1998. *Locating and Estimating Air Emissions From Sources of Polycyclic Organic Matter*. Office of Air Quality and Planning, Research Triangle Park, NC. EPA-454/R-98-014.
- U.S. Environmental Protection Agency (EPA), 1998. *A Comparison of CALPUFF with ISC*. Office of Air Quality Planning and Standards.
<http://www.epa.gov/scram001/7thconf/calpuff/calisc3.pdf>
- U.S. Geological Survey (USGS) 1998. *Coal Quality (COALQUAL) Database: Version 2.0*. U.S. Geological Survey Open-File Report 97-134.
- Vickery, P.J., and P.F. Skerlj, 2005. *Hurricane Gust Factors Revisited*. Journal of Structural Engineering, **131**, No. 5. pp. 825-832.
- Watson, J.G., and J.C. Chow, 2000. *Reconciling Urban Fugitive Dust Emissions Inventory and Ambient Source Contribution Estimates: Summary of Current Knowledge and Needed Research*. Desert Research Institute, DRI Document No. 6110.4F, May 2000.

ATTACHMENT A

Sample CALMET Control File

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

CALMET INPUT FILE FOR BRANDON

150 x 150 200 m meteorological grid

Met. stations used: 1 surface, 1 precipitation, and prognostic upper air

----- Run title (3 lines) -----

CALMET MODEL CONTROL FILE

INPUT GROUP: 0 -- Input and Output File Names

Subgroup (a)

Default Name	Type	File Name
GEO.DAT	input	! GEODAT=GEO150.TXT !
SURF.DAT	input	! SRFDAT=SFC.TXT !
CLOUD.DAT	input	* CLDDAT= *
PRECIP.DAT	input	! PRCDAT=PRECIP.TXT !
MM4.DAT	input	! MM4DAT=M3D.DAT !
WT.DAT	input	* WTDAT= *
CALMET.LST	output	! METLST=jan1.LST !
CALMET.DAT	output	! METDAT=jan1.DAT !
PACOUT.DAT	output	* PACDAT= *

All file names will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, file names will be converted to UPPER CASE
T = lower case ! LCFILES = T !
F = UPPER CASE

NUMBER OF UPPER AIR & OVERWATER STATIONS:

Number of upper air stations (NUSTA) No default ! NUSTA = 0 !
Number of overwater met stations
(NOWSTA) No default ! NOWSTA = 0 !

!END!

Subgroup (b)

Upper air files (one per station)

Default Name	Type	File Name
--------------	------	-----------

Subgroup (c)

Overwater station files (one per station)

Default Name	Type	File Name
--------------	------	-----------

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Subgroup (d)

Other file names

Default Name	Type	File Name	
DIAG.DAT	input	* DIADAT=	*
PROG.DAT	input	* PRGDAT=	*
TEST.PRT	output	* TSTPRT=	*
TEST.OUT	output	* TSTOUT=	*
TEST.KIN	output	* TSTKIN=	*
TEST.FRD	output	* TSTFRD=	*
TEST.SLP	output	* TSTSLP=	*

NOTES: (1) File/path names can be up to 70 characters in length
(2) Subgroups (a) and (d) must have ONE 'END' (surround by delimiters) at the end of the group
(3) Subgroups (b) and (c) must have an 'END' (surround by delimiters) at the end of EACH LINE

!END!

INPUT GROUP: 1 -- General run control parameters

Starting date: Year (IBYR) -- No default !IBYR= 2003 !
Month (IBMO) -- No default !IBMO= 1 !
Day (IBDY) -- No default !IBDY= 1 !
Hour (IBHR) -- No default !IBHR= 1 !

Base time zone (IBTZ) -- No default !IBTZ= 6 !
PST = 08, MST = 07
CST = 06, EST = 05

Length of run (hours) (IRLG) -- No default !IRLG= 4344 !

Run type (IRTYPE) -- Default: 1 !IRTYPE= 1 !

0 = Computes wind fields only
1 = Computes wind fields and micrometeorological variables
(u*, w*, L, zi, etc.)
(IRTYPE must be 1 to run CALPUFF or CALGRID)

Compute special data fields required
by CALGRID (i.e., 3-D fields of W wind
components and temperature)
in additional to regular Default: T !LCALGRD = T !

Brandon Generating Station Licence Review
Air Quality Impact Assessment

fields ? (LCALGRD)
(LCALGRD must be T to Run CALGRID)

Flag to stop run after
SETUP phase (ITEST) Default: 2 ! ITEST= 2 !
(Used to allow checking
of the model inputs, files, etc.)
ITEST = 1 - STOPS program after SETUP phase
ITEST = 2 - Continues with execution of
 COMPUTATIONAL phase after SETUP

!END!

INPUT GROUP: 2 -- Map Projection and Grid control parameters

Projection for all (X,Y):

Map projection
(PMAP) Default: UTM ! PMAP = UTM !

UTM : Universal Transverse Mercator
TTM : Tangential Transverse Mercator
LCC : Lambert Conformal Conic
PS : Polar Stereographic
EM : Equatorial Mercator
LAZA : Lambert Azimuthal Equal Area

False Easting and Northing (km) at the projection origin
(Used only if PMAP= TTM, LCC, or LAZA)
(FEAST) Default=0.0 ! FEAST = 0.000 !
(FNORTH) Default=0.0 ! FNORTH = 0.000 !

UTM zone (1 to 60)
(Used only if PMAP=UTM)
(IUTMZN) No Default ! IUTMZN = 14 !

Hemisphere for UTM projection?
(Used only if PMAP=UTM)
(UTMHEM) Default: N ! UTMHEM = N !
N : Northern hemisphere projection
S : Southern hemisphere projection

Latitude and Longitude (decimal degrees) of projection origin
(Used only if PMAP= TTM, LCC, PS, EM, or LAZA)
(RLAT0) No Default ! RLAT0 = 51.4N !
(RLON0) No Default ! RLON0 = 115W !

TTM : RLON0 identifies central (true N/S) meridian of projection
 RLAT0 selected for convenience
LCC : RLON0 identifies central (true N/S) meridian of projection

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

RLAT0 selected for convenience
PS : ROLON0 identifies central (grid N/S) meridian of projection
RLAT0 selected for convenience
EM : ROLON0 identifies central meridian of projection
RLAT0 is REPLACED by 0.0N (Equator)
LAZA: ROLON0 identifies longitude of tangent-point of mapping plane
RLAT0 identifies latitude of tangent-point of mapping plane

Matching parallel(s) of latitude (decimal degrees) for projection

(Used only if PMAP= LCC or PS)

(XLAT1) No Default ! XLAT1 = 30N !
(XLAT2) No Default ! XLAT2 = 60N !

LCC : Projection cone slices through Earth's surface at XLAT1 and XLAT2
PS : Projection plane slices through Earth at XLAT1
(XLAT2 is not used)

Note: Latitudes and longitudes should be positive, and include a
letter N,S,E, or W indicating north or south latitude, and
east or west longitude. For example,
35.9 N Latitude = 35.9N
118.7 E Longitude = 118.7E

Datum-region

The Datum-Region for the coordinates is identified by a character
string. Many mapping products currently available use the model of the
Earth known as the World Geodetic System 1984 (WGS-84). Other local
models may be in use, and their selection in CALMET will make its output
consistent with local mapping products. The list of Datum-Regions with
official transformation parameters is provided by the National Imagery and
Mapping Agency (NIMA).

NIMA Datum - Regions(Examples)

WGS-84 WGS-84 Reference Ellipsoid and Geoid, Global coverage (WGS84)
NAS-C NORTH AMERICAN 1927 Clarke 1866 Spheroid, MEAN FOR CONUS (NAD27)
NAR-C NORTH AMERICAN 1983 GRS 80 Spheroid, MEAN FOR CONUS (NAD83)
NWS-84 NWS 6370KM Radius, Sphere
ESR-S ESRI REFERENCE 6371KM Radius, Sphere

Datum-region for output coordinates

(DATUM) Default: WGS-84 ! DATUM = WGS-G !

Horizontal grid definition:

Rectangular grid defined for projection PMAP,
with X the Easting and Y the Northing coordinate

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

No. X grid cells (NX) No default ! NX = 150 !
No. Y grid cells (NY) No default ! NY = 150 !

Grid spacing (DGRIDKM) No default ! DGRIDKM = 0.2 !
 Units: km

Reference grid coordinate of
SOUTHWEST corner of grid cell (1,1)

X coordinate (XORIGKM) No default ! XORIGKM = 421.000 !
Y coordinate (YORIGKM) No default ! YORIGKM = 5507.000 !
 Units: km

Vertical grid definition:

No. of vertical layers (NZ) No default ! NZ = 12 !

Cell face heights in arbitrary
vertical grid (ZFACE(NZ+1)) No defaults
 Units: m

! ZFACE = 0.,20.,50.,100.,200.,300.,400.,500.,800.,1000.,1500.,2000.,3300. !

!END!

INPUT GROUP: 3 -- Output Options

DISK OUTPUT OPTION

Save met. fields in an unformatted
output file ? (LSAVE) Default: T ! LSAVE = T !
(F = Do not save, T = Save)

Type of unformatted output file:
(IFORMO) Default: 1 ! IFORMO = 1 !

1 = CALPUFF/CALGRID type file (CALMET.DAT)
2 = MESOPUFF-II type file (PACOUT.DAT)

LINE PRINTER OUTPUT OPTIONS:

Print met. fields ? (LPRINT) Default: F ! LPRINT = T !
(F = Do not print, T = Print)
(NOTE: parameters below control which
 met. variables are printed)

Print interval

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

(IPRINF) in hours Default: 1 ! IPRINF = 6 !
(Meteorological fields are printed
every 6 hours)

Specify which layers of U, V wind component
to print (IUVOUT(NZ)) -- NOTE: NZ values must be entered
(0=Do not print, 1=Print)
(used only if LPRINT=T) Defaults: NZ*0
! IUVOUT = 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 !

Specify which levels of the W wind component to print
(NOTE: W defined at TOP cell face -- 12 values)
(IWOUT(NZ)) -- NOTE: NZ values must be entered
(0=Do not print, 1=Print)
(used only if LPRINT=T & LCALGRD=T)

 Defaults: NZ*0
! IWOUT = 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 !

Specify which levels of the 3-D temperature field to print
(ITOUT(NZ)) -- NOTE: NZ values must be entered
(0=Do not print, 1=Print)
(used only if LPRINT=T & LCALGRD=T)

 Defaults: NZ*0
! ITOUT = 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 !

Specify which meteorological fields
to print
(used only if LPRINT=T) Defaults: 0 (all variables)

Variable	Print ?
	(0 = do not print, 1 = print)

! STABILITY =	1	! - PGT stability class
! USTAR =	1	! - Friction velocity
! MONIN =	1	! - Monin-Obukhov length
! MIXHT =	1	! - Mixing height
! WSTAR =	1	! - Convective velocity scale
! PRECIP =	1	! - Precipitation rate
! SENSHEAT =	0	! - Sensible heat flux
! CONVZI =	0	! - Convective mixing ht.

Testing and debug print options for micrometeorological module

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Print input meteorological data and
internal variables (LDB) Default: F ! LDB = T !
(F = Do not print, T = print)
(NOTE: this option produces large amounts of output)

First time step for which debug data
are printed (NN1) Default: 1 ! NN1 = 1 !

Last time step for which debug data
are printed (NN2) Default: 1 ! NN2 = 1 !

Testing and debug print options for wind field module
(all of the following print options control output to
wind field module's output files: TEST.PRT, TEST.OUT,
TEST.KIN, TEST.FRD, and TEST.SLP)

Control variable for writing the test/debug
wind fields to disk files (IOUTD)
(0=Do not write, 1=write) Default: 0 ! IOUTD = 0 !

Number of levels, starting at the surface,
to print (NZPRN2) Default: 1 ! NZPRN2 = 0 !

Print the INTERPOLATED wind components ?
(IPR0) (0=no, 1=yes) Default: 0 ! IPR0 = 0 !

Print the TERRAIN ADJUSTED surface wind
components ?
(IPR1) (0=no, 1=yes) Default: 0 ! IPR1 = 0 !

Print the SMOOTHED wind components and
the INITIAL DIVERGENCE fields ?
(IPR2) (0=no, 1=yes) Default: 0 ! IPR2 = 0 !

Print the FINAL wind speed and direction
fields ?
(IPR3) (0=no, 1=yes) Default: 0 ! IPR3 = 0 !

Print the FINAL DIVERGENCE fields ?
(IPR4) (0=no, 1=yes) Default: 0 ! IPR4 = 0 !

Print the winds after KINEMATIC effects
are added ?
(IPR5) (0=no, 1=yes) Default: 0 ! IPR5 = 0 !

Print the winds after the FROUDE NUMBER
adjustment is made ?
(IPR6) (0=no, 1=yes) Default: 0 ! IPR6 = 0 !

Print the winds after SLOPE FLOWS
are added ?
(IPR7) (0=no, 1=yes) Default: 0 ! IPR7 = 0 !

Brandon Generating Station Licence Review
Air Quality Impact Assessment

Print the FINAL wind field components ?
(IPR8) (0=no, 1=yes) Default: 0 ! IPR8 = 0 !

!END!

INPUT GROUP: 4 -- Meteorological data options

NO OBSERVATION MODE (NOOBS) Default: 0 !NOOBS = 1 !
0 = Use surface, overwater, and upper air stations
1 = Use surface and overwater stations (no upper air observations)
 Use MM5 for upper air data
2 = No surface, overwater, or upper air observations
 Use MM5 for surface, overwater, and upper air data

NUMBER OF SURFACE & PRECIP. METEOROLOGICAL STATIONS

Number of surface stations (NSSTA) No default !NSSTA = 1 !

Number of precipitation stations
(NPSTA=-1: flag for use of MM5 precip data)
(NPSTA) No default !NPSTA = 1 !

CLOUD DATA OPTIONS

Gridded cloud fields:
(ICLOUD) Default: 0 !ICLOUD = 0 !
ICLOUD = 0 - Gridded clouds not used
ICLOUD = 1 - Gridded CLOUD.DAT generated as OUTPUT
ICLOUD = 2 - Gridded CLOUD.DAT read as INPUT
ICLOUD = 3 - Gridded cloud cover from Prognostic Rel. Humidity

FILE FORMATS

Surface meteorological data file format
(IFORMS) Default: 2 !IFORMS = 2 !
(1 = unformatted (e.g., SMERGE output))
(2 = formatted (free-formatted user input))

Precipitation data file format
(IFORMP) Default: 2 !IFORMP = 2 !
(1 = unformatted (e.g., PMERGE output))
(2 = formatted (free-formatted user input))

Cloud data file format
(IFORMC) Default: 2 !IFORMC = 2 !
(1 = unformatted - CALMET unformatted output)
(2 = formatted - free-formatted CALMET output or user input)

!END!

Brandon Generating Station Licence Review
Air Quality Impact Assessment

INPUT GROUP: 5 -- Wind Field Options and Parameters

WIND FIELD MODEL OPTIONS

Model selection variable (IWFCOD) Default: 1 ! IWFCOD = 1 !
0 = Objective analysis only
1 = Diagnostic wind module

Compute Froude number adjustment
effects ? (IFRADJ) Default: 1 ! IFRADJ = 1 !
(0 = NO, 1 = YES)

Compute kinematic effects ? (IKINE) Default: 0 ! IKINE = 0 !
(0 = NO, 1 = YES)

Use O'Brien procedure for adjustment
of the vertical velocity ? (IOBR) Default: 0 ! IOBR = 0 !
(0 = NO, 1 = YES)

Compute slope flow effects ? (ISLOPE) Default: 1 ! ISLOPE = 1 !
(0 = NO, 1 = YES)

Extrapolate surface wind observations
to upper layers ? (IEXTRP) Default: -4 ! IEXTRP = 4 !
(1 = no extrapolation is done,
2 = power law extrapolation used,
3 = user input multiplicative factors
for layers 2 - NZ used (see FEXTRP array)
4 = similarity theory used
-1, -2, -3, -4 = same as above except layer 1 data
at upper air stations are ignored

Extrapolate surface winds even
if calm? (ICALM) Default: 0 ! ICALM = 0 !
(0 = NO, 1 = YES)

Layer-dependent biases modifying the weights of
surface and upper air stations (BIAS(NZ))
-1<=BIAS<=1
Negative BIAS reduces the weight of upper air stations
(e.g. BIAS=-0.1 reduces the weight of upper air stations
by 10%; BIAS= -1, reduces their weight by 100 %)
Positive BIAS reduces the weight of surface stations
(e.g. BIAS= 0.2 reduces the weight of surface stations
by 20%; BIAS=1 reduces their weight by 100%)
Zero BIAS leaves weights unchanged (1/R**2 interpolation)
Default: NZ*0
! BIAS = -1 , -0.5 , -0.2 , 0 , 0 , 1 , 1 , 1 , 1 , 1 , 1 , 1 !

Minimum distance from nearest upper air station
to surface station for which extrapolation

Brandon Generating Station Licence Review
Air Quality Impact Assessment

of surface winds at surface station will be allowed
(RMIN2: Set to -1 for IEXTRP = 4 or other situations
where all surface stations should be extrapolated)
Default: 4. ! RMIN2 = -1.0 !

Use gridded prognostic wind field model
output fields as input to the diagnostic
wind field model (IPROG) Default: 0 ! IPROG = 14 !
(0 = No, [IWFCOD = 0 or 1]
1 = Yes, use CSUMM prog. winds as Step 1 field, [IWFCOD = 0]
2 = Yes, use CSUMM prog. winds as initial guess field [IWFCOD = 1]
3 = Yes, use winds from MM4.DAT file as Step 1 field [IWFCOD = 0]
4 = Yes, use winds from MM4.DAT file as initial guess field [IWFCOD = 1]
5 = Yes, use winds from MM4.DAT file as observations [IWFCOD = 1]
13 = Yes, use winds from MM5.DAT file as Step 1 field [IWFCOD = 0]
14 = Yes, use winds from MM5.DAT file as initial guess field [IWFCOD = 1]
15 = Yes, use winds from MM5.DAT file as observations [IWFCOD = 1]

Timestep (hours) of the prognostic
model input data (ISTEPPG) Default: 1 ! ISTEPPG = 6 !

RADIUS OF INFLUENCE PARAMETERS

Use varying radius of influence Default: F ! LVARY = T!
(if no stations are found within RMAX1, RMAX2,
or RMAX3, then the closest station will be used)

Maximum radius of influence over land
in the surface layer (RMAX1) No default ! RMAX1 = 10. !
Units: km

Maximum radius of influence over land
aloft (RMAX2) No default ! RMAX2 = 50. !
Units: km

Maximum radius of influence over water
(RMAX3) No default ! RMAX3 = 500. !
Units: km

OTHER WIND FIELD INPUT PARAMETERS

Minimum radius of influence used in
the wind field interpolation (RMIN) Default: 0.1 ! RMIN = 0.1 !
Units: km

Radius of influence of terrain
features (TERRAD) No default ! TERRAD = 10. !
Units: km

Relative weighting of the first
guess field and observations in the
SURFACE layer (R1) No default ! R1 = 8. !
(R1 is the distance from an
Units: km
observational station at which the
observation and first guess field are
equally weighted)

Brandon Generating Station Licence Review
Air Quality Impact Assessment

Relative weighting of the first
guess field and observations in the
layers ALOFT (R2) No default ! R2 = 15. !
(R2 is applied in the upper layers Units: km
in the same manner as R1 is used in
the surface layer).

Relative weighting parameter of the
prognostic wind field data (RPROG) No default ! RPROG = 54. !
(Used only if IPROG = 1) Units: km

Maximum acceptable divergence in the
divergence minimization procedure
(DIVLIM) Default: 5.E-6
! DIVLIM= 5.0E-06 !

Maximum number of iterations in the
divergence min. procedure (NITER) Default: 50
! NITER = 50 !

Number of passes in the smoothing
procedure (NSMTH(NZ))
NOTE: NZ values must be entered
Default: 2,(mxnz-1)*4
! NSMTH = 2, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4 !

Maximum number of stations used in
each layer for the interpolation of
data to a grid point (NINTR2(NZ))
NOTE: NZ values must be entered Default: 99.
! NINTR2 = 99,99,99,99,99,99,99,99,99,99,99,99 !

Critical Froude number (CRITFN) Default: 1.0 ! CRITFN = 1. !

Empirical factor controlling the
influence of kinematic effects
(ALPHA) Default: 0.1 ! ALPHA = 0.1 !

Multiplicative scaling factor for
extrapolation of surface observations
to upper layers (FEXTR2(NZ)) Default: NZ*0.0
! FEXTR2 = 0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0. !
(Used only if IEXTRP = 3 or -3)

BARRIER INFORMATION

Number of barriers to interpolation
of the wind fields (NBAR) Default: 0 ! NBAR = 0 !

THE FOLLOWING 4 VARIABLES ARE INCLUDED
ONLY IF NBAR > 0

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

NOTE: NBAR values must be entered No defaults
for each variable Units: km

X coordinate of BEGINNING
of each barrier (XBBAR(NBAR)) ! XBBAR = 0. !
Y coordinate of BEGINNING
of each barrier (YBBAR(NBAR)) ! YBBAR = 0. !

X coordinate of ENDING
of each barrier (XEBAR(NBAR)) ! XEBAR = 0. !
Y coordinate of ENDING
of each barrier (YEBAR(NBAR)) ! YEBAR = 0. !

DIAGNOSTIC MODULE DATA INPUT OPTIONS

Surface temperature (IDIOPT1) Default: 0 ! IDIOPT1 = 0 !
0 = Compute internally from
 hourly surface observations
1 = Read preprocessed values from
 a data file (DIAG.DAT)

Surface met. station to use for
the surface temperature (ISURFT) No default ! ISURFT = 1 !
(Must be a value from 1 to NSSTA)
(Used only if IDIOPT1 = 0)

Domain-averaged temperature lapse
rate (IDIOPT2) Default: 0 ! IDIOPT2 = 0 !
0 = Compute internally from
 twice-daily upper air observations
1 = Read hourly preprocessed values
 from a data file (DIAG.DAT)

Upper air station to use for
the domain-scale lapse rate (IUPT) No default ! IUPT = 0 !
(Must be a value from 1 to NUSTA)
(Used only if IDIOPT2 = 0)

Depth through which the domain-scale
lapse rate is computed (ZUPT) Default: 200. ! ZUPT = 200. !
(Used only if IDIOPT2 = 0) Units: meters

Domain-averaged wind components
(IDIOPT3) Default: 0 ! IDIOPT3 = 0 !
0 = Compute internally from
 twice-daily upper air observations
1 = Read hourly preprocessed values
 a data file (DIAG.DAT)

Upper air station to use for

Brandon Generating Station Licence Review
Air Quality Impact Assessment

the domain-scale winds (IUPWND) Default: -1 ! IUPWND = -1 !
(Must be a value from -1 to NUSTA)
(Used only if IDIOPT3 = 0)

Bottom and top of layer through
which the domain-scale winds
are computed
(ZUPWND(1), ZUPWND(2)) Defaults: 1., 1000.
! ZUPWND= 1., 1000. !
(Used only if IDIOPT3 = 0) Units: meters

Observed surface wind components
for wind field module (IDIOPT4) Default: 0 ! IDIOPT4 = 0 !
0 = Read WS, WD from a surface
data file (SURF.DAT)
1 = Read hourly preprocessed U, V from
a data file (DIAG.DAT)

Observed upper air wind components
for wind field module (IDIOPT5) Default: 0 ! IDIOPT5 = 0 !
0 = Read WS, WD from an upper
air data file (UP1.DAT, UP2.DAT, etc.)
1 = Read hourly preprocessed U, V from
a data file (DIAG.DAT)

LAKE BREEZE INFORMATION

Use Lake Breeze Module (LLBREZE)
Default: F ! LLBREZE = F !

Number of lake breeze regions (NBOX) ! NBOX = 0 !

X Grid line 1 defining the region of interest
! XG1 = 0. !

X Grid line 2 defining the region of interest
! XG2 = 0. !

Y Grid line 1 defining the region of interest
! YG1 = 0. !

Y Grid line 2 defining the region of interest
! YG2 = 0. !

X Point defining the coastline (Straight line)
(XBCST) (KM) Default: none ! XBCST = 0. !

Y Point defining the coastline (Straight line)
(YBCST) (KM) Default: none ! YBCST = 0. !

X Point defining the coastline (Straight line)
(XECST) (KM) Default: none ! XECST = 0. !

Y Point defining the coastline (Straight line)
(YECST) (KM) Default: none ! YECST = 0. !

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Number of stations in the region Default: none ! NLB = 0 !
(Surface stations + upper air stations)

Station ID's in the region (METBXID(NLB))
(Surface stations first, then upper air stations)
! METBXID = 0 !

!END!

INPUT GROUP: 6 -- Mixing Height, Temperature and Precipitation Parameters

EMPIRICAL MIXING HEIGHT CONSTANTS

Neutral, mechanical equation
(CONSTB) Default: 1.41 ! CONSTB = 1.41 !
Convective mixing ht. equation
(CONSTE) Default: 0.15 ! CONSTE = 0.15 !
Stable mixing ht. equation
(CONSTN) Default: 2400. ! CONSTN = 2400.!
Overwater mixing ht. equation
(CONSTW) Default: 0.16 ! CONSTW = 0.16 !
Absolute value of Coriolis
parameter (FCORIOL) Default: 1.E-4 ! FCORIOL = 1.0E-04!
 Units: (1/s)

SPATIAL AVERAGING OF MIXING HEIGHTS

Conduct spatial averaging
(IAVEZI) (0=no, 1=yes) Default: 1 ! IAVEZI = 1 !

Max. search radius in averaging
process (MNMDAV) Default: 1 ! MNMDAV = 3 !
 Units: Grid
 cells
Half-angle of upwind looking cone
for averaging (HAFANG) Default: 30. ! HAFANG = 30. !
 Units: deg.
Layer of winds used in upwind
averaging (ILEVZI) Default: 1 ! ILEVZI = 1 !
(must be between 1 and NZ)

OTHER MIXING HEIGHT VARIABLES

Minimum potential temperature lapse
rate in the stable layer above the
current convective mixing ht. Default: 0.001 ! DPTMIN = 0.001 !
(DPTMIN) Units: deg. K/m
Depth of layer above current conv.

Brandon Generating Station Licence Review
Air Quality Impact Assessment

mixing height through which lapse rate is computed (DZZI) Default: 200. ! DZZI = 200. !
Units: meters

Minimum overland mixing height (ZIMIN) Default: 50. ! ZIMIN = 50. !
Units: meters

Maximum overland mixing height (ZIMAX) Default: 3000. ! ZIMAX = 3000. !
Units: meters

Minimum overwater mixing height (ZIMINW) -- (Not used if observed overwater mixing hts. are used) Default: 50. ! ZIMINW = 50. !
Units: meters

Maximum overwater mixing height (ZIMAXW) -- (Not used if observed overwater mixing hts. are used) Default: 3000. ! ZIMAXW = 3000. !
Units: meters

TEMPERATURE PARAMETERS

3D temperature from observations or from prognostic data? (ITPROG) Default:0 !ITPROG = 1 !

0 = Use Surface and upper air stations
(only if NOOBS = 0)

1 = Use Surface stations (no upper air observations)
Use MM5 for upper air data
(only if NOOBS = 0,1)

2 = No surface or upper air observations
Use MM5 for surface and upper air data
(only if NOOBS = 0,1,2)

Interpolation type
(1 = 1/R ; 2 = 1/R**2) Default:1 !IRAD = 1 !

Radius of influence for temperature interpolation (TRADKM) Default: 500. ! TRADKM = 5. !
Units: km

Maximum Number of stations to include in temperature interpolation (NUMTS) Default: 5 ! NUMTS = 1 !

Conduct spatial averaging of temperatures (IAVET) (0=no, 1=yes) Default: 1 !IAVET = 1 !
(will use mixing ht MNMDAV,HAFANG so make sure they are correct)

Default temperature gradient below the mixing height over water (K/m) (TGDEFB) Default: -.0098 ! TGDEFB = -0.0098 !

Default temperature gradient above the mixing height over water (K/m) (TGDEFA) Default: -.0045 ! TGDEFA = -0.0035 !

Beginning (JWAT1) and ending (JWAT2) land use categories for temperature ! JWAT1 = 55 !

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

interpolation over water -- Make ! JWAT2 = 55 !
bigger than largest land use to disable

PRECIP INTERPOLATION PARAMETERS

Method of interpolation (NFLAGP) Default = 2 ! NFLAGP = 2 !
(1=1/R,2=1/R**2,3=EXP/R**2)
Radius of Influence (km) (SIGMAP) Default = 100.0 ! SIGMAP = 100. !
(0.0 => use half dist. btwn
nearest stns w & w/out
precip when NFLAGP = 3)
Minimum Precip. Rate Cutoff (mm/hr) Default = 0.01 ! CUTP = 0.01 !
(values < CUTP = 0.0 mm/hr)

!END!

INPUT GROUP: 7 -- Surface meteorological station parameters

SURFACE STATION VARIABLES

(One record per station -- 1 records in all)

1	2					
Name	ID	X coord.	Y coord.	Time	Anem.	
		(km)	(km)	zone	Ht.(m)	

! SS1 ='BRAN' 123412 431.800 5529.835 6 10 !

1
Four character string for station name
(MUST START IN COLUMN 9)

2
Five digit integer for station ID

!END!

INPUT GROUP: 8 -- Upper air meteorological station parameters

UPPER AIR STATION VARIABLES

(One record per station -- 0 records in all)

1	2				
Name	ID	X coord.	Y coord.	Time	zone
		(km)	(km)		

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

1
Four character string for station name
(MUST START IN COLUMN 9)

2
Five digit integer for station ID

!END!

INPUT GROUP: 9 -- Precipitation station parameters

PRECIPITATION STATION VARIABLES
(One record per station -- 1 records in all)
(NOT INCLUDED IF NPSTA = 0)

1	2		
Name	Station	X coord.	Y coord.
Code		(km)	(km)

! PS1 = 'BRAN' 123412 431.800 5529.835 !

1
Four character string for station name
(MUST START IN COLUMN 9)

2
Six digit station code composed of state
code (first 2 digits) and station ID (last
4 digits)

!END!

ATTACHMENT B

Sample CALPUFF Control File

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

CALPUFF INPUT FILE FOR BRANDON – NON-REACTIVE GAS

Brandon G.S., Unit 5

Annual Simulation using CALMET met. data

Gridded receptors on 150 x 150 200m grid, and 857 discrete receptors

----- Run title (3 lines) -----

CALPUFF MODEL CONTROL FILE

INPUT GROUP: 0 -- Input and Output File Names

Default Name Type File Name

CALMET.DAT input * METDAT =CALMET.DAT *
or
ISCMET.DAT input * ISCDAT = *
or
PLMMET.DAT input * PLMDAT = *
or
PROFILE.DAT input * PRFDAT = *
SURFACE.DAT input * SFCDAT = *
RESTARTB.DAT input * RSTARTB= *

CALPUFF.LST output ! PUFLST =CALPUFF.LST !
CONC.DAT output ! CONDAT = gas.CON !
DFLX.DAT output ! DFDAT = gas.DRY !
WFLX.DAT output ! WFDAT = gas.WET !

VISB.DAT output * VISDAT = *
RESTARTE.DAT output * RSTARTE= *

Emission Files

PTEMARB.DAT input * PTDAT = *
VOLEMARB.DAT input * VOLDAT = *
BAEMARB.DAT input * ARDAT = *
LNEMARB.DAT input * LNDAT = *

Other Files

OZONE.DAT input * OZDAT = *
VD.DAT input * VDDAT = *
CHEM.DAT input * CHEMDAT= *
H2O2.DAT input * H2O2DAT= *
HILL.DAT input * HILDAT= *
HILLRCT.DAT input * RCTDAT= *
COASTLN.DAT input * CSTDAT= *
FLUXBDY.DAT input * BDYDAT= *
BCON.DAT input * BCNDAT= *
DEBUG.DAT output * DEBUG = *
MASSFLX.DAT output * FLXDAT= *

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

MASSBAL.DAT output * BALDAT= *
FOG.DAT output * FOGDAT= *

All file names will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, file names will be converted to UPPER CASE
T = lower case ! LCFILES = T !
F = UPPER CASE

NOTE: (1) file/path names can be up to 70 characters in length

Provision for multiple input files

Number of CALMET.DAT files for run (NMETDAT)
Default: 1 ! NMETDAT = 2 !

Number of PTEMARB.DAT files for run (NPTDAT)
Default: 0 ! NPTDAT = 0 !

Number of BAEMARB.DAT files for run (NARDAT)
Default: 0 ! NARDAT = 0 !

Number of VOLEMARB.DAT files for run (NVOLDAT)
Default: 0 ! NVOLDAT = 0 !

!END!

Subgroup (0a)

The following CALMET.DAT filenames are processed in sequence if NMETDAT>1

Default Name	Type	File Name
none	input	! METDAT= jan1.dat ! !END!
none	input	! METDAT= jul1.dat ! !END!

INPUT GROUP: 1 -- General run control parameters

Option to run all periods found
in the met. file (METRUN) Default: 0 ! METRUN = 0 !

METRUN = 0 - Run period explicitly defined below
METRUN = 1 - Run all periods in met. file

Starting date: Year (IBYR) -- No default ! IBYR = 2003 !
(used only if Month (IBMO) -- No default ! IBMO = 01 !
METRUN = 0) Day (IBDY) -- No default ! IBDY = 1 !
Hour (IBHR) -- No default ! IBHR = 1 !

Brandon Generating Station Licence Review
Air Quality Impact Assessment

Base time zone (XBTZ) -- No default ! XBTZ = 6.0 !
PST = 8., MST = 7.
CST = 6., EST = 5.

Length of run (hours) (IRLG) -- No default ! IRLG = 8760 !

Number of chemical species (NSPEC)
Default: 5 ! NSPEC = 1 !

Number of chemical species
to be emitted (NSE) Default: 3 ! NSE = 1 !

Flag to stop run after
SETUP phase (ITEST) Default: 2 ! ITEST = 2 !
(Used to allow checking
of the model inputs, files, etc.)
ITEST = 1 - STOPS program after SETUP phase
ITEST = 2 - Continues with execution of program
after SETUP

Restart Configuration:

Control flag (MRESTART) Default: 0 ! MRESTART = 0 !

- 0 = Do not read or write a restart file
- 1 = Read a restart file at the beginning of
the run
- 2 = Write a restart file during run
- 3 = Read a restart file at beginning of run
and write a restart file during run

Number of periods in Restart
output cycle (NRESPD) Default: 0 ! NRESPD = 0 !

- 0 = File written only at last period
- >0 = File updated every NRESPD periods

Meteorological Data Format (METFM)
Default: 1 ! METFM = 1 !

- METFM = 1 - CALMET binary file (CALMET.MET)
- METFM = 2 - ISC ASCII file (ISCMET.MET)
- METFM = 3 - AUSPLUME ASCII file (PLMMET.MET)
- METFM = 4 - CTDM plus tower file (PROFILE.DAT) and
surface parameters file (SURFACE.DAT)

PG sigma-y is adjusted by the factor (AVET/PGTIME)**0.2

Averaging Time (minutes) (AVET)
Default: 60.0 ! AVET = 60. !

PG Averaging Time (minutes) (PGTIME)
Default: 60.0 ! PGTIME = 60. !

!END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

INPUT GROUP: 2 -- Technical options

Vertical distribution used in the
near field (MGAUSS) Default: 1 ! MGAUSS = 1 !
 0 = uniform
 1 = Gaussian

Terrain adjustment method
(MCTADJ) Default: 3 ! MCTADJ = 3 !
 0 = no adjustment
 1 = ISC-type of terrain adjustment
 2 = simple, CALPUFF-type of terrain
 adjustment
 3 = partial plume path adjustment

Subgrid-scale complex terrain
flag (MCTSG) Default: 0 ! MCTSG = 0 !
 0 = not modeled
 1 = modeled

Near-field puffs modeled as
elongated 0 (MSLUG) Default: 0 ! MSLUG = 0 !
 0 = no
 1 = yes (slug model used)

Transitional plume rise modeled ?
(MTRANS) Default: 1 ! MTRANS = 1 !
 0 = no (i.e., final rise only)
 1 = yes (i.e., transitional rise computed)

Stack tip downwash? (MTIP) Default: 1 ! MTIP = 1 !
 0 = no (i.e., no stack tip downwash)
 1 = yes (i.e., use stack tip downwash)

Method used to simulate building
downwash? (MBDW) Default: 1 ! MBDW = 2 !
 1 = ISC method
 2 = PRIME method

Vertical wind shear modeled above
stack top? (MSHEAR) Default: 0 ! MSHEAR = 1 !
 0 = no (i.e., vertical wind shear not modeled)
 1 = yes (i.e., vertical wind shear modeled)

Puff splitting allowed? (MSPLIT) Default: 0 ! MSPLIT = 0 !
 0 = no (i.e., puffs not split)
 1 = yes (i.e., puffs are split)

Brandon Generating Station Licence Review
Air Quality Impact Assessment

Chemical mechanism flag (MCHEM) Default: 1 ! MCHEM = 0 !

- 0 = chemical transformation not modeled
- 1 = transformation rates computed internally (MESOPUFF II scheme)
- 2 = user-specified transformation rates used
- 3 = transformation rates computed internally (RIVAD/ARM3 scheme)
- 4 = secondary organic aerosol formation computed (MESOPUFF II scheme for OH)

Aqueous phase transformation flag (MAQCHEM)

(Used only if MCHEM = 1, or 3) Default: 0 ! MAQCHEM = 0 !

- 0 = aqueous phase transformation not modeled
- 1 = transformation rates adjusted for aqueous phase reactions

Wet removal modeled ? (MWET) Default: 1 ! MWET = 1 !

- 0 = no
- 1 = yes

Dry deposition modeled ? (MDRY) Default: 1 ! MDRY = 1 !

- 0 = no
- 1 = yes
(dry deposition method specified for each species in Input Group 3)

Method used to compute dispersion

coefficients (MDISP) Default: 3 ! MDISP = 2 !

- 1 = dispersion coefficients computed from measured values of turbulence, sigma v, sigma w
- 2 = dispersion coefficients from internally calculated sigma v, sigma w using micrometeorological variables (u*, w*, L, etc.)
- 3 = PG dispersion coefficients for RURAL areas (computed using the ISCST multi-segment approximation) and MP coefficients in urban areas
- 4 = same as 3 except PG coefficients computed using the MESOPUFF II eqns.
- 5 = CTDM sigmas used for stable and neutral conditions. For unstable conditions, sigmas are computed as in MDISP = 3, described above. MDISP = 5 assumes that measured values are read

Sigma-v/sigma-theta, sigma-w measurements used? (MTURBVW)

(Used only if MDISP = 1 or 5) Default: 3 ! MTURBVW = 3 !

- 1 = use sigma-v or sigma-theta measurements from PROFILE.DAT to compute sigma-y (valid for METFM = 1, 2, 3, 4)
- 2 = use sigma-w measurements from PROFILE.DAT to compute sigma-z

Brandon Generating Station Licence Review
Air Quality Impact Assessment

(valid for METFM = 1, 2, 3, 4)

3 = use both sigma-(v/theta) and sigma-w
from PROFILE.DAT to compute sigma-y and sigma-z

(valid for METFM = 1, 2, 3, 4)

4 = use sigma-theta measurements
from PLMMET.DAT to compute sigma-y
(valid only if METFM = 3)

Back-up method used to compute dispersion

when measured turbulence data are

missing (MDISP2) Default: 3 !MDISP2 = 3 !

(used only if MDISP = 1 or 5)

2 = dispersion coefficients from internally calculated
sigma v, sigma w using micrometeorological variables
(u*, w*, L, etc.)

3 = PG dispersion coefficients for RURAL areas (computed using
the ISCST multi-segment approximation) and MP coefficients in
urban areas

4 = same as 3 except PG coefficients computed using
the MESOPUFF II eqns.

PG sigma-y,z adj. for roughness? Default: 0 !MROUGH = 0 !
(MROUGH)

0 = no

1 = yes

Partial plume penetration of Default: 1 !MPARTL = 1 !
elevated inversion?

(MPARTL)

0 = no

1 = yes

Strength of temperature inversion Default: 0 !MTINV = 0 !
provided in PROFILE.DAT extended records?

(MTINV)

0 = no (computed from measured/default gradients)

1 = yes

PDF used for dispersion under convective conditions?

Default: 0 !MPDF = 0 !

(MPDF)

0 = no

1 = yes

Sub-Grid TIBL module used for shore line?

Default: 0 !MSGTIBL = 0 !

(MSGTIBL)

0 = no

1 = yes

Boundary conditions (concentration) modeled?

Default: 0 !MBCON = 0 !

(MBCON)

0 = no

Brandon Generating Station Licence Review
Air Quality Impact Assessment

- 1 = yes, using formatted BCON.DAT file
- 2 = yes, using unformatted CONC.DAT file

Note: MBCON > 0 requires that the last species modeled be 'BCON'. Mass is placed in species BCON when generating boundary condition puffs so that clean air entering the modeling domain can be simulated in the same way as polluted air. Specify zero emission of species BCON for all regular sources.

Analyses of fogging and icing impacts due to emissions from arrays of mechanically-forced cooling towers can be performed using CALPUFF in conjunction with a cooling tower emissions processor (CTEMISS) and its associated postprocessors. Hourly emissions of water vapor and temperature from each cooling tower cell are computed for the current cell configuration and ambient conditions by CTEMISS. CALPUFF models the dispersion of these emissions and provides cloud information in a specialized format for further analysis. Output to FOG.DAT is provided in either 'plume mode' or 'receptor mode' format.

Configure for FOG Model output?

Default: 0 !MFOG = 0 !

(MFOG)

- 0 = no
- 1 = yes - report results in PLUME Mode format
- 2 = yes - report results in RECEPTOR Mode format

Test options specified to see if they conform to regulatory values? (MREG)

Default: 1 !MREG = 0 !

0 = NO checks are made

1 = Technical options must conform to USEPA

Long Range Transport (LRT) guidance

- METFM 1 or 2
- AVET 60. (min)
- PGTIME 60. (min)
- MGAUSS 1
- MCTADJ 3
- MTRANS 1
- MTIP 1
- MCHEM 1 or 3 (if modeling SO_x, NO_x)
- MWET 1
- MDRY 1
- MDISP 2 or 3
- MPDF 0 if MDISP=3
1 if MDISP=2
- MROUGH 0
- MPARTL 1
- SYTDEP 550. (m)
- MHFTSZ 0

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

!END!

INPUT GROUP: 3a, 3b -- Species list

Subgroup (3a)

The following species are modeled:

! CSPEC = Hg ! !END!

SPECIES NAME (Limit: 12 Characters in length)	MODELED (0=NO, 1=YES)	Dry		NUMBER (0=NONE, 1=1st CGRUP, 2=2nd CGRUP, 3= etc.)
		EMITTED (0=NO, 1=YES) 1=COMPUTED-GAS 2=COMPUTED-PARTICLE 3=USER-SPECIFIED)	DEPOSITED (0=NO, 1=1st CGRUP, 2=2nd CGRUP, 3= etc.)	

! Hg = 1, 1, 1, 0 !

!END!

Note: The last species in (3a) must be 'BCON' when using the boundary condition option (MBCON > 0). Species BCON should typically be modeled as inert (no chem transformation or removal).

Subgroup (3b)

The following names are used for Species-Groups in which results for certain species are combined (added) prior to output. The CGRUP name will be used as the species name in output files. Use this feature to model specific particle-size distributions by treating each size-range as a separate species. Order must be consistent with 3(a) above.

*CGRUP = TSP * *END*

INPUT GROUP: 4 -- Map Projection and Grid control parameters

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Projection for all (X,Y):

Map projection

(PMAP) Default: UTM ! PMAP = UTM !

UTM : Universal Transverse Mercator
TTM : Tangential Transverse Mercator
LCC : Lambert Conformal Conic
PS : Polar Stereographic
EM : Equatorial Mercator
LAZA : Lambert Azimuthal Equal Area

False Easting and Northing (km) at the projection origin

(Used only if PMAP= TTM, LCC, or LAZA)

(FEAST) Default=0.0 ! FEAST = 0.000 !

(FNORTH) Default=0.0 ! FNORTH = 0.000 !

UTM zone (1 to 60)

(Used only if PMAP=UTM)

(IUTMZN) No Default ! IUTMZN = 14 !

Hemisphere for UTM projection?

(Used only if PMAP=UTM)

(UTMHEM) Default: N ! UTMHEM = N !

N : Northern hemisphere projection

S : Southern hemisphere projection

Latitude and Longitude (decimal degrees) of projection origin

(Used only if PMAP= TTM, LCC, PS, EM, or LAZA)

(RLAT0) No Default ! RLAT0 = 51.4N !

(RLON0) No Default ! RLON0 = 115.0W !

TTM : RLON0 identifies central (true N/S) meridian of projection

RLAT0 selected for convenience

LCC : RLON0 identifies central (true N/S) meridian of projection

RLAT0 selected for convenience

PS : RLON0 identifies central (grid N/S) meridian of projection

RLAT0 selected for convenience

EM : RLON0 identifies central meridian of projection

RLAT0 is REPLACED by 0.0N (Equator)

LAZA: RLON0 identifies longitude of tangent-point of mapping plane

RLAT0 identifies latitude of tangent-point of mapping plane

Matching parallel(s) of latitude (decimal degrees) for projection

(Used only if PMAP= LCC or PS)

(XLAT1) No Default ! XLAT1 = 30N !

(XLAT2) No Default ! XLAT2 = 60N !

LCC : Projection cone slices through Earth's surface at XLAT1 and XLAT2

PS : Projection plane slices through Earth at XLAT1

(XLAT2 is not used)

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Note: Latitudes and longitudes should be positive, and include a letter N,S,E, or W indicating north or south latitude, and east or west longitude. For example,
35.9 N Latitude = 35.9N
118.7 E Longitude = 118.7E

Datum-region

The Datum-Region for the coordinates is identified by a character string. Many mapping products currently available use the model of the Earth known as the World Geodetic System 1984 (WGS-G). Other local models may be in use, and their selection in CALMET will make its output consistent with local mapping products. The list of Datum-Regions with official transformation parameters is provided by the National Imagery and Mapping Agency (NIMA).

NIMA Datum - Regions(Examples)

WGS-G WGS-84 GRS 80 Spheroid, Global coverage (WGS84)
NAS-C NORTH AMERICAN 1927 Clarke 1866 Spheroid, MEAN FOR CONUS (NAD27)
NWS-27 NWS 6370KM Radius, Sphere
NWS-84 NWS 6370KM Radius, Sphere
ESR-S ESRI REFERENCE 6371KM Radius, Sphere

Datum-region for output coordinates
(DATUM) Default: WGS-G ! DATUM = WGS-G !

METEOROLOGICAL Grid:

Rectangular grid defined for projection PMAP,
with X the Easting and Y the Northing coordinate

No. X grid cells (NX) No default ! NX = 150 !
No. Y grid cells (NY) No default ! NY = 150 !
No. vertical layers (NZ) No default ! NZ = 12 !

Grid spacing (DGRIDKM) No default ! DGRIDKM = 0.2 !
Units: km

Cell face heights
(ZFACE(nz+1)) No defaults
Units: m

! ZFACE = 0.,20.,50.,100.,200.,300.,400.,500.,800.,1000.,1500.,2000.,3300. !

Reference Coordinates
of SOUTHWEST corner of
grid cell(1, 1):

X coordinate (XORIGKM) No default ! XORIGKM = 421.000 !
Y coordinate (YORIGKM) No default ! YORIGKM = 5507.000 !
Units: km

COMPUTATIONAL Grid:

The computational grid is identical to or a subset of the MET. grid.
The lower left (LL) corner of the computational grid is at grid point (IBCOMP, JBCOMP) of the MET. grid. The upper right (UR) corner of the computational grid is at grid point (IECOMP, JECOMP) of the MET. grid. The grid spacing of the computational grid is the same as the MET. grid.

X index of LL corner (IBCOMP) No default ! IBCOMP = 1 !
(1 <= IBCOMP <= NX)

Y index of LL corner (JBCOMP) No default ! JBCOMP = 1 !
(1 <= JBCOMP <= NY)

X index of UR corner (IECOMP) No default ! IECOMP = 150 !
(1 <= IECOMP <= NX)

Y index of UR corner (JECOMP) No default ! JECOMP = 150 !
(1 <= JECOMP <= NY)

SAMPLING Grid (GRIDDED RECEPTORS):

The lower left (LL) corner of the sampling grid is at grid point (IBSAMP, JBSAMP) of the MET. grid. The upper right (UR) corner of the sampling grid is at grid point (IESAMP, JESAMP) of the MET. grid. The sampling grid must be identical to or a subset of the computational grid. It may be a nested grid inside the computational grid. The grid spacing of the sampling grid is DGRIDKM/MESH DN.

Logical flag indicating if gridded
receptors are used (LSAMP) Default: T ! LSAMP = T !
(T=yes, F=no)

X index of LL corner (IBSAMP) No default ! IBSAMP = 1 !
(IBCOMP <= IBSAMP <= IECOMP)

Y index of LL corner (JBSAMP) No default ! JBSAMP = 1 !
(JBCOMP <= JBSAMP <= JECOMP)

X index of UR corner (IESAMP) No default ! IESAMP = 150 !
(IBCOMP <= IESAMP <= IECOMP)

Y index of UR corner (JESAMP) No default ! JESAMP = 150 !
(JBCOMP <= JESAMP <= JECOMP)

Nesting factor of the sampling
grid (MESH DN) Default: 1 ! MESH DN = 1 !

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

(MESH DN is an integer ≥ 1)

!END!

INPUT GROUP: 5 -- Output Options

FILE	* DEFAULT VALUE	* VALUE THIS RUN
Concentrations (ICON)	1	! ICON = 1 !
Dry Fluxes (IDRY)	1	! IDRY = 1 !
Wet Fluxes (IWET)	1	! IWET = 1 !
Relative Humidity (IVIS) (relative humidity file is required for visibility analysis)	1	! IVIS = 0 !
Use data compression option in output file? (LCOMPRS)	Default: T	! LCOMPRS = T !

*

0 = Do not create file, 1 = create file

DIAGNOSTIC MASS FLUX OUTPUT OPTIONS:

Mass flux across specified boundaries
for selected species reported hourly?
(IMFLX) Default: 0 ! IMFLX = 0 !
0 = no
1 = yes (FLUXBDY.DAT and MASSFLX.DAT filenames
are specified in Input Group 0)

Mass balance for each species
reported hourly?
(IMBAL) Default: 0 ! IMBAL = 0 !
0 = no
1 = yes (MASSBAL.DAT filename is
specified in Input Group 0)

LINE PRINTER OUTPUT OPTIONS:

Print concentrations (ICPRT) Default: 0 ! ICPRT = 0 !
Print dry fluxes (IDPRT) Default: 0 ! IDPRT = 0 !
Print wet fluxes (IWPRT) Default: 0 ! IWPRT = 0 !
(0 = Do not print, 1 = Print)

Concentration print interval
(ICFRQ) in hours Default: 1 ! ICFRQ = 24 !

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Dry flux print interval
(IDFRQ) in hours Default: 1 ! IDFRQ = 24 !
Wet flux print interval
(IWFRQ) in hours Default: 1 ! IWFRQ = 24 !

Units for Line Printer Output
(IPRTU) Default: 1 ! IPRTU = 3 !
for for
Concentration Deposition
1 = g/m**3 g/m**2/s
2 = mg/m**3 mg/m**2/s
3 = ug/m**3 ug/m**2/s
4 = ng/m**3 ng/m**2/s
5 = Odour Units

Messages tracking progress of run
written to the screen ?
(IMESG) Default: 2 ! IMESG = 2 !
0 = no
1 = yes (advection step, puff ID)
2 = yes (YYYYJJHH, # old puffs, # emitted puffs)

SPECIES (or GROUP for combined species) LIST FOR OUTPUT OPTIONS

---- CONCENTRATIONS ---- ----- DRY FLUXES ----- ----- WET FLUXES ----- -- MASS FLUX

--
SPECIES
/GROUP PRINTED? SAVED ON DISK? PRINTED? SAVED ON DISK? PRINTED? SAVED ON
DISK? SAVED ON DISK?

! Hg = 1, 1, 0, 1, 0, 1, 0 !

Note: Species BCON (for MBCON > 0) does not need to be saved on disk.

OPTIONS FOR PRINTING "DEBUG" QUANTITIES (much output)

Logical for debug output
(LDEBUG) Default: F ! LDEBUG = F !

First puff to track
(IPFDEB) Default: 1 ! IPFDEB = 1 !

Number of puffs to track
(NPFDEB) Default: 1 ! NPFDEB = 1 !

Met. period to start output
(NN1) Default: 1 ! NN1 = 1 !

Met. period to end output
(NN2) Default: 10 ! NN2 = 10 !

!END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

INPUT GROUP: 6a, 6b, & 6c -- Subgrid scale complex terrain inputs

Subgroup (6a)

Number of terrain features (NHILL) Default: 0 !NHILL = 0 !

Number of special complex terrain
receptors (NCTREC) Default: 0 !NCTREC = 0 !

Terrain and CTSG Receptor data for
CTSG hills input in CTDM format ?
(MHILL) No Default !MHILL = 2 !

- 1 = Hill and Receptor data created
by CTDM processors & read from
HILL.DAT and HILLRCT.DAT files
- 2 = Hill data created by OPTHILL &
input below in Subgroup (6b);
Receptor data in Subgroup (6c)

Factor to convert horizontal dimensions Default: 1.0 !XHILL2M = 0. !
to meters (MHILL=1)

Factor to convert vertical dimensions Default: 1.0 !ZHILL2M = 0. !
to meters (MHILL=1)

X-origin of CTDM system relative to No Default !XCTDMKM = 0.0E00 !
CALPUFF coordinate system, in Kilometers (MHILL=1)

Y-origin of CTDM system relative to No Default !YCTDMKM = 0.0E00 !
CALPUFF coordinate system, in Kilometers (MHILL=1)

! END !

Subgroup (6b)

1 **
HILL information

HILL	XC	YC	THETAH	ZGRID	RELIEF	EXPO 1	EXPO 2	SCALE 1	SCALE 2	AMAX1
AMAX2										
NO.	(km)	(km)	(deg.)	(m)	(m)	(m)	(m)	(m)	(m)	(m)

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Subgroup (6c)

COMPLEX TERRAIN RECEPTOR INFORMATION

XRCT	YRCT	ZRCT	XHH
(km)	(km)	(m)	
-----	-----	-----	-----

1

Description of Complex Terrain Variables:

- XC, YC = Coordinates of center of hill
- THETAH = Orientation of major axis of hill (clockwise from North)
- ZGRID = Height of the 0 of the grid above mean sea level
- RELIEF = Height of the crest of the hill above the grid elevation
- EXPO 1 = Hill-shape exponent for the major axis
- EXPO 2 = Hill-shape exponent for the major axis
- SCALE 1 = Horizontal length scale along the major axis
- SCALE 2 = Horizontal length scale along the minor axis
- AMAX = Maximum allowed axis length for the major axis
- BMAX = Maximum allowed axis length for the major axis

- XRCT, YRCT = Coordinates of the complex terrain receptors
- ZRCT = Height of the ground (MSL) at the complex terrain Receptor
- XHH = Hill number associated with each complex terrain receptor
(NOTE: MUST BE ENTERED AS A REAL NUMBER)

**

NOTE: DATA for each hill and CTSG receptor are treated as a separate input subgroup and therefore must end with an input group terminator.

INPUT GROUP: 7 -- Chemical parameters for dry deposition of gases

SPECIES LAW COEFFICIENT	DIFFUSIVITY (cm**2/s)	ALPHA STAR	REACTIVITY (s/cm)	MESOPHYLL RESISTANCE (dimensionless)	HENRY'S
NAME					
! Hg =	0.1509,	1000.,	8.,	0.,	0.04 !
!END!					

INPUT GROUP: 8 -- Size parameters for dry deposition of particles

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

For SINGLE SPECIES, the mean and standard deviation are used to compute a deposition velocity for NINT (see group 9) size-ranges, and these are then averaged to obtain a mean deposition velocity.

For GROUPED SPECIES, the size distribution should be explicitly specified (by the 'species' in the group), and the standard deviation for each should be entered as 0. The model will then use the deposition velocity for the stated mean diameter.

SPECIES NAME	GEOMETRIC MASS MEAN DIAMETER (microns)	GEOMETRIC STANDARD DEVIATION (microns)
-----	-----	-----

!END!

INPUT GROUP: 9 -- Miscellaneous dry deposition parameters

Reference cuticle resistance (s/cm)
(RCUTR) Default: 30 ! RCUTR = 30.0 !
Reference ground resistance (s/cm)
(RGR) Default: 10 ! RGR = 10.0 !
Reference pollutant reactivity
(REACTR) Default: 8 ! REACTR = 8.0 !

Number of particle-size intervals used to
evaluate effective particle deposition velocity
(NINT) Default: 9 ! NINT = 9 !

Vegetation state in unirrigated areas
(IVEG) Default: 1 ! IVEG = 1 !
IVEG=1 for active and unstressed vegetation
IVEG=2 for active and stressed vegetation
IVEG=3 for inactive vegetation

!END!

INPUT GROUP: 10 -- Wet Deposition Parameters

Scavenging Coefficient -- Units: (sec)**(-1)

Pollutant	Liquid Precip.	Frozen Precip.
-----	-----	-----
! Hg =	2.5E-04,	5.0E-05 !

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

!END!

INPUT GROUP: 11 -- Chemistry Parameters

Ozone data input option (MOZ) Default: 1 ! MOZ = 0 !
(Used only if MCHEM = 1, 3, or 4)
0 = use a monthly background ozone value
1 = read hourly ozone concentrations from
the OZONE.DAT data file

Monthly ozone concentrations
(Used only if MCHEM = 1, 3, or 4 and
MOZ = 0 or MOZ = 1 and all hourly O3 data missing)
(BCKO3) in ppb Default: 12*80.
! BCKO3 = 30.00, 30.00, 30.00, 30.00, 30.00, 30.00, 30.00, 30.00, 30.00, 30.00, 30.00, 30.00 !

Monthly ammonia concentrations
(Used only if MCHEM = 1, or 3)
(BCKNH3) in ppb Default: 12*10.
! BCKNH3 = 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00 !

Nighttime SO2 loss rate (RNITE1)
in percent/hour Default: 0.2 ! RNITE1 = .2 !

Nighttime NOx loss rate (RNITE2)
in percent/hour Default: 2.0 ! RNITE2 = 2.0 !

Nighttime HNO3 formation rate (RNITE3)
in percent/hour Default: 2.0 ! RNITE3 = 2.0 !

H2O2 data input option (MH2O2) Default: 1 ! MH2O2 = 1 !
(Used only if MAQCHEM = 1)
0 = use a monthly background H2O2 value
1 = read hourly H2O2 concentrations from
the H2O2.DAT data file

Monthly H2O2 concentrations
(Used only if MQACHEM = 1 and
MH2O2 = 0 or MH2O2 = 1 and all hourly H2O2 data missing)
(BCKH2O2) in ppb Default: 12*1.
! BCKH2O2 = 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00 !

--- Data for SECONDARY ORGANIC AEROSOL (SOA) Option
(used only if MCHEM = 4)

The SOA module uses monthly values of:
Fine particulate concentration in ug/m³ (BCKPMF)
Organic fraction of fine particulate (OFRAC)
VOC / NOX ratio (after reaction) (VCNX)

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

to characterize the air mass when computing
the formation of SOA from VOC emissions.
Typical values for several distinct air mass types are:

Month	1	2	3	4	5	6	7	8	9	10	11	12
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Clean Continental

BCKPMF	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
OFRAC	.15	.15	.20	.20	.20	.20	.20	.20	.20	.20	.20	.15
VCNX	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.

Clean Marine (surface)

BCKPMF	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5
OFRAC	.25	.25	.30	.30	.30	.30	.30	.30	.30	.30	.30	.25
VCNX	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.	50.

Urban - low biogenic (controls present)

BCKPMF	30.	30.	30.	30.	30.	30.	30.	30.	30.	30.	30.	30.
OFRAC	.20	.20	.25	.25	.25	.25	.25	.25	.20	.20	.20	.20
VCNX	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.

Urban - high biogenic (controls present)

BCKPMF	60.	60.	60.	60.	60.	60.	60.	60.	60.	60.	60.	60.
OFRAC	.25	.25	.30	.30	.30	.55	.55	.55	.35	.35	.35	.25
VCNX	15.	15.	15.	15.	15.	15.	15.	15.	15.	15.	15.	15.

Regional Plume

BCKPMF	20.	20.	20.	20.	20.	20.	20.	20.	20.	20.	20.	20.
OFRAC	.20	.20	.25	.35	.25	.40	.40	.40	.30	.30	.30	.20
VCNX	15.	15.	15.	15.	15.	15.	15.	15.	15.	15.	15.	15.

Urban - no controls present

BCKPMF	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
OFRAC	.30	.30	.35	.35	.35	.55	.55	.55	.35	.35	.35	.30
VCNX	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.

Default: Clean Continental

! BCKPMF = 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00 !
 ! OFRAC = 0.15, 0.15, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.15 !
 ! VCNX = 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00 !

!END!

 INPUT GROUP: 12 -- Misc. Dispersion and Computational Parameters

Horizontal size of puff (m) beyond which
time-dependent dispersion equations (Heffter)

Brandon Generating Station Licence Review
Air Quality Impact Assessment

are used to determine sigma-y and
sigma-z (SYTDEP) Default: 550. ! SYTDEP = 5.5E02 !

Switch for using Heffter equation for sigma z
as above (0 = Not use Heffter; 1 = use Heffter
(MHFTSZ) Default: 0 ! MHFTSZ = 0 !

Stability class used to determine plume
growth rates for puffs above the boundary
layer (JSUP) Default: 5 ! JSUP = 5 !

Vertical dispersion constant for stable
conditions (k1 in Eqn. 2.7-3) (CONK1) Default: 0.01 ! CONK1 = .01 !

Vertical dispersion constant for neutral/
unstable conditions (k2 in Eqn. 2.7-4)
(CONK2) Default: 0.1 ! CONK2 = .1 !

Factor for determining Transition-point from
Schulman-Scire to Huber-Snyder Building Downwash
scheme (SS used for $H_s < H_b + TBD * HL$)
(TBD) Default: 0.5 ! TBD = .5 !
TBD < 0 ==> always use Huber-Snyder
TBD = 1.5 ==> always use Schulman-Scire
TBD = 0.5 ==> ISC Transition-point

Range of land use categories for which
urban dispersion is assumed
(IURB1, IURB2) Default: 10 ! IURB1 = 10 !
19 ! IURB2 = 19 !

Site characterization parameters for single-point Met data files -----
(needed for METFM = 2,3,4)

Land use category for modeling domain
(ILANDUIN) Default: 20 ! ILANDUIN = 20 !

Roughness length (m) for modeling domain
(Z0IN) Default: 0.25 ! Z0IN = .25 !

Leaf area index for modeling domain
(XLAIIN) Default: 3.0 ! XLAIIN = 3.0 !

Elevation above sea level (m)
(ELEVIN) Default: 0.0 ! ELEVIN = .0 !

Latitude (degrees) for met location
(XLATIN) Default: -999. ! XLATIN = -999.0 !

Longitude (degrees) for met location
(XLONIN) Default: -999. ! XLONIN = -999.0 !

Specialized information for interpreting single-point Met data files -----

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Anemometer height (m) (Used only if METFM = 2,3)
(ANEMHT) Default: 10. ! ANEMHT = 10.0 !

Form of lateral turbulence data in PROFILE.DAT file
(Used only if METFM = 4 or MTURBVW = 1 or 3)
(ISIGMAV) Default: 1 ! ISIGMAV = 1 !
0 = read sigma-theta
1 = read sigma-v

Choice of mixing heights (Used only if METFM = 4)
(IMIXCTDM) Default: 0 ! IMIXCTDM = 0 !
0 = read PREDICTED mixing heights
1 = read OBSERVED mixing heights

Maximum length of a slug (met. grid units)
(XMXLEN) Default: 1.0 ! XMXLEN = 1.0 !

Maximum travel distance of a puff/slug (in
grid units) during one sampling step
(XSAMLEN) Default: 1.0 ! XSAMLEN = 1.0 !

Maximum Number of slugs/puffs release from
one source during one time step
(MXNEW) Default: 99 ! MXNEW = 99 !

Maximum Number of sampling steps for
one puff/slug during one time step
(MXSAM) Default: 99 ! MXSAM = 5 !

Number of iterations used when computing
the transport wind for a sampling step
that includes gradual rise (for CALMET
and PROFILE winds)
(NCOUNT) Default: 2 ! NCOUNT = 2 !

Minimum sigma y for a new puff/slug (m)
(SYMIN) Default: 1.0 ! SYMIN = 1.0 !

Minimum sigma z for a new puff/slug (m)
(SZMIN) Default: 1.0 ! SZMIN = 1.0 !

Default minimum turbulence velocities
sigma-v and sigma-w for each
stability class (m/s)
(SVMIN(6) and SWMIN(6)) Default SVMIN : .50, .50, .50, .50, .50, .50
Default SWMIN : .20, .12, .08, .06, .03, .016

Stability Class : A B C D E F
--- --- --- --- --- ---
! SVMIN = 0.500, 0.500, 0.500, 0.500, 0.500, 0.500!
! SWMIN = 0.200, 0.120, 0.080, 0.060, 0.030, 0.016!

Divergence criterion for dw/dz across puff
used to initiate adjustment for horizontal

Brandon Generating Station Licence Review
Air Quality Impact Assessment

convergence (1/s)
Partial adjustment starts at CDIV(1), and
full adjustment is reached at CDIV(2)
(CDIV(2)) Default: 0.0,0.0 ! CDIV = .01, .01 !

Minimum wind speed (m/s) allowed for
non-calm conditions. Also used as minimum
speed returned when using power-law
extrapolation toward surface
(WSCALM) Default: 0.5 ! WSCALM = .5 !

Maximum mixing height (m)
(XMAXZI) Default: 3000. ! XMAXZI = 3000.0 !

Minimum mixing height (m)
(XMINZI) Default: 50. ! XMINZI = 50.0 !

Default wind speed classes --
5 upper bounds (m/s) are entered;
the 6th class has no upper limit
(WSCAT(5)) Default :
ISC RURAL : 1.54, 3.09, 5.14, 8.23, 10.8 (10.8+)

Wind Speed Class : 1 2 3 4 5
 --- --- --- --- ---
 ! WSCAT = 1.54, 3.09, 5.14, 8.23, 10.80 !

Default wind speed profile power-law
exponents for stabilities 1-6
(PLX0(6)) Default : ISC RURAL values
ISC RURAL : .07, .07, .10, .15, .35, .55
ISC URBAN : .15, .15, .20, .25, .30, .30

Stability Class : A B C D E F
 --- --- --- --- --- ---
 ! PLX0 = 0.07, 0.07, 0.10, 0.15, 0.35, 0.55 !

Default potential temperature gradient
for stable classes E, F (degK/m)
(PTG0(2)) Default: 0.020, 0.035
 ! PTG0 = 0.020, 0.035 !

Default plume path coefficients for
each stability class (used when option
for partial plume height terrain adjustment
is selected -- MCTADJ=3)
(PPC(6)) Stability Class : A B C D E F
Default PPC : .50, .50, .50, .50, .35, .35
 --- --- --- --- --- ---
 ! PPC = 0.50, 0.50, 0.50, 0.50, 0.35, 0.35 !

Slug-to-puff transition criterion factor
equal to sigma-y/length of slug
(SL2PF) Default: 10. ! SL2PF = 5.0 !

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Puff-splitting control variables -----

VERTICAL SPLIT

Number of puffs that result every time a puff
is split - nsplit=2 means that 1 puff splits
into 2

(NSPLIT) Default: 3 ! NSPLIT = 3 !

Time(s) of a day when split puffs are eligible to
be split once again; this is typically set once
per day, around sunset before nocturnal shear develops.
24 values: 0 is midnight (00:00) and 23 is 11 PM (23:00)
0=do not re-split 1=eligible for re-split

(IRESPLIT(24)) Default: Hour 17 = 1
! IRESPLIT = 0,0 !

Split is allowed only if last hour's mixing
height (m) exceeds a minimum value

(ZISPLIT) Default: 100. ! ZISPLIT = 100.0 !

Split is allowed only if ratio of last hour's
mixing ht to the maximum mixing ht experienced
by the puff is less than a maximum value (this
postpones a split until a nocturnal layer develops)

(ROLDMAX) Default: 0.25 ! ROLDMAX = 0.25 !

HORIZONTAL SPLIT

Number of puffs that result every time a puff
is split - nsplith=5 means that 1 puff splits
into 5

(NSPLITH) Default: 5 ! NSPLITH = 5 !

Minimum sigma-y (Grid Cells Units) of puff
before it may be split

(SYSPLITH) Default: 1.0 ! SYSPLITH = 1.0 !

Minimum puff elongation rate (SYSPLITH/hr) due to
wind shear, before it may be split

(SHSPLITH) Default: 2. ! SHSPLITH = 2.0 !

Minimum concentration (g/m³) of each
species in puff before it may be split
Enter array of NSPEC values; if a single value is
entered, it will be used for ALL species

(CNSPLITH) Default: 1.0E-07 ! CNSPLITH = 1.0E-07 !

Integration control variables -----

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Fractional convergence criterion for numerical SLUG
sampling integration
(EPSSLUG) Default: 1.0e-04 ! EPSSLUG = 1.0E-04 !

Fractional convergence criterion for numerical AREA
source integration
(EPSAREA) Default: 1.0e-06 ! EPSAREA = 1.0E-06 !

Trajectory step-length (m) used for numerical rise
integration
(DSRISE) Default: 1.0 ! DSRISE = 1.0 !

Boundary Condition (BC) Puff control variables -----

Minimum height (m) to which BC puffs are mixed as they are emitted
(MBCON=2 ONLY). Actual height is reset to the current mixing height
at the release point if greater than this minimum.
(HTMINBC) Default: 500. ! HTMINBC = 500. !

Search radius (km) about a receptor for sampling nearest BC puff.
BC puffs are typically emitted with a spacing of one grid cell
length, so the search radius should be greater than DGRIDKM.
(RSAMPBC) Default: 10. ! RSAMPBC = 10. !

Near-Surface depletion adjustment to concentration profile used when
sampling BC puffs?
(MDEPBC) Default: 1 ! MDEPBC = 0. !
0 = Concentration is NOT adjusted for depletion
1 = Adjust Concentration for depletion

!END!

INPUT GROUPS: 13a, 13b, 13c, 13d -- Point source parameters

Subgroup (13a)

Number of point sources with
parameters provided below (NPT1) No default ! NPT1 = 1 !

Units used for point source
emissions below (IPTU) Default: 1 ! IPTU = 1 !
1 = g/s
2 = kg/hr
3 = lb/hr
4 = tons/yr
5 = Odour Unit * m**3/s (vol. flux of odour compound)
6 = Odour Unit * m**3/min

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

7 = metric tons/yr

Number of source-species combinations with variable emissions scaling factors provided below in (13d) (NSPT1) Default: 0 ! NSPT1 = 0 !

Number of point sources with variable emission parameters provided in external file (NPT2) No default ! NPT2 = 0 !

(If NPT2 > 0, these point source emissions are read from the file: PTEMARB.DAT)

!END!

Subgroup (13b)

a
POINT SOURCE: CONSTANT DATA

Source No.	X UTM Coordinate (km)	Y UTM Coordinate (m)	Stack Height (m)	Base Elevation (m)	Stack Diameter (m/s)	Exit Vel. (deg. K)	Exit Temp.	Exit Bldg. Dwash	Emission Rates
------------	-----------------------	----------------------	------------------	--------------------	----------------------	--------------------	------------	------------------	----------------

1 ! SRCNAM = STACK5 !
1 ! X = 436.058, 5521.802, 106.7, 358.8, 3.6, 21.0, 454.0, 1., 1.0 !
1 ! FMFAC = 1.0 !
!END!

a
Data for each source are treated as a separate input subgroup and therefore must end with an input group terminator.

SRCNAM is a 12-character name for a source
(No default)
X is an array holding the source data listed by the column headings
(No default)
SIGYZI is an array holding the initial sigma-y and sigma-z (m)
(Default: 0.,0.)
FMFAC is a vertical momentum flux factor (0. or 1.0) used to represent the effect of rain-caps or other physical configurations that reduce momentum rise associated with the actual exit velocity.
(Default: 1.0 -- full momentum used)

b
0. = No building downwash modeled, 1. = downwash modeled
NOTE: must be entered as a REAL number (i.e., with decimal point)

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

c

An emission rate must be entered for every pollutant modeled.
Enter emission rate of zero for secondary pollutants that are modeled, but not emitted. Units are specified by IPTU (e.g. 1 for g/s).

Subgroup (13c)

BUILDING DIMENSION DATA FOR SOURCES SUBJECT TO DOWNWASH

Source a
No. Effective building height, width, length and X/Y offset (in meters) every 10 degrees. LENGTH, XBADJ, and YBADJ are only needed for MBDW=2 (PRIME downwash option)

```

1 ! SRCNAM = stack5 !
1 ! HEIGHT = 51.0, 51.0, 51.0, 51.0, 51.0, 51.0,
    51.0, 51.0, 51.0, 51.0, 51.0, 51.0,
    51.0, 51.0, 51.0, 51.0, 51.0, 51.0,
    51.0, 51.0, 51.0, 51.0, 51.0, 51.0,
    51.0, 51.0, 51.0, 51.0, 51.0, 51.0 !
! WIDTH = 34.70, 37.34, 38.85, 39.17, 38.31, 36.28,
    33.16, 29.02, 24.00, 29.02, 33.16, 36.28,
    38.31, 39.17, 38.85, 37.34, 34.70, 31.00,
    34.70, 37.34, 38.85, 39.17, 38.31, 36.28,
    33.16, 29.02, 24.00, 29.02, 33.16, 36.28,
    38.31, 39.17, 38.85, 37.34, 34.70, 31.00 !
! LENGTH = 29.02, 33.16, 36.28, 38.31, 39.17, 38.85,
    37.34, 34.70, 31.00, 34.70, 37.34, 38.85,
    39.17, 38.31, 36.28, 33.16, 29.02, 24.00,
    29.02, 33.16, 36.28, 38.31, 39.17, 38.85,
    37.34, 34.70, 31.00, 34.70, 37.34, 38.85,
    39.17, 38.31, 36.28, 33.16, 29.02, 24.00 !
! XBADJ = -22.24, -28.80, -34.49, -39.13, -42.58, -44.74,
    -45.54, -44.95, -43.00, -43.91, -43.48, -41.74,
    -38.72, -34.53, -29.29, -23.16, -16.33, -9.00,
    -6.78, -4.35, -1.79, 0.82, 3.41, 5.89,
    8.20, 10.25, 12.00, 9.21, 6.15, 2.89,
    -0.45, -3.78, -6.99, -9.99, -12.69, -15.00 !
! YBADJ = 26.56, 24.82, 22.32, 19.14, 15.38, 11.15,
    6.59, 1.82, -3.00, -7.73, -12.22, -16.35,
    -19.97, -22.99, -25.32, -26.87, -27.60, -27.50,
    -26.56, -24.82, -22.32, -19.14, -15.38, -11.15,
    -6.59, -1.82, 3.00, 7.73, 12.22, 16.35,
    19.97, 22.99, 25.32, 26.87, 27.60, 27.50 !
! END !

```

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

a

Building height, width, length, and X/Y offset from the source are treated as a separate input subgroup for each source and therefore must end with an input group terminator.

Subgroup (13d)

a

POINT SOURCE: VARIABLE EMISSIONS DATA

Use this subgroup to describe temporal variations in the emission rates given in 13b. Factors entered multiply the rates in 13b. Skip sources here that have constant emissions. For more elaborate variation in source parameters, use PTEMARB.DAT and NPT2 > 0.

IVARY determines the type of variation, and is source-specific:

(IVARY)

Default: 0

- 0 = Constant
- 1 = Diurnal cycle (24 scaling factors: hours 1-24)
- 2 = Monthly cycle (12 scaling factors: months 1-12)
- 3 = Hour & Season (4 groups of 24 hourly scaling factors, where first group is DEC-JAN-FEB)
- 4 = Speed & Stab. (6 groups of 6 scaling factors, where first group is Stability Class A, and the speed classes have upper bounds (m/s) defined in Group 12)
- 5 = Temperature (12 scaling factors, where temperature classes have upper bounds (C) of:
0, 5, 10, 15, 20, 25, 30, 35, 40,
45, 50, 50+)

a

Data for each species are treated as a separate input subgroup and therefore must end with an input group terminator.

INPUT GROUPS: 14a, 14b, 14c, 14d -- Area source parameters

Subgroup (14a)

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Number of polygon area sources with parameters specified below (NAR1) No default ! NAR1 = 0 !

Units used for area source emissions below (IARU) Default: 1 ! IARU = 1 !

- 1 = g/m**2/s
- 2 = kg/m**2/hr
- 3 = lb/m**2/hr
- 4 = tons/m**2/yr
- 5 = Odour Unit * m/s (vol. flux/m**2 of odour compound)
- 6 = Odour Unit * m/min
- 7 = metric tons/m**2/yr

Number of source-species combinations with variable emissions scaling factors provided below in (14d) (NSAR1) Default: 0 ! NSAR1 = 0 !

Number of buoyant polygon area sources with variable location and emission parameters (NAR2) No default ! NAR2 = 0 !
(If NAR2 > 0, ALL parameter data for these sources are read from the file: BAEMARB.DAT)

!END!

Subgroup (14b)

a
AREA SOURCE: CONSTANT DATA

b

Source No.	Effect. Height (m)	Base Elevation (m)	Initial Sigma z (m)	Emission Rates
-----	-----	-----	-----	-----

a
Data for each source are treated as a separate input subgroup and therefore must end with an input group terminator.

b
An emission rate must be entered for every pollutant modeled. Enter emission rate of zero for secondary pollutants that are modeled, but not emitted. Units are specified by IARU (e.g. 1 for g/m**2/s).

Subgroup (14c)

Brandon Generating Station Licence Review
Air Quality Impact Assessment

Subgroup (15a)

Number of buoyant line sources
with variable location and emission
parameters (NLN2) No default ! NLN2 = 0 !

(If NLN2 > 0, ALL parameter data for
these sources are read from the file: LNEMARB.DAT)

Number of buoyant line sources (NLINES) No default ! NLINES = 0 !

Units used for line source
emissions below (ILNU) Default: 1 ! ILNU = 1 !
1 = g/s
2 = kg/hr
3 = lb/hr
4 = tons/yr
5 = Odour Unit * m**3/s (vol. flux of odour compound)
6 = Odour Unit * m**3/min
7 = metric tons/yr

Number of source-species
combinations with variable
emissions scaling factors
provided below in (15c) (NSLN1) Default: 0 ! NSLN1 = 0 !

Maximum number of segments used to model
each line (MXNSEG) Default: 7 ! MXNSEG = 7 !

The following variables are required only if NLINES > 0. They are
used in the buoyant line source plume rise calculations.

Number of distances at which Default: 6 ! NLRISE = 6 !
transitional rise is computed

Average building length (XL) No default ! XL = .0 !
(in meters)

Average building height (HBL) No default ! HBL = .0 !
(in meters)

Average building width (WBL) No default ! WBL = .0 !
(in meters)

Average line source width (WML) No default ! WML = .0 !
(in meters)

Average separation between buildings (DXL) No default ! DXL = .0 !
(in meters)

Average buoyancy parameter (FPRIMEL) No default ! FPRIMEL = .0 !
(in m**4/s**3)

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

!END!

Subgroup (15b)

BUOYANT LINE SOURCE: CONSTANT DATA

Source No.	Beg. X Coordinate (km)	Beg. Y Coordinate (km)	End. X Coordinate (km)	End. Y Coordinate (m)	a		Emission Rates
					Release Height (m)	Base Elevation	

a
Data for each source are treated as a separate input subgroup and therefore must end with an input group terminator.

b
An emission rate must be entered for every pollutant modeled. Enter emission rate of zero for secondary pollutants that are modeled, but not emitted. Units are specified by ILNTU (e.g. 1 for g/s).

Subgroup (15c)

a
BUOYANT LINE SOURCE: VARIABLE EMISSIONS DATA

Use this subgroup to describe temporal variations in the emission rates given in 15b. Factors entered multiply the rates in 15b. Skip sources here that have constant emissions.

IVARY determines the type of variation, and is source-specific:

- (IVARY) Default: 0
- 0 = Constant
 - 1 = Diurnal cycle (24 scaling factors: hours 1-24)
 - 2 = Monthly cycle (12 scaling factors: months 1-12)
 - 3 = Hour & Season (4 groups of 24 hourly scaling factors, where first group is DEC-JAN-FEB)
 - 4 = Speed & Stab. (6 groups of 6 scaling factors, where first group is Stability Class A, and the speed classes have upper bounds (m/s) defined in Group 12)
 - 5 = Temperature (12 scaling factors, where temperature classes have upper bounds (C) of: 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 50+)

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

a
Data for each species are treated as a separate input subgroup
and therefore must end with an input group terminator.

INPUT GROUPS: 16a, 16b, 16c -- Volume source parameters

Subgroup (16a)

Number of volume sources with
parameters provided in 16b,c (NVL1) No default ! NVL1 = 0 !

Units used for volume source
emissions below in 16b (IVLU) Default: 1 ! IVLU = 1 !

- 1 = g/s
- 2 = kg/hr
- 3 = lb/hr
- 4 = tons/yr
- 5 = Odour Unit * m**3/s (vol. flux of odour compound)
- 6 = Odour Unit * m**3/min
- 7 = metric tons/yr

Number of source-species
combinations with variable
emissions scaling factors
provided below in (16c) (NSVL1) Default: 0 ! NSVL1 = 0 !

Number of volume sources with
variable location and emission
parameters (NVL2) No default ! NVL2 = 0 !

(If NVL2 > 0, ALL parameter data for
these sources are read from the VOLEMARB.DAT file(s))

!END!

Subgroup (16b)

a
VOLUME SOURCE: CONSTANT DATA

b

X UTM	Y UTM	Effect.	Base	Initial	Initial	Emission
Coordinate	Coordinate	Height	Elevation	Sigma y	Sigma z	Rates

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

(km) (km) (m) (m) (m) (m)

a

Data for each source are treated as a separate input subgroup and therefore must end with an input group terminator.

b

An emission rate must be entered for every pollutant modeled. Enter emission rate of zero for secondary pollutants that are modeled, but not emitted. Units are specified by IVLU (e.g. 1 for g/s).

Subgroup (16c)

a

VOLUME SOURCE: VARIABLE EMISSIONS DATA

Use this subgroup to describe temporal variations in the emission rates given in 16b. Factors entered multiply the rates in 16b. Skip sources here that have constant emissions. For more elaborate variation in source parameters, use VOLEMARB.DAT and NVL2 > 0.

IVARY determines the type of variation, and is source-specific:
(IVARY) Default: 0

- 0 = Constant
- 1 = Diurnal cycle (24 scaling factors: hours 1-24)
- 2 = Monthly cycle (12 scaling factors: months 1-12)
- 3 = Hour & Season (4 groups of 24 hourly scaling factors, where first group is DEC-JAN-FEB)
- 4 = Speed & Stab. (6 groups of 6 scaling factors, where first group is Stability Class A, and the speed classes have upper bounds (m/s) defined in Group 12)
- 5 = Temperature (12 scaling factors, where temperature classes have upper bounds (C) of:
0, 5, 10, 15, 20, 25, 30, 35, 40,
45, 50, 50+)

a

Data for each species are treated as a separate input subgroup and therefore must end with an input group terminator.

INPUT GROUPS: 17a & 17b -- Non-gridded (discrete) receptor information

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Subgroup (17a)

Number of non-gridded receptors (NREC) No default ! NREC = 852 !

!END!

Subgroup (17b)

a
NON-GRIDDED (DISCRETE) RECEPTOR DATA

Receptor No.	X UTM Coordinate (km)	Y UTM Coordinate (km)	Ground Elevation (m)	Height Above Ground (m)
1 ! X =	422.0000,	5508.0000,	414.675,	1.5 ! !END!
2 ! X =	423.0000,	5508.0000,	413.000,	1.5 ! !END!
3 ! X =	424.0000,	5508.0000,	412.000,	1.5 ! !END!
4 ! X =	425.0000,	5508.0000,	409.949,	1.5 ! !END!
5 ! X =	426.0000,	5508.0000,	407.450,	1.5 ! !END!
6 ! X =	427.0000,	5508.0000,	406.604,	1.5 ! !END!
7 ! X =	428.0000,	5508.0000,	408.928,	1.5 ! !END!
8 ! X =	429.0000,	5508.0000,	425.503,	1.5 ! !END!
9 ! X =	430.0000,	5508.0000,	433.901,	1.5 ! !END!
10 ! X =	431.0000,	5508.0000,	432.707,	1.5 ! !END!
11 ! X =	432.0000,	5508.0000,	448.201,	1.5 ! !END!
12 ! X =	433.0000,	5508.0000,	457.345,	1.5 ! !END!
13 ! X =	434.0000,	5508.0000,	454.815,	1.5 ! !END!
14 ! X =	435.0000,	5508.0000,	444.306,	1.5 ! !END!
15 ! X =	436.0000,	5508.0000,	450.436,	1.5 ! !END!
16 ! X =	437.0000,	5508.0000,	445.074,	1.5 ! !END!
17 ! X =	438.0000,	5508.0000,	415.771,	1.5 ! !END!
18 ! X =	439.0000,	5508.0000,	394.019,	1.5 ! !END!
19 ! X =	440.0000,	5508.0000,	378.861,	1.5 ! !END!
20 ! X =	441.0000,	5508.0000,	373.604,	1.5 ! !END!
21 ! X =	442.0000,	5508.0000,	370.007,	1.5 ! !END!
22 ! X =	443.0000,	5508.0000,	368.907,	1.5 ! !END!
23 ! X =	444.0000,	5508.0000,	367.879,	1.5 ! !END!
24 ! X =	445.0000,	5508.0000,	365.300,	1.5 ! !END!
25 ! X =	446.0000,	5508.0000,	360.849,	1.5 ! !END!
26 ! X =	447.0000,	5508.0000,	357.150,	1.5 ! !END!
27 ! X =	448.0000,	5508.0000,	354.799,	1.5 ! !END!
28 ! X =	449.0000,	5508.0000,	353.122,	1.5 ! !END!
29 ! X =	450.0000,	5508.0000,	344.851,	1.5 ! !END!
30 ! X =	422.0000,	5509.0000,	413.551,	1.5 ! !END!
31 ! X =	423.0000,	5509.0000,	413.000,	1.5 ! !END!
32 ! X =	424.0000,	5509.0000,	414.000,	1.5 ! !END!
33 ! X =	425.0000,	5509.0000,	412.948,	1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

34 ! X = 426.0000, 5509.0000, 409.772, 1.5 ! !END!
35 ! X = 427.0000, 5509.0000, 405.574, 1.5 ! !END!
36 ! X = 428.0000, 5509.0000, 403.528, 1.5 ! !END!
37 ! X = 429.0000, 5509.0000, 399.535, 1.5 ! !END!
38 ! X = 430.0000, 5509.0000, 408.347, 1.5 ! !END!
39 ! X = 431.0000, 5509.0000, 422.634, 1.5 ! !END!
40 ! X = 432.0000, 5509.0000, 421.061, 1.5 ! !END!
41 ! X = 433.0000, 5509.0000, 426.462, 1.5 ! !END!
42 ! X = 434.0000, 5509.0000, 414.814, 1.5 ! !END!
43 ! X = 435.0000, 5509.0000, 407.026, 1.5 ! !END!
44 ! X = 436.0000, 5509.0000, 399.639, 1.5 ! !END!
45 ! X = 437.0000, 5509.0000, 391.278, 1.5 ! !END!
46 ! X = 438.0000, 5509.0000, 374.263, 1.5 ! !END!
47 ! X = 439.0000, 5509.0000, 374.311, 1.5 ! !END!
48 ! X = 440.0000, 5509.0000, 370.451, 1.5 ! !END!
49 ! X = 441.0000, 5509.0000, 368.000, 1.5 ! !END!
50 ! X = 442.0000, 5509.0000, 366.250, 1.5 ! !END!
51 ! X = 443.0000, 5509.0000, 364.750, 1.5 ! !END!
52 ! X = 444.0000, 5509.0000, 364.127, 1.5 ! !END!
53 ! X = 445.0000, 5509.0000, 364.799, 1.5 ! !END!
54 ! X = 446.0000, 5509.0000, 362.699, 1.5 ! !END!
55 ! X = 447.0000, 5509.0000, 357.924, 1.5 ! !END!
56 ! X = 448.0000, 5509.0000, 358.199, 1.5 ! !END!
57 ! X = 449.0000, 5509.0000, 354.152, 1.5 ! !END!
58 ! X = 450.0000, 5509.0000, 343.202, 1.5 ! !END!
59 ! X = 422.0000, 5510.0000, 412.226, 1.5 ! !END!
60 ! X = 423.0000, 5510.0000, 412.000, 1.5 ! !END!
61 ! X = 424.0000, 5510.0000, 414.025, 1.5 ! !END!
62 ! X = 425.0000, 5510.0000, 413.775, 1.5 ! !END!
63 ! X = 426.0000, 5510.0000, 412.251, 1.5 ! !END!
64 ! X = 427.0000, 5510.0000, 407.673, 1.5 ! !END!
65 ! X = 428.0000, 5510.0000, 401.822, 1.5 ! !END!
66 ! X = 429.0000, 5510.0000, 397.750, 1.5 ! !END!
67 ! X = 430.0000, 5510.0000, 396.000, 1.5 ! !END!
68 ! X = 431.0000, 5510.0000, 405.409, 1.5 ! !END!
69 ! X = 432.0000, 5510.0000, 403.136, 1.5 ! !END!
70 ! X = 433.0000, 5510.0000, 411.257, 1.5 ! !END!
71 ! X = 434.0000, 5510.0000, 395.376, 1.5 ! !END!
72 ! X = 435.0000, 5510.0000, 395.526, 1.5 ! !END!
73 ! X = 436.0000, 5510.0000, 379.151, 1.5 ! !END!
74 ! X = 437.0000, 5510.0000, 376.024, 1.5 ! !END!
75 ! X = 438.0000, 5510.0000, 374.522, 1.5 ! !END!
76 ! X = 439.0000, 5510.0000, 373.372, 1.5 ! !END!
77 ! X = 440.0000, 5510.0000, 371.997, 1.5 ! !END!
78 ! X = 441.0000, 5510.0000, 370.298, 1.5 ! !END!
79 ! X = 442.0000, 5510.0000, 367.525, 1.5 ! !END!
80 ! X = 443.0000, 5510.0000, 366.000, 1.5 ! !END!
81 ! X = 444.0000, 5510.0000, 363.726, 1.5 ! !END!
82 ! X = 445.0000, 5510.0000, 366.174, 1.5 ! !END!
83 ! X = 446.0000, 5510.0000, 362.202, 1.5 ! !END!
84 ! X = 447.0000, 5510.0000, 361.024, 1.5 ! !END!
85 ! X = 448.0000, 5510.0000, 359.176, 1.5 ! !END!
86 ! X = 449.0000, 5510.0000, 347.380, 1.5 ! !END!
87 ! X = 450.0000, 5510.0000, 341.200, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

88 ! X = 422.0000, 5511.0000, 410.453, 1.5 ! !END!
89 ! X = 423.0000, 5511.0000, 410.251, 1.5 ! !END!
90 ! X = 424.0000, 5511.0000, 411.403, 1.5 ! !END!
91 ! X = 425.0000, 5511.0000, 412.503, 1.5 ! !END!
92 ! X = 426.0000, 5511.0000, 411.550, 1.5 ! !END!
93 ! X = 427.0000, 5511.0000, 409.276, 1.5 ! !END!
94 ! X = 428.0000, 5511.0000, 406.173, 1.5 ! !END!
95 ! X = 429.0000, 5511.0000, 400.972, 1.5 ! !END!
96 ! X = 430.0000, 5511.0000, 396.475, 1.5 ! !END!
97 ! X = 431.0000, 5511.0000, 395.028, 1.5 ! !END!
98 ! X = 432.0000, 5511.0000, 396.026, 1.5 ! !END!
99 ! X = 433.0000, 5511.0000, 395.627, 1.5 ! !END!
100 ! X = 434.0000, 5511.0000, 393.713, 1.5 ! !END!
101 ! X = 435.0000, 5511.0000, 384.577, 1.5 ! !END!
102 ! X = 436.0000, 5511.0000, 382.570, 1.5 ! !END!
103 ! X = 437.0000, 5511.0000, 380.945, 1.5 ! !END!
104 ! X = 438.0000, 5511.0000, 379.649, 1.5 ! !END!
105 ! X = 439.0000, 5511.0000, 376.024, 1.5 ! !END!
106 ! X = 440.0000, 5511.0000, 374.997, 1.5 ! !END!
107 ! X = 441.0000, 5511.0000, 371.399, 1.5 ! !END!
108 ! X = 442.0000, 5511.0000, 365.378, 1.5 ! !END!
109 ! X = 443.0000, 5511.0000, 366.275, 1.5 ! !END!
110 ! X = 444.0000, 5511.0000, 366.328, 1.5 ! !END!
111 ! X = 445.0000, 5511.0000, 361.110, 1.5 ! !END!
112 ! X = 446.0000, 5511.0000, 357.003, 1.5 ! !END!
113 ! X = 447.0000, 5511.0000, 360.277, 1.5 ! !END!
114 ! X = 448.0000, 5511.0000, 356.228, 1.5 ! !END!
115 ! X = 449.0000, 5511.0000, 343.074, 1.5 ! !END!
116 ! X = 450.0000, 5511.0000, 347.841, 1.5 ! !END!
117 ! X = 422.0000, 5512.0000, 407.702, 1.5 ! !END!
118 ! X = 423.0000, 5512.0000, 407.202, 1.5 ! !END!
119 ! X = 424.0000, 5512.0000, 406.630, 1.5 ! !END!
120 ! X = 425.0000, 5512.0000, 406.006, 1.5 ! !END!
121 ! X = 426.0000, 5512.0000, 407.878, 1.5 ! !END!
122 ! X = 427.0000, 5512.0000, 408.675, 1.5 ! !END!
123 ! X = 428.0000, 5512.0000, 407.049, 1.5 ! !END!
124 ! X = 429.0000, 5512.0000, 402.748, 1.5 ! !END!
125 ! X = 430.0000, 5512.0000, 398.124, 1.5 ! !END!
126 ! X = 431.0000, 5512.0000, 397.649, 1.5 ! !END!
127 ! X = 432.0000, 5512.0000, 390.677, 1.5 ! !END!
128 ! X = 433.0000, 5512.0000, 387.600, 1.5 ! !END!
129 ! X = 434.0000, 5512.0000, 387.721, 1.5 ! !END!
130 ! X = 435.0000, 5512.0000, 389.494, 1.5 ! !END!
131 ! X = 436.0000, 5512.0000, 393.020, 1.5 ! !END!
132 ! X = 437.0000, 5512.0000, 388.739, 1.5 ! !END!
133 ! X = 438.0000, 5512.0000, 383.323, 1.5 ! !END!
134 ! X = 439.0000, 5512.0000, 378.000, 1.5 ! !END!
135 ! X = 440.0000, 5512.0000, 377.001, 1.5 ! !END!
136 ! X = 441.0000, 5512.0000, 368.826, 1.5 ! !END!
137 ! X = 442.0000, 5512.0000, 364.298, 1.5 ! !END!
138 ! X = 443.0000, 5512.0000, 366.000, 1.5 ! !END!
139 ! X = 444.0000, 5512.0000, 366.224, 1.5 ! !END!
140 ! X = 445.0000, 5512.0000, 355.949, 1.5 ! !END!
141 ! X = 446.0000, 5512.0000, 351.427, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

142 ! X = 447.0000, 5512.0000, 352.157, 1.5 ! !END!
143 ! X = 448.0000, 5512.0000, 350.053, 1.5 ! !END!
144 ! X = 449.0000, 5512.0000, 346.518, 1.5 ! !END!
145 ! X = 450.0000, 5512.0000, 361.517, 1.5 ! !END!
146 ! X = 422.0000, 5513.0000, 404.377, 1.5 ! !END!
147 ! X = 423.0000, 5513.0000, 403.527, 1.5 ! !END!
148 ! X = 424.0000, 5513.0000, 401.226, 1.5 ! !END!
149 ! X = 425.0000, 5513.0000, 399.376, 1.5 ! !END!
150 ! X = 426.0000, 5513.0000, 401.329, 1.5 ! !END!
151 ! X = 427.0000, 5513.0000, 406.003, 1.5 ! !END!
152 ! X = 428.0000, 5513.0000, 406.577, 1.5 ! !END!
153 ! X = 429.0000, 5513.0000, 401.203, 1.5 ! !END!
154 ! X = 430.0000, 5513.0000, 396.277, 1.5 ! !END!
155 ! X = 431.0000, 5513.0000, 395.853, 1.5 ! !END!
156 ! X = 432.0000, 5513.0000, 395.975, 1.5 ! !END!
157 ! X = 433.0000, 5513.0000, 395.648, 1.5 ! !END!
158 ! X = 434.0000, 5513.0000, 395.398, 1.5 ! !END!
159 ! X = 435.0000, 5513.0000, 395.925, 1.5 ! !END!
160 ! X = 436.0000, 5513.0000, 394.758, 1.5 ! !END!
161 ! X = 437.0000, 5513.0000, 393.062, 1.5 ! !END!
162 ! X = 438.0000, 5513.0000, 379.427, 1.5 ! !END!
163 ! X = 439.0000, 5513.0000, 375.428, 1.5 ! !END!
164 ! X = 440.0000, 5513.0000, 371.354, 1.5 ! !END!
165 ! X = 441.0000, 5513.0000, 366.126, 1.5 ! !END!
166 ! X = 442.0000, 5513.0000, 365.000, 1.5 ! !END!
167 ! X = 443.0000, 5513.0000, 365.750, 1.5 ! !END!
168 ! X = 444.0000, 5513.0000, 364.652, 1.5 ! !END!
169 ! X = 445.0000, 5513.0000, 356.426, 1.5 ! !END!
170 ! X = 446.0000, 5513.0000, 350.901, 1.5 ! !END!
171 ! X = 447.0000, 5513.0000, 348.946, 1.5 ! !END!
172 ! X = 448.0000, 5513.0000, 349.701, 1.5 ! !END!
173 ! X = 449.0000, 5513.0000, 361.494, 1.5 ! !END!
174 ! X = 450.0000, 5513.0000, 367.749, 1.5 ! !END!
175 ! X = 422.0000, 5514.0000, 403.000, 1.5 ! !END!
176 ! X = 423.0000, 5514.0000, 402.000, 1.5 ! !END!
177 ! X = 424.0000, 5514.0000, 400.675, 1.5 ! !END!
178 ! X = 425.0000, 5514.0000, 399.000, 1.5 ! !END!
179 ! X = 426.0000, 5514.0000, 398.301, 1.5 ! !END!
180 ! X = 427.0000, 5514.0000, 400.078, 1.5 ! !END!
181 ! X = 428.0000, 5514.0000, 401.803, 1.5 ! !END!
182 ! X = 429.0000, 5514.0000, 396.526, 1.5 ! !END!
183 ! X = 430.0000, 5514.0000, 396.448, 1.5 ! !END!
184 ! X = 431.0000, 5514.0000, 396.497, 1.5 ! !END!
185 ! X = 432.0000, 5514.0000, 396.000, 1.5 ! !END!
186 ! X = 433.0000, 5514.0000, 396.000, 1.5 ! !END!
187 ! X = 434.0000, 5514.0000, 392.401, 1.5 ! !END!
188 ! X = 435.0000, 5514.0000, 396.000, 1.5 ! !END!
189 ! X = 436.0000, 5514.0000, 392.902, 1.5 ! !END!
190 ! X = 437.0000, 5514.0000, 377.008, 1.5 ! !END!
191 ! X = 438.0000, 5514.0000, 371.206, 1.5 ! !END!
192 ! X = 439.0000, 5514.0000, 369.478, 1.5 ! !END!
193 ! X = 440.0000, 5514.0000, 366.576, 1.5 ! !END!
194 ! X = 441.0000, 5514.0000, 364.401, 1.5 ! !END!
195 ! X = 442.0000, 5514.0000, 365.000, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

196 ! X = 443.0000, 5514.0000, 364.901, 1.5 ! !END!
197 ! X = 444.0000, 5514.0000, 359.753, 1.5 ! !END!
198 ! X = 445.0000, 5514.0000, 353.128, 1.5 ! !END!
199 ! X = 446.0000, 5514.0000, 350.322, 1.5 ! !END!
200 ! X = 447.0000, 5514.0000, 358.641, 1.5 ! !END!
201 ! X = 448.0000, 5514.0000, 346.000, 1.5 ! !END!
202 ! X = 449.0000, 5514.0000, 371.814, 1.5 ! !END!
203 ! X = 450.0000, 5514.0000, 368.000, 1.5 ! !END!
204 ! X = 422.0000, 5515.0000, 402.000, 1.5 ! !END!
205 ! X = 423.0000, 5515.0000, 401.950, 1.5 ! !END!
206 ! X = 424.0000, 5515.0000, 400.000, 1.5 ! !END!
207 ! X = 425.0000, 5515.0000, 399.000, 1.5 ! !END!
208 ! X = 426.0000, 5515.0000, 398.000, 1.5 ! !END!
209 ! X = 427.0000, 5515.0000, 397.000, 1.5 ! !END!
210 ! X = 428.0000, 5515.0000, 397.477, 1.5 ! !END!
211 ! X = 429.0000, 5515.0000, 397.000, 1.5 ! !END!
212 ! X = 430.0000, 5515.0000, 397.925, 1.5 ! !END!
213 ! X = 431.0000, 5515.0000, 396.651, 1.5 ! !END!
214 ! X = 432.0000, 5515.0000, 395.474, 1.5 ! !END!
215 ! X = 433.0000, 5515.0000, 390.189, 1.5 ! !END!
216 ! X = 434.0000, 5515.0000, 383.981, 1.5 ! !END!
217 ! X = 435.0000, 5515.0000, 382.508, 1.5 ! !END!
218 ! X = 436.0000, 5515.0000, 374.555, 1.5 ! !END!
219 ! X = 437.0000, 5515.0000, 372.249, 1.5 ! !END!
220 ! X = 438.0000, 5515.0000, 370.774, 1.5 ! !END!
221 ! X = 439.0000, 5515.0000, 368.000, 1.5 ! !END!
222 ! X = 440.0000, 5515.0000, 366.150, 1.5 ! !END!
223 ! X = 441.0000, 5515.0000, 364.648, 1.5 ! !END!
224 ! X = 442.0000, 5515.0000, 365.899, 1.5 ! !END!
225 ! X = 443.0000, 5515.0000, 362.027, 1.5 ! !END!
226 ! X = 444.0000, 5515.0000, 354.952, 1.5 ! !END!
227 ! X = 445.0000, 5515.0000, 357.067, 1.5 ! !END!
228 ! X = 446.0000, 5515.0000, 366.323, 1.5 ! !END!
229 ! X = 447.0000, 5515.0000, 375.274, 1.5 ! !END!
230 ! X = 448.0000, 5515.0000, 366.176, 1.5 ! !END!
231 ! X = 449.0000, 5515.0000, 373.804, 1.5 ! !END!
232 ! X = 450.0000, 5515.0000, 368.824, 1.5 ! !END!
233 ! X = 422.0000, 5516.0000, 400.376, 1.5 ! !END!
234 ! X = 423.0000, 5516.0000, 400.503, 1.5 ! !END!
235 ! X = 424.0000, 5516.0000, 399.201, 1.5 ! !END!
236 ! X = 425.0000, 5516.0000, 398.452, 1.5 ! !END!
237 ! X = 426.0000, 5516.0000, 397.000, 1.5 ! !END!
238 ! X = 427.0000, 5516.0000, 397.000, 1.5 ! !END!
239 ! X = 428.0000, 5516.0000, 396.175, 1.5 ! !END!
240 ! X = 429.0000, 5516.0000, 397.174, 1.5 ! !END!
241 ! X = 430.0000, 5516.0000, 398.326, 1.5 ! !END!
242 ! X = 431.0000, 5516.0000, 391.862, 1.5 ! !END!
243 ! X = 432.0000, 5516.0000, 385.168, 1.5 ! !END!
244 ! X = 433.0000, 5516.0000, 382.469, 1.5 ! !END!
245 ! X = 434.0000, 5516.0000, 393.641, 1.5 ! !END!
246 ! X = 435.0000, 5516.0000, 392.564, 1.5 ! !END!
247 ! X = 436.0000, 5516.0000, 374.925, 1.5 ! !END!
248 ! X = 437.0000, 5516.0000, 372.201, 1.5 ! !END!
249 ! X = 438.0000, 5516.0000, 370.950, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

250 ! X = 439.0000, 5516.0000, 368.975, 1.5 ! !END!
251 ! X = 440.0000, 5516.0000, 367.000, 1.5 ! !END!
252 ! X = 441.0000, 5516.0000, 365.824, 1.5 ! !END!
253 ! X = 442.0000, 5516.0000, 363.904, 1.5 ! !END!
254 ! X = 443.0000, 5516.0000, 357.852, 1.5 ! !END!
255 ! X = 444.0000, 5516.0000, 353.594, 1.5 ! !END!
256 ! X = 445.0000, 5516.0000, 366.475, 1.5 ! !END!
257 ! X = 446.0000, 5516.0000, 370.124, 1.5 ! !END!
258 ! X = 447.0000, 5516.0000, 372.826, 1.5 ! !END!
259 ! X = 448.0000, 5516.0000, 367.848, 1.5 ! !END!
260 ! X = 449.0000, 5516.0000, 370.375, 1.5 ! !END!
261 ! X = 450.0000, 5516.0000, 370.000, 1.5 ! !END!
262 ! X = 422.0000, 5517.0000, 398.251, 1.5 ! !END!
263 ! X = 423.0000, 5517.0000, 398.503, 1.5 ! !END!
264 ! X = 424.0000, 5517.0000, 397.851, 1.5 ! !END!
265 ! X = 425.0000, 5517.0000, 397.276, 1.5 ! !END!
266 ! X = 426.0000, 5517.0000, 396.101, 1.5 ! !END!
267 ! X = 427.0000, 5517.0000, 396.000, 1.5 ! !END!
268 ! X = 428.0000, 5517.0000, 396.053, 1.5 ! !END!
269 ! X = 429.0000, 5517.0000, 396.406, 1.5 ! !END!
270 ! X = 430.0000, 5517.0000, 387.938, 1.5 ! !END!
271 ! X = 431.0000, 5517.0000, 391.569, 1.5 ! !END!
272 ! X = 432.0000, 5517.0000, 398.347, 1.5 ! !END!
273 ! X = 433.0000, 5517.0000, 393.598, 1.5 ! !END!
274 ! X = 434.0000, 5517.0000, 384.836, 1.5 ! !END!
275 ! X = 435.0000, 5517.0000, 376.400, 1.5 ! !END!
276 ! X = 436.0000, 5517.0000, 374.076, 1.5 ! !END!
277 ! X = 437.0000, 5517.0000, 369.876, 1.5 ! !END!
278 ! X = 438.0000, 5517.0000, 369.101, 1.5 ! !END!
279 ! X = 439.0000, 5517.0000, 368.075, 1.5 ! !END!
280 ! X = 440.0000, 5517.0000, 366.075, 1.5 ! !END!
281 ! X = 441.0000, 5517.0000, 365.450, 1.5 ! !END!
282 ! X = 442.0000, 5517.0000, 359.427, 1.5 ! !END!
283 ! X = 443.0000, 5517.0000, 353.053, 1.5 ! !END!
284 ! X = 444.0000, 5517.0000, 362.945, 1.5 ! !END!
285 ! X = 445.0000, 5517.0000, 365.626, 1.5 ! !END!
286 ! X = 446.0000, 5517.0000, 369.850, 1.5 ! !END!
287 ! X = 447.0000, 5517.0000, 371.750, 1.5 ! !END!
288 ! X = 448.0000, 5517.0000, 369.774, 1.5 ! !END!
289 ! X = 449.0000, 5517.0000, 372.000, 1.5 ! !END!
290 ! X = 450.0000, 5517.0000, 372.000, 1.5 ! !END!
291 ! X = 422.0000, 5518.0000, 396.000, 1.5 ! !END!
292 ! X = 423.0000, 5518.0000, 396.000, 1.5 ! !END!
293 ! X = 424.0000, 5518.0000, 396.000, 1.5 ! !END!
294 ! X = 425.0000, 5518.0000, 396.151, 1.5 ! !END!
295 ! X = 426.0000, 5518.0000, 395.527, 1.5 ! !END!
296 ! X = 427.0000, 5518.0000, 394.127, 1.5 ! !END!
297 ! X = 428.0000, 5518.0000, 393.921, 1.5 ! !END!
298 ! X = 429.0000, 5518.0000, 394.645, 1.5 ! !END!
299 ! X = 430.0000, 5518.0000, 395.995, 1.5 ! !END!
300 ! X = 431.0000, 5518.0000, 396.749, 1.5 ! !END!
301 ! X = 432.0000, 5518.0000, 397.801, 1.5 ! !END!
302 ! X = 433.0000, 5518.0000, 391.081, 1.5 ! !END!
303 ! X = 434.0000, 5518.0000, 381.750, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

304 ! X = 435.0000, 5518.0000, 376.475, 1.5 ! !END!
305 ! X = 436.0000, 5518.0000, 372.300, 1.5 ! !END!
306 ! X = 437.0000, 5518.0000, 368.426, 1.5 ! !END!
307 ! X = 438.0000, 5518.0000, 367.702, 1.5 ! !END!
308 ! X = 439.0000, 5518.0000, 366.502, 1.5 ! !END!
309 ! X = 440.0000, 5518.0000, 365.899, 1.5 ! !END!
310 ! X = 441.0000, 5518.0000, 365.901, 1.5 ! !END!
311 ! X = 442.0000, 5518.0000, 356.381, 1.5 ! !END!
312 ! X = 443.0000, 5518.0000, 360.797, 1.5 ! !END!
313 ! X = 444.0000, 5518.0000, 366.950, 1.5 ! !END!
314 ! X = 445.0000, 5518.0000, 366.999, 1.5 ! !END!
315 ! X = 446.0000, 5518.0000, 369.700, 1.5 ! !END!
316 ! X = 447.0000, 5518.0000, 371.775, 1.5 ! !END!
317 ! X = 448.0000, 5518.0000, 371.075, 1.5 ! !END!
318 ! X = 449.0000, 5518.0000, 373.648, 1.5 ! !END!
319 ! X = 450.0000, 5518.0000, 373.497, 1.5 ! !END!
320 ! X = 422.0000, 5519.0000, 395.000, 1.5 ! !END!
321 ! X = 423.0000, 5519.0000, 394.825, 1.5 ! !END!
322 ! X = 424.0000, 5519.0000, 395.226, 1.5 ! !END!
323 ! X = 425.0000, 5519.0000, 395.500, 1.5 ! !END!
324 ! X = 426.0000, 5519.0000, 394.923, 1.5 ! !END!
325 ! X = 427.0000, 5519.0000, 396.000, 1.5 ! !END!
326 ! X = 428.0000, 5519.0000, 396.925, 1.5 ! !END!
327 ! X = 429.0000, 5519.0000, 396.876, 1.5 ! !END!
328 ! X = 430.0000, 5519.0000, 399.700, 1.5 ! !END!
329 ! X = 431.0000, 5519.0000, 399.200, 1.5 ! !END!
330 ! X = 432.0000, 5519.0000, 392.222, 1.5 ! !END!
331 ! X = 433.0000, 5519.0000, 384.778, 1.5 ! !END!
332 ! X = 434.0000, 5519.0000, 380.126, 1.5 ! !END!
333 ! X = 435.0000, 5519.0000, 374.276, 1.5 ! !END!
334 ! X = 436.0000, 5519.0000, 370.976, 1.5 ! !END!
335 ! X = 437.0000, 5519.0000, 366.976, 1.5 ! !END!
336 ! X = 438.0000, 5519.0000, 366.101, 1.5 ! !END!
337 ! X = 439.0000, 5519.0000, 365.325, 1.5 ! !END!
338 ! X = 440.0000, 5519.0000, 365.102, 1.5 ! !END!
339 ! X = 441.0000, 5519.0000, 360.826, 1.5 ! !END!
340 ! X = 442.0000, 5519.0000, 354.474, 1.5 ! !END!
341 ! X = 443.0000, 5519.0000, 364.649, 1.5 ! !END!
342 ! X = 444.0000, 5519.0000, 368.899, 1.5 ! !END!
343 ! X = 445.0000, 5519.0000, 368.698, 1.5 ! !END!
344 ! X = 446.0000, 5519.0000, 370.825, 1.5 ! !END!
345 ! X = 447.0000, 5519.0000, 372.774, 1.5 ! !END!
346 ! X = 448.0000, 5519.0000, 372.824, 1.5 ! !END!
347 ! X = 449.0000, 5519.0000, 375.000, 1.5 ! !END!
348 ! X = 450.0000, 5519.0000, 375.000, 1.5 ! !END!
349 ! X = 422.0000, 5520.0000, 396.497, 1.5 ! !END!
350 ! X = 423.0000, 5520.0000, 395.050, 1.5 ! !END!
351 ! X = 424.0000, 5520.0000, 395.274, 1.5 ! !END!
352 ! X = 425.0000, 5520.0000, 395.175, 1.5 ! !END!
353 ! X = 426.0000, 5520.0000, 396.000, 1.5 ! !END!
354 ! X = 427.0000, 5520.0000, 395.751, 1.5 ! !END!
355 ! X = 428.0000, 5520.0000, 395.355, 1.5 ! !END!
356 ! X = 429.0000, 5520.0000, 395.552, 1.5 ! !END!
357 ! X = 430.0000, 5520.0000, 392.740, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

358 ! X = 431.0000, 5520.0000, 394.929, 1.5 ! !END!
359 ! X = 432.0000, 5520.0000, 392.955, 1.5 ! !END!
360 ! X = 433.0000, 5520.0000, 380.127, 1.5 ! !END!
361 ! X = 434.0000, 5520.0000, 375.853, 1.5 ! !END!
362 ! X = 435.0000, 5520.0000, 370.752, 1.5 ! !END!
363 ! X = 436.0000, 5520.0000, 368.077, 1.5 ! !END!
364 ! X = 437.0000, 5520.0000, 366.175, 1.5 ! !END!
365 ! X = 438.0000, 5520.0000, 364.825, 1.5 ! !END!
366 ! X = 439.0000, 5520.0000, 365.425, 1.5 ! !END!
367 ! X = 440.0000, 5520.0000, 363.503, 1.5 ! !END!
368 ! X = 441.0000, 5520.0000, 354.898, 1.5 ! !END!
369 ! X = 442.0000, 5520.0000, 360.772, 1.5 ! !END!
370 ! X = 443.0000, 5520.0000, 365.949, 1.5 ! !END!
371 ! X = 444.0000, 5520.0000, 370.000, 1.5 ! !END!
372 ! X = 445.0000, 5520.0000, 370.998, 1.5 ! !END!
373 ! X = 446.0000, 5520.0000, 371.749, 1.5 ! !END!
374 ! X = 447.0000, 5520.0000, 374.149, 1.5 ! !END!
375 ! X = 448.0000, 5520.0000, 374.824, 1.5 ! !END!
376 ! X = 449.0000, 5520.0000, 376.648, 1.5 ! !END!
377 ! X = 450.0000, 5520.0000, 376.749, 1.5 ! !END!
378 ! X = 422.0000, 5521.0000, 402.872, 1.5 ! !END!
379 ! X = 423.0000, 5521.0000, 395.178, 1.5 ! !END!
380 ! X = 424.0000, 5521.0000, 388.741, 1.5 ! !END!
381 ! X = 425.0000, 5521.0000, 396.653, 1.5 ! !END!
382 ! X = 426.0000, 5521.0000, 395.573, 1.5 ! !END!
383 ! X = 427.0000, 5521.0000, 396.474, 1.5 ! !END!
384 ! X = 428.0000, 5521.0000, 389.764, 1.5 ! !END!
385 ! X = 429.0000, 5521.0000, 395.950, 1.5 ! !END!
386 ! X = 430.0000, 5521.0000, 388.628, 1.5 ! !END!
387 ! X = 431.0000, 5521.0000, 381.558, 1.5 ! !END!
388 ! X = 432.0000, 5521.0000, 380.956, 1.5 ! !END!
389 ! X = 433.0000, 5521.0000, 375.354, 1.5 ! !END!
390 ! X = 434.0000, 5521.0000, 369.503, 1.5 ! !END!
391 ! X = 435.0000, 5521.0000, 367.301, 1.5 ! !END!
392 ! X = 436.0000, 5521.0000, 365.576, 1.5 ! !END!
393 ! X = 437.0000, 5521.0000, 365.175, 1.5 ! !END!
394 ! X = 438.0000, 5521.0000, 363.651, 1.5 ! !END!
395 ! X = 439.0000, 5521.0000, 362.205, 1.5 ! !END!
396 ! X = 440.0000, 5521.0000, 355.575, 1.5 ! !END!
397 ! X = 441.0000, 5521.0000, 359.822, 1.5 ! !END!
398 ! X = 442.0000, 5521.0000, 364.099, 1.5 ! !END!
399 ! X = 443.0000, 5521.0000, 367.773, 1.5 ! !END!
400 ! X = 444.0000, 5521.0000, 370.474, 1.5 ! !END!
401 ! X = 445.0000, 5521.0000, 375.272, 1.5 ! !END!
402 ! X = 446.0000, 5521.0000, 373.373, 1.5 ! !END!
403 ! X = 447.0000, 5521.0000, 375.274, 1.5 ! !END!
404 ! X = 448.0000, 5521.0000, 376.624, 1.5 ! !END!
405 ! X = 449.0000, 5521.0000, 378.000, 1.5 ! !END!
406 ! X = 450.0000, 5521.0000, 378.497, 1.5 ! !END!
407 ! X = 422.0000, 5522.0000, 406.453, 1.5 ! !END!
408 ! X = 423.0000, 5522.0000, 399.626, 1.5 ! !END!
409 ! X = 424.0000, 5522.0000, 371.332, 1.5 ! !END!
410 ! X = 425.0000, 5522.0000, 373.737, 1.5 ! !END!
411 ! X = 426.0000, 5522.0000, 374.647, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

412 ! X = 427.0000, 5522.0000, 376.399, 1.5 ! !END!
413 ! X = 428.0000, 5522.0000, 379.323, 1.5 ! !END!
414 ! X = 429.0000, 5522.0000, 379.465, 1.5 ! !END!
415 ! X = 430.0000, 5522.0000, 375.433, 1.5 ! !END!
416 ! X = 431.0000, 5522.0000, 369.831, 1.5 ! !END!
417 ! X = 432.0000, 5522.0000, 369.157, 1.5 ! !END!
418 ! X = 433.0000, 5522.0000, 366.430, 1.5 ! !END!
419 ! X = 434.0000, 5522.0000, 364.430, 1.5 ! !END!
420 ! X = 435.0000, 5522.0000, 361.269, 1.5 ! !END!
421 ! X = 436.0000, 5522.0000, 360.570, 1.5 ! !END!
422 ! X = 437.0000, 5522.0000, 359.876, 1.5 ! !END!
423 ! X = 438.0000, 5522.0000, 357.176, 1.5 ! !END!
424 ! X = 439.0000, 5522.0000, 360.948, 1.5 ! !END!
425 ! X = 440.0000, 5522.0000, 361.822, 1.5 ! !END!
426 ! X = 441.0000, 5522.0000, 364.374, 1.5 ! !END!
427 ! X = 442.0000, 5522.0000, 366.249, 1.5 ! !END!
428 ! X = 443.0000, 5522.0000, 369.924, 1.5 ! !END!
429 ! X = 444.0000, 5522.0000, 372.298, 1.5 ! !END!
430 ! X = 445.0000, 5522.0000, 377.174, 1.5 ! !END!
431 ! X = 446.0000, 5522.0000, 375.523, 1.5 ! !END!
432 ! X = 447.0000, 5522.0000, 376.424, 1.5 ! !END!
433 ! X = 448.0000, 5522.0000, 378.224, 1.5 ! !END!
434 ! X = 449.0000, 5522.0000, 379.774, 1.5 ! !END!
435 ! X = 450.0000, 5522.0000, 380.000, 1.5 ! !END!
436 ! X = 422.0000, 5523.0000, 375.453, 1.5 ! !END!
437 ! X = 423.0000, 5523.0000, 351.431, 1.5 ! !END!
438 ! X = 424.0000, 5523.0000, 353.874, 1.5 ! !END!
439 ! X = 425.0000, 5523.0000, 354.849, 1.5 ! !END!
440 ! X = 426.0000, 5523.0000, 355.246, 1.5 ! !END!
441 ! X = 427.0000, 5523.0000, 355.300, 1.5 ! !END!
442 ! X = 428.0000, 5523.0000, 355.458, 1.5 ! !END!
443 ! X = 429.0000, 5523.0000, 365.375, 1.5 ! !END!
444 ! X = 430.0000, 5523.0000, 360.000, 1.5 ! !END!
445 ! X = 431.0000, 5523.0000, 363.027, 1.5 ! !END!
446 ! X = 432.0000, 5523.0000, 363.401, 1.5 ! !END!
447 ! X = 433.0000, 5523.0000, 363.376, 1.5 ! !END!
448 ! X = 434.0000, 5523.0000, 360.425, 1.5 ! !END!
449 ! X = 435.0000, 5523.0000, 362.052, 1.5 ! !END!
450 ! X = 436.0000, 5523.0000, 363.474, 1.5 ! !END!
451 ! X = 437.0000, 5523.0000, 365.249, 1.5 ! !END!
452 ! X = 438.0000, 5523.0000, 364.123, 1.5 ! !END!
453 ! X = 439.0000, 5523.0000, 363.873, 1.5 ! !END!
454 ! X = 440.0000, 5523.0000, 363.752, 1.5 ! !END!
455 ! X = 441.0000, 5523.0000, 366.000, 1.5 ! !END!
456 ! X = 442.0000, 5523.0000, 369.201, 1.5 ! !END!
457 ! X = 443.0000, 5523.0000, 373.927, 1.5 ! !END!
458 ! X = 444.0000, 5523.0000, 377.572, 1.5 ! !END!
459 ! X = 445.0000, 5523.0000, 378.723, 1.5 ! !END!
460 ! X = 446.0000, 5523.0000, 377.624, 1.5 ! !END!
461 ! X = 447.0000, 5523.0000, 377.150, 1.5 ! !END!
462 ! X = 448.0000, 5523.0000, 379.774, 1.5 ! !END!
463 ! X = 449.0000, 5523.0000, 381.000, 1.5 ! !END!
464 ! X = 450.0000, 5523.0000, 381.000, 1.5 ! !END!
465 ! X = 422.0000, 5524.0000, 353.144, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

466 ! X = 423.0000, 5524.0000, 359.097, 1.5 ! !END!
467 ! X = 424.0000, 5524.0000, 378.286, 1.5 ! !END!
468 ! X = 425.0000, 5524.0000, 375.924, 1.5 ! !END!
469 ! X = 426.0000, 5524.0000, 368.230, 1.5 ! !END!
470 ! X = 427.0000, 5524.0000, 372.592, 1.5 ! !END!
471 ! X = 428.0000, 5524.0000, 356.841, 1.5 ! !END!
472 ! X = 429.0000, 5524.0000, 360.623, 1.5 ! !END!
473 ! X = 430.0000, 5524.0000, 355.922, 1.5 ! !END!
474 ! X = 431.0000, 5524.0000, 360.424, 1.5 ! !END!
475 ! X = 432.0000, 5524.0000, 364.196, 1.5 ! !END!
476 ! X = 433.0000, 5524.0000, 364.688, 1.5 ! !END!
477 ! X = 434.0000, 5524.0000, 373.287, 1.5 ! !END!
478 ! X = 435.0000, 5524.0000, 377.429, 1.5 ! !END!
479 ! X = 436.0000, 5524.0000, 373.217, 1.5 ! !END!
480 ! X = 437.0000, 5524.0000, 369.221, 1.5 ! !END!
481 ! X = 438.0000, 5524.0000, 366.647, 1.5 ! !END!
482 ! X = 439.0000, 5524.0000, 371.244, 1.5 ! !END!
483 ! X = 440.0000, 5524.0000, 369.070, 1.5 ! !END!
484 ! X = 441.0000, 5524.0000, 366.072, 1.5 ! !END!
485 ! X = 442.0000, 5524.0000, 365.501, 1.5 ! !END!
486 ! X = 443.0000, 5524.0000, 368.901, 1.5 ! !END!
487 ! X = 444.0000, 5524.0000, 375.652, 1.5 ! !END!
488 ! X = 445.0000, 5524.0000, 382.898, 1.5 ! !END!
489 ! X = 446.0000, 5524.0000, 380.024, 1.5 ! !END!
490 ! X = 447.0000, 5524.0000, 379.423, 1.5 ! !END!
491 ! X = 448.0000, 5524.0000, 380.724, 1.5 ! !END!
492 ! X = 449.0000, 5524.0000, 381.000, 1.5 ! !END!
493 ! X = 450.0000, 5524.0000, 381.000, 1.5 ! !END!
494 ! X = 422.0000, 5525.0000, 378.461, 1.5 ! !END!
495 ! X = 423.0000, 5525.0000, 408.574, 1.5 ! !END!
496 ! X = 424.0000, 5525.0000, 402.151, 1.5 ! !END!
497 ! X = 425.0000, 5525.0000, 396.748, 1.5 ! !END!
498 ! X = 426.0000, 5525.0000, 401.753, 1.5 ! !END!
499 ! X = 427.0000, 5525.0000, 397.132, 1.5 ! !END!
500 ! X = 428.0000, 5525.0000, 404.721, 1.5 ! !END!
501 ! X = 429.0000, 5525.0000, 396.972, 1.5 ! !END!
502 ! X = 430.0000, 5525.0000, 399.603, 1.5 ! !END!
503 ! X = 431.0000, 5525.0000, 389.508, 1.5 ! !END!
504 ! X = 432.0000, 5525.0000, 398.072, 1.5 ! !END!
505 ! X = 433.0000, 5525.0000, 398.477, 1.5 ! !END!
506 ! X = 434.0000, 5525.0000, 400.103, 1.5 ! !END!
507 ! X = 435.0000, 5525.0000, 398.578, 1.5 ! !END!
508 ! X = 436.0000, 5525.0000, 388.127, 1.5 ! !END!
509 ! X = 437.0000, 5525.0000, 374.478, 1.5 ! !END!
510 ! X = 438.0000, 5525.0000, 375.371, 1.5 ! !END!
511 ! X = 439.0000, 5525.0000, 378.495, 1.5 ! !END!
512 ! X = 440.0000, 5525.0000, 375.846, 1.5 ! !END!
513 ! X = 441.0000, 5525.0000, 372.773, 1.5 ! !END!
514 ! X = 442.0000, 5525.0000, 369.199, 1.5 ! !END!
515 ! X = 443.0000, 5525.0000, 369.048, 1.5 ! !END!
516 ! X = 444.0000, 5525.0000, 373.675, 1.5 ! !END!
517 ! X = 445.0000, 5525.0000, 383.851, 1.5 ! !END!
518 ! X = 446.0000, 5525.0000, 383.473, 1.5 ! !END!
519 ! X = 447.0000, 5525.0000, 382.398, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

520 ! X = 448.0000, 5525.0000, 381.949, 1.5 ! !END!
521 ! X = 449.0000, 5525.0000, 382.623, 1.5 ! !END!
522 ! X = 450.0000, 5525.0000, 380.700, 1.5 ! !END!
523 ! X = 422.0000, 5526.0000, 404.676, 1.5 ! !END!
524 ! X = 423.0000, 5526.0000, 403.701, 1.5 ! !END!
525 ! X = 424.0000, 5526.0000, 401.500, 1.5 ! !END!
526 ! X = 425.0000, 5526.0000, 399.798, 1.5 ! !END!
527 ! X = 426.0000, 5526.0000, 399.250, 1.5 ! !END!
528 ! X = 427.0000, 5526.0000, 400.848, 1.5 ! !END!
529 ! X = 428.0000, 5526.0000, 407.176, 1.5 ! !END!
530 ! X = 429.0000, 5526.0000, 398.398, 1.5 ! !END!
531 ! X = 430.0000, 5526.0000, 398.349, 1.5 ! !END!
532 ! X = 431.0000, 5526.0000, 400.876, 1.5 ! !END!
533 ! X = 432.0000, 5526.0000, 396.979, 1.5 ! !END!
534 ! X = 433.0000, 5526.0000, 395.825, 1.5 ! !END!
535 ! X = 434.0000, 5526.0000, 395.527, 1.5 ! !END!
536 ! X = 435.0000, 5526.0000, 389.724, 1.5 ! !END!
537 ! X = 436.0000, 5526.0000, 382.495, 1.5 ! !END!
538 ! X = 437.0000, 5526.0000, 384.644, 1.5 ! !END!
539 ! X = 438.0000, 5526.0000, 385.893, 1.5 ! !END!
540 ! X = 439.0000, 5526.0000, 385.872, 1.5 ! !END!
541 ! X = 440.0000, 5526.0000, 383.298, 1.5 ! !END!
542 ! X = 441.0000, 5526.0000, 380.549, 1.5 ! !END!
543 ! X = 442.0000, 5526.0000, 375.648, 1.5 ! !END!
544 ! X = 443.0000, 5526.0000, 371.298, 1.5 ! !END!
545 ! X = 444.0000, 5526.0000, 375.799, 1.5 ! !END!
546 ! X = 445.0000, 5526.0000, 384.225, 1.5 ! !END!
547 ! X = 446.0000, 5526.0000, 389.472, 1.5 ! !END!
548 ! X = 447.0000, 5526.0000, 387.046, 1.5 ! !END!
549 ! X = 448.0000, 5526.0000, 383.574, 1.5 ! !END!
550 ! X = 449.0000, 5526.0000, 385.649, 1.5 ! !END!
551 ! X = 450.0000, 5526.0000, 380.725, 1.5 ! !END!
552 ! X = 422.0000, 5527.0000, 399.277, 1.5 ! !END!
553 ! X = 423.0000, 5527.0000, 402.075, 1.5 ! !END!
554 ! X = 424.0000, 5527.0000, 403.274, 1.5 ! !END!
555 ! X = 425.0000, 5527.0000, 402.949, 1.5 ! !END!
556 ! X = 426.0000, 5527.0000, 402.798, 1.5 ! !END!
557 ! X = 427.0000, 5527.0000, 405.624, 1.5 ! !END!
558 ! X = 428.0000, 5527.0000, 407.349, 1.5 ! !END!
559 ! X = 429.0000, 5527.0000, 403.473, 1.5 ! !END!
560 ! X = 430.0000, 5527.0000, 401.072, 1.5 ! !END!
561 ! X = 431.0000, 5527.0000, 400.373, 1.5 ! !END!
562 ! X = 432.0000, 5527.0000, 398.370, 1.5 ! !END!
563 ! X = 433.0000, 5527.0000, 396.973, 1.5 ! !END!
564 ! X = 434.0000, 5527.0000, 395.749, 1.5 ! !END!
565 ! X = 435.0000, 5527.0000, 395.700, 1.5 ! !END!
566 ! X = 436.0000, 5527.0000, 393.947, 1.5 ! !END!
567 ! X = 437.0000, 5527.0000, 395.548, 1.5 ! !END!
568 ! X = 438.0000, 5527.0000, 396.398, 1.5 ! !END!
569 ! X = 439.0000, 5527.0000, 391.898, 1.5 ! !END!
570 ! X = 440.0000, 5527.0000, 385.376, 1.5 ! !END!
571 ! X = 441.0000, 5527.0000, 380.701, 1.5 ! !END!
572 ! X = 442.0000, 5527.0000, 375.973, 1.5 ! !END!
573 ! X = 443.0000, 5527.0000, 373.498, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

574 ! X = 444.0000, 5527.0000, 377.749, 1.5 ! !END!
575 ! X = 445.0000, 5527.0000, 385.748, 1.5 ! !END!
576 ! X = 446.0000, 5527.0000, 392.323, 1.5 ! !END!
577 ! X = 447.0000, 5527.0000, 392.398, 1.5 ! !END!
578 ! X = 448.0000, 5527.0000, 387.697, 1.5 ! !END!
579 ! X = 449.0000, 5527.0000, 387.075, 1.5 ! !END!
580 ! X = 450.0000, 5527.0000, 381.774, 1.5 ! !END!
581 ! X = 422.0000, 5528.0000, 400.998, 1.5 ! !END!
582 ! X = 423.0000, 5528.0000, 402.698, 1.5 ! !END!
583 ! X = 424.0000, 5528.0000, 405.749, 1.5 ! !END!
584 ! X = 425.0000, 5528.0000, 405.824, 1.5 ! !END!
585 ! X = 426.0000, 5528.0000, 406.448, 1.5 ! !END!
586 ! X = 427.0000, 5528.0000, 409.049, 1.5 ! !END!
587 ! X = 428.0000, 5528.0000, 408.999, 1.5 ! !END!
588 ! X = 429.0000, 5528.0000, 406.573, 1.5 ! !END!
589 ! X = 430.0000, 5528.0000, 405.075, 1.5 ! !END!
590 ! X = 431.0000, 5528.0000, 402.824, 1.5 ! !END!
591 ! X = 432.0000, 5528.0000, 401.798, 1.5 ! !END!
592 ! X = 433.0000, 5528.0000, 401.373, 1.5 ! !END!
593 ! X = 434.0000, 5528.0000, 400.049, 1.5 ! !END!
594 ! X = 435.0000, 5528.0000, 397.750, 1.5 ! !END!
595 ! X = 436.0000, 5528.0000, 395.525, 1.5 ! !END!
596 ! X = 437.0000, 5528.0000, 395.153, 1.5 ! !END!
597 ! X = 438.0000, 5528.0000, 396.579, 1.5 ! !END!
598 ! X = 439.0000, 5528.0000, 388.674, 1.5 ! !END!
599 ! X = 440.0000, 5528.0000, 383.650, 1.5 ! !END!
600 ! X = 441.0000, 5528.0000, 379.025, 1.5 ! !END!
601 ! X = 442.0000, 5528.0000, 385.244, 1.5 ! !END!
602 ! X = 443.0000, 5528.0000, 385.369, 1.5 ! !END!
603 ! X = 444.0000, 5528.0000, 384.648, 1.5 ! !END!
604 ! X = 445.0000, 5528.0000, 387.052, 1.5 ! !END!
605 ! X = 446.0000, 5528.0000, 393.502, 1.5 ! !END!
606 ! X = 447.0000, 5528.0000, 394.951, 1.5 ! !END!
607 ! X = 448.0000, 5528.0000, 393.997, 1.5 ! !END!
608 ! X = 449.0000, 5528.0000, 388.174, 1.5 ! !END!
609 ! X = 450.0000, 5528.0000, 384.823, 1.5 ! !END!
610 ! X = 422.0000, 5529.0000, 405.870, 1.5 ! !END!
611 ! X = 423.0000, 5529.0000, 408.621, 1.5 ! !END!
612 ! X = 424.0000, 5529.0000, 409.298, 1.5 ! !END!
613 ! X = 425.0000, 5529.0000, 408.499, 1.5 ! !END!
614 ! X = 426.0000, 5529.0000, 409.849, 1.5 ! !END!
615 ! X = 427.0000, 5529.0000, 411.874, 1.5 ! !END!
616 ! X = 428.0000, 5529.0000, 411.849, 1.5 ! !END!
617 ! X = 429.0000, 5529.0000, 409.498, 1.5 ! !END!
618 ! X = 430.0000, 5529.0000, 407.624, 1.5 ! !END!
619 ! X = 431.0000, 5529.0000, 406.124, 1.5 ! !END!
620 ! X = 432.0000, 5529.0000, 404.425, 1.5 ! !END!
621 ! X = 433.0000, 5529.0000, 402.625, 1.5 ! !END!
622 ! X = 434.0000, 5529.0000, 400.675, 1.5 ! !END!
623 ! X = 435.0000, 5529.0000, 398.925, 1.5 ! !END!
624 ! X = 436.0000, 5529.0000, 396.800, 1.5 ! !END!
625 ! X = 437.0000, 5529.0000, 396.627, 1.5 ! !END!
626 ! X = 438.0000, 5529.0000, 396.851, 1.5 ! !END!
627 ! X = 439.0000, 5529.0000, 392.145, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

628 ! X = 440.0000, 5529.0000, 389.894, 1.5 ! !END!
629 ! X = 441.0000, 5529.0000, 386.185, 1.5 ! !END!
630 ! X = 442.0000, 5529.0000, 394.701, 1.5 ! !END!
631 ! X = 443.0000, 5529.0000, 395.972, 1.5 ! !END!
632 ! X = 444.0000, 5529.0000, 388.689, 1.5 ! !END!
633 ! X = 445.0000, 5529.0000, 390.969, 1.5 ! !END!
634 ! X = 446.0000, 5529.0000, 390.950, 1.5 ! !END!
635 ! X = 447.0000, 5529.0000, 395.674, 1.5 ! !END!
636 ! X = 448.0000, 5529.0000, 391.372, 1.5 ! !END!
637 ! X = 449.0000, 5529.0000, 390.249, 1.5 ! !END!
638 ! X = 450.0000, 5529.0000, 386.375, 1.5 ! !END!
639 ! X = 422.0000, 5530.0000, 414.297, 1.5 ! !END!
640 ! X = 423.0000, 5530.0000, 416.744, 1.5 ! !END!
641 ! X = 424.0000, 5530.0000, 414.696, 1.5 ! !END!
642 ! X = 425.0000, 5530.0000, 411.374, 1.5 ! !END!
643 ! X = 426.0000, 5530.0000, 413.423, 1.5 ! !END!
644 ! X = 427.0000, 5530.0000, 414.373, 1.5 ! !END!
645 ! X = 428.0000, 5530.0000, 414.274, 1.5 ! !END!
646 ! X = 429.0000, 5530.0000, 411.323, 1.5 ! !END!
647 ! X = 430.0000, 5530.0000, 409.073, 1.5 ! !END!
648 ! X = 431.0000, 5530.0000, 409.622, 1.5 ! !END!
649 ! X = 432.0000, 5530.0000, 407.046, 1.5 ! !END!
650 ! X = 433.0000, 5530.0000, 405.872, 1.5 ! !END!
651 ! X = 434.0000, 5530.0000, 404.348, 1.5 ! !END!
652 ! X = 435.0000, 5530.0000, 400.949, 1.5 ! !END!
653 ! X = 436.0000, 5530.0000, 399.322, 1.5 ! !END!
654 ! X = 437.0000, 5530.0000, 396.648, 1.5 ! !END!
655 ! X = 438.0000, 5530.0000, 396.399, 1.5 ! !END!
656 ! X = 439.0000, 5530.0000, 398.873, 1.5 ! !END!
657 ! X = 440.0000, 5530.0000, 399.724, 1.5 ! !END!
658 ! X = 441.0000, 5530.0000, 398.875, 1.5 ! !END!
659 ! X = 442.0000, 5530.0000, 398.448, 1.5 ! !END!
660 ! X = 443.0000, 5530.0000, 400.824, 1.5 ! !END!
661 ! X = 444.0000, 5530.0000, 395.103, 1.5 ! !END!
662 ! X = 445.0000, 5530.0000, 396.075, 1.5 ! !END!
663 ! X = 446.0000, 5530.0000, 395.200, 1.5 ! !END!
664 ! X = 447.0000, 5530.0000, 395.551, 1.5 ! !END!
665 ! X = 448.0000, 5530.0000, 396.000, 1.5 ! !END!
666 ! X = 449.0000, 5530.0000, 391.548, 1.5 ! !END!
667 ! X = 450.0000, 5530.0000, 389.546, 1.5 ! !END!
668 ! X = 422.0000, 5531.0000, 422.946, 1.5 ! !END!
669 ! X = 423.0000, 5531.0000, 425.947, 1.5 ! !END!
670 ! X = 424.0000, 5531.0000, 422.020, 1.5 ! !END!
671 ! X = 425.0000, 5531.0000, 414.249, 1.5 ! !END!
672 ! X = 426.0000, 5531.0000, 416.949, 1.5 ! !END!
673 ! X = 427.0000, 5531.0000, 417.498, 1.5 ! !END!
674 ! X = 428.0000, 5531.0000, 417.198, 1.5 ! !END!
675 ! X = 429.0000, 5531.0000, 417.346, 1.5 ! !END!
676 ! X = 430.0000, 5531.0000, 416.520, 1.5 ! !END!
677 ! X = 431.0000, 5531.0000, 416.148, 1.5 ! !END!
678 ! X = 432.0000, 5531.0000, 412.949, 1.5 ! !END!
679 ! X = 433.0000, 5531.0000, 412.296, 1.5 ! !END!
680 ! X = 434.0000, 5531.0000, 409.671, 1.5 ! !END!
681 ! X = 435.0000, 5531.0000, 407.073, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

682 ! X = 436.0000, 5531.0000, 406.098, 1.5 ! !END!
683 ! X = 437.0000, 5531.0000, 402.448, 1.5 ! !END!
684 ! X = 438.0000, 5531.0000, 400.371, 1.5 ! !END!
685 ! X = 439.0000, 5531.0000, 404.773, 1.5 ! !END!
686 ! X = 440.0000, 5531.0000, 404.423, 1.5 ! !END!
687 ! X = 441.0000, 5531.0000, 401.874, 1.5 ! !END!
688 ! X = 442.0000, 5531.0000, 404.397, 1.5 ! !END!
689 ! X = 443.0000, 5531.0000, 398.951, 1.5 ! !END!
690 ! X = 444.0000, 5531.0000, 394.449, 1.5 ! !END!
691 ! X = 445.0000, 5531.0000, 395.548, 1.5 ! !END!
692 ! X = 446.0000, 5531.0000, 395.776, 1.5 ! !END!
693 ! X = 447.0000, 5531.0000, 397.074, 1.5 ! !END!
694 ! X = 448.0000, 5531.0000, 395.950, 1.5 ! !END!
695 ! X = 449.0000, 5531.0000, 392.649, 1.5 ! !END!
696 ! X = 450.0000, 5531.0000, 395.176, 1.5 ! !END!
697 ! X = 422.0000, 5532.0000, 426.801, 1.5 ! !END!
698 ! X = 423.0000, 5532.0000, 427.000, 1.5 ! !END!
699 ! X = 424.0000, 5532.0000, 419.702, 1.5 ! !END!
700 ! X = 425.0000, 5532.0000, 417.997, 1.5 ! !END!
701 ! X = 426.0000, 5532.0000, 420.573, 1.5 ! !END!
702 ! X = 427.0000, 5532.0000, 421.249, 1.5 ! !END!
703 ! X = 428.0000, 5532.0000, 421.348, 1.5 ! !END!
704 ! X = 429.0000, 5532.0000, 424.223, 1.5 ! !END!
705 ! X = 430.0000, 5532.0000, 424.597, 1.5 ! !END!
706 ! X = 431.0000, 5532.0000, 417.524, 1.5 ! !END!
707 ! X = 432.0000, 5532.0000, 418.471, 1.5 ! !END!
708 ! X = 433.0000, 5532.0000, 418.772, 1.5 ! !END!
709 ! X = 434.0000, 5532.0000, 415.024, 1.5 ! !END!
710 ! X = 435.0000, 5532.0000, 412.022, 1.5 ! !END!
711 ! X = 436.0000, 5532.0000, 411.498, 1.5 ! !END!
712 ! X = 437.0000, 5532.0000, 407.523, 1.5 ! !END!
713 ! X = 438.0000, 5532.0000, 407.448, 1.5 ! !END!
714 ! X = 439.0000, 5532.0000, 410.898, 1.5 ! !END!
715 ! X = 440.0000, 5532.0000, 410.573, 1.5 ! !END!
716 ! X = 441.0000, 5532.0000, 405.497, 1.5 ! !END!
717 ! X = 442.0000, 5532.0000, 410.548, 1.5 ! !END!
718 ! X = 443.0000, 5532.0000, 399.248, 1.5 ! !END!
719 ! X = 444.0000, 5532.0000, 399.348, 1.5 ! !END!
720 ! X = 445.0000, 5532.0000, 397.099, 1.5 ! !END!
721 ! X = 446.0000, 5532.0000, 397.222, 1.5 ! !END!
722 ! X = 447.0000, 5532.0000, 400.573, 1.5 ! !END!
723 ! X = 448.0000, 5532.0000, 396.674, 1.5 ! !END!
724 ! X = 449.0000, 5532.0000, 398.423, 1.5 ! !END!
725 ! X = 450.0000, 5532.0000, 397.774, 1.5 ! !END!
726 ! X = 422.0000, 5533.0000, 426.649, 1.5 ! !END!
727 ! X = 423.0000, 5533.0000, 421.300, 1.5 ! !END!
728 ! X = 424.0000, 5533.0000, 420.397, 1.5 ! !END!
729 ! X = 425.0000, 5533.0000, 424.873, 1.5 ! !END!
730 ! X = 426.0000, 5533.0000, 424.374, 1.5 ! !END!
731 ! X = 427.0000, 5533.0000, 424.674, 1.5 ! !END!
732 ! X = 428.0000, 5533.0000, 425.799, 1.5 ! !END!
733 ! X = 429.0000, 5533.0000, 427.874, 1.5 ! !END!
734 ! X = 430.0000, 5533.0000, 425.624, 1.5 ! !END!
735 ! X = 431.0000, 5533.0000, 423.848, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

736 ! X = 432.0000, 5533.0000, 425.848, 1.5 ! !END!
737 ! X = 433.0000, 5533.0000, 424.398, 1.5 ! !END!
738 ! X = 434.0000, 5533.0000, 419.598, 1.5 ! !END!
739 ! X = 435.0000, 5533.0000, 416.749, 1.5 ! !END!
740 ! X = 436.0000, 5533.0000, 416.298, 1.5 ! !END!
741 ! X = 437.0000, 5533.0000, 409.899, 1.5 ! !END!
742 ! X = 438.0000, 5533.0000, 413.347, 1.5 ! !END!
743 ! X = 439.0000, 5533.0000, 416.973, 1.5 ! !END!
744 ! X = 440.0000, 5533.0000, 412.599, 1.5 ! !END!
745 ! X = 441.0000, 5533.0000, 412.372, 1.5 ! !END!
746 ! X = 442.0000, 5533.0000, 413.923, 1.5 ! !END!
747 ! X = 443.0000, 5533.0000, 402.599, 1.5 ! !END!
748 ! X = 444.0000, 5533.0000, 405.498, 1.5 ! !END!
749 ! X = 445.0000, 5533.0000, 402.497, 1.5 ! !END!
750 ! X = 446.0000, 5533.0000, 402.523, 1.5 ! !END!
751 ! X = 447.0000, 5533.0000, 402.076, 1.5 ! !END!
752 ! X = 448.0000, 5533.0000, 400.722, 1.5 ! !END!
753 ! X = 449.0000, 5533.0000, 402.498, 1.5 ! !END!
754 ! X = 450.0000, 5533.0000, 397.400, 1.5 ! !END!
755 ! X = 422.0000, 5534.0000, 429.523, 1.5 ! !END!
756 ! X = 423.0000, 5534.0000, 424.973, 1.5 ! !END!
757 ! X = 424.0000, 5534.0000, 427.099, 1.5 ! !END!
758 ! X = 425.0000, 5534.0000, 428.272, 1.5 ! !END!
759 ! X = 426.0000, 5534.0000, 426.924, 1.5 ! !END!
760 ! X = 427.0000, 5534.0000, 429.846, 1.5 ! !END!
761 ! X = 428.0000, 5534.0000, 431.822, 1.5 ! !END!
762 ! X = 429.0000, 5534.0000, 428.826, 1.5 ! !END!
763 ! X = 430.0000, 5534.0000, 428.527, 1.5 ! !END!
764 ! X = 431.0000, 5534.0000, 428.198, 1.5 ! !END!
765 ! X = 432.0000, 5534.0000, 431.749, 1.5 ! !END!
766 ! X = 433.0000, 5534.0000, 428.849, 1.5 ! !END!
767 ! X = 434.0000, 5534.0000, 424.223, 1.5 ! !END!
768 ! X = 435.0000, 5534.0000, 420.948, 1.5 ! !END!
769 ! X = 436.0000, 5534.0000, 417.099, 1.5 ! !END!
770 ! X = 437.0000, 5534.0000, 417.496, 1.5 ! !END!
771 ! X = 438.0000, 5534.0000, 419.822, 1.5 ! !END!
772 ! X = 439.0000, 5534.0000, 423.096, 1.5 ! !END!
773 ! X = 440.0000, 5534.0000, 416.374, 1.5 ! !END!
774 ! X = 441.0000, 5534.0000, 418.347, 1.5 ! !END!
775 ! X = 442.0000, 5534.0000, 418.573, 1.5 ! !END!
776 ! X = 443.0000, 5534.0000, 409.696, 1.5 ! !END!
777 ! X = 444.0000, 5534.0000, 410.523, 1.5 ! !END!
778 ! X = 445.0000, 5534.0000, 406.523, 1.5 ! !END!
779 ! X = 446.0000, 5534.0000, 406.948, 1.5 ! !END!
780 ! X = 447.0000, 5534.0000, 405.373, 1.5 ! !END!
781 ! X = 448.0000, 5534.0000, 404.973, 1.5 ! !END!
782 ! X = 449.0000, 5534.0000, 406.223, 1.5 ! !END!
783 ! X = 450.0000, 5534.0000, 397.249, 1.5 ! !END!
784 ! X = 422.0000, 5535.0000, 434.998, 1.5 ! !END!
785 ! X = 423.0000, 5535.0000, 432.271, 1.5 ! !END!
786 ! X = 424.0000, 5535.0000, 436.246, 1.5 ! !END!
787 ! X = 425.0000, 5535.0000, 437.272, 1.5 ! !END!
788 ! X = 426.0000, 5535.0000, 434.372, 1.5 ! !END!
789 ! X = 427.0000, 5535.0000, 438.447, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

790 ! X = 428.0000, 5535.0000, 436.369, 1.5 ! !END!
791 ! X = 429.0000, 5535.0000, 432.345, 1.5 ! !END!
792 ! X = 430.0000, 5535.0000, 429.947, 1.5 ! !END!
793 ! X = 431.0000, 5535.0000, 436.896, 1.5 ! !END!
794 ! X = 432.0000, 5535.0000, 434.324, 1.5 ! !END!
795 ! X = 433.0000, 5535.0000, 432.973, 1.5 ! !END!
796 ! X = 434.0000, 5535.0000, 428.546, 1.5 ! !END!
797 ! X = 435.0000, 5535.0000, 425.550, 1.5 ! !END!
798 ! X = 436.0000, 5535.0000, 426.599, 1.5 ! !END!
799 ! X = 437.0000, 5535.0000, 425.848, 1.5 ! !END!
800 ! X = 438.0000, 5535.0000, 426.425, 1.5 ! !END!
801 ! X = 439.0000, 5535.0000, 427.649, 1.5 ! !END!
802 ! X = 440.0000, 5535.0000, 420.596, 1.5 ! !END!
803 ! X = 441.0000, 5535.0000, 423.847, 1.5 ! !END!
804 ! X = 442.0000, 5535.0000, 424.496, 1.5 ! !END!
805 ! X = 443.0000, 5535.0000, 415.649, 1.5 ! !END!
806 ! X = 444.0000, 5535.0000, 415.197, 1.5 ! !END!
807 ! X = 445.0000, 5535.0000, 410.950, 1.5 ! !END!
808 ! X = 446.0000, 5535.0000, 410.524, 1.5 ! !END!
809 ! X = 447.0000, 5535.0000, 409.648, 1.5 ! !END!
810 ! X = 448.0000, 5535.0000, 410.598, 1.5 ! !END!
811 ! X = 449.0000, 5535.0000, 409.524, 1.5 ! !END!
812 ! X = 450.0000, 5535.0000, 402.398, 1.5 ! !END!
813 ! X = 422.0000, 5536.0000, 441.522, 1.5 ! !END!
814 ! X = 423.0000, 5536.0000, 440.622, 1.5 ! !END!
815 ! X = 424.0000, 5536.0000, 444.122, 1.5 ! !END!
816 ! X = 425.0000, 5536.0000, 444.772, 1.5 ! !END!
817 ! X = 426.0000, 5536.0000, 441.697, 1.5 ! !END!
818 ! X = 427.0000, 5536.0000, 444.473, 1.5 ! !END!
819 ! X = 428.0000, 5536.0000, 445.023, 1.5 ! !END!
820 ! X = 429.0000, 5536.0000, 441.422, 1.5 ! !END!
821 ! X = 430.0000, 5536.0000, 437.271, 1.5 ! !END!
822 ! X = 431.0000, 5536.0000, 445.121, 1.5 ! !END!
823 ! X = 432.0000, 5536.0000, 440.020, 1.5 ! !END!
824 ! X = 433.0000, 5536.0000, 439.022, 1.5 ! !END!
825 ! X = 434.0000, 5536.0000, 436.573, 1.5 ! !END!
826 ! X = 435.0000, 5536.0000, 429.746, 1.5 ! !END!
827 ! X = 436.0000, 5536.0000, 432.673, 1.5 ! !END!
828 ! X = 437.0000, 5536.0000, 429.099, 1.5 ! !END!
829 ! X = 438.0000, 5536.0000, 431.148, 1.5 ! !END!
830 ! X = 439.0000, 5536.0000, 428.274, 1.5 ! !END!
831 ! X = 440.0000, 5536.0000, 426.948, 1.5 ! !END!
832 ! X = 441.0000, 5536.0000, 429.048, 1.5 ! !END!
833 ! X = 442.0000, 5536.0000, 427.925, 1.5 ! !END!
834 ! X = 443.0000, 5536.0000, 421.222, 1.5 ! !END!
835 ! X = 444.0000, 5536.0000, 418.774, 1.5 ! !END!
836 ! X = 445.0000, 5536.0000, 415.247, 1.5 ! !END!
837 ! X = 446.0000, 5536.0000, 414.798, 1.5 ! !END!
838 ! X = 447.0000, 5536.0000, 413.848, 1.5 ! !END!
839 ! X = 448.0000, 5536.0000, 415.573, 1.5 ! !END!
840 ! X = 449.0000, 5536.0000, 411.999, 1.5 ! !END!
841 ! X = 450.0000, 5536.0000, 405.100, 1.5 ! !END!
842 ! X = 440.3500, 5519.6000, 365.363, 1.5 ! !END!
843 ! X = 443.0000, 5522.3000, 370.649, 1.5 ! !END!

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

844 !X = 433.6220, 5521.7020, 366.572, 1.5 ! !END!
845 !X = 433.3890, 5520.0260, 377.305, 1.5 ! !END!
846 !X = 432.8700, 5520.2180, 381.015, 1.5 ! !END!
847 !X = 432.7030, 5521.2830, 375.354, 1.5 ! !END!
848 !X = 430.3560, 5520.2580, 389.561, 1.5 ! !END!
849 !X = 429.5690, 5521.9950, 375.664, 1.5 ! !END!
850 !X = 431.7790, 5524.1040, 363.883, 1.5 ! !END!
851 !X = 436.3300, 5507.6340, 469.771, 1.5 ! !END!
852 !X = 447.017, 5525.774, 385.422, 1.5 ! !END!

ATTACHMENT C

**Predicted COPC Concentrations
And Deposition Rates for OS1 and OS3**

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

**Table C.1
Maximum Predicted 1-hour Average COPC Concentrations (OS1)**

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
Common Air Contaminants												
Total PM	1.46E+00	9.36E-01	1.01E+00	1.21E+00	8.77E-01	8.87E-01	9.85E-01	1.08E+00	8.31E-01	4.49E-01	9.52E-01	6.93E+00
PM ₁₀	1.35E+00	8.65E-01	9.31E-01	1.11E+00	8.11E-01	8.20E-01	9.11E-01	1.00E+00	7.77E-01	4.19E-01	8.92E-01	6.37E+00
PM _{2.5}	8.75E-01	5.61E-01	6.03E-01	7.21E-01	5.26E-01	5.33E-01	5.91E-01	6.50E-01	5.04E-01	2.77E-01	5.79E-01	4.13E+00
NO	2.45E+01	1.57E+01	1.69E+01	2.02E+01	1.47E+01	1.49E+01	1.65E+01	1.82E+01	1.40E+01	7.74E+00	1.61E+01	1.16E+02
NO ₂ (directly emitted)	1.40E+01	8.98E+00	9.67E+00	1.16E+01	8.43E+00	8.54E+00	9.46E+00	1.04E+01	8.01E+00	4.44E+00	9.24E+00	6.62E+01
NO _x	3.85E+01	2.47E+01	2.65E+01	3.17E+01	2.32E+01	2.34E+01	2.60E+01	2.86E+01	2.20E+01	1.22E+01	2.54E+01	1.82E+02
NO ₂ (100% conversion)	5.15E+01	3.30E+01	3.55E+01	4.25E+01	3.10E+01	3.14E+01	3.48E+01	3.83E+01	2.94E+01	1.63E+01	3.40E+01	2.43E+02
SO ₂	4.02E+01	2.57E+01	2.77E+01	3.31E+01	2.42E+01	2.45E+01	2.71E+01	2.99E+01	2.30E+01	1.27E+01	2.65E+01	1.90E+02
CO	3.40E+00	2.18E+00	2.35E+00	2.80E+00	2.05E+00	2.07E+00	2.30E+00	2.53E+00	1.94E+00	1.08E+00	2.24E+00	1.61E+01
HCl	4.09E-02	2.62E-02	2.82E-02	3.37E-02	2.46E-02	2.49E-02	2.76E-02	3.04E-02	2.34E-02	1.29E-02	2.69E-02	1.93E-01
HF	3.75E-02	2.40E-02	2.59E-02	3.09E-02	2.26E-02	2.28E-02	2.53E-02	2.79E-02	2.14E-02	1.19E-02	2.47E-02	1.77E-01
Metals												
Aluminum	1.76E-01	1.13E-01	1.21E-01	1.45E-01	1.05E-01	1.07E-01	1.18E-01	1.29E-01	9.99E-02	5.41E-02	1.15E-01	8.33E-01
Antimony	3.07E-05	1.97E-05	2.12E-05	2.53E-05	1.84E-05	1.86E-05	2.07E-05	2.26E-05	1.74E-05	9.44E-06	2.00E-05	1.45E-04
Arsenic	2.73E-04	1.75E-04	1.88E-04	2.25E-04	1.64E-04	1.66E-04	1.84E-04	2.01E-04	1.55E-04	8.39E-05	1.78E-04	1.29E-03
Barium	8.22E-02	5.26E-02	5.67E-02	6.78E-02	4.93E-02	4.99E-02	5.54E-02	6.05E-02	4.67E-02	2.53E-02	5.36E-02	3.89E-01
Beryllium	1.35E-05	8.63E-06	9.29E-06	1.11E-05	8.08E-06	8.18E-06	9.08E-06	9.92E-06	7.66E-06	4.14E-06	8.78E-06	6.38E-05
Boron	7.51E-03	4.81E-03	5.17E-03	6.19E-03	4.50E-03	4.55E-03	5.06E-03	5.52E-03	4.26E-03	2.31E-03	4.89E-03	3.55E-02
Cadmium	2.22E-05	1.42E-05	1.53E-05	1.83E-05	1.33E-05	1.35E-05	1.49E-05	1.63E-05	1.26E-05	6.82E-06	1.44E-05	1.05E-04
Chromium	3.58E-04	2.29E-04	2.47E-04	2.96E-04	2.15E-04	2.17E-04	2.41E-04	2.64E-04	2.04E-04	1.10E-04	2.33E-04	1.70E-03
Cobalt	5.46E-05	3.49E-05	3.76E-05	4.50E-05	3.27E-05	3.31E-05	3.68E-05	4.02E-05	3.10E-05	1.68E-05	3.56E-05	2.59E-04
Copper	8.70E-04	5.57E-04	6.00E-04	7.18E-04	5.22E-04	5.28E-04	5.86E-04	6.40E-04	4.94E-04	2.67E-04	5.67E-04	4.12E-03
Iron	6.48E-02	4.15E-02	4.47E-02	5.35E-02	3.89E-02	3.93E-02	4.37E-02	4.77E-02	3.68E-02	1.99E-02	4.22E-02	3.07E-01
Lithium	1.43E-03	9.17E-04	9.88E-04	1.18E-03	8.59E-04	8.70E-04	9.65E-04	1.05E-03	8.14E-04	4.40E-04	9.33E-04	6.79E-03
Manganese	9.56E-04	6.12E-04	6.59E-04	7.88E-04	5.73E-04	5.80E-04	6.43E-04	7.03E-04	5.43E-04	2.94E-04	6.22E-04	4.52E-03
Mercury (Total)	3.71E-04	2.37E-04	2.56E-04	3.06E-04	2.22E-04	2.25E-04	2.50E-04	2.73E-04	2.11E-04	1.14E-04	2.42E-04	1.76E-03
Elemental Hg	3.30E-04	2.11E-04	2.27E-04	2.72E-04	1.98E-04	2.01E-04	2.22E-04	2.45E-04	1.88E-04	1.04E-04	2.17E-04	1.56E-03

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
Oxidized Hg	4.20E-05	2.69E-05	2.89E-05	3.46E-05	2.52E-05	2.56E-05	2.83E-05	3.12E-05	2.40E-05	1.33E-05	2.77E-05	1.98E-04
Particle-bound Hg	3.95E-07	2.53E-07	2.72E-07	3.25E-07	2.37E-07	2.39E-07	2.66E-07	2.90E-07	2.24E-07	1.21E-07	2.57E-07	1.87E-06
Molybdenum	3.24E-04	2.07E-04	2.23E-04	2.67E-04	1.94E-04	1.97E-04	2.18E-04	2.39E-04	1.84E-04	9.96E-05	2.11E-04	1.54E-03
Nickel	2.39E-04	1.53E-04	1.65E-04	1.97E-04	1.43E-04	1.45E-04	1.61E-04	1.76E-04	1.36E-04	7.34E-05	1.56E-04	1.13E-03
Palladium	2.05E-04	1.31E-04	1.41E-04	1.69E-04	1.23E-04	1.24E-04	1.38E-04	1.51E-04	1.16E-04	6.29E-05	1.33E-04	9.70E-04
Lead	2.39E-04	1.53E-04	1.65E-04	1.97E-04	1.43E-04	1.45E-04	1.61E-04	1.76E-04	1.36E-04	7.34E-05	1.56E-04	1.13E-03
Selenium	2.22E-04	1.42E-04	1.53E-04	1.83E-04	1.33E-04	1.35E-04	1.49E-04	1.63E-04	1.26E-04	6.82E-05	1.44E-04	1.05E-03
Silver	1.45E-05	9.28E-06	1.00E-05	1.20E-05	8.70E-06	8.80E-06	9.77E-06	1.07E-05	8.24E-06	4.46E-06	9.44E-06	6.87E-05
Strontium	1.67E-02	1.07E-02	1.15E-02	1.38E-02	1.00E-02	1.01E-02	1.13E-02	1.23E-02	9.50E-03	5.14E-03	1.09E-02	7.92E-02
Thallium	3.07E-05	1.97E-05	2.12E-05	2.53E-05	1.84E-05	1.86E-05	2.07E-05	2.26E-05	1.74E-05	9.44E-06	2.00E-05	1.45E-04
Thorium	7.51E-05	4.81E-05	5.17E-05	6.19E-05	4.50E-05	4.55E-05	5.06E-05	5.52E-05	4.26E-05	2.31E-05	4.89E-05	3.55E-04
Tin	3.41E-04	2.18E-04	2.35E-04	2.81E-04	2.05E-04	2.07E-04	2.30E-04	2.51E-04	1.94E-04	1.05E-04	2.22E-04	1.62E-03
Uranium	3.41E-05	2.18E-05	2.35E-05	2.81E-05	2.05E-05	2.07E-05	2.30E-05	2.51E-05	1.94E-05	1.05E-05	2.22E-05	1.62E-04
Vanadium	5.29E-04	3.39E-04	3.65E-04	4.36E-04	3.17E-04	3.21E-04	3.56E-04	3.89E-04	3.00E-04	1.63E-04	3.44E-04	2.50E-03
Zinc	2.22E-04	1.42E-04	1.53E-04	1.83E-04	1.33E-04	1.35E-04	1.49E-04	1.63E-04	1.26E-04	6.82E-05	1.44E-04	1.05E-03
Dioxins and Furans												
Tetrachlorodibenzo-p-dioxins	8.43E-12	5.40E-12	5.81E-12	6.95E-12	5.06E-12	5.11E-12	5.68E-12	6.20E-12	4.79E-12	2.59E-12	5.49E-12	3.99E-11
Pentachlorodibenzo-p-dioxins	6.62E-12	4.24E-12	4.57E-12	5.46E-12	3.97E-12	4.02E-12	4.46E-12	4.87E-12	3.76E-12	2.04E-12	4.31E-12	3.14E-11
Hexachlorodibenzo-p-dioxins	3.67E-10	2.35E-10	2.53E-10	3.03E-10	2.20E-10	2.23E-10	2.47E-10	2.70E-10	2.09E-10	1.13E-10	2.39E-10	1.74E-09
Heptachlorodibenzo-p-dioxins	9.82E-10	6.28E-10	6.77E-10	8.10E-10	5.89E-10	5.96E-10	6.61E-10	7.22E-10	5.58E-10	3.02E-10	6.39E-10	4.65E-09
Octachlorodibenzo-p-dioxins	1.38E-09	8.83E-10	9.50E-10	1.14E-09	8.27E-10	8.37E-10	9.29E-10	1.01E-09	7.83E-10	4.24E-10	8.98E-10	6.53E-09
Total Dioxins	2.38E-09	1.52E-09	1.64E-09	1.96E-09	1.43E-09	1.44E-09	1.60E-09	1.75E-09	1.35E-09	7.31E-10	1.55E-09	1.13E-08
Tetrachlorodibenzofurans	1.56E-09	9.98E-10	1.08E-09	1.29E-09	9.35E-10	9.46E-10	1.05E-09	1.15E-09	8.86E-10	4.79E-10	1.02E-09	7.39E-09
Pentachlorodibenzofurans	1.42E-09	9.10E-10	9.80E-10	1.17E-09	8.52E-10	8.62E-10	9.57E-10	1.05E-09	8.07E-10	4.37E-10	9.25E-10	6.73E-09
Hexachlorodibenzofurans	5.24E-10	3.35E-10	3.61E-10	4.32E-10	3.14E-10	3.18E-10	3.53E-10	3.85E-10	2.98E-10	1.61E-10	3.41E-10	2.48E-09
Heptachlorodibenzofurans	2.89E-10	1.85E-10	1.99E-10	2.38E-10	1.73E-10	1.75E-10	1.95E-10	2.13E-10	1.64E-10	8.88E-11	1.88E-10	1.37E-09
Octachlorodibenzofurans	6.20E-09	3.97E-09	4.28E-09	5.12E-09	3.72E-09	3.76E-09	4.18E-09	4.56E-09	3.52E-09	1.91E-09	4.04E-09	2.94E-08
Total Furans	2.11E-10	1.35E-10	1.45E-10	1.74E-10	1.26E-10	1.28E-10	1.42E-10	1.55E-10	1.20E-10	6.48E-11	1.37E-10	9.98E-10
PAHs	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acenaphthene	2.46E-05	1.58E-05	1.70E-05	2.03E-05	1.48E-05	1.50E-05	1.66E-05	1.83E-05	1.41E-05	7.80E-06	1.62E-05	1.16E-04
Acenaphthylene	1.71E-07	1.10E-07	1.18E-07	1.41E-07	1.03E-07	1.04E-07	1.15E-07	1.27E-07	9.78E-08	5.41E-08	1.13E-07	8.08E-07

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Anthracene	1.08E-06	6.91E-07	7.43E-07	8.88E-07	6.48E-07	6.57E-07	7.27E-07	8.01E-07	6.16E-07	3.41E-07	7.10E-07	5.09E-06
Benzo(a)anthracene	1.54E-07	9.87E-08	1.06E-07	1.27E-07	9.26E-08	9.38E-08	1.04E-07	1.14E-07	8.80E-08	4.87E-08	1.01E-07	7.27E-07
Benzo(b)anthracene	2.57E-07	1.64E-07	1.77E-07	2.11E-07	1.54E-07	1.56E-07	1.73E-07	1.91E-07	1.47E-07	8.12E-08	1.69E-07	1.21E-06
Benzo(b)fluoranthene	2.40E-07	1.53E-07	1.65E-07	1.97E-07	1.44E-07	1.46E-07	1.62E-07	1.78E-07	1.37E-07	7.58E-08	1.58E-07	1.13E-06
Benzo(k,j)fluoranthene	2.91E-07	1.86E-07	2.01E-07	2.40E-07	1.75E-07	1.77E-07	1.96E-07	2.16E-07	1.66E-07	9.20E-08	1.92E-07	1.37E-06
Benzo(a)flourene	3.76E-07	2.41E-07	2.60E-07	3.10E-07	2.26E-07	2.29E-07	2.54E-07	2.80E-07	2.15E-07	1.19E-07	2.48E-07	1.78E-06
Benzo(b)flourene	8.56E-08	5.48E-08	5.90E-08	7.05E-08	5.15E-08	5.21E-08	5.77E-08	6.36E-08	4.89E-08	2.71E-08	5.64E-08	4.04E-07
Benzo(g,h,i)perylene	6.84E-07	4.38E-07	4.72E-07	5.64E-07	4.12E-07	4.17E-07	4.62E-07	5.09E-07	3.91E-07	2.17E-07	4.51E-07	3.23E-06
Benzo(a)pyrene	2.22E-07	1.42E-07	1.53E-07	1.83E-07	1.34E-07	1.36E-07	1.50E-07	1.65E-07	1.27E-07	7.04E-08	1.47E-07	1.05E-06
Benzo(e)pyrene	9.93E-07	6.36E-07	6.84E-07	8.18E-07	5.97E-07	6.05E-07	6.70E-07	7.38E-07	5.67E-07	3.14E-07	6.54E-07	4.69E-06
Biphenyl	1.16E-05	7.45E-06	8.02E-06	9.59E-06	7.00E-06	7.09E-06	7.85E-06	8.65E-06	6.65E-06	3.68E-06	7.67E-06	5.49E-05
2-chloronaphthalene	3.59E-08	2.30E-08	2.48E-08	2.96E-08	2.16E-08	2.19E-08	2.42E-08	2.67E-08	2.05E-08	1.14E-08	2.37E-08	1.70E-07
Coronene	4.11E-07	2.63E-07	2.83E-07	3.38E-07	2.47E-07	2.50E-07	2.77E-07	3.05E-07	2.35E-07	1.30E-07	2.71E-07	1.94E-06
Dibenzo(a,c & a,h)anthracene	1.25E-08	8.00E-09	8.61E-09	1.03E-08	7.51E-09	7.61E-09	8.43E-09	9.28E-09	7.14E-09	3.95E-09	8.23E-09	5.90E-08
Dibenzo(a,j)acridine	6.16E-09	3.95E-09	4.25E-09	5.07E-09	3.71E-09	3.75E-09	4.16E-09	4.58E-09	3.52E-09	1.95E-09	4.06E-09	2.91E-08
7H-dibenzo(c,g)carbazole	9.58E-09	6.14E-09	6.61E-09	7.89E-09	5.76E-09	5.84E-09	6.47E-09	7.12E-09	5.47E-09	3.03E-09	6.32E-09	4.52E-08
Dibenzo(a,e)pyrene	1.71E-09	1.10E-09	1.18E-09	1.41E-09	1.03E-09	1.04E-09	1.15E-09	1.27E-09	9.78E-10	5.41E-10	1.13E-09	8.08E-09
Dibenzo(a,i)pyrene	2.22E-09	1.42E-09	1.53E-09	1.83E-09	1.34E-09	1.36E-09	1.50E-09	1.65E-09	1.27E-09	7.04E-10	1.47E-09	1.05E-08
9,10-dimethylanthracene	9.41E-08	6.03E-08	6.49E-08	7.75E-08	5.66E-08	5.73E-08	6.35E-08	6.99E-08	5.38E-08	2.98E-08	6.20E-08	4.44E-07
7,12-dimethylanthracene	2.91E-08	1.86E-08	2.01E-08	2.40E-08	1.75E-08	1.77E-08	1.96E-08	2.16E-08	1.66E-08	9.20E-09	1.92E-08	1.37E-07
1,2-dimethylnaphthalene	1.45E-07	9.32E-08	1.00E-07	1.20E-07	8.75E-08	8.86E-08	9.82E-08	1.08E-07	8.31E-08	4.60E-08	9.59E-08	6.87E-07
2,6 & 2,7-dimethylnaphthalene	5.65E-07	3.62E-07	3.89E-07	4.65E-07	3.40E-07	3.44E-07	3.81E-07	4.20E-07	3.23E-07	1.79E-07	3.72E-07	2.67E-06
Fluoranthene	2.91E-06	1.86E-06	2.01E-06	2.40E-06	1.75E-06	1.77E-06	1.96E-06	2.16E-06	1.66E-06	9.20E-07	1.92E-06	1.37E-05
Fluorene	3.42E-06	2.19E-06	2.36E-06	2.82E-06	2.06E-06	2.08E-06	2.31E-06	2.54E-06	1.96E-06	1.08E-06	2.26E-06	1.62E-05
Indeno(1,2,3-cd)pyrene	1.18E-07	7.56E-08	8.14E-08	9.73E-08	7.10E-08	7.19E-08	7.97E-08	8.78E-08	6.75E-08	3.74E-08	7.78E-08	5.57E-07
2-methylanthracene	1.88E-07	1.21E-07	1.30E-07	1.55E-07	1.13E-07	1.15E-07	1.27E-07	1.40E-07	1.08E-07	5.96E-08	1.24E-07	8.89E-07
3-methylcholanthrene	5.13E-07	3.29E-07	3.54E-07	4.23E-07	3.09E-07	3.13E-07	3.46E-07	3.82E-07	2.93E-07	1.62E-07	3.38E-07	2.42E-06
1-methylnaphthalene	3.42E-06	2.19E-06	2.36E-06	2.82E-06	2.06E-06	2.08E-06	2.31E-06	2.54E-06	1.96E-06	1.08E-06	2.26E-06	1.62E-05
2-methylnaphthalene	5.13E-06	3.29E-06	3.54E-06	4.23E-06	3.09E-06	3.13E-06	3.46E-06	3.82E-06	2.93E-06	1.62E-06	3.38E-06	2.42E-05
1-methylphenanthrene	1.42E-06	9.10E-07	9.79E-07	1.17E-06	8.54E-07	8.65E-07	9.58E-07	1.06E-06	8.11E-07	4.49E-07	9.36E-07	6.71E-06

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
9-methylphenanthrene	1.27E-06	8.11E-07	8.73E-07	1.04E-06	7.62E-07	7.71E-07	8.54E-07	9.41E-07	7.23E-07	4.01E-07	8.35E-07	5.98E-06
Naphthalene	1.03E-05	6.58E-06	7.08E-06	8.46E-06	6.18E-06	6.25E-06	6.93E-06	7.63E-06	5.87E-06	3.25E-06	6.77E-06	4.85E-05
Perylene	7.02E-08	4.49E-08	4.84E-08	5.78E-08	4.22E-08	4.27E-08	4.73E-08	5.21E-08	4.01E-08	2.22E-08	4.62E-08	3.31E-07
Phenanthrene	1.88E-05	1.21E-05	1.30E-05	1.55E-05	1.13E-05	1.15E-05	1.27E-05	1.40E-05	1.08E-05	5.96E-06	1.24E-05	8.89E-05
Picene	1.15E-08	7.34E-09	7.91E-09	9.44E-09	6.90E-09	6.98E-09	7.74E-09	8.52E-09	6.55E-09	3.63E-09	7.56E-09	5.41E-08
Pyrene	1.88E-06	1.21E-06	1.30E-06	1.55E-06	1.13E-06	1.15E-06	1.27E-06	1.40E-06	1.08E-06	5.96E-07	1.24E-06	8.89E-06
Quinoline	1.42E-07	9.10E-08	9.79E-08	1.17E-07	8.54E-08	8.65E-08	9.58E-08	1.06E-07	8.11E-08	4.49E-08	9.36E-08	6.71E-07
m-Terphenyl	4.96E-07	3.18E-07	3.42E-07	4.09E-07	2.99E-07	3.02E-07	3.35E-07	3.69E-07	2.84E-07	1.57E-07	3.27E-07	2.34E-06
o-Terphenyl	7.87E-07	5.04E-07	5.43E-07	6.48E-07	4.74E-07	4.79E-07	5.31E-07	5.85E-07	4.50E-07	2.49E-07	5.19E-07	3.72E-06
p-Terphenyl	2.57E-07	1.64E-07	1.77E-07	2.11E-07	1.54E-07	1.56E-07	1.73E-07	1.91E-07	1.47E-07	8.12E-08	1.69E-07	1.21E-06
Tetralin	1.11E-06	7.12E-07	7.67E-07	9.16E-07	6.69E-07	6.78E-07	7.51E-07	8.27E-07	6.35E-07	3.52E-07	7.33E-07	5.25E-06
Triphenylene/chrysene	6.50E-07	4.17E-07	4.48E-07	5.36E-07	3.91E-07	3.96E-07	4.39E-07	4.83E-07	3.72E-07	2.06E-07	4.29E-07	3.07E-06
VOCs												
Acetaldehyde	2.79E-03	1.79E-03	1.92E-03	2.30E-03	1.68E-03	1.70E-03	1.88E-03	2.07E-03	1.59E-03	8.82E-04	1.84E-03	1.32E-02
Acetophenone	7.33E-05	4.70E-05	5.06E-05	6.04E-05	4.41E-05	4.47E-05	4.95E-05	5.45E-05	4.19E-05	2.32E-05	4.83E-05	3.46E-04
Acrolien	1.42E-03	9.08E-04	9.78E-04	1.17E-03	8.53E-04	8.64E-04	9.57E-04	1.05E-03	8.10E-04	4.49E-04	9.34E-04	6.69E-03
Benzene	6.36E-03	4.07E-03	4.38E-03	5.24E-03	3.82E-03	3.87E-03	4.29E-03	4.72E-03	3.63E-03	2.01E-03	4.19E-03	3.00E-02
Benzyl chloride	3.42E-03	2.19E-03	2.36E-03	2.82E-03	2.06E-03	2.08E-03	2.31E-03	2.54E-03	1.96E-03	1.08E-03	2.26E-03	1.62E-02
Bis(2-ethylhexyl)phthalate (DEHP)	3.57E-04	2.29E-04	2.46E-04	2.94E-04	2.15E-04	2.17E-04	2.41E-04	2.65E-04	2.04E-04	1.13E-04	2.35E-04	1.69E-03
Bromoform	1.91E-04	1.22E-04	1.31E-04	1.57E-04	1.15E-04	1.16E-04	1.29E-04	1.42E-04	1.09E-04	6.03E-05	1.26E-04	9.00E-04
Carbon disulphide	6.36E-04	4.07E-04	4.38E-04	5.24E-04	3.82E-04	3.87E-04	4.29E-04	4.72E-04	3.63E-04	2.01E-04	4.19E-04	3.00E-03
2-Chloroacetophenone	3.42E-05	2.19E-05	2.36E-05	2.82E-05	2.06E-05	2.08E-05	2.31E-05	2.54E-05	1.96E-05	1.08E-05	2.26E-05	1.62E-04
Chlorobenzene	1.08E-04	6.89E-05	7.42E-05	8.86E-05	6.47E-05	6.55E-05	7.26E-05	7.99E-05	6.15E-05	3.40E-05	7.09E-05	5.08E-04
Chloroform	2.88E-04	1.85E-04	1.99E-04	2.38E-04	1.74E-04	1.76E-04	1.95E-04	2.14E-04	1.65E-04	9.13E-05	1.90E-04	1.36E-03
Cumene	2.59E-05	1.66E-05	1.79E-05	2.13E-05	1.56E-05	1.58E-05	1.75E-05	1.93E-05	1.48E-05	8.20E-06	1.71E-05	1.22E-04
Cyanide	1.22E-02	7.83E-03	8.43E-03	1.01E-02	7.35E-03	7.45E-03	8.25E-03	9.08E-03	6.98E-03	3.87E-03	8.06E-03	5.77E-02
2,4-Dinitrotoluene	1.37E-06	8.77E-07	9.44E-07	1.13E-06	8.23E-07	8.34E-07	9.24E-07	1.02E-06	7.82E-07	4.33E-07	9.02E-07	6.46E-06
Dimethyl Sulphate	2.35E-04	1.50E-04	1.62E-04	1.93E-04	1.41E-04	1.43E-04	1.58E-04	1.74E-04	1.34E-04	7.42E-05	1.55E-04	1.11E-03
Ethyl benzene	4.60E-04	2.94E-04	3.17E-04	3.79E-04	2.76E-04	2.80E-04	3.10E-04	3.42E-04	2.63E-04	1.45E-04	3.03E-04	2.17E-03
Ethyl chloride	2.05E-04	1.32E-04	1.42E-04	1.69E-04	1.24E-04	1.25E-04	1.39E-04	1.53E-04	1.17E-04	6.50E-05	1.35E-04	9.70E-04

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
Ethylene dichloride	1.96E-04	1.25E-04	1.35E-04	1.61E-04	1.18E-04	1.19E-04	1.32E-04	1.45E-04	1.12E-04	6.19E-05	1.29E-04	9.23E-04
Ethylene dibromide	5.87E-06	3.76E-06	4.05E-06	4.83E-06	3.53E-06	3.57E-06	3.96E-06	4.36E-06	3.35E-06	1.86E-06	3.87E-06	2.77E-05
Formaldehyde	1.17E-03	7.52E-04	8.09E-04	9.67E-04	7.06E-04	7.15E-04	7.92E-04	8.72E-04	6.70E-04	3.71E-04	7.73E-04	5.54E-03
Hexane	3.28E-04	2.10E-04	2.26E-04	2.70E-04	1.97E-04	2.00E-04	2.21E-04	2.43E-04	1.87E-04	1.04E-04	2.16E-04	1.55E-03
Isophorone	2.84E-03	1.82E-03	1.96E-03	2.34E-03	1.71E-03	1.73E-03	1.91E-03	2.11E-03	1.62E-03	8.97E-04	1.87E-03	1.34E-02
Methylbromide	7.82E-04	5.01E-04	5.39E-04	6.44E-04	4.71E-04	4.77E-04	5.28E-04	5.81E-04	4.47E-04	2.47E-04	5.16E-04	3.69E-03
Methyl chloride	2.59E-03	1.66E-03	1.79E-03	2.13E-03	1.56E-03	1.58E-03	1.75E-03	1.93E-03	1.48E-03	8.20E-04	1.71E-03	1.22E-02
Methyl ethyl ketone	1.91E-03	1.22E-03	1.31E-03	1.57E-03	1.15E-03	1.16E-03	1.29E-03	1.42E-03	1.09E-03	6.03E-04	1.26E-03	9.00E-03
Methyl hydrazine	8.31E-04	5.32E-04	5.73E-04	6.85E-04	5.00E-04	5.06E-04	5.61E-04	6.18E-04	4.75E-04	2.63E-04	5.48E-04	3.92E-03
Methyl methacrylate	9.78E-05	6.26E-05	6.74E-05	8.06E-05	5.88E-05	5.96E-05	6.60E-05	7.27E-05	5.59E-05	3.09E-05	6.44E-05	4.62E-04
Methyl tert-butyl ether	1.71E-04	1.10E-04	1.18E-04	1.41E-04	1.03E-04	1.04E-04	1.15E-04	1.27E-04	9.78E-05	5.41E-05	1.13E-04	8.08E-04
Methylene chloride	1.42E-03	9.08E-04	9.78E-04	1.17E-03	8.53E-04	8.64E-04	9.57E-04	1.05E-03	8.10E-04	4.49E-04	9.34E-04	6.69E-03
Phenol	7.82E-05	5.01E-05	5.39E-05	6.44E-05	4.71E-05	4.77E-05	5.28E-05	5.81E-05	4.47E-05	2.47E-05	5.16E-05	3.69E-04
Propionaldehyde	1.86E-03	1.19E-03	1.28E-03	1.53E-03	1.12E-03	1.13E-03	1.25E-03	1.38E-03	1.06E-03	5.88E-04	1.22E-03	8.77E-03
Tetrachloroethylene	2.10E-04	1.35E-04	1.45E-04	1.73E-04	1.26E-04	1.28E-04	1.42E-04	1.56E-04	1.20E-04	6.65E-05	1.39E-04	9.93E-04
Toluene	1.17E-03	7.52E-04	8.09E-04	9.67E-04	7.06E-04	7.15E-04	7.92E-04	8.72E-04	6.70E-04	3.71E-04	7.73E-04	5.54E-03
1,1,1-Trichloroethane	9.78E-05	6.26E-05	6.74E-05	8.06E-05	5.88E-05	5.96E-05	6.60E-05	7.27E-05	5.59E-05	3.09E-05	6.44E-05	4.62E-04
Styrene	1.22E-04	7.83E-05	8.43E-05	1.01E-04	7.35E-05	7.45E-05	8.25E-05	9.08E-05	6.98E-05	3.87E-05	8.06E-05	5.77E-04
Xylenes	1.81E-04	1.16E-04	1.25E-04	1.49E-04	1.09E-04	1.10E-04	1.22E-04	1.34E-04	1.03E-04	5.72E-05	1.19E-04	8.54E-04
Vinyl acetate	3.72E-05	2.38E-05	2.56E-05	3.06E-05	2.24E-05	2.26E-05	2.51E-05	2.76E-05	2.12E-05	1.18E-05	2.45E-05	1.75E-04
Toluene	1.17E-03	7.52E-04	8.09E-04	9.67E-04	7.06E-04	7.15E-04	7.92E-04	8.72E-04	6.70E-04	3.71E-04	7.73E-04	5.54E-03

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

**Table C.2
Maximum Predicted 24-hour Average COPC Concentrations (OS1)**

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
Total PM	1.96E-01	1.14E-01	2.00E-01	2.42E-01	2.14E-01	2.94E-01	2.05E-01	1.14E-01	1.01E-01	7.26E-02	1.33E-01	5.08E-01
PM ₁₀	1.81E-01	1.05E-01	1.84E-01	2.23E-01	1.98E-01	2.72E-01	1.91E-01	1.06E-01	9.43E-02	6.76E-02	1.25E-01	4.67E-01
PM _{2.5}	1.17E-01	6.83E-02	1.20E-01	1.45E-01	1.30E-01	1.78E-01	1.27E-01	7.02E-02	6.17E-02	4.42E-02	8.09E-02	3.03E-01
Elemental Hg	4.43E-05	2.57E-05	4.51E-05	5.48E-05	4.93E-05	6.74E-05	4.77E-05	2.64E-05	2.26E-05	1.67E-05	3.04E-05	1.14E-04
Oxidized Hg	5.63E-06	3.28E-06	5.74E-06	6.97E-06	6.28E-06	8.58E-06	6.08E-06	3.37E-06	2.87E-06	2.12E-06	3.86E-06	1.45E-05
Particle-bound Hg	5.30E-08	3.08E-08	5.40E-08	6.52E-08	5.77E-08	7.93E-08	5.53E-08	3.08E-08	2.73E-08	1.96E-08	3.60E-08	1.37E-07
Total Hg	4.98E-05	2.89E-05	5.07E-05	6.13E-05	5.42E-05	7.45E-05	5.20E-05	2.89E-05	2.57E-05	1.84E-05	3.38E-05	1.29E-04
HCl	5.49E-03	3.19E-03	5.59E-03	6.79E-03	6.12E-03	8.36E-03	5.92E-03	3.28E-03	2.80E-03	2.07E-03	3.77E-03	1.42E-02
HF	5.04E-03	2.93E-03	5.13E-03	6.23E-03	5.61E-03	7.67E-03	5.43E-03	3.01E-03	2.57E-03	1.89E-03	3.45E-03	1.30E-02
CO	4.57E-01	2.66E-01	4.65E-01	5.65E-01	5.09E-01	6.96E-01	4.93E-01	2.73E-01	2.33E-01	1.72E-01	3.13E-01	1.18E+00
NO	3.28E+00	1.91E+00	3.34E+00	4.06E+00	3.66E+00	5.00E+00	3.54E+00	1.96E+00	1.67E+00	1.24E+00	2.25E+00	8.47E+00
NO ₂	1.88E+00	1.09E+00	1.92E+00	2.33E+00	2.10E+00	2.87E+00	2.03E+00	1.12E+00	9.59E-01	7.08E-01	1.29E+00	4.85E+00
NO _x	5.17E+00	3.00E+00	5.26E+00	6.39E+00	5.76E+00	7.87E+00	5.57E+00	3.09E+00	2.63E+00	1.94E+00	3.54E+00	1.33E+01
NO ₂ (100% conversion)	6.92E+00	4.02E+00	7.04E+00	8.56E+00	7.71E+00	1.05E+01	7.46E+00	4.13E+00	3.53E+00	2.60E+00	4.75E+00	1.78E+01
SO ₂	5.40E+00	3.14E+00	5.49E+00	6.68E+00	6.01E+00	8.22E+00	5.82E+00	3.22E+00	2.75E+00	2.03E+00	3.70E+00	1.39E+01
Metals												
Aluminum	2.36E-02	1.37E-02	2.41E-02	2.91E-02	2.57E-02	3.53E-02	2.47E-02	1.37E-02	1.22E-02	8.74E-03	1.60E-02	6.10E-02
Antimony	4.12E-06	2.40E-06	4.20E-06	5.07E-06	4.49E-06	6.17E-06	4.31E-06	2.39E-06	2.13E-06	1.53E-06	2.80E-06	1.07E-05
Arsenic	3.67E-05	2.13E-05	3.73E-05	4.51E-05	3.99E-05	5.48E-05	3.83E-05	2.13E-05	1.89E-05	1.36E-05	2.49E-05	9.47E-05
Barium	1.10E-02	6.41E-03	1.12E-02	1.36E-02	1.20E-02	1.65E-02	1.15E-02	6.41E-03	5.69E-03	4.09E-03	7.50E-03	2.85E-02
Beryllium	1.81E-06	1.05E-06	1.84E-06	2.23E-06	1.97E-06	2.71E-06	1.89E-06	1.05E-06	9.33E-07	6.70E-07	1.23E-06	4.68E-06
Boron	1.01E-03	5.86E-04	1.03E-03	1.24E-03	1.10E-03	1.51E-03	1.05E-03	5.85E-04	5.20E-04	3.73E-04	6.84E-04	2.61E-03
Cadmium	2.98E-06	1.73E-06	3.03E-06	3.66E-06	3.24E-06	4.46E-06	3.11E-06	1.73E-06	1.54E-06	1.10E-06	2.02E-06	7.70E-06
Chromium	4.81E-05	2.79E-05	4.90E-05	5.92E-05	5.24E-05	7.20E-05	5.03E-05	2.79E-05	2.48E-05	1.78E-05	3.27E-05	1.24E-04
Cobalt	7.33E-06	4.26E-06	7.47E-06	9.02E-06	7.98E-06	1.10E-05	7.66E-06	4.26E-06	3.78E-06	2.71E-06	4.98E-06	1.89E-05
Copper	1.17E-04	6.79E-05	1.19E-04	1.44E-04	1.27E-04	1.75E-04	1.22E-04	6.79E-05	6.02E-05	4.32E-05	7.93E-05	3.02E-04
Iron	8.71E-03	5.06E-03	8.87E-03	1.07E-02	9.48E-03	1.30E-02	9.10E-03	5.06E-03	4.49E-03	3.22E-03	5.91E-03	2.25E-02

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Lithium	1.92E-04	1.12E-04	1.96E-04	2.37E-04	2.10E-04	2.88E-04	2.01E-04	1.12E-04	9.92E-05	7.12E-05	1.31E-04	4.97E-04
Manganese	1.28E-04	7.45E-05	1.31E-04	1.58E-04	1.40E-04	1.92E-04	1.34E-04	7.45E-05	6.62E-05	4.75E-05	8.71E-05	3.32E-04
Mercury	4.98E-05	2.89E-05	5.07E-05	6.13E-05	5.42E-05	7.45E-05	5.20E-05	2.89E-05	2.57E-05	1.84E-05	3.38E-05	1.29E-04
Molybdenum	4.35E-05	2.53E-05	4.43E-05	5.35E-05	4.74E-05	6.51E-05	4.55E-05	2.53E-05	2.24E-05	1.61E-05	2.96E-05	1.12E-04
Nickel	3.21E-05	1.86E-05	3.27E-05	3.95E-05	3.49E-05	4.80E-05	3.35E-05	1.86E-05	1.65E-05	1.19E-05	2.18E-05	8.29E-05
Palladium	2.75E-05	1.60E-05	2.80E-05	3.38E-05	2.99E-05	4.11E-05	2.87E-05	1.60E-05	1.42E-05	1.02E-05	1.87E-05	7.11E-05
Lead	3.21E-05	1.86E-05	3.27E-05	3.95E-05	3.49E-05	4.80E-05	3.35E-05	1.86E-05	1.65E-05	1.19E-05	2.18E-05	8.29E-05
Selenium	2.98E-05	1.73E-05	3.03E-05	3.66E-05	3.24E-05	4.46E-05	3.11E-05	1.73E-05	1.54E-05	1.10E-05	2.02E-05	7.70E-05
Silver	1.95E-06	1.13E-06	1.98E-06	2.40E-06	2.12E-06	2.91E-06	2.03E-06	1.13E-06	1.00E-06	7.20E-07	1.32E-06	5.03E-06
Strontium	2.25E-03	1.30E-03	2.29E-03	2.76E-03	2.44E-03	3.36E-03	2.35E-03	1.30E-03	1.16E-03	8.31E-04	1.52E-03	5.80E-03
Thallium	4.12E-06	2.40E-06	4.20E-06	5.07E-06	4.49E-06	6.17E-06	4.31E-06	2.39E-06	2.13E-06	1.53E-06	2.80E-06	1.07E-05
Thorium	1.01E-05	5.86E-06	1.03E-05	1.24E-05	1.10E-05	1.51E-05	1.05E-05	5.85E-06	5.20E-06	3.73E-06	6.84E-06	2.61E-05
Tin	4.58E-05	2.66E-05	4.67E-05	5.64E-05	4.99E-05	6.86E-05	4.79E-05	2.66E-05	2.36E-05	1.70E-05	3.11E-05	1.18E-04
Uranium	4.58E-06	2.66E-06	4.67E-06	5.64E-06	4.99E-06	6.86E-06	4.79E-06	2.66E-06	2.36E-06	1.70E-06	3.11E-06	1.18E-05
Vanadium	7.10E-05	4.13E-05	7.23E-05	8.74E-05	7.73E-05	1.06E-04	7.42E-05	4.12E-05	3.66E-05	2.63E-05	4.82E-05	1.84E-04
Zinc	2.98E-05	1.73E-05	3.03E-05	3.66E-05	3.24E-05	4.46E-05	3.11E-05	1.73E-05	1.54E-05	1.10E-05	2.02E-05	7.70E-05
Tetrachlorodibenzo-p-dioxins	1.13E-12	6.58E-13	1.15E-12	1.39E-12	1.23E-12	1.69E-12	1.18E-12	6.57E-13	5.84E-13	4.19E-13	7.69E-13	2.93E-12
Pentachlorodibenzo-p-dioxins	8.90E-13	5.17E-13	9.06E-13	1.09E-12	9.69E-13	1.33E-12	9.29E-13	5.17E-13	4.59E-13	3.29E-13	6.04E-13	2.30E-12
Hexachlorodibenzo-p-dioxins	4.93E-11	2.87E-11	5.02E-11	6.07E-11	5.37E-11	7.38E-11	5.15E-11	2.86E-11	2.54E-11	1.82E-11	3.35E-11	1.27E-10
Heptachlorodibenzo-p-dioxins	1.32E-10	7.66E-11	1.34E-10	1.62E-10	1.44E-10	1.97E-10	1.38E-10	7.65E-11	6.80E-11	4.88E-11	8.95E-11	3.41E-10
Octachlorodibenzo-p-dioxins	1.85E-10	1.08E-10	1.89E-10	2.28E-10	2.02E-10	2.77E-10	1.93E-10	1.08E-10	9.55E-11	6.85E-11	1.26E-10	4.79E-10
Total Dioxins	3.19E-10	1.86E-10	3.25E-10	3.93E-10	3.48E-10	4.78E-10	3.34E-10	1.85E-10	1.65E-10	1.18E-10	2.17E-10	8.25E-10
Tetrachlorodibenzofurans	2.09E-10	1.22E-10	2.13E-10	2.58E-10	2.28E-10	3.13E-10	2.19E-10	1.22E-10	1.08E-10	7.75E-11	1.42E-10	5.41E-10
Pentachlorodibenzofurans	1.91E-10	1.11E-10	1.94E-10	2.35E-10	2.08E-10	2.86E-10	1.99E-10	1.11E-10	9.84E-11	7.06E-11	1.30E-10	4.93E-10
Hexachlorodibenzofurans	7.04E-11	4.09E-11	7.16E-11	8.65E-11	7.66E-11	1.05E-10	7.35E-11	4.09E-11	3.63E-11	2.60E-11	4.78E-11	1.82E-10
Heptachlorodibenzofurans	3.88E-11	2.25E-11	3.95E-11	4.77E-11	4.23E-11	5.81E-11	4.06E-11	2.25E-11	2.00E-11	1.44E-11	2.63E-11	1.00E-10
Octachlorodibenzofurans	8.33E-10	4.84E-10	8.48E-10	1.02E-09	9.07E-10	1.25E-09	8.70E-10	4.84E-10	4.29E-10	3.08E-10	5.65E-10	2.15E-09
Total Furans	2.83E-11	1.64E-11	2.88E-11	3.48E-11	3.08E-11	4.23E-11	2.96E-11	1.64E-11	1.46E-11	1.05E-11	1.92E-11	7.31E-11
PAHs	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acenaphthene	3.31E-06	1.92E-06	3.37E-06	4.09E-06	3.69E-06	5.04E-06	3.57E-06	1.98E-06	1.69E-06	1.24E-06	2.27E-06	8.53E-06
Acenaphthylene	2.30E-08	1.34E-08	2.34E-08	2.84E-08	2.56E-08	3.50E-08	2.48E-08	1.37E-08	1.17E-08	8.64E-09	1.58E-08	5.92E-08
Anthracene	1.45E-07	8.41E-08	1.47E-07	1.79E-07	1.61E-07	2.20E-07	1.56E-07	8.64E-08	7.37E-08	5.44E-08	9.93E-08	3.73E-07
Benzo(a)anthracene	2.07E-08	1.20E-08	2.11E-08	2.56E-08	2.30E-08	3.15E-08	2.23E-08	1.23E-08	1.05E-08	7.78E-09	1.42E-08	5.33E-08

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Benzo(b)anthracene	3.45E-08	2.00E-08	3.51E-08	4.26E-08	3.84E-08	5.25E-08	3.72E-08	2.06E-08	1.76E-08	1.30E-08	2.36E-08	8.88E-08
Benzo(b)fluoranthene	3.22E-08	1.87E-08	3.27E-08	3.98E-08	3.58E-08	4.90E-08	3.47E-08	1.92E-08	1.64E-08	1.21E-08	2.21E-08	8.29E-08
Benzo(k,j)fluoranthene	3.91E-08	2.27E-08	3.98E-08	4.83E-08	4.35E-08	5.95E-08	4.21E-08	2.33E-08	1.99E-08	1.47E-08	2.68E-08	1.01E-07
Benzo(a)flourene	5.05E-08	2.94E-08	5.15E-08	6.25E-08	5.63E-08	7.70E-08	5.45E-08	3.02E-08	2.58E-08	1.90E-08	3.47E-08	1.30E-07
Benzo(b)flourene	1.15E-08	6.68E-09	1.17E-08	1.42E-08	1.28E-08	1.75E-08	1.24E-08	6.86E-09	5.85E-09	4.32E-09	7.88E-09	2.96E-08
Benzo(g,h,i)perylene	9.19E-08	5.34E-08	9.36E-08	1.14E-07	1.02E-07	1.40E-07	9.91E-08	5.49E-08	4.68E-08	3.46E-08	6.30E-08	2.37E-07
Benzo(a)pyrene	2.99E-08	1.74E-08	3.04E-08	3.70E-08	3.33E-08	4.55E-08	3.22E-08	1.78E-08	1.52E-08	1.12E-08	2.05E-08	7.70E-08
Benzo(e)pyrene	1.33E-07	7.75E-08	1.36E-07	1.65E-07	1.48E-07	2.03E-07	1.44E-07	7.96E-08	6.79E-08	5.01E-08	9.14E-08	3.44E-07
Biphenyl	1.56E-06	9.08E-07	1.59E-06	1.93E-06	1.74E-06	2.38E-06	1.68E-06	9.33E-07	7.96E-07	5.88E-07	1.07E-06	4.03E-06
2-chloronaphthalene	4.82E-09	2.80E-09	4.91E-09	5.97E-09	5.37E-09	7.35E-09	5.20E-09	2.88E-09	2.46E-09	1.81E-09	3.31E-09	1.24E-08
Coronene	5.51E-08	3.21E-08	5.61E-08	6.82E-08	6.14E-08	8.40E-08	5.95E-08	3.29E-08	2.81E-08	2.07E-08	3.78E-08	1.42E-07
Dibenzo(a,c & a,h)anthracene	1.68E-09	9.75E-10	1.71E-09	2.08E-09	1.87E-09	2.55E-09	1.81E-09	1.00E-09	8.55E-10	6.31E-10	1.15E-09	4.32E-09
Dibenzo(a,j)acridine	8.27E-10	4.81E-10	8.42E-10	1.02E-09	9.21E-10	1.26E-09	8.92E-10	4.94E-10	4.21E-10	3.11E-10	5.67E-10	2.13E-09
7H-dibenzo(c,g)carbazole	1.29E-09	7.48E-10	1.31E-09	1.59E-09	1.43E-09	1.96E-09	1.39E-09	7.68E-10	6.56E-10	4.84E-10	8.82E-10	3.32E-09
Dibenzo(a,e)pyrene	2.30E-10	1.34E-10	2.34E-10	2.84E-10	2.56E-10	3.50E-10	2.48E-10	1.37E-10	1.17E-10	8.64E-11	1.58E-10	5.92E-10
Dibenzo(a,i)pyrene	2.99E-10	1.74E-10	3.04E-10	3.70E-10	3.33E-10	4.55E-10	3.22E-10	1.78E-10	1.52E-10	1.12E-10	2.05E-10	7.70E-10
9,10-dimethylanthracene	1.26E-08	7.35E-09	1.29E-08	1.56E-08	1.41E-08	1.92E-08	1.36E-08	7.55E-09	6.44E-09	4.75E-09	8.67E-09	3.26E-08
7,12-dimethylanthracene	3.91E-09	2.27E-09	3.98E-09	4.83E-09	4.35E-09	5.95E-09	4.21E-09	2.33E-09	1.99E-09	1.47E-09	2.68E-09	1.01E-08
1,2-dimethylnaphthalene	1.95E-08	1.14E-08	1.99E-08	2.42E-08	2.18E-08	2.97E-08	2.11E-08	1.17E-08	9.95E-09	7.35E-09	1.34E-08	5.03E-08
2,6 & 2,7-dimethylnaphthalene	7.58E-08	4.41E-08	7.72E-08	9.38E-08	8.45E-08	1.15E-07	8.18E-08	4.53E-08	3.86E-08	2.85E-08	5.20E-08	1.95E-07
Fluoranthene	3.91E-07	2.27E-07	3.98E-07	4.83E-07	4.35E-07	5.95E-07	4.21E-07	2.33E-07	1.99E-07	1.47E-07	2.68E-07	1.01E-06
Fluorene	4.60E-07	2.67E-07	4.68E-07	5.69E-07	5.12E-07	7.00E-07	4.96E-07	2.74E-07	2.34E-07	1.73E-07	3.15E-07	1.18E-06
Indeno(1,2,3-cd)pyrene	1.59E-08	9.22E-09	1.61E-08	1.96E-08	1.77E-08	2.41E-08	1.71E-08	9.47E-09	8.08E-09	5.96E-09	1.09E-08	4.09E-08
2-methylanthracene	2.53E-08	1.47E-08	2.57E-08	3.13E-08	2.82E-08	3.85E-08	2.73E-08	1.51E-08	1.29E-08	9.51E-09	1.73E-08	6.51E-08
3-methylcholanthrene	6.89E-08	4.01E-08	7.02E-08	8.53E-08	7.68E-08	1.05E-07	7.43E-08	4.12E-08	3.51E-08	2.59E-08	4.73E-08	1.78E-07
1-methylnaphthalene	4.60E-07	2.67E-07	4.68E-07	5.69E-07	5.12E-07	7.00E-07	4.96E-07	2.74E-07	2.34E-07	1.73E-07	3.15E-07	1.18E-06
2-methylnaphthalene	6.89E-07	4.01E-07	7.02E-07	8.53E-07	7.68E-07	1.05E-06	7.43E-07	4.12E-07	3.51E-07	2.59E-07	4.73E-07	1.78E-06
1-methylphenanthrene	1.91E-07	1.11E-07	1.94E-07	2.36E-07	2.12E-07	2.90E-07	2.06E-07	1.14E-07	9.72E-08	7.17E-08	1.31E-07	4.92E-07
9-methylphenanthrene	1.70E-07	9.88E-08	1.73E-07	2.10E-07	1.89E-07	2.59E-07	1.83E-07	1.02E-07	8.66E-08	6.40E-08	1.17E-07	4.38E-07
Naphthalene	1.38E-06	8.01E-07	1.40E-06	1.71E-06	1.54E-06	2.10E-06	1.49E-06	8.23E-07	7.02E-07	5.19E-07	9.45E-07	3.55E-06
Perylene	9.42E-09	5.48E-09	9.59E-09	1.17E-08	1.05E-08	1.43E-08	1.02E-08	5.63E-09	4.80E-09	3.54E-09	6.46E-09	2.43E-08
Phenanthrene	2.53E-06	1.47E-06	2.57E-06	3.13E-06	2.82E-06	3.85E-06	2.73E-06	1.51E-06	1.29E-06	9.51E-07	1.73E-06	6.51E-06
Picene	1.54E-09	8.95E-10	1.57E-09	1.90E-09	1.71E-09	2.34E-09	1.66E-09	9.19E-10	7.84E-10	5.79E-10	1.06E-09	3.97E-09

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Pyrene	2.53E-07	1.47E-07	2.57E-07	3.13E-07	2.82E-07	3.85E-07	2.73E-07	1.51E-07	1.29E-07	9.51E-08	1.73E-07	6.51E-07
Quinoline	1.91E-08	1.11E-08	1.94E-08	2.36E-08	2.12E-08	2.90E-08	2.06E-08	1.14E-08	9.72E-09	7.17E-09	1.31E-08	4.92E-08
m-Terphenyl	6.66E-08	3.87E-08	6.78E-08	8.24E-08	7.42E-08	1.01E-07	7.18E-08	3.98E-08	3.39E-08	2.51E-08	4.57E-08	1.72E-07
o-Terphenyl	1.06E-07	6.14E-08	1.08E-07	1.31E-07	1.18E-07	1.61E-07	1.14E-07	6.31E-08	5.38E-08	3.98E-08	7.25E-08	2.72E-07
p-Terphenyl	3.45E-08	2.00E-08	3.51E-08	4.26E-08	3.84E-08	5.25E-08	3.72E-08	2.06E-08	1.76E-08	1.30E-08	2.36E-08	8.88E-08
Tetralin	1.49E-07	8.68E-08	1.52E-07	1.85E-07	1.66E-07	2.27E-07	1.61E-07	8.92E-08	7.61E-08	5.62E-08	1.02E-07	3.85E-07
Triphenylene/chrysene	8.73E-08	5.08E-08	8.89E-08	1.08E-07	9.73E-08	1.33E-07	9.41E-08	5.21E-08	4.45E-08	3.28E-08	5.99E-08	2.25E-07
VOCs												
Acetaldehyde	3.74E-04	2.18E-04	3.81E-04	4.63E-04	4.17E-04	5.70E-04	4.03E-04	2.23E-04	1.91E-04	1.41E-04	2.57E-04	9.65E-04
Acetophenone	9.85E-06	5.72E-06	1.00E-05	1.22E-05	1.10E-05	1.50E-05	1.06E-05	5.88E-06	5.02E-06	3.70E-06	6.75E-06	2.54E-05
Acrolien	1.90E-04	1.11E-04	1.94E-04	2.36E-04	2.12E-04	2.90E-04	2.05E-04	1.14E-04	9.70E-05	7.16E-05	1.31E-04	4.91E-04
Benzene	8.53E-04	4.96E-04	8.69E-04	1.06E-03	9.51E-04	1.30E-03	9.20E-04	5.10E-04	4.35E-04	3.21E-04	5.85E-04	2.20E-03
Benzyl chloride	4.60E-04	2.67E-04	4.68E-04	5.69E-04	5.12E-04	7.00E-04	4.96E-04	2.74E-04	2.34E-04	1.73E-04	3.15E-04	1.18E-03
Bis(2-ethylhexyl)phthalate (DEHP)	4.79E-05	2.79E-05	4.88E-05	5.93E-05	5.34E-05	7.30E-05	5.17E-05	2.86E-05	2.44E-05	1.80E-05	3.29E-05	1.24E-04
Bromoform	2.56E-05	1.49E-05	2.61E-05	3.17E-05	2.85E-05	3.90E-05	2.76E-05	1.53E-05	1.30E-05	9.63E-06	1.76E-05	6.60E-05
Carbon disulphide	8.53E-05	4.96E-05	8.69E-05	1.06E-04	9.51E-05	1.30E-04	9.20E-05	5.10E-05	4.35E-05	3.21E-05	5.85E-05	2.20E-04
2-Chloroacetophenone	4.60E-06	2.67E-06	4.68E-06	5.69E-06	5.12E-06	7.00E-06	4.96E-06	2.74E-06	2.34E-06	1.73E-06	3.15E-06	1.18E-05
Chlorobenzene	1.44E-05	8.40E-06	1.47E-05	1.79E-05	1.61E-05	2.20E-05	1.56E-05	8.63E-06	7.36E-06	5.43E-06	9.91E-06	3.72E-05
Chloroform	3.87E-05	2.25E-05	3.94E-05	4.79E-05	4.31E-05	5.90E-05	4.18E-05	2.31E-05	1.97E-05	1.46E-05	2.66E-05	9.98E-05
Cumene	3.48E-06	2.02E-06	3.54E-06	4.31E-06	3.88E-06	5.30E-06	3.75E-06	2.08E-06	1.77E-06	1.31E-06	2.39E-06	8.97E-06
Cyanide	1.64E-03	9.54E-04	1.67E-03	2.03E-03	1.83E-03	2.50E-03	1.77E-03	9.80E-04	8.36E-04	6.17E-04	1.13E-03	4.23E-03
2,4-Dinitrotoluene	1.84E-07	1.07E-07	1.87E-07	2.27E-07	2.05E-07	2.80E-07	1.98E-07	1.10E-07	9.37E-08	6.91E-08	1.26E-07	4.74E-07
Dimethyl Sulphate	3.15E-05	1.83E-05	3.21E-05	3.90E-05	3.51E-05	4.80E-05	3.40E-05	1.88E-05	1.61E-05	1.19E-05	2.16E-05	8.12E-05
Ethyl benzene	6.17E-05	3.59E-05	6.28E-05	7.64E-05	6.87E-05	9.40E-05	6.65E-05	3.69E-05	3.14E-05	2.32E-05	4.23E-05	1.59E-04
Ethyl chloride	2.76E-05	1.60E-05	2.81E-05	3.41E-05	3.07E-05	4.20E-05	2.97E-05	1.65E-05	1.40E-05	1.04E-05	1.89E-05	7.11E-05
Ethylene dichloride	2.63E-05	1.53E-05	2.67E-05	3.25E-05	2.93E-05	4.00E-05	2.83E-05	1.57E-05	1.34E-05	9.88E-06	1.80E-05	6.77E-05
Ethylene dibromide	7.88E-07	4.58E-07	8.02E-07	9.75E-07	8.78E-07	1.20E-06	8.49E-07	4.70E-07	4.01E-07	2.96E-07	5.40E-07	2.03E-06
Formaldehyde	1.58E-04	9.16E-05	1.60E-04	1.95E-04	1.76E-04	2.40E-04	1.70E-04	9.41E-05	8.03E-05	5.93E-05	1.08E-04	4.06E-04
Hexane	4.40E-05	2.56E-05	4.48E-05	5.44E-05	4.90E-05	6.70E-05	4.74E-05	2.63E-05	2.24E-05	1.65E-05	3.02E-05	1.13E-04
Isophorone	3.81E-04	2.21E-04	3.88E-04	4.71E-04	4.24E-04	5.80E-04	4.11E-04	2.27E-04	1.94E-04	1.43E-04	2.61E-04	9.81E-04
Methylbromide	1.05E-04	6.11E-05	1.07E-04	1.30E-04	1.17E-04	1.60E-04	1.13E-04	6.27E-05	5.35E-05	3.95E-05	7.20E-05	2.71E-04
Methyl chloride	3.48E-04	2.02E-04	3.54E-04	4.31E-04	3.88E-04	5.30E-04	3.75E-04	2.08E-04	1.77E-04	1.31E-04	2.39E-04	8.97E-04
Methyl ethyl ketone	2.56E-04	1.49E-04	2.61E-04	3.17E-04	2.85E-04	3.90E-04	2.76E-04	1.53E-04	1.30E-04	9.63E-05	1.76E-04	6.60E-04

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Methyl hydrazine	1.12E-04	6.49E-05	1.14E-04	1.38E-04	1.24E-04	1.70E-04	1.20E-04	6.67E-05	5.69E-05	4.20E-05	7.65E-05	2.88E-04
Methyl methacrylate	1.31E-05	7.63E-06	1.34E-05	1.62E-05	1.46E-05	2.00E-05	1.42E-05	7.84E-06	6.69E-06	4.94E-06	9.00E-06	3.38E-05
Methyl tert-butyl ether	2.30E-05	1.34E-05	2.34E-05	2.84E-05	2.56E-05	3.50E-05	2.48E-05	1.37E-05	1.17E-05	8.64E-06	1.58E-05	5.92E-05
Methylene chloride	1.90E-04	1.11E-04	1.94E-04	2.36E-04	2.12E-04	2.90E-04	2.05E-04	1.14E-04	9.70E-05	7.16E-05	1.31E-04	4.91E-04
Phenol	1.05E-05	6.11E-06	1.07E-05	1.30E-05	1.17E-05	1.60E-05	1.13E-05	6.27E-06	5.35E-06	3.95E-06	7.20E-06	2.71E-05
Propionaldehyde	2.49E-04	1.45E-04	2.54E-04	3.09E-04	2.78E-04	3.80E-04	2.69E-04	1.49E-04	1.27E-04	9.38E-05	1.71E-04	6.43E-04
Tetrachloroethylene	2.82E-05	1.64E-05	2.87E-05	3.49E-05	3.14E-05	4.30E-05	3.04E-05	1.69E-05	1.44E-05	1.06E-05	1.94E-05	7.28E-05
Toluene	1.58E-04	9.16E-05	1.60E-04	1.95E-04	1.76E-04	2.40E-04	1.70E-04	9.41E-05	8.03E-05	5.93E-05	1.08E-04	4.06E-04
1,1,1-Trichloroethane	1.31E-05	7.63E-06	1.34E-05	1.62E-05	1.46E-05	2.00E-05	1.42E-05	7.84E-06	6.69E-06	4.94E-06	9.00E-06	3.38E-05
Styrene	1.64E-05	9.54E-06	1.67E-05	2.03E-05	1.83E-05	2.50E-05	1.77E-05	9.80E-06	8.36E-06	6.17E-06	1.13E-05	4.23E-05
Xylenes	2.43E-05	1.41E-05	2.47E-05	3.01E-05	2.71E-05	3.70E-05	2.62E-05	1.45E-05	1.24E-05	9.14E-06	1.67E-05	6.26E-05
Vinyl acetate	4.99E-06	2.90E-06	5.08E-06	6.17E-06	5.56E-06	7.60E-06	5.38E-06	2.98E-06	2.54E-06	1.88E-06	3.42E-06	1.29E-05

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

**Table C.3
Maximum Predicted Annual Average COPC Concentrations (OS1)**

COPC	Discrete Receptor Concentration (µg/m ³)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Common Air Contaminants												
Total PM	1.38E-02	6.86E-03	7.51E-03	8.40E-03	8.88E-03	9.71E-03	9.23E-03	6.87E-03	3.83E-03	2.18E-03	4.97E-03	1.86E-02
PM ₁₀	1.28E-02	6.36E-03	6.95E-03	7.78E-03	8.24E-03	9.00E-03	8.64E-03	6.43E-03	3.56E-03	2.06E-03	4.66E-03	1.71E-02
PM _{2.5}	8.33E-03	4.13E-03	4.51E-03	5.06E-03	5.36E-03	5.86E-03	5.67E-03	4.21E-03	2.32E-03	1.35E-03	3.04E-03	1.11E-02
NO	2.33E-01	1.15E-01	1.26E-01	1.41E-01	1.50E-01	1.64E-01	1.59E-01	1.17E-01	6.48E-02	3.83E-02	8.50E-02	3.11E-01
NO ₂ (directly emitted)	1.34E-01	6.61E-02	7.22E-02	8.09E-02	8.59E-02	9.38E-02	9.11E-02	6.73E-02	3.71E-02	2.19E-02	4.87E-02	1.78E-01
NO _x	3.67E-01	1.81E-01	1.98E-01	2.22E-01	2.36E-01	2.58E-01	2.50E-01	1.85E-01	1.02E-01	6.02E-02	1.34E-01	4.89E-01
NO ₂ (100% conversion)	4.91E-01	2.43E-01	2.65E-01	2.97E-01	3.16E-01	3.45E-01	3.35E-01	2.47E-01	1.36E-01	8.06E-02	1.79E-01	6.54E-01
SO ₂	3.83E-01	1.89E-01	2.07E-01	2.32E-01	2.46E-01	2.69E-01	2.61E-01	1.93E-01	1.06E-01	6.29E-02	1.40E-01	5.10E-01
CO	3.24E-02	1.60E-02	1.75E-02	1.96E-02	2.08E-02	2.28E-02	2.21E-02	1.63E-02	9.01E-03	5.32E-03	1.18E-02	4.32E-02
HCl	3.90E-04	1.93E-04	2.10E-04	2.36E-04	2.50E-04	2.74E-04	2.66E-04	1.96E-04	1.08E-04	6.40E-05	1.42E-04	5.19E-04
HF	3.57E-04	1.77E-04	1.93E-04	2.16E-04	2.30E-04	2.51E-04	2.44E-04	1.80E-04	9.93E-05	5.87E-05	1.30E-04	4.76E-04
Metals												
Aluminum	1.67E-03	8.25E-04	9.03E-04	1.01E-03	1.07E-03	1.17E-03	1.11E-03	8.26E-04	4.60E-04	2.63E-04	5.98E-04	2.23E-03
Antimony	2.91E-07	1.44E-07	1.58E-07	1.76E-07	1.86E-07	2.04E-07	1.94E-07	1.44E-07	8.03E-08	4.59E-08	1.04E-07	3.90E-07
Arsenic	2.59E-06	1.28E-06	1.40E-06	1.57E-06	1.66E-06	1.81E-06	1.72E-06	1.28E-06	7.14E-07	4.08E-07	9.28E-07	3.46E-06
Barium	7.79E-04	3.86E-04	4.22E-04	4.72E-04	4.99E-04	5.46E-04	5.19E-04	3.86E-04	2.15E-04	1.23E-04	2.79E-04	1.04E-03
Beryllium	1.28E-07	6.32E-08	6.92E-08	7.74E-08	8.19E-08	8.95E-08	8.50E-08	6.33E-08	3.53E-08	2.01E-08	4.58E-08	1.71E-07
Boron	7.11E-05	3.52E-05	3.85E-05	4.31E-05	4.56E-05	4.98E-05	4.74E-05	3.53E-05	1.96E-05	1.12E-05	2.55E-05	9.52E-05
Cadmium	2.10E-07	1.04E-07	1.14E-07	1.27E-07	1.35E-07	1.47E-07	1.40E-07	1.04E-07	5.80E-08	3.31E-08	7.54E-08	2.81E-07
Chromium	3.39E-06	1.68E-06	1.84E-06	2.06E-06	2.18E-06	2.38E-06	2.26E-06	1.68E-06	9.37E-07	5.35E-07	1.22E-06	4.54E-06
Cobalt	5.17E-07	2.56E-07	2.80E-07	3.13E-07	3.32E-07	3.62E-07	3.44E-07	2.56E-07	1.43E-07	8.16E-08	1.86E-07	6.93E-07
Copper	8.24E-06	4.08E-06	4.47E-06	5.00E-06	5.28E-06	5.78E-06	5.49E-06	4.09E-06	2.28E-06	1.30E-06	2.96E-06	1.10E-05
Iron	6.14E-04	3.04E-04	3.33E-04	3.72E-04	3.94E-04	4.30E-04	4.09E-04	3.04E-04	1.70E-04	9.69E-05	2.20E-04	8.22E-04
Lithium	1.36E-05	6.72E-06	7.36E-06	8.23E-06	8.70E-06	9.52E-06	9.04E-06	6.73E-06	3.75E-06	2.14E-06	4.87E-06	1.82E-05
Manganese	9.05E-06	4.48E-06	4.91E-06	5.49E-06	5.80E-06	6.34E-06	6.03E-06	4.49E-06	2.50E-06	1.43E-06	3.25E-06	1.21E-05
Mercury (Total)	3.51E-06	1.74E-06	1.90E-06	2.13E-06	2.25E-06	2.46E-06	2.34E-06	1.74E-06	9.71E-07	5.54E-07	1.26E-06	4.71E-06

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
Elemental Hg	3.14E-06	1.55E-06	1.70E-06	1.90E-06	2.02E-06	2.21E-06	2.14E-06	1.58E-06	8.73E-07	5.16E-07	1.15E-06	4.19E-06
Oxidized Hg	4.00E-07	1.98E-07	2.16E-07	2.42E-07	2.57E-07	2.81E-07	2.73E-07	2.01E-07	1.11E-07	6.57E-08	1.46E-07	5.33E-07
Particle-bound Hg	3.74E-09	1.85E-09	2.03E-09	2.26E-09	2.40E-09	2.62E-09	2.49E-09	1.85E-09	1.03E-09	5.89E-10	1.34E-09	5.00E-09
Molybdenum	3.07E-06	1.52E-06	1.66E-06	1.86E-06	1.97E-06	2.15E-06	2.05E-06	1.52E-06	8.48E-07	4.84E-07	1.10E-06	4.11E-06
Nickel	2.26E-06	1.12E-06	1.23E-06	1.37E-06	1.45E-06	1.59E-06	1.51E-06	1.12E-06	6.25E-07	3.57E-07	8.12E-07	3.03E-06
Palladium	1.94E-06	9.60E-07	1.05E-06	1.18E-06	1.24E-06	1.36E-06	1.29E-06	9.62E-07	5.36E-07	3.06E-07	6.96E-07	2.60E-06
Lead	2.26E-06	1.12E-06	1.23E-06	1.37E-06	1.45E-06	1.59E-06	1.51E-06	1.12E-06	6.25E-07	3.57E-07	8.12E-07	3.03E-06
Selenium	2.10E-06	1.04E-06	1.14E-06	1.27E-06	1.35E-06	1.47E-06	1.40E-06	1.04E-06	5.80E-07	3.31E-07	7.54E-07	2.81E-06
Silver	1.37E-07	6.80E-08	7.45E-08	8.33E-08	8.81E-08	9.63E-08	9.15E-08	6.81E-08	3.79E-08	2.17E-08	4.93E-08	1.84E-07
Strontium	1.58E-04	7.84E-05	8.58E-05	9.60E-05	1.02E-04	1.11E-04	1.06E-04	7.85E-05	4.37E-05	2.50E-05	5.68E-05	2.12E-04
Thallium	2.91E-07	1.44E-07	1.58E-07	1.76E-07	1.86E-07	2.04E-07	1.94E-07	1.44E-07	8.03E-08	4.59E-08	1.04E-07	3.90E-07
Thorium	7.11E-07	3.52E-07	3.85E-07	4.31E-07	4.56E-07	4.98E-07	4.74E-07	3.53E-07	1.96E-07	1.12E-07	2.55E-07	9.52E-07
Tin	3.23E-06	1.60E-06	1.75E-06	1.96E-06	2.07E-06	2.27E-06	2.15E-06	1.60E-06	8.93E-07	5.10E-07	1.16E-06	4.33E-06
Uranium	3.23E-07	1.60E-07	1.75E-07	1.96E-07	2.07E-07	2.27E-07	2.15E-07	1.60E-07	8.93E-08	5.10E-08	1.16E-07	4.33E-07
Vanadium	5.01E-06	2.48E-06	2.72E-06	3.04E-06	3.21E-06	3.51E-06	3.34E-06	2.48E-06	1.38E-06	7.90E-07	1.80E-06	6.71E-06
Zinc	2.10E-06	1.04E-06	1.14E-06	1.27E-06	1.35E-06	1.47E-06	1.40E-06	1.04E-06	5.80E-07	3.31E-07	7.54E-07	2.81E-06
Dioxins and Furans												
Tetrachlorodibenzo-p-dioxins	8.06E-14	3.99E-14	4.35E-14	4.88E-14	5.18E-14	5.66E-14	5.49E-14	4.06E-14	2.24E-14	1.32E-14	2.94E-14	1.07E-13
Pentachlorodibenzo-p-dioxins	6.33E-14	3.13E-14	3.42E-14	3.83E-14	4.07E-14	4.45E-14	4.32E-14	3.19E-14	1.76E-14	1.04E-14	2.31E-14	8.44E-14
Hexachlorodibenzo-p-dioxins	3.51E-12	1.74E-12	1.90E-12	2.13E-12	2.26E-12	2.47E-12	2.39E-12	1.77E-12	9.75E-13	5.76E-13	1.28E-12	4.68E-12
Heptachlorodibenzo-p-dioxins	9.38E-12	4.64E-12	5.07E-12	5.68E-12	6.03E-12	6.59E-12	6.40E-12	4.73E-12	2.61E-12	1.54E-12	3.42E-12	1.25E-11
Octachlorodibenzo-p-dioxins	1.32E-11	6.52E-12	7.12E-12	7.98E-12	8.47E-12	9.25E-12	8.98E-12	6.64E-12	3.66E-12	2.16E-12	4.81E-12	1.76E-11
Total Dioxins	2.27E-11	1.12E-11	1.23E-11	1.38E-11	1.46E-11	1.60E-11	1.55E-11	1.15E-11	6.32E-12	3.73E-12	8.29E-12	3.03E-11
Tetrachlorodibenzofurans	1.49E-11	7.38E-12	8.05E-12	9.03E-12	9.58E-12	1.05E-11	1.02E-11	7.51E-12	4.14E-12	2.45E-12	5.44E-12	1.99E-11
Pentachlorodibenzofurans	1.36E-11	6.72E-12	7.34E-12	8.23E-12	8.73E-12	9.54E-12	9.26E-12	6.84E-12	3.77E-12	2.23E-12	4.95E-12	1.81E-11
Hexachlorodibenzofurans	5.01E-12	2.48E-12	2.70E-12	3.03E-12	3.22E-12	3.52E-12	3.41E-12	2.52E-12	1.39E-12	8.22E-13	1.83E-12	6.67E-12
Heptachlorodibenzofurans	2.76E-12	1.37E-12	1.49E-12	1.67E-12	1.78E-12	1.94E-12	1.88E-12	1.39E-12	7.67E-13	4.54E-13	1.01E-12	3.68E-12
Octachlorodibenzofurans	5.93E-11	2.93E-11	3.20E-11	3.59E-11	3.81E-11	4.16E-11	4.04E-11	2.99E-11	1.65E-11	9.73E-12	2.16E-11	7.90E-11
Total Furans	2.01E-12	9.97E-13	1.09E-12	1.22E-12	1.29E-12	1.41E-12	1.37E-12	1.01E-12	5.60E-13	3.31E-13	7.35E-13	2.68E-12
PAHs												
Acenaphthene	2.35E-07	1.16E-07	1.27E-07	1.42E-07	1.51E-07	1.65E-07	1.60E-07	1.18E-07	6.52E-08	3.86E-08	8.56E-08	3.13E-07

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Acenaphthylene	1.63E-09	8.07E-10	8.81E-10	9.88E-10	1.05E-09	1.14E-09	1.11E-09	8.22E-10	4.53E-10	2.68E-10	5.95E-10	2.17E-09
Anthracene	1.03E-08	5.08E-09	5.55E-09	6.22E-09	6.60E-09	7.21E-09	7.00E-09	5.18E-09	2.85E-09	1.69E-09	3.75E-09	1.37E-08
Benzo(a)anthracene	1.47E-09	7.26E-10	7.93E-10	8.89E-10	9.43E-10	1.03E-09	1.00E-09	7.39E-10	4.08E-10	2.41E-10	5.35E-10	1.96E-09
Benzo(b)anthracene	2.45E-09	1.21E-09	1.32E-09	1.48E-09	1.57E-09	1.72E-09	1.67E-09	1.23E-09	6.79E-10	4.02E-10	8.92E-10	3.26E-09
Benzo(b)fluoranthene	2.28E-09	1.13E-09	1.23E-09	1.38E-09	1.47E-09	1.60E-09	1.56E-09	1.15E-09	6.34E-10	3.75E-10	8.33E-10	3.04E-09
Benzo(k,j)fluoranthene	2.77E-09	1.37E-09	1.50E-09	1.68E-09	1.78E-09	1.95E-09	1.89E-09	1.40E-09	7.70E-10	4.55E-10	1.01E-09	3.69E-09
Benzo(a)flourene	3.59E-09	1.77E-09	1.94E-09	2.17E-09	2.31E-09	2.52E-09	2.45E-09	1.81E-09	9.97E-10	5.89E-10	1.31E-09	4.78E-09
Benzo(b)flourene	8.15E-10	4.03E-10	4.40E-10	4.94E-10	5.24E-10	5.72E-10	5.56E-10	4.11E-10	2.26E-10	1.34E-10	2.97E-10	1.09E-09
Benzo(g,h,i)perylene	6.52E-09	3.23E-09	3.52E-09	3.95E-09	4.19E-09	4.58E-09	4.45E-09	3.29E-09	1.81E-09	1.07E-09	2.38E-09	8.69E-09
Benzo(a)pyrene	2.12E-09	1.05E-09	1.15E-09	1.28E-09	1.36E-09	1.49E-09	1.45E-09	1.07E-09	5.89E-10	3.48E-10	7.73E-10	2.82E-09
Benzo(e)pyrene	9.46E-09	4.68E-09	5.11E-09	5.73E-09	6.08E-09	6.64E-09	6.45E-09	4.76E-09	2.63E-09	1.55E-09	3.45E-09	1.26E-08
Biphenyl	1.11E-07	5.49E-08	5.99E-08	6.72E-08	7.13E-08	7.79E-08	7.56E-08	5.59E-08	3.08E-08	1.82E-08	4.04E-08	1.48E-07
2-chloronaphthalene	3.42E-10	1.69E-10	1.85E-10	2.07E-10	2.20E-10	2.40E-10	2.33E-10	1.73E-10	9.51E-11	5.62E-11	1.25E-10	4.56E-10
Coronene	3.91E-09	1.94E-09	2.11E-09	2.37E-09	2.52E-09	2.75E-09	2.67E-09	1.97E-09	1.09E-09	6.43E-10	1.43E-09	5.22E-09
Dibenzo(a,c & a,h)anthracene	1.19E-10	5.89E-11	6.43E-11	7.21E-11	7.65E-11	8.36E-11	8.11E-11	6.00E-11	3.31E-11	1.95E-11	4.34E-11	1.59E-10
Dibenzo(a,j)acridine	5.87E-11	2.90E-11	3.17E-11	3.56E-11	3.77E-11	4.12E-11	4.00E-11	2.96E-11	1.63E-11	9.64E-12	2.14E-11	7.82E-11
7H-dibenzo(c,g)carbazole	9.13E-11	4.52E-11	4.93E-11	5.53E-11	5.87E-11	6.41E-11	6.23E-11	4.60E-11	2.54E-11	1.50E-11	3.33E-11	1.22E-10
Dibenzo(a,e)pyrene	1.63E-11	8.07E-12	8.81E-12	9.88E-12	1.05E-11	1.14E-11	1.11E-11	8.22E-12	4.53E-12	2.68E-12	5.95E-12	2.17E-11
Dibenzo(a,i)pyrene	2.12E-11	1.05E-11	1.15E-11	1.28E-11	1.36E-11	1.49E-11	1.45E-11	1.07E-11	5.89E-12	3.48E-12	7.73E-12	2.82E-11
9,10-dimethylanthracene	8.97E-10	4.44E-10	4.84E-10	5.43E-10	5.77E-10	6.30E-10	6.11E-10	4.52E-10	2.49E-10	1.47E-10	3.27E-10	1.20E-09
7,12-dimethylanthracene	2.77E-10	1.37E-10	1.50E-10	1.68E-10	1.78E-10	1.95E-10	1.89E-10	1.40E-10	7.70E-11	4.55E-11	1.01E-10	3.69E-10
1,2-dimethylnaphthalene	1.39E-09	6.86E-10	7.49E-10	8.40E-10	8.91E-10	9.73E-10	9.45E-10	6.98E-10	3.85E-10	2.28E-10	5.05E-10	1.85E-09
2,6 & 2,7-dimethylnaphthalene	5.38E-09	2.66E-09	2.91E-09	3.26E-09	3.46E-09	3.78E-09	3.67E-09	2.71E-09	1.49E-09	8.83E-10	1.96E-09	7.17E-09
Fluoranthene	2.77E-08	1.37E-08	1.50E-08	1.68E-08	1.78E-08	1.95E-08	1.89E-08	1.40E-08	7.70E-09	4.55E-09	1.01E-08	3.69E-08
Fluorene	3.26E-08	1.61E-08	1.76E-08	1.98E-08	2.10E-08	2.29E-08	2.22E-08	1.64E-08	9.06E-09	5.35E-09	1.19E-08	4.35E-08
Indeno(1,2,3-cd)pyrene	1.13E-09	5.57E-10	6.08E-10	6.81E-10	7.23E-10	7.90E-10	7.67E-10	5.67E-10	3.13E-10	1.85E-10	4.10E-10	1.50E-09
2-methylanthracene	1.79E-09	8.87E-10	9.69E-10	1.09E-09	1.15E-09	1.26E-09	1.22E-09	9.04E-10	4.98E-10	2.94E-10	6.54E-10	2.39E-09
3-methylcholanthrene	4.89E-09	2.42E-09	2.64E-09	2.96E-09	3.14E-09	3.43E-09	3.33E-09	2.46E-09	1.36E-09	8.03E-10	1.78E-09	6.52E-09
1-methylnaphthalene	3.26E-08	1.61E-08	1.76E-08	1.98E-08	2.10E-08	2.29E-08	2.22E-08	1.64E-08	9.06E-09	5.35E-09	1.19E-08	4.35E-08
2-methylnaphthalene	4.89E-08	2.42E-08	2.64E-08	2.96E-08	3.14E-08	3.43E-08	3.33E-08	2.46E-08	1.36E-08	8.03E-09	1.78E-08	6.52E-08

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
1-methylphenanthrene	1.35E-08	6.70E-09	7.31E-09	8.20E-09	8.70E-09	9.50E-09	9.23E-09	6.82E-09	3.76E-09	2.22E-09	4.94E-09	1.80E-08
9-methylphenanthrene	1.21E-08	5.97E-09	6.52E-09	7.31E-09	7.76E-09	8.47E-09	8.23E-09	6.08E-09	3.35E-09	1.98E-09	4.40E-09	1.61E-08
Naphthalene	9.78E-08	4.84E-08	5.28E-08	5.93E-08	6.29E-08	6.87E-08	6.67E-08	4.93E-08	2.72E-08	1.61E-08	3.57E-08	1.30E-07
Perylene	6.69E-10	3.31E-10	3.61E-10	4.05E-10	4.30E-10	4.69E-10	4.56E-10	3.37E-10	1.86E-10	1.10E-10	2.44E-10	8.91E-10
Phenanthrene	1.79E-07	8.87E-08	9.69E-08	1.09E-07	1.15E-07	1.26E-07	1.22E-07	9.04E-08	4.98E-08	2.94E-08	6.54E-08	2.39E-07
Picene	1.09E-10	5.41E-11	5.90E-11	6.62E-11	7.02E-11	7.67E-11	7.45E-11	5.50E-11	3.04E-11	1.79E-11	3.98E-11	1.46E-10
Pyrene	1.79E-08	8.87E-09	9.69E-09	1.09E-08	1.15E-08	1.26E-08	1.22E-08	9.04E-09	4.98E-09	2.94E-09	6.54E-09	2.39E-08
Quinoline	1.35E-09	6.70E-10	7.31E-10	8.20E-10	8.70E-10	9.50E-10	9.23E-10	6.82E-10	3.76E-10	2.22E-10	4.94E-10	1.80E-09
m-Terphenyl	4.73E-09	2.34E-09	2.55E-09	2.86E-09	3.04E-09	3.32E-09	3.22E-09	2.38E-09	1.31E-09	7.76E-10	1.72E-09	6.30E-09
o-Terphenyl	7.50E-09	3.71E-09	4.05E-09	4.54E-09	4.82E-09	5.27E-09	5.11E-09	3.78E-09	2.08E-09	1.23E-09	2.74E-09	1.00E-08
p-Terphenyl	2.45E-09	1.21E-09	1.32E-09	1.48E-09	1.57E-09	1.72E-09	1.67E-09	1.23E-09	6.79E-10	4.02E-10	8.92E-10	3.26E-09
Tetralin	1.06E-08	5.24E-09	5.73E-09	6.42E-09	6.81E-09	7.44E-09	7.23E-09	5.34E-09	2.94E-09	1.74E-09	3.87E-09	1.41E-08
Triphenylene/chrysene	6.20E-09	3.07E-09	3.35E-09	3.75E-09	3.98E-09	4.35E-09	4.22E-09	3.12E-09	1.72E-09	1.02E-09	2.26E-09	8.26E-09
VOCs												
Acetaldehyde	2.66E-05	1.31E-05	1.43E-05	1.61E-05	1.71E-05	1.86E-05	1.81E-05	1.34E-05	7.38E-06	4.36E-06	9.68E-06	3.54E-05
Acetophenone	6.99E-07	3.46E-07	3.77E-07	4.23E-07	4.49E-07	4.91E-07	4.76E-07	3.52E-07	1.94E-07	1.15E-07	2.55E-07	9.31E-07
Acrolien	1.35E-05	6.69E-06	7.30E-06	8.18E-06	8.69E-06	9.49E-06	9.21E-06	6.81E-06	3.75E-06	2.22E-06	4.93E-06	1.80E-05
Benzene	6.06E-05	3.00E-05	3.27E-05	3.67E-05	3.89E-05	4.25E-05	4.13E-05	3.05E-05	1.68E-05	9.94E-06	2.21E-05	8.07E-05
Benzyl chloride	3.26E-05	1.61E-05	1.76E-05	1.98E-05	2.10E-05	2.29E-05	2.22E-05	1.64E-05	9.06E-06	5.35E-06	1.19E-05	4.35E-05
Bis(2-ethylhexyl)phthalate (DEHP)	3.40E-06	1.68E-06	1.84E-06	2.06E-06	2.19E-06	2.39E-06	2.32E-06	1.71E-06	9.45E-07	5.58E-07	1.24E-06	4.53E-06
Bromoform	1.82E-06	8.99E-07	9.81E-07	1.10E-06	1.17E-06	1.28E-06	1.24E-06	9.15E-07	5.05E-07	2.98E-07	6.63E-07	2.42E-06
Carbon disulphide	6.06E-06	3.00E-06	3.27E-06	3.67E-06	3.89E-06	4.25E-06	4.13E-06	3.05E-06	1.68E-06	9.94E-07	2.21E-06	8.07E-06
2-Chloroacetophenone	3.26E-07	1.61E-07	1.76E-07	1.98E-07	2.10E-07	2.29E-07	2.22E-07	1.64E-07	9.06E-08	5.35E-08	1.19E-07	4.35E-07
Chlorobenzene	1.02E-06	5.07E-07	5.54E-07	6.21E-07	6.59E-07	7.20E-07	6.99E-07	5.16E-07	2.85E-07	1.68E-07	3.74E-07	1.37E-06
Chloroform	2.75E-06	1.36E-06	1.48E-06	1.66E-06	1.77E-06	1.93E-06	1.87E-06	1.38E-06	7.64E-07	4.51E-07	1.00E-06	3.66E-06
Cumene	2.47E-07	1.22E-07	1.33E-07	1.50E-07	1.59E-07	1.73E-07	1.68E-07	1.24E-07	6.86E-08	4.05E-08	9.01E-08	3.29E-07
Cyanide	1.16E-04	5.76E-05	6.29E-05	7.05E-05	7.49E-05	8.18E-05	7.94E-05	5.87E-05	3.24E-05	1.91E-05	4.25E-05	1.55E-04
2,4-Dinitrotoluene	1.30E-08	6.45E-09	7.05E-09	7.90E-09	8.39E-09	9.16E-09	8.89E-09	6.57E-09	3.62E-09	2.14E-09	4.76E-09	1.74E-08

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Dimethyl Sulphate	2.24E-06	1.11E-06	1.21E-06	1.35E-06	1.44E-06	1.57E-06	1.52E-06	1.13E-06	6.21E-07	3.67E-07	8.16E-07	2.98E-06
Ethyl benzene	4.38E-06	2.17E-06	2.37E-06	2.65E-06	2.82E-06	3.08E-06	2.99E-06	2.21E-06	1.22E-06	7.19E-07	1.60E-06	5.84E-06
Ethyl chloride	1.96E-06	9.68E-07	1.06E-06	1.19E-06	1.26E-06	1.37E-06	1.33E-06	9.86E-07	5.44E-07	3.21E-07	7.14E-07	2.61E-06
Ethylene dichloride	1.86E-06	9.22E-07	1.01E-06	1.13E-06	1.20E-06	1.31E-06	1.27E-06	9.39E-07	5.18E-07	3.06E-07	6.80E-07	2.48E-06
Ethylene dibromide	5.59E-08	2.77E-08	3.02E-08	3.39E-08	3.59E-08	3.93E-08	3.81E-08	2.82E-08	1.55E-08	9.18E-09	2.04E-08	7.45E-08
Formaldehyde	1.12E-05	5.53E-06	6.04E-06	6.77E-06	7.19E-06	7.85E-06	7.62E-06	5.63E-06	3.11E-06	1.84E-06	4.08E-06	1.49E-05
Hexane	3.12E-06	1.54E-06	1.69E-06	1.89E-06	2.01E-06	2.19E-06	2.13E-06	1.57E-06	8.67E-07	5.12E-07	1.14E-06	4.16E-06
Isophorone	2.70E-05	1.34E-05	1.46E-05	1.64E-05	1.74E-05	1.90E-05	1.84E-05	1.36E-05	7.51E-06	4.44E-06	9.85E-06	3.60E-05
Methylbromide	7.45E-06	3.69E-06	4.03E-06	4.52E-06	4.79E-06	5.23E-06	5.08E-06	3.76E-06	2.07E-06	1.22E-06	2.72E-06	9.93E-06
Methyl chloride	2.47E-05	1.22E-05	1.33E-05	1.50E-05	1.59E-05	1.73E-05	1.68E-05	1.24E-05	6.86E-06	4.05E-06	9.01E-06	3.29E-05
Methyl ethyl ketone	1.82E-05	8.99E-06	9.81E-06	1.10E-05	1.17E-05	1.28E-05	1.24E-05	9.15E-06	5.05E-06	2.98E-06	6.63E-06	2.42E-05
Methyl hydrazine	7.92E-06	3.92E-06	4.28E-06	4.80E-06	5.09E-06	5.56E-06	5.40E-06	3.99E-06	2.20E-06	1.30E-06	2.89E-06	1.06E-05
Methyl methacrylate	9.32E-07	4.61E-07	5.03E-07	5.64E-07	5.99E-07	6.54E-07	6.35E-07	4.69E-07	2.59E-07	1.53E-07	3.40E-07	1.24E-06
Methyl tert-butyl ether	1.63E-06	8.07E-07	8.81E-07	9.88E-07	1.05E-06	1.15E-06	1.11E-06	8.22E-07	4.53E-07	2.68E-07	5.95E-07	2.17E-06
Methylene chloride	1.35E-05	6.69E-06	7.30E-06	8.18E-06	8.69E-06	9.49E-06	9.21E-06	6.81E-06	3.75E-06	2.22E-06	4.93E-06	1.80E-05
Phenol	7.45E-07	3.69E-07	4.03E-07	4.52E-07	4.79E-07	5.23E-07	5.08E-07	3.76E-07	2.07E-07	1.22E-07	2.72E-07	9.93E-07
Propionaldehyde	1.77E-05	8.76E-06	9.56E-06	1.07E-05	1.14E-05	1.24E-05	1.21E-05	8.92E-06	4.92E-06	2.91E-06	6.46E-06	2.36E-05
Tetrachloroethylene	2.00E-06	9.91E-07	1.08E-06	1.21E-06	1.29E-06	1.41E-06	1.37E-06	1.01E-06	5.57E-07	3.29E-07	7.31E-07	2.67E-06
Toluene	1.12E-05	5.53E-06	6.04E-06	6.77E-06	7.19E-06	7.85E-06	7.62E-06	5.63E-06	3.11E-06	1.84E-06	4.08E-06	1.49E-05
1,1,1-Trichloroethane	9.32E-07	4.61E-07	5.03E-07	5.64E-07	5.99E-07	6.54E-07	6.35E-07	4.69E-07	2.59E-07	1.53E-07	3.40E-07	1.24E-06
Styrene	1.16E-06	5.76E-07	6.29E-07	7.05E-07	7.49E-07	8.18E-07	7.94E-07	5.87E-07	3.24E-07	1.91E-07	4.25E-07	1.55E-06
Xylenes	1.72E-06	8.53E-07	9.31E-07	1.04E-06	1.11E-06	1.21E-06	1.18E-06	8.68E-07	4.79E-07	2.83E-07	6.29E-07	2.30E-06
Vinyl acetate	3.54E-07	1.75E-07	1.91E-07	2.14E-07	2.28E-07	2.49E-07	2.41E-07	1.78E-07	9.84E-08	5.81E-08	1.29E-07	4.72E-07

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

**Table C.4
Total Predicted Annual (wet plus dry) Deposition Rates (OS1)**

COPC	Annual Total Wet+Dry Deposition ($\mu\text{g}/\text{m}^2$) at Discrete Receptors											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Common Air Contaminants												
Total PM	3.62E+03	9.28E+02	7.01E+03	5.57E+03	8.55E+03	1.06E+04	9.61E+03	5.00E+03	2.07E+03	1.73E+03	2.21E+03	4.94E+04
PM ₁₀	3.33E+03	8.53E+02	6.45E+03	5.12E+03	7.87E+03	9.77E+03	8.85E+03	4.60E+03	1.90E+03	1.59E+03	2.03E+03	4.55E+04
PM _{2.5}	2.16E+03	5.53E+02	4.18E+03	3.32E+03	5.10E+03	6.33E+03	5.73E+03	2.98E+03	1.23E+03	1.03E+03	1.32E+03	2.95E+04
NO	4.18E+04	1.95E+04	3.15E+04	2.82E+04	3.29E+04	3.92E+04	3.76E+04	2.21E+04	1.34E+04	9.37E+03	1.62E+04	1.69E+05
NO ₂	2.39E+04	1.12E+04	1.81E+04	1.62E+04	1.88E+04	2.25E+04	2.16E+04	1.27E+04	7.68E+03	5.37E+03	9.30E+03	9.71E+04
NO _x	6.57E+04	3.07E+04	4.96E+04	4.44E+04	5.17E+04	6.17E+04	5.92E+04	3.48E+04	2.11E+04	1.47E+04	2.55E+04	2.67E+05
SO ₂	6.86E+04	3.20E+04	5.18E+04	4.63E+04	5.40E+04	6.45E+04	6.18E+04	3.63E+04	2.20E+04	1.54E+04	2.67E+04	2.78E+05
CO	5.81E+03	2.71E+03	4.38E+03	3.92E+03	4.57E+03	5.46E+03	5.23E+03	3.08E+03	1.86E+03	1.30E+03	2.26E+03	2.36E+04
HCl	6.98E+01	3.26E+01	5.27E+01	4.71E+01	5.50E+01	6.56E+01	6.29E+01	3.70E+01	2.24E+01	1.57E+01	2.71E+01	2.83E+02
HF	6.40E+01	2.99E+01	4.83E+01	4.32E+01	5.04E+01	6.02E+01	5.77E+01	3.39E+01	2.05E+01	1.44E+01	2.49E+01	2.60E+02
Metals												
Aluminum	4.36E+02	1.12E+02	8.43E+02	6.70E+02	1.03E+03	1.28E+03	1.16E+03	6.02E+02	2.49E+02	2.08E+02	2.66E+02	5.95E+03
Antimony	7.61E-02	1.95E-02	1.47E-01	1.17E-01	1.80E-01	2.23E-01	2.02E-01	1.05E-01	4.34E-02	3.62E-02	4.64E-02	1.04E+00
Arsenic	6.76E-01	1.73E-01	1.31E+00	1.04E+00	1.60E+00	1.98E+00	1.79E+00	9.33E-01	3.86E-01	3.22E-01	4.12E-01	9.23E+00
Barium	2.04E+02	5.22E+01	3.94E+02	3.13E+02	4.81E+02	5.97E+02	5.41E+02	2.81E+02	1.16E+02	9.70E+01	1.24E+02	2.78E+03
Beryllium	3.34E-02	8.55E-03	6.46E-02	5.13E-02	7.88E-02	9.79E-02	8.86E-02	4.61E-02	1.91E-02	1.59E-02	2.04E-02	4.56E-01
Boron	1.86E+01	4.76E+00	3.60E+01	2.86E+01	4.39E+01	5.45E+01	4.94E+01	2.57E+01	1.06E+01	8.86E+00	1.13E+01	2.54E+02
Cadmium	5.50E-02	1.41E-02	1.06E-01	8.45E-02	1.30E-01	1.61E-01	1.46E-01	7.58E-02	3.14E-02	2.62E-02	3.35E-02	7.50E-01
Chromium	8.88E-01	2.27E-01	1.72E+00	1.36E+00	2.10E+00	2.60E+00	2.36E+00	1.23E+00	5.07E-01	4.23E-01	5.41E-01	1.21E+01
Cobalt	1.35E-01	3.46E-02	2.62E-01	2.08E-01	3.19E-01	3.97E-01	3.59E-01	1.87E-01	7.72E-02	6.44E-02	8.25E-02	1.85E+00
Copper	2.16E+00	5.52E-01	4.17E+00	3.31E+00	5.09E+00	6.32E+00	5.72E+00	2.98E+00	1.23E+00	1.03E+00	1.31E+00	2.94E+01
Iron	1.61E+02	4.11E+01	3.11E+02	2.47E+02	3.79E+02	4.71E+02	4.26E+02	2.22E+02	9.17E+01	7.65E+01	9.80E+01	2.19E+03
Lithium	3.55E+00	9.09E-01	6.87E+00	5.46E+00	8.38E+00	1.04E+01	9.42E+00	4.90E+00	2.03E+00	1.69E+00	2.17E+00	4.84E+01
Manganese	2.37E+00	6.06E-01	4.58E+00	3.64E+00	5.59E+00	6.94E+00	6.28E+00	3.27E+00	1.35E+00	1.13E+00	1.44E+00	3.23E+01
Mercury (Total)	9.19E-01	2.35E-01	1.78E+00	1.41E+00	2.17E+00	2.69E+00	2.44E+00	1.27E+00	5.25E-01	4.38E-01	5.61E-01	1.25E+01
Elemental Hg	5.63E-01	2.63E-01	4.25E-01	3.80E-01	4.43E-01	5.29E-01	5.07E-01	2.98E-01	1.81E-01	1.26E-01	2.19E-01	2.28E+00

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Oxidized Hg	7.16E-02	3.34E-02	5.41E-02	4.84E-02	5.64E-02	6.73E-02	6.45E-02	3.79E-02	2.30E-02	1.61E-02	2.78E-02	2.91E-01
Particle-bound Hg	9.78E-04	2.50E-04	1.89E-03	1.50E-03	2.31E-03	2.87E-03	2.59E-03	1.35E-03	5.58E-04	4.65E-04	5.96E-04	1.33E-02
Molybdenum	8.03E-01	2.06E-01	1.55E+00	1.23E+00	1.90E+00	2.35E+00	2.13E+00	1.11E+00	4.58E-01	3.82E-01	4.90E-01	1.10E+01
Nickel	5.92E-01	1.52E-01	1.14E+00	9.10E-01	1.40E+00	1.73E+00	1.57E+00	8.17E-01	3.38E-01	2.82E-01	3.61E-01	8.07E+00
Palladium	5.07E-01	1.30E-01	9.81E-01	7.80E-01	1.20E+00	1.49E+00	1.35E+00	7.00E-01	2.89E-01	2.42E-01	3.09E-01	6.92E+00
Lead	5.92E-01	1.52E-01	1.14E+00	9.10E-01	1.40E+00	1.73E+00	1.57E+00	8.17E-01	3.38E-01	2.82E-01	3.61E-01	8.07E+00
Selenium	5.50E-01	1.41E-01	1.06E+00	8.45E-01	1.30E+00	1.61E+00	1.46E+00	7.58E-01	3.14E-01	2.62E-01	3.35E-01	7.50E+00
Silver	3.59E-02	9.20E-03	6.95E-02	5.52E-02	8.48E-02	1.05E-01	9.53E-02	4.96E-02	2.05E-02	1.71E-02	2.19E-02	4.90E-01
Strontium	4.14E+01	1.06E+01	8.01E+01	6.37E+01	9.78E+01	1.21E+02	1.10E+02	5.72E+01	2.36E+01	1.97E+01	2.53E+01	5.65E+02
Thallium	7.61E-02	1.95E-02	1.47E-01	1.17E-01	1.80E-01	2.23E-01	2.02E-01	1.05E-01	4.34E-02	3.62E-02	4.64E-02	1.04E+00
Thorium	1.86E-01	4.76E-02	3.60E-01	2.86E-01	4.39E-01	5.45E-01	4.94E-01	2.57E-01	1.06E-01	8.86E-02	1.13E-01	2.54E+00
Tin	8.46E-01	2.16E-01	1.63E+00	1.30E+00	2.00E+00	2.48E+00	2.24E+00	1.17E+00	4.82E-01	4.03E-01	5.16E-01	1.15E+01
Uranium	8.46E-02	2.16E-02	1.63E-01	1.30E-01	2.00E-01	2.48E-01	2.24E-01	1.17E-01	4.82E-02	4.03E-02	5.16E-02	1.15E+00
Vanadium	1.31E+00	3.35E-01	2.53E+00	2.01E+00	3.09E+00	3.84E+00	3.48E+00	1.81E+00	7.48E-01	6.24E-01	7.99E-01	1.79E+01
Zinc	5.50E-01	1.41E-01	1.06E+00	8.45E-01	1.30E+00	1.61E+00	1.46E+00	7.58E-01	3.14E-01	2.62E-01	3.35E-01	7.50E+00
Tetrachlorodibenzo-p-dioxins	1.44E-08	6.74E-09	1.09E-08	9.75E-09	1.14E-08	1.36E-08	1.30E-08	7.64E-09	4.63E-09	3.24E-09	5.61E-09	5.86E-08
Pentachlorodibenzo-p-dioxins	1.13E-08	5.29E-09	8.56E-09	7.66E-09	8.93E-09	1.07E-08	1.02E-08	6.01E-09	3.64E-09	2.54E-09	4.41E-09	4.60E-08
Hexachlorodibenzo-p-dioxins	6.29E-07	2.94E-07	4.75E-07	4.25E-07	4.95E-07	5.91E-07	5.66E-07	3.33E-07	2.02E-07	1.41E-07	2.44E-07	2.55E-06
Heptachlorodibenzo-p-dioxins	1.68E-06	7.85E-07	1.27E-06	1.13E-06	1.32E-06	1.58E-06	1.51E-06	8.90E-07	5.39E-07	3.77E-07	6.53E-07	6.82E-06
Octachlorodibenzo-p-dioxins	2.36E-06	1.10E-06	1.78E-06	1.59E-06	1.86E-06	2.22E-06	2.13E-06	1.25E-06	7.57E-07	5.30E-07	9.17E-07	9.58E-06
Total Dioxins	4.07E-06	1.90E-06	3.07E-06	2.75E-06	3.21E-06	3.83E-06	3.67E-06	2.16E-06	1.31E-06	9.14E-07	1.58E-06	1.65E-05
Tetrachlorodibenzofurans	2.67E-06	1.25E-06	2.02E-06	1.80E-06	2.10E-06	2.51E-06	2.40E-06	1.41E-06	8.56E-07	5.99E-07	1.04E-06	1.08E-05
Pentachlorodibenzofurans	2.43E-06	1.14E-06	1.84E-06	1.64E-06	1.92E-06	2.29E-06	2.19E-06	1.29E-06	7.80E-07	5.46E-07	9.46E-07	9.87E-06
Hexachlorodibenzofurans	8.97E-07	4.19E-07	6.77E-07	6.06E-07	7.06E-07	8.43E-07	8.08E-07	4.75E-07	2.88E-07	2.01E-07	3.49E-07	3.64E-06
Heptachlorodibenzofurans	4.95E-07	2.31E-07	3.74E-07	3.34E-07	3.90E-07	4.65E-07	4.46E-07	2.62E-07	1.59E-07	1.11E-07	1.92E-07	2.01E-06
Octachlorodibenzofurans	1.06E-05	4.96E-06	8.02E-06	7.17E-06	8.36E-06	9.98E-06	9.56E-06	5.62E-06	3.41E-06	2.38E-06	4.13E-06	4.31E-05
Total Furans	3.61E-07	1.68E-07	2.72E-07	2.44E-07	2.84E-07	3.39E-07	3.25E-07	1.91E-07	1.16E-07	8.10E-08	1.40E-07	1.46E-06
PAHs												
Acenaphthene	4.21E-02	1.96E-02	3.18E-02	2.84E-02	3.31E-02	3.95E-02	3.79E-02	2.23E-02	1.35E-02	9.44E-03	1.63E-02	1.71E-01
Acenaphthylene	2.92E-04	1.36E-04	2.21E-04	1.97E-04	2.30E-04	2.75E-04	2.63E-04	1.55E-04	9.37E-05	6.56E-05	1.14E-04	1.19E-03
Anthracene	1.84E-03	8.59E-04	1.39E-03	1.24E-03	1.45E-03	1.73E-03	1.66E-03	9.75E-04	5.90E-04	4.13E-04	7.15E-04	7.47E-03
Benzo(a)anthracene	2.63E-04	1.23E-04	1.98E-04	1.78E-04	2.07E-04	2.47E-04	2.37E-04	1.39E-04	8.43E-05	5.90E-05	1.02E-04	1.07E-03
Benzo(b)anthracene	4.38E-04	2.05E-04	3.31E-04	2.96E-04	3.45E-04	4.12E-04	3.95E-04	2.32E-04	1.41E-04	9.83E-05	1.70E-04	1.78E-03

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Benzo(b)fluoranthene	4.09E-04	1.91E-04	3.09E-04	2.76E-04	3.22E-04	3.84E-04	3.68E-04	2.17E-04	1.31E-04	9.18E-05	1.59E-04	1.66E-03
Benzo(k,j)fluoranthene	4.96E-04	2.32E-04	3.75E-04	3.35E-04	3.91E-04	4.67E-04	4.47E-04	2.63E-04	1.59E-04	1.11E-04	1.93E-04	2.01E-03
Benzo(a)fluorene	6.42E-04	3.00E-04	4.85E-04	4.34E-04	5.06E-04	6.04E-04	5.79E-04	3.40E-04	2.06E-04	1.44E-04	2.50E-04	2.61E-03
Benzo(b)fluorene	1.46E-04	6.82E-05	1.10E-04	9.86E-05	1.15E-04	1.37E-04	1.32E-04	7.73E-05	4.68E-05	3.28E-05	5.68E-05	5.93E-04
Benzo(g,h,i)perylene	1.17E-03	5.45E-04	8.82E-04	7.89E-04	9.20E-04	1.10E-03	1.05E-03	6.19E-04	3.75E-04	2.62E-04	4.54E-04	4.74E-03
Benzo(a)pyrene	3.80E-04	1.77E-04	2.87E-04	2.56E-04	2.99E-04	3.57E-04	3.42E-04	2.01E-04	1.22E-04	8.52E-05	1.48E-04	1.54E-03
Benzo(e)pyrene	1.69E-03	7.91E-04	1.28E-03	1.14E-03	1.33E-03	1.59E-03	1.53E-03	8.97E-04	5.43E-04	3.80E-04	6.58E-04	6.87E-03
Biphenyl	1.99E-02	9.27E-03	1.50E-02	1.34E-02	1.56E-02	1.87E-02	1.79E-02	1.05E-02	6.37E-03	4.46E-03	7.72E-03	8.06E-02
2-chloronaphthalene	6.13E-05	2.86E-05	4.63E-05	4.14E-05	4.83E-05	5.76E-05	5.52E-05	3.25E-05	1.97E-05	1.38E-05	2.38E-05	2.49E-04
Coronene	7.01E-04	3.27E-04	5.29E-04	4.73E-04	5.52E-04	6.59E-04	6.31E-04	3.71E-04	2.25E-04	1.57E-04	2.72E-04	2.84E-03
Dibenzo(a,c & a,h)anthracene	2.13E-05	9.95E-06	1.61E-05	1.44E-05	1.68E-05	2.00E-05	1.92E-05	1.13E-05	6.84E-06	4.79E-06	8.29E-06	8.65E-05
Dibenzo(a,j)acridine	1.05E-05	4.91E-06	7.94E-06	7.10E-06	8.28E-06	9.88E-06	9.47E-06	5.57E-06	3.37E-06	2.36E-06	4.09E-06	4.27E-05
7H-dibenzo(c,g)carbazole	1.64E-05	7.64E-06	1.23E-05	1.10E-05	1.29E-05	1.54E-05	1.47E-05	8.66E-06	5.25E-06	3.67E-06	6.36E-06	6.64E-05
Dibenzo(a,e)pyrene	2.92E-06	1.36E-06	2.21E-06	1.97E-06	2.30E-06	2.75E-06	2.63E-06	1.55E-06	9.37E-07	6.56E-07	1.14E-06	1.19E-05
Dibenzo(a,i)pyrene	3.80E-06	1.77E-06	2.87E-06	2.56E-06	2.99E-06	3.57E-06	3.42E-06	2.01E-06	1.22E-06	8.52E-07	1.48E-06	1.54E-05
9,10-dimethylanthracene	1.61E-04	7.50E-05	1.21E-04	1.09E-04	1.27E-04	1.51E-04	1.45E-04	8.51E-05	5.15E-05	3.61E-05	6.24E-05	6.52E-04
7,12-dimethylanthracene	4.96E-05	2.32E-05	3.75E-05	3.35E-05	3.91E-05	4.67E-05	4.47E-05	2.63E-05	1.59E-05	1.11E-05	1.93E-05	2.01E-04
1,2-dimethylnaphthalene	2.48E-04	1.16E-04	1.87E-04	1.68E-04	1.96E-04	2.33E-04	2.24E-04	1.31E-04	7.96E-05	5.57E-05	9.65E-05	1.01E-03
2,6 & 2,7-dimethylnaphthalene	9.64E-04	4.50E-04	7.28E-04	6.51E-04	7.59E-04	9.06E-04	8.68E-04	5.10E-04	3.09E-04	2.16E-04	3.75E-04	3.91E-03
Fluoranthene	4.96E-03	2.32E-03	3.75E-03	3.35E-03	3.91E-03	4.67E-03	4.47E-03	2.63E-03	1.59E-03	1.11E-03	1.93E-03	2.01E-02
Fluorene	5.84E-03	2.73E-03	4.41E-03	3.95E-03	4.60E-03	5.49E-03	5.26E-03	3.09E-03	1.87E-03	1.31E-03	2.27E-03	2.37E-02
Indeno(1,2,3-cd)pyrene	2.01E-04	9.41E-05	1.52E-04	1.36E-04	1.59E-04	1.89E-04	1.82E-04	1.07E-04	6.46E-05	4.52E-05	7.83E-05	8.18E-04
2-methylanthracene	3.21E-04	1.50E-04	2.43E-04	2.17E-04	2.53E-04	3.02E-04	2.89E-04	1.70E-04	1.03E-04	7.21E-05	1.25E-04	1.30E-03
3-methylcholanthrene	8.76E-04	4.09E-04	6.62E-04	5.92E-04	6.90E-04	8.24E-04	7.89E-04	4.64E-04	2.81E-04	1.97E-04	3.41E-04	3.56E-03
1-methylnaphthalene	5.84E-03	2.73E-03	4.41E-03	3.95E-03	4.60E-03	5.49E-03	5.26E-03	3.09E-03	1.87E-03	1.31E-03	2.27E-03	2.37E-02
2-methylnaphthalene	8.76E-03	4.09E-03	6.62E-03	5.92E-03	6.90E-03	8.24E-03	7.89E-03	4.64E-03	2.81E-03	1.97E-03	3.41E-03	3.56E-02
1-methylphenanthrene	2.42E-03	1.13E-03	1.83E-03	1.64E-03	1.91E-03	2.28E-03	2.18E-03	1.28E-03	7.78E-04	5.44E-04	9.42E-04	9.84E-03
9-methylphenanthrene	2.16E-03	1.01E-03	1.63E-03	1.46E-03	1.70E-03	2.03E-03	1.95E-03	1.14E-03	6.93E-04	4.85E-04	8.40E-04	8.77E-03
Naphthalene	1.75E-02	8.18E-03	1.32E-02	1.18E-02	1.38E-02	1.65E-02	1.58E-02	9.28E-03	5.62E-03	3.93E-03	6.81E-03	7.11E-02
Perylene	1.20E-04	5.59E-05	9.04E-05	8.09E-05	9.43E-05	1.13E-04	1.08E-04	6.34E-05	3.84E-05	2.69E-05	4.65E-05	4.86E-04
Phenanthrene	3.21E-02	1.50E-02	2.43E-02	2.17E-02	2.53E-02	3.02E-02	2.89E-02	1.70E-02	1.03E-02	7.21E-03	1.25E-02	1.30E-01
Picene	1.96E-05	9.14E-06	1.48E-05	1.32E-05	1.54E-05	1.84E-05	1.76E-05	1.04E-05	6.28E-06	4.39E-06	7.61E-06	7.94E-05
Pyrene	3.21E-03	1.50E-03	2.43E-03	2.17E-03	2.53E-03	3.02E-03	2.89E-03	1.70E-03	1.03E-03	7.21E-04	1.25E-03	1.30E-02

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Quinoline	2.42E-04	1.13E-04	1.83E-04	1.64E-04	1.91E-04	2.28E-04	2.18E-04	1.28E-04	7.78E-05	5.44E-05	9.42E-05	9.84E-04
m-Terphenyl	8.47E-04	3.95E-04	6.39E-04	5.72E-04	6.67E-04	7.96E-04	7.63E-04	4.49E-04	2.72E-04	1.90E-04	3.29E-04	3.44E-03
o-Terphenyl	1.34E-03	6.27E-04	1.01E-03	9.08E-04	1.06E-03	1.26E-03	1.21E-03	7.12E-04	4.31E-04	3.02E-04	5.22E-04	5.45E-03
p-Terphenyl	4.38E-04	2.05E-04	3.31E-04	2.96E-04	3.45E-04	4.12E-04	3.95E-04	2.32E-04	1.41E-04	9.83E-05	1.70E-04	1.78E-03
Tetralin	1.90E-03	8.86E-04	1.43E-03	1.28E-03	1.50E-03	1.78E-03	1.71E-03	1.01E-03	6.09E-04	4.26E-04	7.38E-04	7.70E-03
Triphenylene/chrysene	1.11E-03	5.18E-04	8.38E-04	7.50E-04	8.74E-04	1.04E-03	1.00E-03	5.88E-04	3.56E-04	2.49E-04	4.31E-04	4.50E-03
VOCs												
Acetaldehyde	4.76E+00	2.22E+00	3.59E+00	3.21E+00	3.75E+00	4.47E+00	4.28E+00	2.52E+00	1.53E+00	1.07E+00	1.85E+00	1.93E+01
Acetophenone	1.25E-01	5.84E-02	9.45E-02	8.46E-02	9.86E-02	1.18E-01	1.13E-01	6.63E-02	4.01E-02	2.81E-02	4.87E-02	5.08E-01
Acrolien	2.42E+00	1.13E+00	1.83E+00	1.63E+00	1.91E+00	2.27E+00	2.18E+00	1.28E+00	7.76E-01	5.43E-01	9.41E-01	9.82E+00
Benzene	1.08E+01	5.07E+00	8.19E+00	7.33E+00	8.54E+00	1.02E+01	9.77E+00	5.75E+00	3.48E+00	2.43E+00	4.22E+00	4.40E+01
Benzyl chloride	5.84E+00	2.73E+00	4.41E+00	3.95E+00	4.60E+00	5.49E+00	5.26E+00	3.09E+00	1.87E+00	1.31E+00	2.27E+00	2.37E+01
Bis(2-ethylhexyl)phthalate (DEHP)	6.09E-01	2.84E-01	4.60E-01	4.11E-01	4.80E-01	5.73E-01	5.49E-01	3.23E-01	1.95E-01	1.37E-01	2.37E-01	2.47E+00
Bromoform	3.25E-01	1.52E-01	2.46E-01	2.20E-01	2.56E-01	3.06E-01	2.93E-01	1.72E-01	1.04E-01	7.30E-02	1.26E-01	1.32E+00
Carbon disulphide	1.08E+00	5.07E-01	8.19E-01	7.33E-01	8.54E-01	1.02E+00	9.77E-01	5.75E-01	3.48E-01	2.43E-01	4.22E-01	4.40E+00
2-Chloroacetophenone	5.84E-02	2.73E-02	4.41E-02	3.95E-02	4.60E-02	5.49E-02	5.26E-02	3.09E-02	1.87E-02	1.31E-02	2.27E-02	2.37E-01
Chlorobenzene	1.84E-01	8.57E-02	1.39E-01	1.24E-01	1.45E-01	1.73E-01	1.65E-01	9.72E-02	5.89E-02	4.12E-02	7.14E-02	7.45E-01
Chloroform	4.92E-01	2.30E-01	3.72E-01	3.33E-01	3.88E-01	4.63E-01	4.43E-01	2.61E-01	1.58E-01	1.11E-01	1.91E-01	2.00E+00
Cumene	4.42E-02	2.07E-02	3.34E-02	2.99E-02	3.48E-02	4.16E-02	3.98E-02	2.34E-02	1.42E-02	9.93E-03	1.72E-02	1.79E-01
Cyanide	2.09E+01	9.74E+00	1.58E+01	1.41E+01	1.64E+01	1.96E+01	1.88E+01	1.10E+01	6.69E+00	4.68E+00	8.11E+00	8.47E+01
2,4-Dinitrotoluene	2.34E-03	1.09E-03	1.76E-03	1.58E-03	1.84E-03	2.20E-03	2.10E-03	1.24E-03	7.49E-04	5.24E-04	9.08E-04	9.48E-03
Dimethyl Sulphate	4.00E-01	1.87E-01	3.02E-01	2.71E-01	3.15E-01	3.76E-01	3.61E-01	2.12E-01	1.28E-01	8.99E-02	1.56E-01	1.63E+00
Ethyl benzene	7.84E-01	3.66E-01	5.92E-01	5.30E-01	6.18E-01	7.37E-01	7.07E-01	4.15E-01	2.52E-01	1.76E-01	3.05E-01	3.18E+00
Ethyl chloride	3.50E-01	1.64E-01	2.65E-01	2.37E-01	2.76E-01	3.29E-01	3.16E-01	1.86E-01	1.12E-01	7.87E-02	1.36E-01	1.42E+00
Ethylene dichloride	3.34E-01	1.56E-01	2.52E-01	2.25E-01	2.63E-01	3.14E-01	3.01E-01	1.77E-01	1.07E-01	7.49E-02	1.30E-01	1.35E+00
Ethylene dibromide	1.00E-02	4.68E-03	7.56E-03	6.76E-03	7.89E-03	9.41E-03	9.02E-03	5.30E-03	3.21E-03	2.25E-03	3.89E-03	4.06E-02
Formaldehyde	2.00E+00	9.35E-01	1.51E+00	1.35E+00	1.58E+00	1.88E+00	1.80E+00	1.06E+00	6.42E-01	4.50E-01	7.78E-01	8.13E+00
Hexane	5.59E-01	2.61E-01	4.22E-01	3.78E-01	4.40E-01	5.26E-01	5.04E-01	2.96E-01	1.79E-01	1.25E-01	2.17E-01	2.27E+00
Isophorone	4.84E+00	2.26E+00	3.65E+00	3.27E+00	3.81E+00	4.55E+00	4.36E+00	2.56E+00	1.55E+00	1.09E+00	1.88E+00	1.96E+01
Methylbromide	1.33E+00	6.23E-01	1.01E+00	9.02E-01	1.05E+00	1.25E+00	1.20E+00	7.07E-01	4.28E-01	3.00E-01	5.19E-01	5.42E+00
Methyl chloride	4.42E+00	2.07E+00	3.34E+00	2.99E+00	3.48E+00	4.16E+00	3.98E+00	2.34E+00	1.42E+00	9.93E-01	1.72E+00	1.79E+01
Methyl ethyl ketone	3.25E+00	1.52E+00	2.46E+00	2.20E+00	2.56E+00	3.06E+00	2.93E+00	1.72E+00	1.04E+00	7.30E-01	1.26E+00	1.32E+01

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

Methyl hydrazine	1.42E+00	6.62E-01	1.07E+00	9.58E-01	1.12E+00	1.33E+00	1.28E+00	7.51E-01	4.55E-01	3.18E-01	5.51E-01	5.76E+00
Methyl methacrylate	1.67E-01	7.79E-02	1.26E-01	1.13E-01	1.31E-01	1.57E-01	1.50E-01	8.84E-02	5.35E-02	3.75E-02	6.49E-02	6.77E-01
Methyl tert-butyl ether	2.92E-01	1.36E-01	2.21E-01	1.97E-01	2.30E-01	2.75E-01	2.63E-01	1.55E-01	9.37E-02	6.56E-02	1.14E-01	1.19E+00
Methylene chloride	2.42E+00	1.13E+00	1.83E+00	1.63E+00	1.91E+00	2.27E+00	2.18E+00	1.28E+00	7.76E-01	5.43E-01	9.41E-01	9.82E+00
Phenol	1.33E-01	6.23E-02	1.01E-01	9.02E-02	1.05E-01	1.25E-01	1.20E-01	7.07E-02	4.28E-02	3.00E-02	5.19E-02	5.42E-01
Propionaldehyde	3.17E+00	1.48E+00	2.39E+00	2.14E+00	2.50E+00	2.98E+00	2.86E+00	1.68E+00	1.02E+00	7.12E-01	1.23E+00	1.29E+01
Tetrachloroethylene	3.59E-01	1.68E-01	2.71E-01	2.42E-01	2.83E-01	3.37E-01	3.23E-01	1.90E-01	1.15E-01	8.05E-02	1.39E-01	1.46E+00
Toluene	2.00E+00	9.35E-01	1.51E+00	1.35E+00	1.58E+00	1.88E+00	1.80E+00	1.06E+00	6.42E-01	4.50E-01	7.78E-01	8.13E+00
1,1,1-Trichloroethane	1.67E-01	7.79E-02	1.26E-01	1.13E-01	1.31E-01	1.57E-01	1.50E-01	8.84E-02	5.35E-02	3.75E-02	6.49E-02	6.77E-01
Styrene	2.09E-01	9.74E-02	1.58E-01	1.41E-01	1.64E-01	1.96E-01	1.88E-01	1.10E-01	6.69E-02	4.68E-02	8.11E-02	8.47E-01
Xylenes	3.09E-01	1.44E-01	2.33E-01	2.09E-01	2.43E-01	2.90E-01	2.78E-01	1.64E-01	9.90E-02	6.93E-02	1.20E-01	1.25E+00
Vinyl acetate	6.34E-02	2.96E-02	4.79E-02	4.28E-02	4.99E-02	5.96E-02	5.71E-02	3.36E-02	2.03E-02	1.42E-02	2.46E-02	2.57E-01

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

**Table C.5
Maximum Predicted 1-hour Average COPC Concentrations (OS3)**

COPC	Discrete Receptor Concentration ($\mu\text{g}/\text{m}^3$)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Common Air Contaminants												
Total PM	3.25E+00	2.08E+00	2.24E+00	2.68E+00	1.95E+00	1.97E+00	2.19E+00	2.39E+00	1.85E+00	9.99E-01	2.12E+00	1.54E+01
PM ₁₀	3.02E+00	1.93E+00	2.08E+00	2.49E+00	1.81E+00	1.83E+00	2.04E+00	2.24E+00	1.74E+00	9.38E-01	1.99E+00	1.42E+01
PM _{2.5}	1.85E+00	1.19E+00	1.28E+00	1.53E+00	1.11E+00	1.13E+00	1.25E+00	1.38E+00	1.07E+00	5.87E-01	1.23E+00	8.74E+00
NO	3.26E+01	2.09E+01	2.25E+01	2.69E+01	1.96E+01	1.99E+01	2.20E+01	2.42E+01	1.86E+01	1.03E+01	2.15E+01	1.54E+02
NO ₂ (directly emitted)	1.81E+01	1.16E+01	1.25E+01	1.49E+01	1.09E+01	1.10E+01	1.22E+01	1.35E+01	1.04E+01	5.73E+00	1.19E+01	8.55E+01
NO _x	5.07E+01	3.25E+01	3.50E+01	4.18E+01	3.05E+01	3.09E+01	3.42E+01	3.77E+01	2.90E+01	1.61E+01	3.34E+01	2.40E+02
NO ₂ (100% conversion)	6.81E+01	4.36E+01	4.70E+01	5.61E+01	4.10E+01	4.15E+01	4.60E+01	5.06E+01	3.89E+01	2.16E+01	4.49E+01	3.22E+02
SO ₂	5.62E+01	3.60E+01	3.88E+01	4.63E+01	3.38E+01	3.42E+01	3.79E+01	4.18E+01	3.21E+01	1.78E+01	3.71E+01	2.65E+02
CO	4.05E+00	2.59E+00	2.79E+00	3.33E+00	2.43E+00	2.46E+00	2.73E+00	3.01E+00	2.31E+00	1.28E+00	2.67E+00	1.91E+01
Inorganic Gases												
HCl	4.09E-02	2.62E-02	2.82E-02	3.37E-02	2.46E-02	2.49E-02	2.76E-02	3.04E-02	2.34E-02	1.29E-02	2.69E-02	1.93E-01
HF	3.75E-02	2.40E-02	2.59E-02	3.09E-02	2.26E-02	2.28E-02	2.53E-02	2.79E-02	2.14E-02	1.19E-02	2.47E-02	1.77E-01
Metals												
Aluminum	1.76E-01	1.13E-01	1.21E-01	1.45E-01	1.05E-01	1.07E-01	1.18E-01	1.29E-01	9.99E-02	5.41E-02	1.15E-01	8.33E-01
Antimony	3.07E-05	1.97E-05	2.12E-05	2.53E-05	1.84E-05	1.86E-05	2.07E-05	2.26E-05	1.74E-05	9.44E-06	2.00E-05	1.45E-04
Arsenic	3.65E-04	2.34E-04	2.52E-04	3.01E-04	2.19E-04	2.22E-04	2.46E-04	2.69E-04	2.08E-04	1.12E-04	2.38E-04	1.73E-03
Barium	8.22E-02	5.26E-02	5.67E-02	6.78E-02	4.93E-02	4.99E-02	5.54E-02	6.05E-02	4.67E-02	2.53E-02	5.36E-02	3.89E-01
Beryllium	4.55E-05	2.91E-05	3.14E-05	3.76E-05	2.73E-05	2.76E-05	3.07E-05	3.35E-05	2.59E-05	1.40E-05	2.96E-05	2.16E-04
Boron	1.40E-02	8.99E-03	9.68E-03	1.16E-02	8.42E-03	8.52E-03	9.46E-03	1.03E-02	7.98E-03	4.32E-03	9.14E-03	6.65E-02
Cadmium	3.61E-05	2.31E-05	2.49E-05	2.98E-05	2.16E-05	2.19E-05	2.43E-05	2.66E-05	2.05E-05	1.11E-05	2.35E-05	1.71E-04
Chromium	1.32E-03	8.47E-04	9.12E-04	1.09E-03	7.94E-04	8.03E-04	8.91E-04	9.74E-04	7.52E-04	4.07E-04	8.62E-04	6.27E-03
Cobalt	7.97E-05	5.10E-05	5.49E-05	6.57E-05	4.78E-05	4.83E-05	5.37E-05	5.86E-05	4.53E-05	2.45E-05	5.19E-05	3.77E-04
Copper	2.02E-03	1.29E-03	1.39E-03	1.67E-03	1.21E-03	1.22E-03	1.36E-03	1.49E-03	1.15E-03	6.20E-04	1.31E-03	9.56E-03
Iron	6.48E-02	4.15E-02	4.47E-02	5.35E-02	3.89E-02	3.93E-02	4.37E-02	4.77E-02	3.68E-02	1.99E-02	4.22E-02	3.07E-01
Lithium	1.43E-03	9.17E-04	9.88E-04	1.18E-03	8.59E-04	8.70E-04	9.65E-04	1.05E-03	8.14E-04	4.40E-04	9.33E-04	6.79E-03
Manganese	2.05E-03	1.31E-03	1.42E-03	1.69E-03	1.23E-03	1.25E-03	1.38E-03	1.51E-03	1.17E-03	6.31E-04	1.34E-03	9.72E-03

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
Mercury	3.70E-04	2.37E-04	2.55E-04	3.05E-04	2.22E-04	2.25E-04	2.49E-04	2.72E-04	2.10E-04	1.14E-04	2.41E-04	1.75E-03
Elemental Hg	2.05E+04	1.32E+04	1.42E+04	1.69E+04	1.24E+04	1.25E+04	1.39E+04	1.53E+04	1.17E+04	6.50E+03	1.35E+04	9.69E+04
Oxidized Hg	2.61E+03	1.67E+03	1.80E+03	2.15E+03	1.57E+03	1.59E+03	1.76E+03	1.94E+03	1.49E+03	8.27E+02	1.72E+03	1.23E+04
Particle-bound Hg	2.46E+01	1.57E+01	1.69E+01	2.03E+01	1.47E+01	1.49E+01	1.65E+01	1.81E+01	1.40E+01	7.55E+00	1.60E+01	1.16E+02
Molybdenum	1.04E-03	6.67E-04	7.18E-04	8.59E-04	6.25E-04	6.32E-04	7.01E-04	7.66E-04	5.92E-04	3.20E-04	6.78E-04	4.93E-03
Nickel	1.06E-03	6.81E-04	7.33E-04	8.77E-04	6.38E-04	6.45E-04	7.16E-04	7.83E-04	6.04E-04	3.27E-04	6.93E-04	5.04E-03
Palladium	2.05E-04	1.31E-04	1.41E-04	1.69E-04	1.23E-04	1.24E-04	1.38E-04	1.51E-04	1.16E-04	6.29E-05	1.33E-04	9.70E-04
Lead	4.17E-04	2.67E-04	2.87E-04	3.44E-04	2.50E-04	2.53E-04	2.81E-04	3.07E-04	2.37E-04	1.28E-04	2.71E-04	1.97E-03
Selenium	3.07E-04	1.96E-04	2.12E-04	2.53E-04	1.84E-04	1.86E-04	2.07E-04	2.26E-04	1.74E-04	9.43E-05	2.00E-04	1.45E-03
Silver	9.30E-05	5.95E-05	6.41E-05	7.67E-05	5.58E-05	5.64E-05	6.26E-05	6.84E-05	5.28E-05	2.86E-05	6.05E-05	4.40E-04
Strontium	1.67E-02	1.07E-02	1.15E-02	1.38E-02	1.00E-02	1.01E-02	1.13E-02	1.23E-02	9.50E-03	5.14E-03	1.09E-02	7.92E-02
Thallium	9.51E-04	6.09E-04	6.55E-04	7.84E-04	5.70E-04	5.77E-04	6.40E-04	7.00E-04	5.40E-04	2.92E-04	6.19E-04	4.50E-03
Thorium	3.33E-04	2.13E-04	2.30E-04	2.75E-04	2.00E-04	2.02E-04	2.24E-04	2.45E-04	1.89E-04	1.02E-04	2.17E-04	1.58E-03
Tin	9.97E-03	6.38E-03	6.87E-03	8.22E-03	5.98E-03	6.05E-03	6.71E-03	7.34E-03	5.66E-03	3.06E-03	6.49E-03	4.72E-02
Uranium	5.26E-05	3.36E-05	3.62E-05	4.33E-05	3.15E-05	3.19E-05	3.54E-05	3.87E-05	2.99E-05	1.61E-05	3.42E-05	2.49E-04
Vanadium	1.51E-03	9.65E-04	1.04E-03	1.24E-03	9.04E-04	9.15E-04	1.02E-03	1.11E-03	8.56E-04	4.63E-04	9.82E-04	7.14E-03
Zinc	2.82E-04	1.81E-04	1.95E-04	2.33E-04	1.69E-04	1.71E-04	1.90E-04	2.08E-04	1.60E-04	8.68E-05	1.84E-04	1.34E-03
Dioxins and Furans												
Tetrachlorodibenzo-p-dioxins	1.14E-11	7.28E-12	7.84E-12	9.39E-12	6.83E-12	6.90E-12	7.66E-12	8.37E-12	6.47E-12	3.50E-12	7.41E-12	5.39E-11
Pentachlorodibenzo-p-dioxins	8.94E-12	5.72E-12	6.16E-12	7.38E-12	5.36E-12	5.43E-12	6.02E-12	6.58E-12	5.08E-12	2.75E-12	5.82E-12	4.23E-11
Hexachlorodibenzo-p-dioxins	4.96E-10	3.17E-10	3.42E-10	4.09E-10	2.97E-10	3.01E-10	3.34E-10	3.65E-10	2.82E-10	1.52E-10	3.23E-10	2.35E-09
Heptachlorodibenzo-p-dioxins	1.33E-09	8.48E-10	9.13E-10	1.09E-09	7.95E-10	8.04E-10	8.92E-10	9.75E-10	7.53E-10	4.07E-10	8.63E-10	6.27E-09
Octachlorodibenzo-p-dioxins	1.86E-09	1.19E-09	1.28E-09	1.54E-09	1.12E-09	1.13E-09	1.25E-09	1.37E-09	1.06E-09	5.72E-10	1.21E-09	8.82E-09
Total Dioxins	3.21E-09	2.06E-09	2.21E-09	2.65E-09	1.93E-09	1.95E-09	2.16E-09	2.36E-09	1.82E-09	9.87E-10	2.09E-09	1.52E-08
Tetrachlorodibenzofurans	2.11E-09	1.35E-09	1.45E-09	1.74E-09	1.26E-09	1.28E-09	1.42E-09	1.55E-09	1.20E-09	6.47E-10	1.37E-09	9.97E-09
Pentachlorodibenzofurans	1.92E-09	1.23E-09	1.32E-09	1.58E-09	1.15E-09	1.16E-09	1.29E-09	1.41E-09	1.09E-09	5.90E-10	1.25E-09	9.08E-09
Hexachlorodibenzofurans	7.07E-10	4.53E-10	4.87E-10	5.83E-10	4.24E-10	4.29E-10	4.76E-10	5.20E-10	4.02E-10	2.17E-10	4.61E-10	3.35E-09
Heptachlorodibenzofurans	3.90E-10	2.50E-10	2.69E-10	3.22E-10	2.34E-10	2.37E-10	2.63E-10	2.87E-10	2.22E-10	1.20E-10	2.54E-10	1.85E-09
Octachlorodibenzofurans	8.37E-09	5.36E-09	5.77E-09	6.91E-09	5.02E-09	5.08E-09	5.64E-09	6.16E-09	4.76E-09	2.57E-09	5.45E-09	3.96E-08
Total Furans	2.85E-10	1.82E-10	1.96E-10	2.35E-10	1.71E-10	1.73E-10	1.92E-10	2.09E-10	1.62E-10	8.74E-11	1.85E-10	1.35E-09
PAHs	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Acenaphthene	3.33E-05	2.13E-05	2.29E-05	2.74E-05	2.00E-05	2.03E-05	2.24E-05	2.47E-05	1.90E-05	1.05E-05	2.19E-05	1.57E-04
Acenaphthylene	2.31E-07	1.48E-07	1.59E-07	1.90E-07	1.39E-07	1.41E-07	1.56E-07	1.72E-07	1.32E-07	7.31E-08	1.52E-07	1.09E-06
Anthracene	1.46E-06	9.32E-07	1.00E-06	1.20E-06	8.75E-07	8.87E-07	9.82E-07	1.08E-06	8.31E-07	4.60E-07	9.59E-07	6.87E-06
Benzo(a)anthracene	2.08E-07	1.33E-07	1.43E-07	1.71E-07	1.25E-07	1.27E-07	1.40E-07	1.55E-07	1.19E-07	6.58E-08	1.37E-07	9.82E-07
Benzo(b)anthracene	3.47E-07	2.22E-07	2.39E-07	2.85E-07	2.08E-07	2.11E-07	2.34E-07	2.58E-07	1.98E-07	1.10E-07	2.28E-07	1.64E-06
Benzo(b)fluoranthene	3.23E-07	2.07E-07	2.23E-07	2.66E-07	1.95E-07	1.97E-07	2.18E-07	2.40E-07	1.85E-07	1.02E-07	2.13E-07	1.53E-06
Benzo(k,j)fluoranthene	3.93E-07	2.52E-07	2.71E-07	3.24E-07	2.36E-07	2.39E-07	2.65E-07	2.92E-07	2.24E-07	1.24E-07	2.59E-07	1.85E-06
Benzo(a)fluorene	5.08E-07	3.26E-07	3.50E-07	4.19E-07	3.06E-07	3.10E-07	3.43E-07	3.78E-07	2.90E-07	1.61E-07	3.35E-07	2.40E-06
Benzo(b)fluorene	1.16E-07	7.40E-08	7.96E-08	9.51E-08	6.95E-08	7.04E-08	7.79E-08	8.58E-08	6.60E-08	3.65E-08	7.61E-08	5.45E-07
Benzo(g,h,i)perylene	9.24E-07	5.92E-07	6.37E-07	7.61E-07	5.56E-07	5.63E-07	6.24E-07	6.87E-07	5.28E-07	2.92E-07	6.09E-07	4.36E-06
Benzo(a)pyrene	3.00E-07	1.92E-07	2.07E-07	2.47E-07	1.81E-07	1.83E-07	2.03E-07	2.23E-07	1.72E-07	9.50E-08	1.98E-07	1.42E-06
Benzo(e)pyrene	1.34E-06	8.58E-07	9.24E-07	1.10E-06	8.06E-07	8.16E-07	9.04E-07	9.96E-07	7.65E-07	4.24E-07	8.83E-07	6.33E-06
Biphenyl	1.57E-05	1.01E-05	1.08E-05	1.29E-05	9.45E-06	9.57E-06	1.06E-05	1.17E-05	8.97E-06	4.97E-06	1.04E-05	7.42E-05
2-chloronaphthalene	4.85E-08	3.11E-08	3.35E-08	4.00E-08	2.92E-08	2.96E-08	3.27E-08	3.61E-08	2.77E-08	1.53E-08	3.20E-08	2.29E-07
Coronene	5.54E-07	3.55E-07	3.82E-07	4.57E-07	3.34E-07	3.38E-07	3.74E-07	4.12E-07	3.17E-07	1.75E-07	3.65E-07	2.62E-06
Dibenzo(a,c & a,h)anthracene	1.69E-08	1.08E-08	1.16E-08	1.39E-08	1.01E-08	1.03E-08	1.14E-08	1.25E-08	9.63E-09	5.34E-09	1.11E-08	7.96E-08
Dibenzo(a,j)acridine	8.32E-09	5.33E-09	5.73E-09	6.85E-09	5.00E-09	5.07E-09	5.61E-09	6.18E-09	4.75E-09	2.63E-09	5.48E-09	3.93E-08
7H-dibenzo(c,g)carbazole	1.29E-08	8.29E-09	8.92E-09	1.07E-08	7.78E-09	7.88E-09	8.73E-09	9.61E-09	7.39E-09	4.09E-09	8.53E-09	6.11E-08
Dibenzo(a,e)pyrene	2.31E-09	1.48E-09	1.59E-09	1.90E-09	1.39E-09	1.41E-09	1.56E-09	1.72E-09	1.32E-09	7.31E-10	1.52E-09	1.09E-08
Dibenzo(a,i)pyrene	3.00E-09	1.92E-09	2.07E-09	2.47E-09	1.81E-09	1.83E-09	2.03E-09	2.23E-09	1.72E-09	9.50E-10	1.98E-09	1.42E-08
9,10-dimethylanthracene	1.27E-07	8.14E-08	8.76E-08	1.05E-07	7.64E-08	7.74E-08	8.57E-08	9.44E-08	7.26E-08	4.02E-08	8.37E-08	6.00E-07
7,12-dimethylanthracene	3.93E-08	2.52E-08	2.71E-08	3.24E-08	2.36E-08	2.39E-08	2.65E-08	2.92E-08	2.24E-08	1.24E-08	2.59E-08	1.85E-07
1,2-dimethylnaphthalene	1.96E-07	1.26E-07	1.35E-07	1.62E-07	1.18E-07	1.20E-07	1.33E-07	1.46E-07	1.12E-07	6.21E-08	1.29E-07	9.27E-07
2,6 & 2,7-dimethylnaphthalene	7.62E-07	4.88E-07	5.26E-07	6.28E-07	4.59E-07	4.64E-07	5.14E-07	5.67E-07	4.36E-07	2.41E-07	5.02E-07	3.60E-06
Fluoranthene	3.93E-06	2.52E-06	2.71E-06	3.24E-06	2.36E-06	2.39E-06	2.65E-06	2.92E-06	2.24E-06	1.24E-06	2.59E-06	1.85E-05
Fluorene	4.62E-06	2.96E-06	3.19E-06	3.81E-06	2.78E-06	2.81E-06	3.12E-06	3.43E-06	2.64E-06	1.46E-06	3.04E-06	2.18E-05
Indeno(1,2,3-cd)pyrene	1.59E-07	1.02E-07	1.10E-07	1.31E-07	9.59E-08	9.71E-08	1.08E-07	1.18E-07	9.11E-08	5.04E-08	1.05E-07	7.53E-07
2-methylanthracene	2.54E-07	1.63E-07	1.75E-07	2.09E-07	1.53E-07	1.55E-07	1.71E-07	1.89E-07	1.45E-07	8.04E-08	1.67E-07	1.20E-06
3-methylcholanthrene	6.93E-07	4.44E-07	4.78E-07	5.71E-07	4.17E-07	4.22E-07	4.68E-07	5.15E-07	3.96E-07	2.19E-07	4.57E-07	3.27E-06
1-methylnaphthalene	4.62E-06	2.96E-06	3.19E-06	3.81E-06	2.78E-06	2.81E-06	3.12E-06	3.43E-06	2.64E-06	1.46E-06	3.04E-06	2.18E-05
2-methylnaphthalene	6.93E-06	4.44E-06	4.78E-06	5.71E-06	4.17E-06	4.22E-06	4.68E-06	5.15E-06	3.96E-06	2.19E-06	4.57E-06	3.27E-05

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration ($\mu\text{g}/\text{m}^3$)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
1-methylphenanthrene	1.92E-06	1.23E-06	1.32E-06	1.58E-06	1.15E-06	1.17E-06	1.29E-06	1.43E-06	1.10E-06	6.07E-07	1.26E-06	9.05E-06
9-methylphenanthrene	1.71E-06	1.10E-06	1.18E-06	1.41E-06	1.03E-06	1.04E-06	1.15E-06	1.27E-06	9.77E-07	5.41E-07	1.13E-06	8.07E-06
Naphthalene	1.39E-05	8.88E-06	9.56E-06	1.14E-05	8.34E-06	8.44E-06	9.35E-06	1.03E-05	7.92E-06	4.39E-06	9.13E-06	6.54E-05
Perylene	9.47E-08	6.07E-08	6.53E-08	7.80E-08	5.70E-08	5.77E-08	6.39E-08	7.04E-08	5.41E-08	3.00E-08	6.24E-08	4.47E-07
Phenanthrene	2.54E-05	1.63E-05	1.75E-05	2.09E-05	1.53E-05	1.55E-05	1.71E-05	1.89E-05	1.45E-05	8.04E-06	1.67E-05	1.20E-04
Picene	1.55E-08	9.91E-09	1.07E-08	1.28E-08	9.31E-09	9.43E-09	1.04E-08	1.15E-08	8.84E-09	4.90E-09	1.02E-08	7.31E-08
Pyrene	2.54E-06	1.63E-06	1.75E-06	2.09E-06	1.53E-06	1.55E-06	1.71E-06	1.89E-06	1.45E-06	8.04E-07	1.67E-06	1.20E-05
Quinoline	1.92E-07	1.23E-07	1.32E-07	1.58E-07	1.15E-07	1.17E-07	1.29E-07	1.43E-07	1.10E-07	6.07E-08	1.26E-07	9.05E-07
m-Terphenyl	6.70E-07	4.29E-07	4.62E-07	5.52E-07	4.03E-07	4.08E-07	4.52E-07	4.98E-07	3.83E-07	2.12E-07	4.42E-07	3.16E-06
o-Terphenyl	1.06E-06	6.81E-07	7.33E-07	8.75E-07	6.39E-07	6.47E-07	7.17E-07	7.90E-07	6.07E-07	3.36E-07	7.00E-07	5.02E-06
p-Terphenyl	3.47E-07	2.22E-07	2.39E-07	2.85E-07	2.08E-07	2.11E-07	2.34E-07	2.58E-07	1.98E-07	1.10E-07	2.28E-07	1.64E-06
Tetralin	1.50E-06	9.62E-07	1.04E-06	1.24E-06	9.03E-07	9.15E-07	1.01E-06	1.12E-06	8.58E-07	4.75E-07	9.90E-07	7.09E-06
Triphenylene/chrysene	8.78E-07	5.62E-07	6.05E-07	7.23E-07	5.28E-07	5.35E-07	5.92E-07	6.52E-07	5.02E-07	2.78E-07	5.79E-07	4.14E-06
VOCs												
Acetaldehyde	2.79E-03	1.79E-03	1.92E-03	2.30E-03	1.68E-03	1.70E-03	1.88E-03	2.07E-03	1.59E-03	8.82E-04	1.84E-03	1.32E-02
Acetophenone	7.33E-05	4.70E-05	5.06E-05	6.04E-05	4.41E-05	4.47E-05	4.95E-05	5.45E-05	4.19E-05	2.32E-05	4.83E-05	3.46E-04
Acrolien	1.42E-03	9.08E-04	9.78E-04	1.17E-03	8.53E-04	8.64E-04	9.57E-04	1.05E-03	8.10E-04	4.49E-04	9.34E-04	6.69E-03
Benzene	6.36E-03	4.07E-03	4.38E-03	5.24E-03	3.82E-03	3.87E-03	4.29E-03	4.72E-03	3.63E-03	2.01E-03	4.19E-03	3.00E-02
Benzyl chloride	3.42E-03	2.19E-03	2.36E-03	2.82E-03	2.06E-03	2.08E-03	2.31E-03	2.54E-03	1.96E-03	1.08E-03	2.26E-03	1.62E-02
Bis(2-ethylhexyl)phthalate (DEHP)	3.57E-04	2.29E-04	2.46E-04	2.94E-04	2.15E-04	2.17E-04	2.41E-04	2.65E-04	2.04E-04	1.13E-04	2.35E-04	1.69E-03
Bromoform	1.91E-04	1.22E-04	1.31E-04	1.57E-04	1.15E-04	1.16E-04	1.29E-04	1.42E-04	1.09E-04	6.03E-05	1.26E-04	9.00E-04
Carbon disulphide	6.36E-04	4.07E-04	4.38E-04	5.24E-04	3.82E-04	3.87E-04	4.29E-04	4.72E-04	3.63E-04	2.01E-04	4.19E-04	3.00E-03
2-Chloroacetophenone	3.42E-05	2.19E-05	2.36E-05	2.82E-05	2.06E-05	2.08E-05	2.31E-05	2.54E-05	1.96E-05	1.08E-05	2.26E-05	1.62E-04
Chlorobenzene	1.08E-04	6.89E-05	7.42E-05	8.86E-05	6.47E-05	6.55E-05	7.26E-05	7.99E-05	6.15E-05	3.40E-05	7.09E-05	5.08E-04
Chloroform	2.88E-04	1.85E-04	1.99E-04	2.38E-04	1.74E-04	1.76E-04	1.95E-04	2.14E-04	1.65E-04	9.13E-05	1.90E-04	1.36E-03
Cumene	2.59E-05	1.66E-05	1.79E-05	2.13E-05	1.56E-05	1.58E-05	1.75E-05	1.93E-05	1.48E-05	8.20E-06	1.71E-05	1.22E-04
Cyanide	1.22E-02	7.83E-03	8.43E-03	1.01E-02	7.35E-03	7.45E-03	8.25E-03	9.08E-03	6.98E-03	3.87E-03	8.06E-03	5.77E-02
2,4-Dinitrotoluene	1.37E-06	8.77E-07	9.44E-07	1.13E-06	8.23E-07	8.34E-07	9.24E-07	1.02E-06	7.82E-07	4.33E-07	9.02E-07	6.46E-06
Dimethyl Sulphate	2.35E-04	1.50E-04	1.62E-04	1.93E-04	1.41E-04	1.43E-04	1.58E-04	1.74E-04	1.34E-04	7.42E-05	1.55E-04	1.11E-03
Ethyl benzene	4.60E-04	2.94E-04	3.17E-04	3.79E-04	2.76E-04	2.80E-04	3.10E-04	3.42E-04	2.63E-04	1.45E-04	3.03E-04	2.17E-03

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration ($\mu\text{g}/\text{m}^3$)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Ethyl chloride	2.05E-04	1.32E-04	1.42E-04	1.69E-04	1.24E-04	1.25E-04	1.39E-04	1.53E-04	1.17E-04	6.50E-05	1.35E-04	9.70E-04
Ethylene dichloride	1.96E-04	1.25E-04	1.35E-04	1.61E-04	1.18E-04	1.19E-04	1.32E-04	1.45E-04	1.12E-04	6.19E-05	1.29E-04	9.23E-04
Ethylene dibromide	5.87E-06	3.76E-06	4.05E-06	4.83E-06	3.53E-06	3.57E-06	3.96E-06	4.36E-06	3.35E-06	1.86E-06	3.87E-06	2.77E-05
Formaldehyde	1.17E-03	7.52E-04	8.09E-04	9.67E-04	7.06E-04	7.15E-04	7.92E-04	8.72E-04	6.70E-04	3.71E-04	7.73E-04	5.54E-03
Hexane	3.28E-04	2.10E-04	2.26E-04	2.70E-04	1.97E-04	2.00E-04	2.21E-04	2.43E-04	1.87E-04	1.04E-04	2.16E-04	1.55E-03
Isophorone	2.84E-03	1.82E-03	1.96E-03	2.34E-03	1.71E-03	1.73E-03	1.91E-03	2.11E-03	1.62E-03	8.97E-04	1.87E-03	1.34E-02
Methylbromide	7.82E-04	5.01E-04	5.39E-04	6.44E-04	4.71E-04	4.77E-04	5.28E-04	5.81E-04	4.47E-04	2.47E-04	5.16E-04	3.69E-03
Methyl chloride	2.59E-03	1.66E-03	1.79E-03	2.13E-03	1.56E-03	1.58E-03	1.75E-03	1.93E-03	1.48E-03	8.20E-04	1.71E-03	1.22E-02
Methyl ethyl ketone	1.91E-03	1.22E-03	1.31E-03	1.57E-03	1.15E-03	1.16E-03	1.29E-03	1.42E-03	1.09E-03	6.03E-04	1.26E-03	9.00E-03
Methyl hydrazine	8.31E-04	5.32E-04	5.73E-04	6.85E-04	5.00E-04	5.06E-04	5.61E-04	6.18E-04	4.75E-04	2.63E-04	5.48E-04	3.92E-03
Methyl methacrylate	9.78E-05	6.26E-05	6.74E-05	8.06E-05	5.88E-05	5.96E-05	6.60E-05	7.27E-05	5.59E-05	3.09E-05	6.44E-05	4.62E-04
Methyl tert-butyl ether	1.71E-04	1.10E-04	1.18E-04	1.41E-04	1.03E-04	1.04E-04	1.15E-04	1.27E-04	9.78E-05	5.41E-05	1.13E-04	8.08E-04
Methylene chloride	1.42E-03	9.08E-04	9.78E-04	1.17E-03	8.53E-04	8.64E-04	9.57E-04	1.05E-03	8.10E-04	4.49E-04	9.34E-04	6.69E-03
Phenol	7.82E-05	5.01E-05	5.39E-05	6.44E-05	4.71E-05	4.77E-05	5.28E-05	5.81E-05	4.47E-05	2.47E-05	5.16E-05	3.69E-04
Propionaldehyde	1.86E-03	1.19E-03	1.28E-03	1.53E-03	1.12E-03	1.13E-03	1.25E-03	1.38E-03	1.06E-03	5.88E-04	1.22E-03	8.77E-03
Tetrachloroethylene	2.10E-04	1.35E-04	1.45E-04	1.73E-04	1.26E-04	1.28E-04	1.42E-04	1.56E-04	1.20E-04	6.65E-05	1.39E-04	9.93E-04
Toluene	1.17E-03	7.52E-04	8.09E-04	9.67E-04	7.06E-04	7.15E-04	7.92E-04	8.72E-04	6.70E-04	3.71E-04	7.73E-04	5.54E-03
1,1,1-Trichloroethane	9.78E-05	6.26E-05	6.74E-05	8.06E-05	5.88E-05	5.96E-05	6.60E-05	7.27E-05	5.59E-05	3.09E-05	6.44E-05	4.62E-04
Styrene	1.22E-04	7.83E-05	8.43E-05	1.01E-04	7.35E-05	7.45E-05	8.25E-05	9.08E-05	6.98E-05	3.87E-05	8.06E-05	5.77E-04
Xylenes	1.81E-04	1.16E-04	1.25E-04	1.49E-04	1.09E-04	1.10E-04	1.22E-04	1.34E-04	1.03E-04	5.72E-05	1.19E-04	8.54E-04
Vinyl acetate	3.72E-05	2.38E-05	2.56E-05	3.06E-05	2.24E-05	2.26E-05	2.51E-05	2.76E-05	2.12E-05	1.18E-05	2.45E-05	1.75E-04

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

**Table C.6
Maximum Predicted 24-hour Average COPC Concentrations (OS3)**

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
Common Air Contaminants												
Total PM	4.37E-01	2.54E-01	4.45E-01	5.37E-01	4.75E-01	6.53E-01	4.56E-01	2.54E-01	2.25E-01	1.62E-01	2.96E-01	1.13E+00
PM ₁₀	4.05E-01	2.36E-01	4.12E-01	4.99E-01	4.43E-01	6.07E-01	4.26E-01	2.38E-01	2.11E-01	1.51E-01	2.79E-01	1.04E+00
PM _{2.5}	2.49E-01	1.45E-01	2.53E-01	3.08E-01	2.75E-01	3.77E-01	2.68E-01	1.49E-01	1.31E-01	9.35E-02	1.71E-01	6.41E-01
NO	4.38E+00	2.55E+00	4.46E+00	5.42E+00	4.88E+00	6.67E+00	4.72E+00	2.62E+00	2.23E+00	1.65E+00	3.00E+00	1.13E+01
NO ₂	2.43E+00	1.41E+00	2.48E+00	3.01E+00	2.71E+00	3.70E+00	2.62E+00	1.45E+00	1.24E+00	9.15E-01	1.67E+00	6.27E+00
NO _x	6.81E+00	3.96E+00	6.93E+00	8.43E+00	7.59E+00	1.04E+01	7.35E+00	4.07E+00	3.47E+00	2.56E+00	4.67E+00	1.76E+01
NO ₂ 100% convert	9.15E+00	5.32E+00	9.31E+00	1.13E+01	1.02E+01	1.39E+01	9.86E+00	5.46E+00	4.66E+00	3.44E+00	6.27E+00	2.36E+01
SO ₂	7.55E+00	4.39E+00	7.69E+00	9.34E+00	8.41E+00	1.15E+01	8.14E+00	4.51E+00	3.85E+00	2.84E+00	5.18E+00	1.95E+01
CO	5.43E-01	3.16E-01	5.53E-01	6.72E-01	6.05E-01	8.27E-01	5.86E-01	3.24E-01	2.77E-01	2.04E-01	3.73E-01	1.40E+00
Inorganic Gases												
HCl	5.49E-03	3.19E-03	5.59E-03	6.79E-03	6.12E-03	8.36E-03	5.92E-03	3.28E-03	2.80E-03	2.07E-03	3.77E-03	1.42E-02
HF	5.04E-03	2.93E-03	5.13E-03	6.23E-03	5.61E-03	7.67E-03	5.43E-03	3.01E-03	2.57E-03	1.89E-03	3.45E-03	1.30E-02
Metals												
Aluminum	2.36E-02	1.37E-02	2.41E-02	2.91E-02	2.57E-02	3.53E-02	2.47E-02	1.37E-02	1.22E-02	8.74E-03	1.60E-02	6.10E-02
Antimony	4.12E-06	2.40E-06	4.20E-06	5.07E-06	4.49E-06	6.17E-06	4.31E-06	2.39E-06	2.13E-06	1.53E-06	2.80E-06	1.07E-05
Arsenic	4.91E-05	2.85E-05	5.00E-05	6.03E-05	5.34E-05	7.34E-05	5.13E-05	2.85E-05	2.53E-05	1.81E-05	3.33E-05	1.27E-04
Barium	1.10E-02	6.41E-03	1.12E-02	1.36E-02	1.20E-02	1.65E-02	1.15E-02	6.41E-03	5.69E-03	4.09E-03	7.50E-03	2.85E-02
Beryllium	6.11E-06	3.55E-06	6.23E-06	7.52E-06	6.66E-06	9.15E-06	6.39E-06	3.55E-06	3.15E-06	2.26E-06	4.15E-06	1.58E-05
Boron	1.89E-03	1.10E-03	1.92E-03	2.32E-03	2.05E-03	2.82E-03	1.97E-03	1.10E-03	9.72E-04	6.98E-04	1.28E-03	4.87E-03
Cadmium	4.85E-06	2.81E-06	4.94E-06	5.96E-06	5.28E-06	7.25E-06	5.06E-06	2.81E-06	2.50E-06	1.79E-06	3.29E-06	1.25E-05
Chromium	1.78E-04	1.03E-04	1.81E-04	2.19E-04	1.94E-04	2.66E-04	1.86E-04	1.03E-04	9.16E-05	6.58E-05	1.21E-04	4.59E-04
Cobalt	1.07E-05	6.22E-06	1.09E-05	1.32E-05	1.17E-05	1.60E-05	1.12E-05	6.21E-06	5.52E-06	3.96E-06	7.26E-06	2.77E-05
Copper	2.71E-04	1.57E-04	2.76E-04	3.33E-04	2.95E-04	4.06E-04	2.83E-04	1.57E-04	1.40E-04	1.00E-04	1.84E-04	7.01E-04
Iron	8.71E-03	5.06E-03	8.87E-03	1.07E-02	9.48E-03	1.30E-02	9.10E-03	5.06E-03	4.49E-03	3.22E-03	5.91E-03	2.25E-02
Lithium	1.92E-04	1.12E-04	1.96E-04	2.37E-04	2.10E-04	2.88E-04	2.01E-04	1.12E-04	9.92E-05	7.12E-05	1.31E-04	4.97E-04
Manganese	2.76E-04	1.60E-04	2.81E-04	3.39E-04	3.00E-04	4.13E-04	2.88E-04	1.60E-04	1.42E-04	1.02E-04	1.87E-04	7.13E-04

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
Mercury (Total)	4.97E-05	2.89E-05	5.06E-05	6.12E-05	5.41E-05	7.44E-05	5.19E-05	2.89E-05	2.56E-05	1.84E-05	3.38E-05	1.28E-04
Elemental Hg	2.76E+03	1.60E+03	2.81E+03	3.41E+03	3.07E+03	4.20E+03	2.97E+03	1.65E+03	1.40E+03	1.04E+03	1.89E+03	7.11E+03
Oxidized Hg	3.51E+02	2.04E+02	3.57E+02	4.34E+02	3.91E+02	5.34E+02	3.78E+02	2.10E+02	1.79E+02	1.32E+02	2.41E+02	9.04E+02
Particle-bound Hg	3.30E+00	1.92E+00	3.36E+00	4.06E+00	3.59E+00	4.94E+00	3.45E+00	1.92E+00	1.70E+00	1.22E+00	2.24E+00	8.52E+00
Molybdenum	1.40E-04	8.12E-05	1.42E-04	1.72E-04	1.52E-04	2.09E-04	1.46E-04	8.12E-05	7.21E-05	5.17E-05	9.49E-05	3.61E-04
Nickel	1.43E-04	8.30E-05	1.45E-04	1.76E-04	1.56E-04	2.14E-04	1.49E-04	8.30E-05	7.36E-05	5.28E-05	9.70E-05	3.69E-04
Palladium	2.75E-05	1.60E-05	2.80E-05	3.38E-05	2.99E-05	4.11E-05	2.87E-05	1.60E-05	1.42E-05	1.02E-05	1.87E-05	7.11E-05
Lead	5.60E-05	3.25E-05	5.70E-05	6.88E-05	6.09E-05	8.37E-05	5.84E-05	3.25E-05	2.88E-05	2.07E-05	3.80E-05	1.45E-04
Selenium	4.12E-05	2.39E-05	4.20E-05	5.07E-05	4.49E-05	6.17E-05	4.31E-05	2.39E-05	2.13E-05	1.52E-05	2.80E-05	1.07E-04
Silver	1.25E-05	7.25E-06	1.27E-05	1.54E-05	1.36E-05	1.87E-05	1.30E-05	7.25E-06	6.44E-06	4.62E-06	8.48E-06	3.23E-05
Strontium	2.25E-03	1.30E-03	2.29E-03	2.76E-03	2.44E-03	3.36E-03	2.35E-03	1.30E-03	1.16E-03	8.31E-04	1.52E-03	5.80E-03
Thallium	1.28E-04	7.42E-05	1.30E-04	1.57E-04	1.39E-04	1.91E-04	1.33E-04	7.41E-05	6.58E-05	4.72E-05	8.67E-05	3.30E-04
Thorium	4.47E-05	2.60E-05	4.55E-05	5.50E-05	4.87E-05	6.69E-05	4.67E-05	2.60E-05	2.31E-05	1.65E-05	3.04E-05	1.16E-04
Tin	1.34E-03	7.78E-04	1.36E-03	1.65E-03	1.46E-03	2.00E-03	1.40E-03	7.77E-04	6.90E-04	4.95E-04	9.09E-04	3.46E-03
Uranium	7.06E-06	4.10E-06	7.19E-06	8.68E-06	7.68E-06	1.06E-05	7.37E-06	4.10E-06	3.64E-06	2.61E-06	4.79E-06	1.82E-05
Vanadium	2.02E-04	1.18E-04	2.06E-04	2.49E-04	2.20E-04	3.03E-04	2.11E-04	1.18E-04	1.04E-04	7.49E-05	1.37E-04	5.23E-04
Zinc	3.79E-05	2.20E-05	3.86E-05	4.66E-05	4.13E-05	5.67E-05	3.96E-05	2.20E-05	1.96E-05	1.40E-05	2.57E-05	9.80E-05
Dioxins and Furans												
Tetrachlorodibenzo-p-dioxins	1.53E-12	8.88E-13	1.56E-12	1.88E-12	1.66E-12	2.29E-12	1.60E-12	8.88E-13	7.88E-13	5.65E-13	1.04E-12	3.95E-12
Pentachlorodibenzo-p-dioxins	1.20E-12	6.97E-13	1.22E-12	1.48E-12	1.31E-12	1.80E-12	1.25E-12	6.97E-13	6.19E-13	4.44E-13	8.15E-13	3.10E-12
Hexachlorodibenzo-p-dioxins	6.66E-11	3.87E-11	6.78E-11	8.19E-11	7.25E-11	9.96E-11	6.96E-11	3.87E-11	3.43E-11	2.46E-11	4.52E-11	1.72E-10
Heptachlorodibenzo-p-dioxins	1.78E-10	1.03E-10	1.81E-10	2.19E-10	1.94E-10	2.66E-10	1.86E-10	1.03E-10	9.17E-11	6.58E-11	1.21E-10	4.60E-10
Octachlorodibenzo-p-dioxins	2.50E-10	1.45E-10	2.55E-10	3.07E-10	2.72E-10	3.74E-10	2.61E-10	1.45E-10	1.29E-10	9.25E-11	1.70E-10	6.46E-10
Total Dioxins	4.31E-10	2.50E-10	4.39E-10	5.30E-10	4.70E-10	6.45E-10	4.50E-10	2.50E-10	2.22E-10	1.60E-10	2.93E-10	1.11E-09
Tetrachlorodibenzofurans	2.83E-10	1.64E-10	2.88E-10	3.48E-10	3.08E-10	4.23E-10	2.95E-10	1.64E-10	1.46E-10	1.05E-10	1.92E-10	7.31E-10
Pentachlorodibenzofurans	2.58E-10	1.50E-10	2.62E-10	3.17E-10	2.81E-10	3.85E-10	2.69E-10	1.50E-10	1.33E-10	9.53E-11	1.75E-10	6.66E-10
Hexachlorodibenzofurans	9.50E-11	5.52E-11	9.67E-11	1.17E-10	1.03E-10	1.42E-10	9.92E-11	5.52E-11	4.90E-11	3.51E-11	6.45E-11	2.45E-10
Heptachlorodibenzofurans	5.24E-11	3.04E-11	5.34E-11	6.45E-11	5.71E-11	7.84E-11	5.47E-11	3.04E-11	2.70E-11	1.94E-11	3.56E-11	1.35E-10
Octachlorodibenzofurans	1.12E-09	6.53E-10	1.15E-09	1.38E-09	1.22E-09	1.68E-09	1.17E-09	6.53E-10	5.80E-10	4.16E-10	7.63E-10	2.91E-09
Total Furans	3.82E-11	2.22E-11	3.89E-11	4.70E-11	4.16E-11	5.72E-11	3.99E-11	2.22E-11	1.97E-11	1.41E-11	2.59E-11	9.87E-11
PAHs	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
Acenaphthene	4.47E-06	2.60E-06	4.55E-06	5.53E-06	4.98E-06	6.80E-06	4.82E-06	2.67E-06	2.28E-06	1.68E-06	3.06E-06	1.15E-05
Acenaphthylene	3.10E-08	1.80E-08	3.16E-08	3.84E-08	3.46E-08	4.72E-08	3.34E-08	1.85E-08	1.58E-08	1.17E-08	2.13E-08	8.00E-08
Anthracene	1.95E-07	1.14E-07	1.99E-07	2.42E-07	2.18E-07	2.98E-07	2.11E-07	1.17E-07	9.96E-08	7.35E-08	1.34E-07	5.04E-07
Benzo(a)anthracene	2.79E-08	1.62E-08	2.84E-08	3.45E-08	3.11E-08	4.25E-08	3.01E-08	1.67E-08	1.42E-08	1.05E-08	1.91E-08	7.20E-08
Benzo(b)anthracene	4.65E-08	2.70E-08	4.74E-08	5.76E-08	5.18E-08	7.08E-08	5.02E-08	2.78E-08	2.37E-08	1.75E-08	3.19E-08	1.20E-07
Benzo(b)fluoranthene	4.34E-08	2.52E-08	4.42E-08	5.37E-08	4.84E-08	6.61E-08	4.68E-08	2.59E-08	2.21E-08	1.63E-08	2.98E-08	1.12E-07
Benzo(k,j)fluoranthene	5.27E-08	3.07E-08	5.37E-08	6.52E-08	5.87E-08	8.03E-08	5.69E-08	3.15E-08	2.69E-08	1.98E-08	3.62E-08	1.36E-07
Benzo(a)flourene	6.82E-08	3.97E-08	6.95E-08	8.44E-08	7.60E-08	1.04E-07	7.36E-08	4.08E-08	3.48E-08	2.57E-08	4.68E-08	1.76E-07
Benzo(b)flourene	1.55E-08	9.02E-09	1.58E-08	1.92E-08	1.73E-08	2.36E-08	1.67E-08	9.26E-09	7.90E-09	5.83E-09	1.06E-08	4.00E-08
Benzo(g,h,i)perylene	1.24E-07	7.21E-08	1.26E-07	1.54E-07	1.38E-07	1.89E-07	1.34E-07	7.41E-08	6.32E-08	4.67E-08	8.51E-08	3.20E-07
Benzo(a)pyrene	4.03E-08	2.34E-08	4.11E-08	4.99E-08	4.49E-08	6.14E-08	4.35E-08	2.41E-08	2.05E-08	1.52E-08	2.77E-08	1.04E-07
Benzo(e)pyrene	1.80E-07	1.05E-07	1.83E-07	2.23E-07	2.00E-07	2.74E-07	1.94E-07	1.07E-07	9.17E-08	6.77E-08	1.23E-07	4.64E-07
Biphenyl	2.11E-06	1.23E-06	2.15E-06	2.61E-06	2.35E-06	3.21E-06	2.27E-06	1.26E-06	1.07E-06	7.93E-07	1.45E-06	5.44E-06
2-chloronaphthalene	6.51E-09	3.79E-09	6.63E-09	8.06E-09	7.26E-09	9.92E-09	7.02E-09	3.89E-09	3.32E-09	2.45E-09	4.47E-09	1.68E-08
Coronene	7.44E-08	4.33E-08	7.58E-08	9.21E-08	8.29E-08	1.13E-07	8.03E-08	4.45E-08	3.79E-08	2.80E-08	5.11E-08	1.92E-07
Dibenzo(a,c & a,h)anthracene	2.26E-09	1.32E-09	2.31E-09	2.80E-09	2.52E-09	3.45E-09	2.44E-09	1.35E-09	1.15E-09	8.52E-10	1.55E-09	5.84E-09
Dibenzo(a,j)acridine	1.12E-09	6.49E-10	1.14E-09	1.38E-09	1.24E-09	1.70E-09	1.20E-09	6.67E-10	5.69E-10	4.20E-10	7.66E-10	2.88E-09
7H-dibenzo(c,g)carbazole	1.74E-09	1.01E-09	1.77E-09	2.15E-09	1.93E-09	2.64E-09	1.87E-09	1.04E-09	8.85E-10	6.53E-10	1.19E-09	4.48E-09
Dibenzo(a,e)pyrene	3.10E-10	1.80E-10	3.16E-10	3.84E-10	3.46E-10	4.72E-10	3.34E-10	1.85E-10	1.58E-10	1.17E-10	2.13E-10	8.00E-10
Dibenzo(a,i)pyrene	4.03E-10	2.34E-10	4.11E-10	4.99E-10	4.49E-10	6.14E-10	4.35E-10	2.41E-10	2.05E-10	1.52E-10	2.77E-10	1.04E-09
9,10-dimethylanthracene	1.71E-08	9.92E-09	1.74E-08	2.11E-08	1.90E-08	2.60E-08	1.84E-08	1.02E-08	8.69E-09	6.42E-09	1.17E-08	4.40E-08
7,12-dimethylanthracene	5.27E-09	3.07E-09	5.37E-09	6.52E-09	5.87E-09	8.03E-09	5.69E-09	3.15E-09	2.69E-09	1.98E-09	3.62E-09	1.36E-08
1,2-dimethylnaphthalene	2.64E-08	1.53E-08	2.68E-08	3.26E-08	2.94E-08	4.01E-08	2.84E-08	1.57E-08	1.34E-08	9.92E-09	1.81E-08	6.80E-08
2,6 & 2,7-dimethylnaphthalene	1.02E-07	5.95E-08	1.04E-07	1.27E-07	1.14E-07	1.56E-07	1.10E-07	6.11E-08	5.22E-08	3.85E-08	7.02E-08	2.64E-07
Fluoranthene	5.27E-07	3.07E-07	5.37E-07	6.52E-07	5.87E-07	8.03E-07	5.69E-07	3.15E-07	2.69E-07	1.98E-07	3.62E-07	1.36E-06
Fluorene	6.20E-07	3.61E-07	6.32E-07	7.68E-07	6.91E-07	9.45E-07	6.69E-07	3.70E-07	3.16E-07	2.33E-07	4.25E-07	1.60E-06
Indeno(1,2,3-cd)pyrene	2.14E-08	1.24E-08	2.18E-08	2.65E-08	2.38E-08	3.26E-08	2.31E-08	1.28E-08	1.09E-08	8.05E-09	1.47E-08	5.52E-08
2-methylanthracene	3.41E-08	1.98E-08	3.47E-08	4.22E-08	3.80E-08	5.20E-08	3.68E-08	2.04E-08	1.74E-08	1.28E-08	2.34E-08	8.80E-08
3-methylcholanthrene	9.31E-08	5.41E-08	9.47E-08	1.15E-07	1.04E-07	1.42E-07	1.00E-07	5.56E-08	4.74E-08	3.50E-08	6.38E-08	2.40E-07
1-methylnaphthalene	6.20E-07	3.61E-07	6.32E-07	7.68E-07	6.91E-07	9.45E-07	6.69E-07	3.70E-07	3.16E-07	2.33E-07	4.25E-07	1.60E-06
2-methylnaphthalene	9.31E-07	5.41E-07	9.47E-07	1.15E-06	1.04E-06	1.42E-06	1.00E-06	5.56E-07	4.74E-07	3.50E-07	6.38E-07	2.40E-06

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
1-methylphenanthrene	2.57E-07	1.50E-07	2.62E-07	3.19E-07	2.87E-07	3.92E-07	2.78E-07	1.54E-07	1.31E-07	9.68E-08	1.77E-07	6.64E-07
9-methylphenanthrene	2.30E-07	1.33E-07	2.34E-07	2.84E-07	2.56E-07	3.50E-07	2.48E-07	1.37E-07	1.17E-07	8.63E-08	1.57E-07	5.92E-07
Naphthalene	1.86E-06	1.08E-06	1.89E-06	2.30E-06	2.07E-06	2.83E-06	2.01E-06	1.11E-06	9.48E-07	7.00E-07	1.28E-06	4.80E-06
Perylene	1.27E-08	7.39E-09	1.29E-08	1.57E-08	1.42E-08	1.94E-08	1.37E-08	7.60E-09	6.48E-09	4.78E-09	8.72E-09	3.28E-08
Phenanthrene	3.41E-06	1.98E-06	3.47E-06	4.22E-06	3.80E-06	5.20E-06	3.68E-06	2.04E-06	1.74E-06	1.28E-06	2.34E-06	8.80E-06
Picene	2.08E-09	1.21E-09	2.12E-09	2.57E-09	2.32E-09	3.16E-09	2.24E-09	1.24E-09	1.06E-09	7.82E-10	1.43E-09	5.36E-09
Pyrene	3.41E-07	1.98E-07	3.47E-07	4.22E-07	3.80E-07	5.20E-07	3.68E-07	2.04E-07	1.74E-07	1.28E-07	2.34E-07	8.80E-07
Quinoline	2.57E-08	1.50E-08	2.62E-08	3.19E-08	2.87E-08	3.92E-08	2.78E-08	1.54E-08	1.31E-08	9.68E-09	1.77E-08	6.64E-08
m-Terphenyl	9.00E-08	5.23E-08	9.16E-08	1.11E-07	1.00E-07	1.37E-07	9.70E-08	5.37E-08	4.58E-08	3.38E-08	6.17E-08	2.32E-07
o-Terphenyl	1.43E-07	8.29E-08	1.45E-07	1.77E-07	1.59E-07	2.17E-07	1.54E-07	8.52E-08	7.27E-08	5.37E-08	9.79E-08	3.68E-07
p-Terphenyl	4.65E-08	2.70E-08	4.74E-08	5.76E-08	5.18E-08	7.08E-08	5.02E-08	2.78E-08	2.37E-08	1.75E-08	3.19E-08	1.20E-07
Tetralin	2.02E-07	1.17E-07	2.05E-07	2.49E-07	2.25E-07	3.07E-07	2.17E-07	1.20E-07	1.03E-07	7.58E-08	1.38E-07	5.20E-07
Triphenylene/chrysene	1.18E-07	6.85E-08	1.20E-07	1.46E-07	1.31E-07	1.79E-07	1.27E-07	7.04E-08	6.01E-08	4.43E-08	8.08E-08	3.04E-07
VOCs												
Acetaldehyde	3.74E-04	2.18E-04	3.81E-04	4.63E-04	4.17E-04	5.70E-04	4.03E-04	2.23E-04	1.91E-04	1.41E-04	2.57E-04	9.65E-04
Acetophenone	9.85E-06	5.72E-06	1.00E-05	1.22E-05	1.10E-05	1.50E-05	1.06E-05	5.88E-06	5.02E-06	3.70E-06	6.75E-06	2.54E-05
Acrolien	1.90E-04	1.11E-04	1.94E-04	2.36E-04	2.12E-04	2.90E-04	2.05E-04	1.14E-04	9.70E-05	7.16E-05	1.31E-04	4.91E-04
Benzene	8.53E-04	4.96E-04	8.69E-04	1.06E-03	9.51E-04	1.30E-03	9.20E-04	5.10E-04	4.35E-04	3.21E-04	5.85E-04	2.20E-03
Benzyl chloride	4.60E-04	2.67E-04	4.68E-04	5.69E-04	5.12E-04	7.00E-04	4.96E-04	2.74E-04	2.34E-04	1.73E-04	3.15E-04	1.18E-03
Bis(2-ethylhexyl)phthalate (DEHP)	4.79E-05	2.79E-05	4.88E-05	5.93E-05	5.34E-05	7.30E-05	5.17E-05	2.86E-05	2.44E-05	1.80E-05	3.29E-05	1.24E-04
Bromoform	2.56E-05	1.49E-05	2.61E-05	3.17E-05	2.85E-05	3.90E-05	2.76E-05	1.53E-05	1.30E-05	9.63E-06	1.76E-05	6.60E-05
Carbon disulphide	8.53E-05	4.96E-05	8.69E-05	1.06E-04	9.51E-05	1.30E-04	9.20E-05	5.10E-05	4.35E-05	3.21E-05	5.85E-05	2.20E-04
2-Chloroacetophenone	4.60E-06	2.67E-06	4.68E-06	5.69E-06	5.12E-06	7.00E-06	4.96E-06	2.74E-06	2.34E-06	1.73E-06	3.15E-06	1.18E-05
Chlorobenzene	1.44E-05	8.40E-06	1.47E-05	1.79E-05	1.61E-05	2.20E-05	1.56E-05	8.63E-06	7.36E-06	5.43E-06	9.91E-06	3.72E-05
Chloroform	3.87E-05	2.25E-05	3.94E-05	4.79E-05	4.31E-05	5.90E-05	4.18E-05	2.31E-05	1.97E-05	1.46E-05	2.66E-05	9.98E-05
Cumene	3.48E-06	2.02E-06	3.54E-06	4.31E-06	3.88E-06	5.30E-06	3.75E-06	2.08E-06	1.77E-06	1.31E-06	2.39E-06	8.97E-06
Cyanide	1.64E-03	9.54E-04	1.67E-03	2.03E-03	1.83E-03	2.50E-03	1.77E-03	9.80E-04	8.36E-04	6.17E-04	1.13E-03	4.23E-03
2,4-Dinitrotoluene	1.84E-07	1.07E-07	1.87E-07	2.27E-07	2.05E-07	2.80E-07	1.98E-07	1.10E-07	9.37E-08	6.91E-08	1.26E-07	4.74E-07
Dimethyl Sulphate	3.15E-05	1.83E-05	3.21E-05	3.90E-05	3.51E-05	4.80E-05	3.40E-05	1.88E-05	1.61E-05	1.19E-05	2.16E-05	8.12E-05
Ethyl benzene	6.17E-05	3.59E-05	6.28E-05	7.64E-05	6.87E-05	9.40E-05	6.65E-05	3.69E-05	3.14E-05	2.32E-05	4.23E-05	1.59E-04

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Ethyl chloride	2.76E-05	1.60E-05	2.81E-05	3.41E-05	3.07E-05	4.20E-05	2.97E-05	1.65E-05	1.40E-05	1.04E-05	1.89E-05	7.11E-05
Ethylene dichloride	2.63E-05	1.53E-05	2.67E-05	3.25E-05	2.93E-05	4.00E-05	2.83E-05	1.57E-05	1.34E-05	9.88E-06	1.80E-05	6.77E-05
Ethylene dibromide	7.88E-07	4.58E-07	8.02E-07	9.75E-07	8.78E-07	1.20E-06	8.49E-07	4.70E-07	4.01E-07	2.96E-07	5.40E-07	2.03E-06
Formaldehyde	1.58E-04	9.16E-05	1.60E-04	1.95E-04	1.76E-04	2.40E-04	1.70E-04	9.41E-05	8.03E-05	5.93E-05	1.08E-04	4.06E-04
Hexane	4.40E-05	2.56E-05	4.48E-05	5.44E-05	4.90E-05	6.70E-05	4.74E-05	2.63E-05	2.24E-05	1.65E-05	3.02E-05	1.13E-04
Isophorone	3.81E-04	2.21E-04	3.88E-04	4.71E-04	4.24E-04	5.80E-04	4.11E-04	2.27E-04	1.94E-04	1.43E-04	2.61E-04	9.81E-04
Methylbromide	1.05E-04	6.11E-05	1.07E-04	1.30E-04	1.17E-04	1.60E-04	1.13E-04	6.27E-05	5.35E-05	3.95E-05	7.20E-05	2.71E-04
Methyl chloride	3.48E-04	2.02E-04	3.54E-04	4.31E-04	3.88E-04	5.30E-04	3.75E-04	2.08E-04	1.77E-04	1.31E-04	2.39E-04	8.97E-04
Methyl ethyl ketone	2.56E-04	1.49E-04	2.61E-04	3.17E-04	2.85E-04	3.90E-04	2.76E-04	1.53E-04	1.30E-04	9.63E-05	1.76E-04	6.60E-04
Methyl hydrazine	1.12E-04	6.49E-05	1.14E-04	1.38E-04	1.24E-04	1.70E-04	1.20E-04	6.67E-05	5.69E-05	4.20E-05	7.65E-05	2.88E-04
Methyl methacrylate	1.31E-05	7.63E-06	1.34E-05	1.62E-05	1.46E-05	2.00E-05	1.42E-05	7.84E-06	6.69E-06	4.94E-06	9.00E-06	3.38E-05
Methyl tert-butyl ether	2.30E-05	1.34E-05	2.34E-05	2.84E-05	2.56E-05	3.50E-05	2.48E-05	1.37E-05	1.17E-05	8.64E-06	1.58E-05	5.92E-05
Methylene chloride	1.90E-04	1.11E-04	1.94E-04	2.36E-04	2.12E-04	2.90E-04	2.05E-04	1.14E-04	9.70E-05	7.16E-05	1.31E-04	4.91E-04
Phenol	1.05E-05	6.11E-06	1.07E-05	1.30E-05	1.17E-05	1.60E-05	1.13E-05	6.27E-06	5.35E-06	3.95E-06	7.20E-06	2.71E-05
Propionaldehyde	2.49E-04	1.45E-04	2.54E-04	3.09E-04	2.78E-04	3.80E-04	2.69E-04	1.49E-04	1.27E-04	9.38E-05	1.71E-04	6.43E-04
Tetrachloroethylene	2.82E-05	1.64E-05	2.87E-05	3.49E-05	3.14E-05	4.30E-05	3.04E-05	1.69E-05	1.44E-05	1.06E-05	1.94E-05	7.28E-05
Toluene	1.58E-04	9.16E-05	1.60E-04	1.95E-04	1.76E-04	2.40E-04	1.70E-04	9.41E-05	8.03E-05	5.93E-05	1.08E-04	4.06E-04
1,1,1-Trichloroethane	1.31E-05	7.63E-06	1.34E-05	1.62E-05	1.46E-05	2.00E-05	1.42E-05	7.84E-06	6.69E-06	4.94E-06	9.00E-06	3.38E-05
Styrene	1.64E-05	9.54E-06	1.67E-05	2.03E-05	1.83E-05	2.50E-05	1.77E-05	9.80E-06	8.36E-06	6.17E-06	1.13E-05	4.23E-05
Xylenes	2.43E-05	1.41E-05	2.47E-05	3.01E-05	2.71E-05	3.70E-05	2.62E-05	1.45E-05	1.24E-05	9.14E-06	1.67E-05	6.26E-05
Vinyl acetate	4.99E-06	2.90E-06	5.08E-06	6.17E-06	5.56E-06	7.60E-06	5.38E-06	2.98E-06	2.54E-06	1.88E-06	3.42E-06	1.29E-05

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

**Table C.7
Maximum Predicted Annual Average COPC Concentrations (OS3)**

COPC	Discrete Receptor Concentration (µg/m ³)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Common Air Contaminants												
Total PM	3.08E-02	1.53E-02	1.67E-02	1.87E-02	1.97E-02	2.16E-02	2.05E-02	1.53E-02	8.51E-03	4.86E-03	1.11E-02	4.12E-02
PM ₁₀	2.87E-02	1.42E-02	1.55E-02	1.74E-02	1.84E-02	2.01E-02	1.93E-02	1.44E-02	7.97E-03	4.61E-03	1.04E-02	3.83E-02
PM _{2.5}	1.76E-02	8.74E-03	9.55E-03	1.07E-02	1.14E-02	1.24E-02	1.20E-02	8.90E-03	4.91E-03	2.86E-03	6.44E-03	2.35E-02
NO	3.11E-01	1.54E-01	1.68E-01	1.88E-01	2.00E-01	2.18E-01	2.12E-01	1.57E-01	8.63E-02	5.10E-02	1.13E-01	4.14E-01
NO ₂	1.73E-01	8.54E-02	9.33E-02	1.05E-01	1.11E-01	1.21E-01	1.18E-01	8.70E-02	4.80E-02	2.83E-02	6.30E-02	2.30E-01
NO _x	4.83E-01	2.39E-01	2.61E-01	2.93E-01	3.11E-01	3.39E-01	3.30E-01	2.44E-01	1.34E-01	7.94E-02	1.76E-01	6.44E-01
NO ₂ 100% convert	6.49E-01	3.21E-01	3.51E-01	3.93E-01	4.17E-01	4.56E-01	4.43E-01	3.27E-01	1.80E-01	1.07E-01	2.37E-01	8.65E-01
SO ₂	5.36E-01	2.65E-01	2.89E-01	3.25E-01	3.44E-01	3.76E-01	3.65E-01	2.70E-01	1.49E-01	8.80E-02	1.95E-01	7.14E-01
CO	3.86E-02	1.91E-02	2.08E-02	2.34E-02	2.48E-02	2.71E-02	2.63E-02	1.94E-02	1.07E-02	6.33E-03	1.41E-02	5.14E-02
Inorganic Gases												
HCl	3.90E-04	1.93E-04	2.10E-04	2.36E-04	2.50E-04	2.74E-04	2.66E-04	1.96E-04	1.08E-04	6.40E-05	1.42E-04	5.19E-04
HF	3.57E-04	1.77E-04	1.93E-04	2.16E-04	2.30E-04	2.51E-04	2.44E-04	1.80E-04	9.93E-05	5.87E-05	1.30E-04	4.76E-04
Metals												
Aluminum	1.67E-03	8.25E-04	9.03E-04	1.01E-03	1.07E-03	1.17E-03	1.11E-03	8.26E-04	4.60E-04	2.63E-04	5.98E-04	2.23E-03
Antimony	2.91E-07	1.44E-07	1.58E-07	1.76E-07	1.86E-07	2.04E-07	1.94E-07	1.44E-07	8.03E-08	4.59E-08	1.04E-07	3.90E-07
Arsenic	3.46E-06	1.71E-06	1.88E-06	2.10E-06	2.22E-06	2.43E-06	2.31E-06	1.72E-06	9.56E-07	5.46E-07	1.24E-06	4.63E-06
Barium	7.79E-04	3.86E-04	4.22E-04	4.72E-04	4.99E-04	5.46E-04	5.19E-04	3.86E-04	2.15E-04	1.23E-04	2.79E-04	1.04E-03
Beryllium	4.31E-07	2.14E-07	2.34E-07	2.61E-07	2.76E-07	3.02E-07	2.87E-07	2.14E-07	1.19E-07	6.80E-08	1.55E-07	5.77E-07
Boron	1.33E-04	6.59E-05	7.21E-05	8.06E-05	8.53E-05	9.32E-05	8.86E-05	6.59E-05	3.67E-05	2.10E-05	4.77E-05	1.78E-04
Cadmium	3.42E-07	1.69E-07	1.85E-07	2.07E-07	2.19E-07	2.40E-07	2.28E-07	1.69E-07	9.44E-08	5.39E-08	1.23E-07	4.58E-07
Chromium	1.25E-05	6.21E-06	6.80E-06	7.60E-06	8.04E-06	8.79E-06	8.35E-06	6.22E-06	3.46E-06	1.98E-06	4.50E-06	1.68E-05
Cobalt	7.55E-07	3.74E-07	4.09E-07	4.58E-07	4.84E-07	5.29E-07	5.03E-07	3.74E-07	2.08E-07	1.19E-07	2.71E-07	1.01E-06
Copper	1.91E-05	9.47E-06	1.04E-05	1.16E-05	1.23E-05	1.34E-05	1.27E-05	9.48E-06	5.28E-06	3.02E-06	6.86E-06	2.56E-05
Iron	6.14E-04	3.04E-04	3.33E-04	3.72E-04	3.94E-04	4.30E-04	4.09E-04	3.04E-04	1.70E-04	9.69E-05	2.20E-04	8.22E-04
Lithium	1.36E-05	6.72E-06	7.36E-06	8.23E-06	8.70E-06	9.52E-06	9.04E-06	6.73E-06	3.75E-06	2.14E-06	4.87E-06	1.82E-05
Manganese	1.94E-05	9.63E-06	1.05E-05	1.18E-05	1.25E-05	1.36E-05	1.30E-05	9.64E-06	5.37E-06	3.07E-06	6.98E-06	2.60E-05

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration ($\mu\text{g}/\text{m}^3$)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Mercury (Total)	3.51E-06	1.74E-06	1.90E-06	2.13E-06	2.25E-06	2.46E-06	2.34E-06	1.74E-06	9.69E-07	5.53E-07	1.26E-06	4.70E-06
Elemental Hg	6.20E-06	3.07E-06	3.35E-06	3.76E-06	3.99E-06	4.36E-06	4.23E-06	3.13E-06	1.72E-06	1.02E-06	2.26E-06	8.27E-06
Oxidized Hg	7.90E-07	3.91E-07	4.27E-07	4.78E-07	5.08E-07	5.54E-07	5.38E-07	3.98E-07	2.19E-07	1.30E-07	2.88E-07	1.05E-06
Particle-bound Hg	7.38E-09	3.65E-09	4.00E-09	4.47E-09	4.73E-09	5.17E-09	4.92E-09	3.66E-09	2.04E-09	1.16E-09	2.65E-09	9.88E-09
Molybdenum	9.86E-06	4.88E-06	5.35E-06	5.98E-06	6.32E-06	6.91E-06	6.57E-06	4.89E-06	2.72E-06	1.56E-06	3.54E-06	1.32E-05
Nickel	1.01E-05	4.99E-06	5.46E-06	6.11E-06	6.46E-06	7.06E-06	6.71E-06	5.00E-06	2.78E-06	1.59E-06	3.61E-06	1.35E-05
Palladium	1.94E-06	9.60E-07	1.05E-06	1.18E-06	1.24E-06	1.36E-06	1.29E-06	9.62E-07	5.36E-07	3.06E-07	6.96E-07	2.60E-06
Lead	3.94E-06	1.95E-06	2.14E-06	2.39E-06	2.53E-06	2.77E-06	2.63E-06	1.96E-06	1.09E-06	6.22E-07	1.42E-06	5.28E-06
Selenium	2.91E-06	1.44E-06	1.58E-06	1.76E-06	1.86E-06	2.04E-06	1.94E-06	1.44E-06	8.03E-07	4.59E-07	1.04E-06	3.89E-06
Silver	8.80E-07	4.36E-07	4.77E-07	5.34E-07	5.65E-07	6.17E-07	5.87E-07	4.37E-07	2.43E-07	1.39E-07	3.16E-07	1.18E-06
Strontium	1.58E-04	7.84E-05	8.58E-05	9.60E-05	1.02E-04	1.11E-04	1.06E-04	7.85E-05	4.37E-05	2.50E-05	5.68E-05	2.12E-04
Thallium	9.00E-06	4.46E-06	4.88E-06	5.46E-06	5.77E-06	6.31E-06	6.00E-06	4.47E-06	2.49E-06	1.42E-06	3.23E-06	1.21E-05
Thorium	3.15E-06	1.56E-06	1.71E-06	1.91E-06	2.02E-06	2.21E-06	2.10E-06	1.56E-06	8.71E-07	4.97E-07	1.13E-06	4.22E-06
Tin	9.44E-05	4.68E-05	5.12E-05	5.72E-05	6.05E-05	6.62E-05	6.29E-05	4.68E-05	2.61E-05	1.49E-05	3.39E-05	1.26E-04
Uranium	4.98E-07	2.46E-07	2.70E-07	3.02E-07	3.19E-07	3.49E-07	3.32E-07	2.47E-07	1.37E-07	7.85E-08	1.79E-07	6.67E-07
Vanadium	1.43E-05	7.07E-06	7.74E-06	8.65E-06	9.15E-06	1.00E-05	9.51E-06	7.08E-06	3.94E-06	2.25E-06	5.12E-06	1.91E-05
Zinc	2.67E-06	1.32E-06	1.45E-06	1.62E-06	1.71E-06	1.87E-06	1.78E-06	1.33E-06	7.39E-07	4.22E-07	9.60E-07	3.58E-06
Tetrachlorodibenzo-p-dioxins	1.08E-13	5.34E-14	5.84E-14	6.53E-14	6.91E-14	7.56E-14	7.18E-14	5.34E-14	2.98E-14	1.70E-14	3.87E-14	1.44E-13
Pentachlorodibenzo-p-dioxins	8.47E-14	4.19E-14	4.59E-14	5.13E-14	5.43E-14	5.94E-14	5.64E-14	4.20E-14	2.34E-14	1.34E-14	3.04E-14	1.13E-13
Hexachlorodibenzo-p-dioxins	4.70E-12	2.33E-12	2.55E-12	2.85E-12	3.01E-12	3.29E-12	3.13E-12	2.33E-12	1.30E-12	7.41E-13	1.69E-12	6.29E-12
Heptachlorodibenzo-p-dioxins	1.25E-11	6.21E-12	6.80E-12	7.61E-12	8.05E-12	8.80E-12	8.36E-12	6.22E-12	3.47E-12	1.98E-12	4.50E-12	1.68E-11
Octachlorodibenzo-p-dioxins	1.76E-11	8.73E-12	9.56E-12	1.07E-11	1.13E-11	1.24E-11	1.17E-11	8.74E-12	4.87E-12	2.78E-12	6.33E-12	2.36E-11
Total Dioxins	3.04E-11	1.51E-11	1.65E-11	1.84E-11	1.95E-11	2.13E-11	2.03E-11	1.51E-11	8.40E-12	4.80E-12	1.09E-11	4.07E-11
Tetrachlorodibenzofurans	1.99E-11	9.87E-12	1.08E-11	1.21E-11	1.28E-11	1.40E-11	1.33E-11	9.89E-12	5.51E-12	3.15E-12	7.16E-12	2.67E-11
Pentachlorodibenzofurans	1.82E-11	9.00E-12	9.85E-12	1.10E-11	1.17E-11	1.27E-11	1.21E-11	9.01E-12	5.02E-12	2.87E-12	6.52E-12	2.43E-11
Hexachlorodibenzofurans	6.70E-12	3.32E-12	3.63E-12	4.06E-12	4.29E-12	4.70E-12	4.46E-12	3.32E-12	1.85E-12	1.06E-12	2.40E-12	8.97E-12
Heptachlorodibenzofurans	3.70E-12	1.83E-12	2.00E-12	2.24E-12	2.37E-12	2.59E-12	2.46E-12	1.83E-12	1.02E-12	5.83E-13	1.33E-12	4.95E-12
Octachlorodibenzofurans	7.93E-11	3.93E-11	4.30E-11	4.81E-11	5.08E-11	5.56E-11	5.28E-11	3.93E-11	2.19E-11	1.25E-11	2.85E-11	1.06E-10
Total Furans	2.69E-12	1.33E-12	1.46E-12	1.63E-12	1.73E-12	1.89E-12	1.80E-12	1.34E-12	7.44E-13	4.25E-13	9.67E-13	3.61E-12
PAHs												
Acenaphthene	3.14E-07	1.56E-07	1.70E-07	1.90E-07	2.01E-07	2.20E-07	2.09E-07	1.56E-07	8.68E-08	4.95E-08	1.13E-07	4.21E-07

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Acenaphthylene	2.18E-09	1.08E-09	1.18E-09	1.32E-09	1.40E-09	1.53E-09	1.45E-09	1.08E-09	6.03E-10	3.44E-10	7.83E-10	2.92E-09
Anthracene	1.37E-08	6.81E-09	7.45E-09	8.33E-09	8.81E-09	9.63E-09	9.16E-09	6.81E-09	3.80E-09	2.17E-09	4.93E-09	1.84E-08
Benzo(a)anthracene	1.96E-09	9.72E-10	1.06E-09	1.19E-09	1.26E-09	1.38E-09	1.31E-09	9.74E-10	5.42E-10	3.10E-10	7.04E-10	2.63E-09
Benzo(b)anthracene	3.27E-09	1.62E-09	1.77E-09	1.98E-09	2.10E-09	2.29E-09	2.18E-09	1.62E-09	9.04E-10	5.16E-10	1.17E-09	4.38E-09
Benzo(b)fluoranthene	3.05E-09	1.51E-09	1.66E-09	1.85E-09	1.96E-09	2.14E-09	2.03E-09	1.51E-09	8.44E-10	4.82E-10	1.10E-09	4.09E-09
Benzo(k,j)fluoranthene	3.71E-09	1.84E-09	2.01E-09	2.25E-09	2.38E-09	2.60E-09	2.47E-09	1.84E-09	1.02E-09	5.85E-10	1.33E-09	4.97E-09
Benzo(a)flourene	4.80E-09	2.38E-09	2.60E-09	2.91E-09	3.08E-09	3.36E-09	3.20E-09	2.38E-09	1.33E-09	7.57E-10	1.72E-09	6.43E-09
Benzo(b)flourene	1.09E-09	5.40E-10	5.91E-10	6.61E-10	6.99E-10	7.65E-10	7.27E-10	5.41E-10	3.01E-10	1.72E-10	3.91E-10	1.46E-09
Benzo(g,h,i)perylene	8.72E-09	4.32E-09	4.73E-09	5.29E-09	5.59E-09	6.12E-09	5.81E-09	4.33E-09	2.41E-09	1.38E-09	3.13E-09	1.17E-08
Benzo(a)pyrene	2.84E-09	1.40E-09	1.54E-09	1.72E-09	1.82E-09	1.99E-09	1.89E-09	1.41E-09	7.83E-10	4.47E-10	1.02E-09	3.80E-09
Benzo(e)pyrene	1.27E-08	6.27E-09	6.86E-09	7.67E-09	8.11E-09	8.87E-09	8.43E-09	6.27E-09	3.50E-09	2.00E-09	4.54E-09	1.69E-08
Biphenyl	1.48E-07	7.35E-08	8.04E-08	8.99E-08	9.51E-08	1.04E-07	9.88E-08	7.36E-08	4.10E-08	2.34E-08	5.32E-08	1.99E-07
2-chloronaphthalene	4.58E-10	2.27E-10	2.48E-10	2.78E-10	2.94E-10	3.21E-10	3.05E-10	2.27E-10	1.27E-10	7.23E-11	1.64E-10	6.14E-10
Coronene	5.23E-09	2.59E-09	2.84E-09	3.17E-09	3.36E-09	3.67E-09	3.49E-09	2.60E-09	1.45E-09	8.26E-10	1.88E-09	7.01E-09
Dibenzo(a,c & a,h)anthracene	1.59E-10	7.89E-11	8.63E-11	9.65E-11	1.02E-10	1.12E-10	1.06E-10	7.90E-11	4.40E-11	2.51E-11	5.71E-11	2.13E-10
Dibenzo(a,j)acridine	7.85E-11	3.89E-11	4.26E-11	4.76E-11	5.04E-11	5.51E-11	5.23E-11	3.89E-11	2.17E-11	1.24E-11	2.82E-11	1.05E-10
7H-dibenzo(c,g)carbazole	1.22E-10	6.05E-11	6.62E-11	7.41E-11	7.83E-11	8.56E-11	8.14E-11	6.06E-11	3.37E-11	1.93E-11	4.38E-11	1.64E-10
Dibenzo(a,e)pyrene	2.18E-11	1.08E-11	1.18E-11	1.32E-11	1.40E-11	1.53E-11	1.45E-11	1.08E-11	6.03E-12	3.44E-12	7.83E-12	2.92E-11
Dibenzo(a,i)pyrene	2.84E-11	1.40E-11	1.54E-11	1.72E-11	1.82E-11	1.99E-11	1.89E-11	1.41E-11	7.83E-12	4.47E-12	1.02E-11	3.80E-11
9,10-dimethylanthracene	1.20E-09	5.94E-10	6.50E-10	7.27E-10	7.69E-10	8.41E-10	7.99E-10	5.95E-10	3.31E-10	1.89E-10	4.31E-10	1.61E-09
7,12-dimethylanthracene	3.71E-10	1.84E-10	2.01E-10	2.25E-10	2.38E-10	2.60E-10	2.47E-10	1.84E-10	1.02E-10	5.85E-11	1.33E-10	4.97E-10
1,2-dimethylnaphthalene	1.85E-09	9.18E-10	1.01E-09	1.12E-09	1.19E-09	1.30E-09	1.24E-09	9.19E-10	5.12E-10	2.92E-10	6.65E-10	2.48E-09
2,6 & 2,7-dimethylnaphthalene	7.20E-09	3.56E-09	3.90E-09	4.36E-09	4.62E-09	5.05E-09	4.80E-09	3.57E-09	1.99E-09	1.14E-09	2.58E-09	9.64E-09
Fluoranthene	3.71E-08	1.84E-08	2.01E-08	2.25E-08	2.38E-08	2.60E-08	2.47E-08	1.84E-08	1.02E-08	5.85E-09	1.33E-08	4.97E-08
Fluorene	4.36E-08	2.16E-08	2.37E-08	2.64E-08	2.80E-08	3.06E-08	2.91E-08	2.16E-08	1.21E-08	6.88E-09	1.57E-08	5.84E-08
Indeno(1,2,3-cd)pyrene	1.50E-09	7.45E-10	8.16E-10	9.12E-10	9.65E-10	1.06E-09	1.00E-09	7.46E-10	4.16E-10	2.37E-10	5.40E-10	2.02E-09
2-methylanthracene	2.40E-09	1.19E-09	1.30E-09	1.45E-09	1.54E-09	1.68E-09	1.60E-09	1.19E-09	6.63E-10	3.79E-10	8.61E-10	3.21E-09
3-methylcholanthrene	6.54E-09	3.24E-09	3.55E-09	3.97E-09	4.20E-09	4.59E-09	4.36E-09	3.25E-09	1.81E-09	1.03E-09	2.35E-09	8.76E-09
1-methylnaphthalene	4.36E-08	2.16E-08	2.37E-08	2.64E-08	2.80E-08	3.06E-08	2.91E-08	2.16E-08	1.21E-08	6.88E-09	1.57E-08	5.84E-08
2-methylnaphthalene	6.54E-08	3.24E-08	3.55E-08	3.97E-08	4.20E-08	4.59E-08	4.36E-08	3.25E-08	1.81E-08	1.03E-08	2.35E-08	8.76E-08
1-methylphenanthrene	1.81E-08	8.97E-09	9.82E-09	1.10E-08	1.16E-08	1.27E-08	1.21E-08	8.98E-09	5.00E-09	2.86E-09	6.50E-09	2.42E-08

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
9-methylphenanthrene	1.61E-08	7.99E-09	8.75E-09	9.79E-09	1.04E-08	1.13E-08	1.08E-08	8.00E-09	4.46E-09	2.55E-09	5.79E-09	2.16E-08
Naphthalene	1.31E-07	6.48E-08	7.10E-08	7.93E-08	8.39E-08	9.18E-08	8.72E-08	6.49E-08	3.62E-08	2.06E-08	4.70E-08	1.75E-07
Perylene	8.94E-10	4.43E-10	4.85E-10	5.42E-10	5.73E-10	6.27E-10	5.96E-10	4.44E-10	2.47E-10	1.41E-10	3.21E-10	1.20E-09
Phenanthrene	2.40E-07	1.19E-07	1.30E-07	1.45E-07	1.54E-07	1.68E-07	1.60E-07	1.19E-07	6.63E-08	3.79E-08	8.61E-08	3.21E-07
Picene	1.46E-10	7.24E-11	7.92E-11	8.86E-11	9.37E-11	1.02E-10	9.74E-11	7.25E-11	4.04E-11	2.31E-11	5.24E-11	1.96E-10
Pyrene	2.40E-08	1.19E-08	1.30E-08	1.45E-08	1.54E-08	1.68E-08	1.60E-08	1.19E-08	6.63E-09	3.79E-09	8.61E-09	3.21E-08
Quinoline	1.81E-09	8.97E-10	9.82E-10	1.10E-09	1.16E-09	1.27E-09	1.21E-09	8.98E-10	5.00E-10	2.86E-10	6.50E-10	2.42E-09
m-Terphenyl	6.33E-09	3.13E-09	3.43E-09	3.83E-09	4.06E-09	4.43E-09	4.21E-09	3.14E-09	1.75E-09	9.98E-10	2.27E-09	8.47E-09
o-Terphenyl	1.00E-08	4.97E-09	5.44E-09	6.08E-09	6.43E-09	7.03E-09	6.69E-09	4.98E-09	2.77E-09	1.58E-09	3.60E-09	1.34E-08
p-Terphenyl	3.27E-09	1.62E-09	1.77E-09	1.98E-09	2.10E-09	2.29E-09	2.18E-09	1.62E-09	9.04E-10	5.16E-10	1.17E-09	4.38E-09
Tetralin	1.42E-08	7.02E-09	7.69E-09	8.60E-09	9.09E-09	9.94E-09	9.45E-09	7.03E-09	3.92E-09	2.24E-09	5.09E-09	1.90E-08
Triphenylene/chrysene	8.29E-09	4.10E-09	4.49E-09	5.02E-09	5.32E-09	5.81E-09	5.52E-09	4.11E-09	2.29E-09	1.31E-09	2.97E-09	1.11E-08
VOCs												
Acetaldehyde	2.66E-05	1.31E-05	1.43E-05	1.61E-05	1.71E-05	1.86E-05	1.81E-05	1.34E-05	7.38E-06	4.36E-06	9.68E-06	3.54E-05
Acetophenone	6.99E-07	3.46E-07	3.77E-07	4.23E-07	4.49E-07	4.91E-07	4.76E-07	3.52E-07	1.94E-07	1.15E-07	2.55E-07	9.31E-07
Acrolien	1.35E-05	6.69E-06	7.30E-06	8.18E-06	8.69E-06	9.49E-06	9.21E-06	6.81E-06	3.75E-06	2.22E-06	4.93E-06	1.80E-05
Benzene	6.06E-05	3.00E-05	3.27E-05	3.67E-05	3.89E-05	4.25E-05	4.13E-05	3.05E-05	1.68E-05	9.94E-06	2.21E-05	8.07E-05
Benzyl chloride	3.26E-05	1.61E-05	1.76E-05	1.98E-05	2.10E-05	2.29E-05	2.22E-05	1.64E-05	9.06E-06	5.35E-06	1.19E-05	4.35E-05
Bis(2-ethylhexyl)phthalate (DEHP)	3.40E-06	1.68E-06	1.84E-06	2.06E-06	2.19E-06	2.39E-06	2.32E-06	1.71E-06	9.45E-07	5.58E-07	1.24E-06	4.53E-06
Bromoform	1.82E-06	8.99E-07	9.81E-07	1.10E-06	1.17E-06	1.28E-06	1.24E-06	9.15E-07	5.05E-07	2.98E-07	6.63E-07	2.42E-06
Carbon disulphide	6.06E-06	3.00E-06	3.27E-06	3.67E-06	3.89E-06	4.25E-06	4.13E-06	3.05E-06	1.68E-06	9.94E-07	2.21E-06	8.07E-06
2-Chloroacetophenone	3.26E-07	1.61E-07	1.76E-07	1.98E-07	2.10E-07	2.29E-07	2.22E-07	1.64E-07	9.06E-08	5.35E-08	1.19E-07	4.35E-07
Chlorobenzene	1.02E-06	5.07E-07	5.54E-07	6.21E-07	6.59E-07	7.20E-07	6.99E-07	5.16E-07	2.85E-07	1.68E-07	3.74E-07	1.37E-06
Chloroform	2.75E-06	1.36E-06	1.48E-06	1.66E-06	1.77E-06	1.93E-06	1.87E-06	1.38E-06	7.64E-07	4.51E-07	1.00E-06	3.66E-06
Cumene	2.47E-07	1.22E-07	1.33E-07	1.50E-07	1.59E-07	1.73E-07	1.68E-07	1.24E-07	6.86E-08	4.05E-08	9.01E-08	3.29E-07
Cyanide	1.16E-04	5.76E-05	6.29E-05	7.05E-05	7.49E-05	8.18E-05	7.94E-05	5.87E-05	3.24E-05	1.91E-05	4.25E-05	1.55E-04
2,4-Dinitrotoluene	1.30E-08	6.45E-09	7.05E-09	7.90E-09	8.39E-09	9.16E-09	8.89E-09	6.57E-09	3.62E-09	2.14E-09	4.76E-09	1.74E-08
Dimethyl Sulphate	2.24E-06	1.11E-06	1.21E-06	1.35E-06	1.44E-06	1.57E-06	1.52E-06	1.13E-06	6.21E-07	3.67E-07	8.16E-07	2.98E-06

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration ($\mu\text{g}/\text{m}^3$)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Ethyl benzene	4.38E-06	2.17E-06	2.37E-06	2.65E-06	2.82E-06	3.08E-06	2.99E-06	2.21E-06	1.22E-06	7.19E-07	1.60E-06	5.84E-06
Ethyl chloride	1.96E-06	9.68E-07	1.06E-06	1.19E-06	1.26E-06	1.37E-06	1.33E-06	9.86E-07	5.44E-07	3.21E-07	7.14E-07	2.61E-06
Ethylene dichloride	1.86E-06	9.22E-07	1.01E-06	1.13E-06	1.20E-06	1.31E-06	1.27E-06	9.39E-07	5.18E-07	3.06E-07	6.80E-07	2.48E-06
Ethylene dibromide	5.59E-08	2.77E-08	3.02E-08	3.39E-08	3.59E-08	3.93E-08	3.81E-08	2.82E-08	1.55E-08	9.18E-09	2.04E-08	7.45E-08
Formaldehyde	1.12E-05	5.53E-06	6.04E-06	6.77E-06	7.19E-06	7.85E-06	7.62E-06	5.63E-06	3.11E-06	1.84E-06	4.08E-06	1.49E-05
Hexane	3.12E-06	1.54E-06	1.69E-06	1.89E-06	2.01E-06	2.19E-06	2.13E-06	1.57E-06	8.67E-07	5.12E-07	1.14E-06	4.16E-06
Isophorone	2.70E-05	1.34E-05	1.46E-05	1.64E-05	1.74E-05	1.90E-05	1.84E-05	1.36E-05	7.51E-06	4.44E-06	9.85E-06	3.60E-05
Methylbromide	7.45E-06	3.69E-06	4.03E-06	4.52E-06	4.79E-06	5.23E-06	5.08E-06	3.76E-06	2.07E-06	1.22E-06	2.72E-06	9.93E-06
Methyl chloride	2.47E-05	1.22E-05	1.33E-05	1.50E-05	1.59E-05	1.73E-05	1.68E-05	1.24E-05	6.86E-06	4.05E-06	9.01E-06	3.29E-05
Methyl ethyl ketone	1.82E-05	8.99E-06	9.81E-06	1.10E-05	1.17E-05	1.28E-05	1.24E-05	9.15E-06	5.05E-06	2.98E-06	6.63E-06	2.42E-05
Methyl hydrazine	7.92E-06	3.92E-06	4.28E-06	4.80E-06	5.09E-06	5.56E-06	5.40E-06	3.99E-06	2.20E-06	1.30E-06	2.89E-06	1.06E-05
Methyl methacrylate	9.32E-07	4.61E-07	5.03E-07	5.64E-07	5.99E-07	6.54E-07	6.35E-07	4.69E-07	2.59E-07	1.53E-07	3.40E-07	1.24E-06
Methyl tert-butyl ether	1.63E-06	8.07E-07	8.81E-07	9.88E-07	1.05E-06	1.15E-06	1.11E-06	8.22E-07	4.53E-07	2.68E-07	5.95E-07	2.17E-06
Methylene chloride	1.35E-05	6.69E-06	7.30E-06	8.18E-06	8.69E-06	9.49E-06	9.21E-06	6.81E-06	3.75E-06	2.22E-06	4.93E-06	1.80E-05
Phenol	7.45E-07	3.69E-07	4.03E-07	4.52E-07	4.79E-07	5.23E-07	5.08E-07	3.76E-07	2.07E-07	1.22E-07	2.72E-07	9.93E-07
Propionaldehyde	1.77E-05	8.76E-06	9.56E-06	1.07E-05	1.14E-05	1.24E-05	1.21E-05	8.92E-06	4.92E-06	2.91E-06	6.46E-06	2.36E-05
Tetrachloroethylene	2.00E-06	9.91E-07	1.08E-06	1.21E-06	1.29E-06	1.41E-06	1.37E-06	1.01E-06	5.57E-07	3.29E-07	7.31E-07	2.67E-06
Toluene	1.12E-05	5.53E-06	6.04E-06	6.77E-06	7.19E-06	7.85E-06	7.62E-06	5.63E-06	3.11E-06	1.84E-06	4.08E-06	1.49E-05
1,1,1-Trichloroethane	9.32E-07	4.61E-07	5.03E-07	5.64E-07	5.99E-07	6.54E-07	6.35E-07	4.69E-07	2.59E-07	1.53E-07	3.40E-07	1.24E-06
Styrene	1.16E-06	5.76E-07	6.29E-07	7.05E-07	7.49E-07	8.18E-07	7.94E-07	5.87E-07	3.24E-07	1.91E-07	4.25E-07	1.55E-06
Xylenes	1.72E-06	8.53E-07	9.31E-07	1.04E-06	1.11E-06	1.21E-06	1.18E-06	8.68E-07	4.79E-07	2.83E-07	6.29E-07	2.30E-06
Vinyl acetate	3.54E-07	1.75E-07	1.91E-07	2.14E-07	2.28E-07	2.49E-07	2.41E-07	1.78E-07	9.84E-08	5.81E-08	1.29E-07	4.72E-07

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

**Table C.8
Maximum Predicted Total Annual Average (wet plus dry) COPC Deposition Rates (OS3)**

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
Common Air Contaminants												
Total PM	3.08E-02	1.53E-02	1.67E-02	1.87E-02	1.97E-02	2.16E-02	2.05E-02	1.53E-02	8.51E-03	4.86E-03	1.11E-02	4.12E-02
PM ₁₀	2.87E-02	1.42E-02	1.55E-02	1.74E-02	1.84E-02	2.01E-02	1.93E-02	1.44E-02	7.97E-03	4.61E-03	1.04E-02	3.83E-02
PM _{2.5}	1.76E-02	8.74E-03	9.55E-03	1.07E-02	1.14E-02	1.24E-02	1.20E-02	8.90E-03	4.91E-03	2.86E-03	6.44E-03	2.35E-02
NO	3.11E-01	1.54E-01	1.68E-01	1.88E-01	2.00E-01	2.18E-01	2.12E-01	1.57E-01	8.63E-02	5.10E-02	1.13E-01	4.14E-01
NO ₂	1.73E-01	8.54E-02	9.33E-02	1.05E-01	1.11E-01	1.21E-01	1.18E-01	8.70E-02	4.80E-02	2.83E-02	6.30E-02	2.30E-01
NO _x	4.83E-01	2.39E-01	2.61E-01	2.93E-01	3.11E-01	3.39E-01	3.30E-01	2.44E-01	1.34E-01	7.94E-02	1.76E-01	6.44E-01
NO ₂ 100% convert	6.49E-01	3.21E-01	3.51E-01	3.93E-01	4.17E-01	4.56E-01	4.43E-01	3.27E-01	1.80E-01	1.07E-01	2.37E-01	8.65E-01
SO ₂	5.36E-01	2.65E-01	2.89E-01	3.25E-01	3.44E-01	3.76E-01	3.65E-01	2.70E-01	1.49E-01	8.80E-02	1.95E-01	7.14E-01
CO	3.86E-02	1.91E-02	2.08E-02	2.34E-02	2.48E-02	2.71E-02	2.63E-02	1.94E-02	1.07E-02	6.33E-03	1.41E-02	5.14E-02
Inorganic Gases												
HCl	3.90E-04	1.93E-04	2.10E-04	2.36E-04	2.50E-04	2.74E-04	2.66E-04	1.96E-04	1.08E-04	6.40E-05	1.42E-04	5.19E-04
HF	3.57E-04	1.77E-04	1.93E-04	2.16E-04	2.30E-04	2.51E-04	2.44E-04	1.80E-04	9.93E-05	5.87E-05	1.30E-04	4.76E-04
Metals												
Aluminum	1.67E-03	8.25E-04	9.03E-04	1.01E-03	1.07E-03	1.17E-03	1.11E-03	8.26E-04	4.60E-04	2.63E-04	5.98E-04	2.23E-03
Antimony	2.91E-07	1.44E-07	1.58E-07	1.76E-07	1.86E-07	2.04E-07	1.94E-07	1.44E-07	8.03E-08	4.59E-08	1.04E-07	3.90E-07
Arsenic	3.46E-06	1.71E-06	1.88E-06	2.10E-06	2.22E-06	2.43E-06	2.31E-06	1.72E-06	9.56E-07	5.46E-07	1.24E-06	4.63E-06
Barium	7.79E-04	3.86E-04	4.22E-04	4.72E-04	4.99E-04	5.46E-04	5.19E-04	3.86E-04	2.15E-04	1.23E-04	2.79E-04	1.04E-03
Beryllium	4.31E-07	2.14E-07	2.34E-07	2.61E-07	2.76E-07	3.02E-07	2.87E-07	2.14E-07	1.19E-07	6.80E-08	1.55E-07	5.77E-07
Boron	1.33E-04	6.59E-05	7.21E-05	8.06E-05	8.53E-05	9.32E-05	8.86E-05	6.59E-05	3.67E-05	2.10E-05	4.77E-05	1.78E-04
Cadmium	3.42E-07	1.69E-07	1.85E-07	2.07E-07	2.19E-07	2.40E-07	2.28E-07	1.69E-07	9.44E-08	5.39E-08	1.23E-07	4.58E-07
Chromium	1.25E-05	6.21E-06	6.80E-06	7.60E-06	8.04E-06	8.79E-06	8.35E-06	6.22E-06	3.46E-06	1.98E-06	4.50E-06	1.68E-05
Cobalt	7.55E-07	3.74E-07	4.09E-07	4.58E-07	4.84E-07	5.29E-07	5.03E-07	3.74E-07	2.08E-07	1.19E-07	2.71E-07	1.01E-06
Copper	1.91E-05	9.47E-06	1.04E-05	1.16E-05	1.23E-05	1.34E-05	1.27E-05	9.48E-06	5.28E-06	3.02E-06	6.86E-06	2.56E-05
Iron	6.14E-04	3.04E-04	3.33E-04	3.72E-04	3.94E-04	4.30E-04	4.09E-04	3.04E-04	1.70E-04	9.69E-05	2.20E-04	8.22E-04
Lithium	1.36E-05	6.72E-06	7.36E-06	8.23E-06	8.70E-06	9.52E-06	9.04E-06	6.73E-06	3.75E-06	2.14E-06	4.87E-06	1.82E-05
Manganese	1.94E-05	9.63E-06	1.05E-05	1.18E-05	1.25E-05	1.36E-05	1.30E-05	9.64E-06	5.37E-06	3.07E-06	6.98E-06	2.60E-05

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration (µg/m ³)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
Mercury (Total)	3.51E-06	1.74E-06	1.90E-06	2.13E-06	2.25E-06	2.46E-06	2.34E-06	1.74E-06	9.69E-07	5.53E-07	1.26E-06	4.70E-06
Elemental Hg	6.20E-06	3.07E-06	3.35E-06	3.76E-06	3.99E-06	4.36E-06	4.23E-06	3.13E-06	1.72E-06	1.02E-06	2.26E-06	8.27E-06
Oxidized Hg	7.90E-07	3.91E-07	4.27E-07	4.78E-07	5.08E-07	5.54E-07	5.38E-07	3.98E-07	2.19E-07	1.30E-07	2.88E-07	1.05E-06
Particle-bound Hg	7.38E-09	3.65E-09	4.00E-09	4.47E-09	4.73E-09	5.17E-09	4.92E-09	3.66E-09	2.04E-09	1.16E-09	2.65E-09	9.88E-09
Molybdenum	9.86E-06	4.88E-06	5.35E-06	5.98E-06	6.32E-06	6.91E-06	6.57E-06	4.89E-06	2.72E-06	1.56E-06	3.54E-06	1.32E-05
Nickel	1.01E-05	4.99E-06	5.46E-06	6.11E-06	6.46E-06	7.06E-06	6.71E-06	5.00E-06	2.78E-06	1.59E-06	3.61E-06	1.35E-05
Palladium	1.94E-06	9.60E-07	1.05E-06	1.18E-06	1.24E-06	1.36E-06	1.29E-06	9.62E-07	5.36E-07	3.06E-07	6.96E-07	2.60E-06
Lead	3.94E-06	1.95E-06	2.14E-06	2.39E-06	2.53E-06	2.77E-06	2.63E-06	1.96E-06	1.09E-06	6.22E-07	1.42E-06	5.28E-06
Selenium	2.91E-06	1.44E-06	1.58E-06	1.76E-06	1.86E-06	2.04E-06	1.94E-06	1.44E-06	8.03E-07	4.59E-07	1.04E-06	3.89E-06
Silver	8.80E-07	4.36E-07	4.77E-07	5.34E-07	5.65E-07	6.17E-07	5.87E-07	4.37E-07	2.43E-07	1.39E-07	3.16E-07	1.18E-06
Strontium	1.58E-04	7.84E-05	8.58E-05	9.60E-05	1.02E-04	1.11E-04	1.06E-04	7.85E-05	4.37E-05	2.50E-05	5.68E-05	2.12E-04
Thallium	9.00E-06	4.46E-06	4.88E-06	5.46E-06	5.77E-06	6.31E-06	6.00E-06	4.47E-06	2.49E-06	1.42E-06	3.23E-06	1.21E-05
Thorium	3.15E-06	1.56E-06	1.71E-06	1.91E-06	2.02E-06	2.21E-06	2.10E-06	1.56E-06	8.71E-07	4.97E-07	1.13E-06	4.22E-06
Tin	9.44E-05	4.68E-05	5.12E-05	5.72E-05	6.05E-05	6.62E-05	6.29E-05	4.68E-05	2.61E-05	1.49E-05	3.39E-05	1.26E-04
Uranium	4.98E-07	2.46E-07	2.70E-07	3.02E-07	3.19E-07	3.49E-07	3.32E-07	2.47E-07	1.37E-07	7.85E-08	1.79E-07	6.67E-07
Vanadium	1.43E-05	7.07E-06	7.74E-06	8.65E-06	9.15E-06	1.00E-05	9.51E-06	7.08E-06	3.94E-06	2.25E-06	5.12E-06	1.91E-05
Zinc	2.67E-06	1.32E-06	1.45E-06	1.62E-06	1.71E-06	1.87E-06	1.78E-06	1.33E-06	7.39E-07	4.22E-07	9.60E-07	3.58E-06
Tetrachlorodibenzo-p-dioxins	1.08E-13	5.34E-14	5.84E-14	6.53E-14	6.91E-14	7.56E-14	7.18E-14	5.34E-14	2.98E-14	1.70E-14	3.87E-14	1.44E-13
Pentachlorodibenzo-p-dioxins	8.47E-14	4.19E-14	4.59E-14	5.13E-14	5.43E-14	5.94E-14	5.64E-14	4.20E-14	2.34E-14	1.34E-14	3.04E-14	1.13E-13
Hexachlorodibenzo-p-dioxins	4.70E-12	2.33E-12	2.55E-12	2.85E-12	3.01E-12	3.29E-12	3.13E-12	2.33E-12	1.30E-12	7.41E-13	1.69E-12	6.29E-12
Heptachlorodibenzo-p-dioxins	1.25E-11	6.21E-12	6.80E-12	7.61E-12	8.05E-12	8.80E-12	8.36E-12	6.22E-12	3.47E-12	1.98E-12	4.50E-12	1.68E-11
Octachlorodibenzo-p-dioxins	1.76E-11	8.73E-12	9.56E-12	1.07E-11	1.13E-11	1.24E-11	1.17E-11	8.74E-12	4.87E-12	2.78E-12	6.33E-12	2.36E-11
Total Dioxins	3.04E-11	1.51E-11	1.65E-11	1.84E-11	1.95E-11	2.13E-11	2.03E-11	1.51E-11	8.40E-12	4.80E-12	1.09E-11	4.07E-11
Tetrachlorodibenzofurans	1.99E-11	9.87E-12	1.08E-11	1.21E-11	1.28E-11	1.40E-11	1.33E-11	9.89E-12	5.51E-12	3.15E-12	7.16E-12	2.67E-11
Pentachlorodibenzofurans	1.82E-11	9.00E-12	9.85E-12	1.10E-11	1.17E-11	1.27E-11	1.21E-11	9.01E-12	5.02E-12	2.87E-12	6.52E-12	2.43E-11
Hexachlorodibenzofurans	6.70E-12	3.32E-12	3.63E-12	4.06E-12	4.29E-12	4.70E-12	4.46E-12	3.32E-12	1.85E-12	1.06E-12	2.40E-12	8.97E-12
Heptachlorodibenzofurans	3.70E-12	1.83E-12	2.00E-12	2.24E-12	2.37E-12	2.59E-12	2.46E-12	1.83E-12	1.02E-12	5.83E-13	1.33E-12	4.95E-12
Octachlorodibenzofurans	7.93E-11	3.93E-11	4.30E-11	4.81E-11	5.08E-11	5.56E-11	5.28E-11	3.93E-11	2.19E-11	1.25E-11	2.85E-11	1.06E-10
Total Furans	2.69E-12	1.33E-12	1.46E-12	1.63E-12	1.73E-12	1.89E-12	1.80E-12	1.34E-12	7.44E-13	4.25E-13	9.67E-13	3.61E-12
PAHs												
Acenaphthene	3.14E-07	1.56E-07	1.70E-07	1.90E-07	2.01E-07	2.20E-07	2.09E-07	1.56E-07	8.68E-08	4.95E-08	1.13E-07	4.21E-07

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration ($\mu\text{g}/\text{m}^3$)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
Acenaphthylene	2.18E-09	1.08E-09	1.18E-09	1.32E-09	1.40E-09	1.53E-09	1.45E-09	1.08E-09	6.03E-10	3.44E-10	7.83E-10	2.92E-09
Anthracene	1.37E-08	6.81E-09	7.45E-09	8.33E-09	8.81E-09	9.63E-09	9.16E-09	6.81E-09	3.80E-09	2.17E-09	4.93E-09	1.84E-08
Benzo(a)anthracene	1.96E-09	9.72E-10	1.06E-09	1.19E-09	1.26E-09	1.38E-09	1.31E-09	9.74E-10	5.42E-10	3.10E-10	7.04E-10	2.63E-09
Benzo(b)anthracene	3.27E-09	1.62E-09	1.77E-09	1.98E-09	2.10E-09	2.29E-09	2.18E-09	1.62E-09	9.04E-10	5.16E-10	1.17E-09	4.38E-09
Benzo(b)fluoranthene	3.05E-09	1.51E-09	1.66E-09	1.85E-09	1.96E-09	2.14E-09	2.03E-09	1.51E-09	8.44E-10	4.82E-10	1.10E-09	4.09E-09
Benzo(k,j)fluoranthene	3.71E-09	1.84E-09	2.01E-09	2.25E-09	2.38E-09	2.60E-09	2.47E-09	1.84E-09	1.02E-09	5.85E-10	1.33E-09	4.97E-09
Benzo(a)flourene	4.80E-09	2.38E-09	2.60E-09	2.91E-09	3.08E-09	3.36E-09	3.20E-09	2.38E-09	1.33E-09	7.57E-10	1.72E-09	6.43E-09
Benzo(b)flourene	1.09E-09	5.40E-10	5.91E-10	6.61E-10	6.99E-10	7.65E-10	7.27E-10	5.41E-10	3.01E-10	1.72E-10	3.91E-10	1.46E-09
Benzo(g,h,i)perylene	8.72E-09	4.32E-09	4.73E-09	5.29E-09	5.59E-09	6.12E-09	5.81E-09	4.33E-09	2.41E-09	1.38E-09	3.13E-09	1.17E-08
Benzo(a)pyrene	2.84E-09	1.40E-09	1.54E-09	1.72E-09	1.82E-09	1.99E-09	1.89E-09	1.41E-09	7.83E-10	4.47E-10	1.02E-09	3.80E-09
Benzo(e)pyrene	1.27E-08	6.27E-09	6.86E-09	7.67E-09	8.11E-09	8.87E-09	8.43E-09	6.27E-09	3.50E-09	2.00E-09	4.54E-09	1.69E-08
Biphenyl	1.48E-07	7.35E-08	8.04E-08	8.99E-08	9.51E-08	1.04E-07	9.88E-08	7.36E-08	4.10E-08	2.34E-08	5.32E-08	1.99E-07
2-chloronaphthalene	4.58E-10	2.27E-10	2.48E-10	2.78E-10	2.94E-10	3.21E-10	3.05E-10	2.27E-10	1.27E-10	7.23E-11	1.64E-10	6.14E-10
Coronene	5.23E-09	2.59E-09	2.84E-09	3.17E-09	3.36E-09	3.67E-09	3.49E-09	2.60E-09	1.45E-09	8.26E-10	1.88E-09	7.01E-09
Dibenzo(a,c & a,h)anthracene	1.59E-10	7.89E-11	8.63E-11	9.65E-11	1.02E-10	1.12E-10	1.06E-10	7.90E-11	4.40E-11	2.51E-11	5.71E-11	2.13E-10
Dibenzo(a,j)acridine	7.85E-11	3.89E-11	4.26E-11	4.76E-11	5.04E-11	5.51E-11	5.23E-11	3.89E-11	2.17E-11	1.24E-11	2.82E-11	1.05E-10
7H-dibenzo(c,g)carbazole	1.22E-10	6.05E-11	6.62E-11	7.41E-11	7.83E-11	8.56E-11	8.14E-11	6.06E-11	3.37E-11	1.93E-11	4.38E-11	1.64E-10
Dibenzo(a,e)pyrene	2.18E-11	1.08E-11	1.18E-11	1.32E-11	1.40E-11	1.53E-11	1.45E-11	1.08E-11	6.03E-12	3.44E-12	7.83E-12	2.92E-11
Dibenzo(a,i)pyrene	2.84E-11	1.40E-11	1.54E-11	1.72E-11	1.82E-11	1.99E-11	1.89E-11	1.41E-11	7.83E-12	4.47E-12	1.02E-11	3.80E-11
9,10-dimethylanthracene	1.20E-09	5.94E-10	6.50E-10	7.27E-10	7.69E-10	8.41E-10	7.99E-10	5.95E-10	3.31E-10	1.89E-10	4.31E-10	1.61E-09
7,12-dimethylanthracene	3.71E-10	1.84E-10	2.01E-10	2.25E-10	2.38E-10	2.60E-10	2.47E-10	1.84E-10	1.02E-10	5.85E-11	1.33E-10	4.97E-10
1,2-dimethylnaphthalene	1.85E-09	9.18E-10	1.01E-09	1.12E-09	1.19E-09	1.30E-09	1.24E-09	9.19E-10	5.12E-10	2.92E-10	6.65E-10	2.48E-09
2,6 & 2,7-dimethylnaphthalene	7.20E-09	3.56E-09	3.90E-09	4.36E-09	4.62E-09	5.05E-09	4.80E-09	3.57E-09	1.99E-09	1.14E-09	2.58E-09	9.64E-09
Fluoranthene	3.71E-08	1.84E-08	2.01E-08	2.25E-08	2.38E-08	2.60E-08	2.47E-08	1.84E-08	1.02E-08	5.85E-09	1.33E-08	4.97E-08
Fluorene	4.36E-08	2.16E-08	2.37E-08	2.64E-08	2.80E-08	3.06E-08	2.91E-08	2.16E-08	1.21E-08	6.88E-09	1.57E-08	5.84E-08
Indeno(1,2,3-cd)pyrene	1.50E-09	7.45E-10	8.16E-10	9.12E-10	9.65E-10	1.06E-09	1.00E-09	7.46E-10	4.16E-10	2.37E-10	5.40E-10	2.02E-09
2-methylanthracene	2.40E-09	1.19E-09	1.30E-09	1.45E-09	1.54E-09	1.68E-09	1.60E-09	1.19E-09	6.63E-10	3.79E-10	8.61E-10	3.21E-09
3-methylcholanthrene	6.54E-09	3.24E-09	3.55E-09	3.97E-09	4.20E-09	4.59E-09	4.36E-09	3.25E-09	1.81E-09	1.03E-09	2.35E-09	8.76E-09
1-methylnaphthalene	4.36E-08	2.16E-08	2.37E-08	2.64E-08	2.80E-08	3.06E-08	2.91E-08	2.16E-08	1.21E-08	6.88E-09	1.57E-08	5.84E-08
2-methylnaphthalene	6.54E-08	3.24E-08	3.55E-08	3.97E-08	4.20E-08	4.59E-08	4.36E-08	3.25E-08	1.81E-08	1.03E-08	2.35E-08	8.76E-08

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration ($\mu\text{g}/\text{m}^3$)											Max. POI
	1	2	3	4	5	6	7	8	9	10	11	
1-methylphenanthrene	1.81E-08	8.97E-09	9.82E-09	1.10E-08	1.16E-08	1.27E-08	1.21E-08	8.98E-09	5.00E-09	2.86E-09	6.50E-09	2.42E-08
9-methylphenanthrene	1.61E-08	7.99E-09	8.75E-09	9.79E-09	1.04E-08	1.13E-08	1.08E-08	8.00E-09	4.46E-09	2.55E-09	5.79E-09	2.16E-08
Naphthalene	1.31E-07	6.48E-08	7.10E-08	7.93E-08	8.39E-08	9.18E-08	8.72E-08	6.49E-08	3.62E-08	2.06E-08	4.70E-08	1.75E-07
Perylene	8.94E-10	4.43E-10	4.85E-10	5.42E-10	5.73E-10	6.27E-10	5.96E-10	4.44E-10	2.47E-10	1.41E-10	3.21E-10	1.20E-09
Phenanthrene	2.40E-07	1.19E-07	1.30E-07	1.45E-07	1.54E-07	1.68E-07	1.60E-07	1.19E-07	6.63E-08	3.79E-08	8.61E-08	3.21E-07
Picene	1.46E-10	7.24E-11	7.92E-11	8.86E-11	9.37E-11	1.02E-10	9.74E-11	7.25E-11	4.04E-11	2.31E-11	5.24E-11	1.96E-10
Pyrene	2.40E-08	1.19E-08	1.30E-08	1.45E-08	1.54E-08	1.68E-08	1.60E-08	1.19E-08	6.63E-09	3.79E-09	8.61E-09	3.21E-08
Quinoline	1.81E-09	8.97E-10	9.82E-10	1.10E-09	1.16E-09	1.27E-09	1.21E-09	8.98E-10	5.00E-10	2.86E-10	6.50E-10	2.42E-09
m-Terphenyl	6.33E-09	3.13E-09	3.43E-09	3.83E-09	4.06E-09	4.43E-09	4.21E-09	3.14E-09	1.75E-09	9.98E-10	2.27E-09	8.47E-09
o-Terphenyl	1.00E-08	4.97E-09	5.44E-09	6.08E-09	6.43E-09	7.03E-09	6.69E-09	4.98E-09	2.77E-09	1.58E-09	3.60E-09	1.34E-08
p-Terphenyl	3.27E-09	1.62E-09	1.77E-09	1.98E-09	2.10E-09	2.29E-09	2.18E-09	1.62E-09	9.04E-10	5.16E-10	1.17E-09	4.38E-09
Tetralin	1.42E-08	7.02E-09	7.69E-09	8.60E-09	9.09E-09	9.94E-09	9.45E-09	7.03E-09	3.92E-09	2.24E-09	5.09E-09	1.90E-08
Triphenylene/chrysene	8.29E-09	4.10E-09	4.49E-09	5.02E-09	5.32E-09	5.81E-09	5.52E-09	4.11E-09	2.29E-09	1.31E-09	2.97E-09	1.11E-08
VOCs												
Acetaldehyde	2.66E-05	1.31E-05	1.43E-05	1.61E-05	1.71E-05	1.86E-05	1.81E-05	1.34E-05	7.38E-06	4.36E-06	9.68E-06	3.54E-05
Acetophenone	6.99E-07	3.46E-07	3.77E-07	4.23E-07	4.49E-07	4.91E-07	4.76E-07	3.52E-07	1.94E-07	1.15E-07	2.55E-07	9.31E-07
Acrolien	1.35E-05	6.69E-06	7.30E-06	8.18E-06	8.69E-06	9.49E-06	9.21E-06	6.81E-06	3.75E-06	2.22E-06	4.93E-06	1.80E-05
Benzene	6.06E-05	3.00E-05	3.27E-05	3.67E-05	3.89E-05	4.25E-05	4.13E-05	3.05E-05	1.68E-05	9.94E-06	2.21E-05	8.07E-05
Benzyl chloride	3.26E-05	1.61E-05	1.76E-05	1.98E-05	2.10E-05	2.29E-05	2.22E-05	1.64E-05	9.06E-06	5.35E-06	1.19E-05	4.35E-05
Bis(2-ethylhexyl)phthalate (DEHP)	3.40E-06	1.68E-06	1.84E-06	2.06E-06	2.19E-06	2.39E-06	2.32E-06	1.71E-06	9.45E-07	5.58E-07	1.24E-06	4.53E-06
Bromoform	1.82E-06	8.99E-07	9.81E-07	1.10E-06	1.17E-06	1.28E-06	1.24E-06	9.15E-07	5.05E-07	2.98E-07	6.63E-07	2.42E-06
Carbon disulphide	6.06E-06	3.00E-06	3.27E-06	3.67E-06	3.89E-06	4.25E-06	4.13E-06	3.05E-06	1.68E-06	9.94E-07	2.21E-06	8.07E-06
2-Chloroacetophenone	3.26E-07	1.61E-07	1.76E-07	1.98E-07	2.10E-07	2.29E-07	2.22E-07	1.64E-07	9.06E-08	5.35E-08	1.19E-07	4.35E-07
Chlorobenzene	1.02E-06	5.07E-07	5.54E-07	6.21E-07	6.59E-07	7.20E-07	6.99E-07	5.16E-07	2.85E-07	1.68E-07	3.74E-07	1.37E-06
Chloroform	2.75E-06	1.36E-06	1.48E-06	1.66E-06	1.77E-06	1.93E-06	1.87E-06	1.38E-06	7.64E-07	4.51E-07	1.00E-06	3.66E-06
Cumene	2.47E-07	1.22E-07	1.33E-07	1.50E-07	1.59E-07	1.73E-07	1.68E-07	1.24E-07	6.86E-08	4.05E-08	9.01E-08	3.29E-07
Cyanide	1.16E-04	5.76E-05	6.29E-05	7.05E-05	7.49E-05	8.18E-05	7.94E-05	5.87E-05	3.24E-05	1.91E-05	4.25E-05	1.55E-04
2,4-Dinitrotoluene	1.30E-08	6.45E-09	7.05E-09	7.90E-09	8.39E-09	9.16E-09	8.89E-09	6.57E-09	3.62E-09	2.14E-09	4.76E-09	1.74E-08

*Brandon Generating Station Licence Review
Air Quality Impact Assessment*

COPC	Discrete Receptor Concentration ($\mu\text{g}/\text{m}^3$)											
	1	2	3	4	5	6	7	8	9	10	11	Max. POI
Dimethyl Sulphate	2.24E-06	1.11E-06	1.21E-06	1.35E-06	1.44E-06	1.57E-06	1.52E-06	1.13E-06	6.21E-07	3.67E-07	8.16E-07	2.98E-06
Ethyl benzene	4.38E-06	2.17E-06	2.37E-06	2.65E-06	2.82E-06	3.08E-06	2.99E-06	2.21E-06	1.22E-06	7.19E-07	1.60E-06	5.84E-06
Ethyl chloride	1.96E-06	9.68E-07	1.06E-06	1.19E-06	1.26E-06	1.37E-06	1.33E-06	9.86E-07	5.44E-07	3.21E-07	7.14E-07	2.61E-06
Ethylene dichloride	1.86E-06	9.22E-07	1.01E-06	1.13E-06	1.20E-06	1.31E-06	1.27E-06	9.39E-07	5.18E-07	3.06E-07	6.80E-07	2.48E-06
Ethylene dibromide	5.59E-08	2.77E-08	3.02E-08	3.39E-08	3.59E-08	3.93E-08	3.81E-08	2.82E-08	1.55E-08	9.18E-09	2.04E-08	7.45E-08
Formaldehyde	1.12E-05	5.53E-06	6.04E-06	6.77E-06	7.19E-06	7.85E-06	7.62E-06	5.63E-06	3.11E-06	1.84E-06	4.08E-06	1.49E-05
Hexane	3.12E-06	1.54E-06	1.69E-06	1.89E-06	2.01E-06	2.19E-06	2.13E-06	1.57E-06	8.67E-07	5.12E-07	1.14E-06	4.16E-06
Isophorone	2.70E-05	1.34E-05	1.46E-05	1.64E-05	1.74E-05	1.90E-05	1.84E-05	1.36E-05	7.51E-06	4.44E-06	9.85E-06	3.60E-05
Methylbromide	7.45E-06	3.69E-06	4.03E-06	4.52E-06	4.79E-06	5.23E-06	5.08E-06	3.76E-06	2.07E-06	1.22E-06	2.72E-06	9.93E-06
Methyl chloride	2.47E-05	1.22E-05	1.33E-05	1.50E-05	1.59E-05	1.73E-05	1.68E-05	1.24E-05	6.86E-06	4.05E-06	9.01E-06	3.29E-05
Methyl ethyl ketone	1.82E-05	8.99E-06	9.81E-06	1.10E-05	1.17E-05	1.28E-05	1.24E-05	9.15E-06	5.05E-06	2.98E-06	6.63E-06	2.42E-05
Methyl hydrazine	7.92E-06	3.92E-06	4.28E-06	4.80E-06	5.09E-06	5.56E-06	5.40E-06	3.99E-06	2.20E-06	1.30E-06	2.89E-06	1.06E-05
Methyl methacrylate	9.32E-07	4.61E-07	5.03E-07	5.64E-07	5.99E-07	6.54E-07	6.35E-07	4.69E-07	2.59E-07	1.53E-07	3.40E-07	1.24E-06
Methyl tert-butyl ether	1.63E-06	8.07E-07	8.81E-07	9.88E-07	1.05E-06	1.15E-06	1.11E-06	8.22E-07	4.53E-07	2.68E-07	5.95E-07	2.17E-06
Methylene chloride	1.35E-05	6.69E-06	7.30E-06	8.18E-06	8.69E-06	9.49E-06	9.21E-06	6.81E-06	3.75E-06	2.22E-06	4.93E-06	1.80E-05
Phenol	7.45E-07	3.69E-07	4.03E-07	4.52E-07	4.79E-07	5.23E-07	5.08E-07	3.76E-07	2.07E-07	1.22E-07	2.72E-07	9.93E-07
Propionaldehyde	1.77E-05	8.76E-06	9.56E-06	1.07E-05	1.14E-05	1.24E-05	1.21E-05	8.92E-06	4.92E-06	2.91E-06	6.46E-06	2.36E-05
Tetrachloroethylene	2.00E-06	9.91E-07	1.08E-06	1.21E-06	1.29E-06	1.41E-06	1.37E-06	1.01E-06	5.57E-07	3.29E-07	7.31E-07	2.67E-06
Toluene	1.12E-05	5.53E-06	6.04E-06	6.77E-06	7.19E-06	7.85E-06	7.62E-06	5.63E-06	3.11E-06	1.84E-06	4.08E-06	1.49E-05
1,1,1-Trichloroethane	9.32E-07	4.61E-07	5.03E-07	5.64E-07	5.99E-07	6.54E-07	6.35E-07	4.69E-07	2.59E-07	1.53E-07	3.40E-07	1.24E-06
Styrene	1.16E-06	5.76E-07	6.29E-07	7.05E-07	7.49E-07	8.18E-07	7.94E-07	5.87E-07	3.24E-07	1.91E-07	4.25E-07	1.55E-06
Xylenes	1.72E-06	8.53E-07	9.31E-07	1.04E-06	1.11E-06	1.21E-06	1.18E-06	8.68E-07	4.79E-07	2.83E-07	6.29E-07	2.30E-06
Vinyl acetate	3.54E-07	1.75E-07	1.91E-07	2.14E-07	2.28E-07	2.49E-07	2.41E-07	1.78E-07	9.84E-08	5.81E-08	1.29E-07	4.72E-07