

2017 Summary of Exceedances



Air quality measurements are compared hourly to the [Alberta Ambient Air Quality Objectives](#) (AAAQO). Any exceedance of an AAAQO is reported to the Alberta Government and the cause of the exceedance investigated.

Fort Air Partnership: One Hour Exceedances - 2017			
Parameter	Exceedances	Dates	Attributed Cause
Ammonia (NH ₃)	1	July 9	Local industry
Respirable Particulate (PM _{2.5})	8	January 2, 25, March 29	Regional effects from winter inversion
	1	May 21	Campfire smoke
	1	June 3	Undetermined local source
	2	July 16	Forest fires
	1	August 11	Undetermined local source
	52	August 13-14	Forest fires
	2	August 31	Local construction /harvesting
	1	September 6	Harvesting
	1	December 22	Undetermined local source
Sulphur Dioxide (SO ₂)*	2	February 9, March 1	Local industry
	26	April 5,9,17,18,23,24,26,27 May 5,10,11,29	Local industry
	4	July 7,12,27,30	Local industry
	6	August 7, 23, 25, 29, 30, 31	Local industry
Total Occasions	108		

**Ambient SO₂ exceedances were specific to the station adjacent to Agrium Redwater. During its August, 2017 turnaround, Agrium made major equipment replacements in its sulphuric acid plant which has minimized these ambient air events.*

Fort Air Partnership: 24 Hour Exceedances - 2017			
Parameter	Exceedances	Dates	Attributed Cause
Respirable Particulate (PM _{2.5})	2	January 2, 25	Regional effects from winter inversion
	5	July 16	Forest fires
	6	July 20	Forest fires
	9	August 13-14	Forest fires
	6	August 18	Forest fires
	1	November 11	Regional effects from winter inversion
Sulphur Dioxide (SO ₂)*	9	April 5, 13, 17, 18, 22, 23, 24, 27 May 11	Local industry
Total Occasions	38		

**Ambient SO₂ exceedances were specific to the station adjacent to Agrium Redwater. During its August, 2017 turnaround, Agrium made major equipment replacements in its sulphuric acid plant which has minimized these ambient air events.*

Five Year Trend - Exceedances

Fort Air Partnership: Five Year Trend - Exceedances						
Parameter Measured		2017	2016	2015	2014	2013
Ammonia (NH ₃)	1-hr	1	0	4	0	0
Benzene (C ₆ H ₆)	1-hr	0	0	2	5	0
Carbon Monoxide (CO)	1-hr	0	0	0	0	0
	8-hr	0	0	0	0	0
Ethyl Benzene (C ₆ H ₅ CH ₂ CH ₃)	1-hr	0	0	0	0	0
Ethylene (C ₂ H ₄)	1-hr	0	0	0	0	0
	3-day	0	0	0	0	0
	Annual	0	0	0	0	0
Hydrogen Sulphide (H ₂ S)	1-hr	0	0	3	0	147
	24-hr	0	0	1	0	29
Nitrogen Dioxide (NO ₂)	1-hr	0	0	0	0	0
	24-hr	0	0	0	0	0
	Annual	0	0	0	0	0
Ozone (O ₃)	1-hr	0	0	3	0	0
Styrene (C ₆ H ₅ CH=CH ₃)	1-hr	0	0	0	0	0
Sulphur Dioxide (SO ₂)	1-hr	38	51	34	26	6
	24-hr	9	9	6	3	2
	30-day	1	2	0	0	0
	Annual	0	0	0	0	0
Respirable Particulate Matter (PM _{2.5})	1-hr	69	35	144	13	15
	24-hr	29	11	27	12	11
Toluene (C ₆ H ₅ CH ₃)	1-hr	0	0	0	0	0
Xylenes (o-, m- and p- isomers)	1-hr	0	0	0	0	0
Total		147	108	224	59	210