



Rhode Island Airport Corporation

January 8, 2019

Mr. Aaron Mello
Rhode Island Department of Environmental Management
Office of Water Resources
RIPDES Program
235 Promenade Street
Providence, Rhode Island 02908

**Subject: 4th Quarter 2018 Report in Lieu of Sampling
T.F. Green Airport
Permit No. RI0021598**

Dear Mr. Mello:

The RIPDES Permit No. RI0021598 ("Permit"), issued to the Rhode Island Airport Corporation (RIAC), requires that samples meeting certain criteria must be collected quarterly. RIAC submits this report in accordance with Part I.(A)(6)(i) of the Permit in lieu of 4th Quarter 2018 sampling as the result of a "lack of a representative storm event during the entire quarterly monitoring period."

RIPDES Permit - Storm Event Criteria for Sampling

In accordance with Part I.(A)(6)(g) of the Permit, samples must be collected from a discharge resulting from a representative storm event. A representative storm event is "precipitation that: (a) occurs at least seventy-two (72) hours from the previous measurable storm event", and (b), "is greater than or equal to 0.1 inches water equivalent per twenty-four (24) hours in magnitude". In addition, Parts I.A.1.(footnote 6) and I.A.2.(footnote 5) of the Permit require Q4 sampling to be conducted "while aircraft deicing is occurring". Parts I.A.1.(footnote 2) and I.A.2.(footnote 1) further define sampling event precipitation to be: "During snow events, the start of precipitation shall be assumed to occur when the total accumulation of snowfall is 0.5 inches in depth. During other freezing (i.e., sleet, freezing rain) or non-freezing (i.e., rain) precipitation events, the start of precipitation shall be assumed to occur when the total accumulation is 0.1 inches in depth."

Prior to precipitation events where deicer is applied, weather forecasts (National Weather Service, AccuWeather, Weatherunderground, and local media forecasts) and information from T.F. Green Airport Operations are used to assess whether the event will present a potential sampling opportunity. As precipitation begins, weather conditions and forecasts are continually monitored to determine if and when the minimum precipitation requirements for sampling are likely to be met (>0.1" for rain and freezing rain events, >0.5" for snow events). Sampling commences once the minimum depths have been met and deicing activities have occurred. In addition RIAC uses data derived from National Climatic data Center (NCDC) Quality Controlled Local Climatological Data from the weather station at T. F. Green Airport to determine if an event met all qualifying criteria for a sampling event.

4th Quarter 2018 Precipitation and Deicing Events

During the 4th Quarter of 2018, there were only 35 days of measurable precipitation. Of these, 26 events resulted in depths greater than 0.1" (water equivalent). During this Quarter there were eight (8) days that had measurable precipitation on which tenants reported aircraft deicing. Below is a description of why these events did not qualify or were not sampled.

There were no dates in October where aircraft were deiced during active precipitation.

In November there were five (5) days where aircraft were deiced during active precipitation. November 5 was preceded by 1.17" precipitation on November 3. November 9 was preceded by 0.72" precipitation on November 6. November 15 was preceded by 2" precipitation on November 13. November 16 was preceded by 0.74" precipitation (6" as snow) on November 15. November 20 aircraft deicing was complete approximately 6 hours before measurable precipitation.

In December there were three (3) events where aircraft were deiced during active precipitation. On December 16 only two aircraft by were deiced several hours before measurable precipitation. On December 24 the depth of precipitation did not qualify as water equivalent was 0.02" (<0.1") and frozen precipitation was measured as 0.3" (<0.5"). December 31 was preceded by 0.96" precipitation on December 28.

A summary of deicing fluid application and collection, and daily weather summaries for each month of the 4th Quarter of 2018 is attached.

Summary

The weather and deicing conditions between October 1st and December 31st, 2018 did not provide a representative storm event while aircraft deicing occurred. As none of the 4th Quarter deicing events occurred concurrently with a qualifying storm event, RIAC did not collect samples during this period, and submits this report in lieu of monitoring in accordance with Part I.(A)(6)(i) of the Permit.

If you have any questions, please do not hesitate to call me at (401) 691-2490.

Sincerely,



Jay Brolin
Manager Environmental Program

Attachments:

Daily Deicing Fluid Application and Collection October, November, December 2018

PVD October 2018 Monthly Deicing Usage and Collection

Date	Applied					Estimated Amount Recovered			Weather					
	Type I	Pure Type I	Type IV	Type I as PG Type IV	Total	Collected	Diverted Terminal	Diverted Cargo	Date	Actuals (°)		Precip Amounts		
										High	Low	Precip	Snow	Ground
10/1/2018									1	71	53	0.15	0	0
10/2/2018									2	69	56	1.01	0	0
10/3/2018									3	67	59	0.45	0	0
10/4/2018									4	70	59	0	0	0
10/5/2018									5	69	47	0	0	0
10/6/2018									6	65	46	0	0	0
10/7/2018									7	78	60	T	0	0
10/8/2018									8	60	57	T	0	0
10/9/2018									9	77	59	T	0	0
10/10/2018									10	83	65	0	0	0
10/11/2018									11	77	63	0.82	0	0
10/12/2018									12	64	48	1.23	0	0
10/13/2018									13	54	43	0.07	0	0
10/14/2018									14	58	41	0	0	0
10/15/2018									15	69	41	0.04	0	0
10/16/2018									16	68	42	0.09	0	0
10/17/2018	75	38	0	33.00	0	33.00	Y		17	63	39	T	0	0
10/18/2018									18	48	34	0	0	0
10/19/2018	155	78	0	68.20	0	68.20	Y		19	60	30	0	0	0
10/20/2018									20	64	47	T	0	0
10/21/2018									21	49	31	0.17	0	0
10/22/2018	240	120	0	105.60	0	105.60	Y		22	50	28	0	0	0
10/23/2018									23	59	39	0.03	0	0
10/24/2018									24	50	38	T	0	0
10/25/2018	140	70	0	61.60	0	61.60	Y		25	51	33	0	0	0
10/26/2018	317	159	0	139.48	0	139.48	Y		26	46	26	0	0	0
10/27/2018									27	52	40	1.81	0	0
10/28/2018									28	58	43	0.04	0	0
10/29/2018									29	60	40	0.14	0	0
10/30/2018	220	110	0	96.80	0	96.80	Y		30	51	34	0	0	0
10/31/2018	517	259	0	227.48	0	227.48	Y		31	58	29	0	0	0

MONTHLY TOTALS

1664 832 0 732.16 0 732.16 326 0 0 6.05 0

PVD November 2018 Monthly Deicing Usage and Collection

Date	Applied					Estimated Amount Recovered			Weather						
	Type I	Pure Type I	Type IV	Type I	as PG Type IV	Total	Collected	Diverted Terminal	Diverted Cargo	Date	Actuals (°)		Precip Amounts		
											High	Low	Precip	Snow	Ground
11/1/2018										1	67	52	0	0	0
11/2/2018										2	68	53	0.32	0	0
11/3/2018										3	67	44	1.17	0	0
11/4/2018										4	57	40	0	0	0
11/5/2018	180	90	0	79.20	0	79.20	Y	0	0	5	51	39	0.2	0	0
11/6/2018										6	65	48	0.72	0	0
11/7/2018										7	63	48	0	0	0
11/8/2018										8	57	38	0	0	0
11/9/2018	238	119	0	104.72	0	104.72	Y	41000	0	9	52	31	1.24	0	0
11/10/2018								10000	0	10	51	34	0.26	0	0
11/11/2018	240	120	0	105.60	0	105.60	Y	0	0	11	45	31	0	0	0
11/12/2018	347	174	0	152.68	0	152.68	Y	0	0	12	50	27	0	0	0
11/13/2018								5000	0	13	58	40	2	0	0
11/14/2018	20	4	0	3.52	0	3.52	Y	8000	0	14	40	27	T	0	0
11/15/2018	9477	4409	1190	3879.48	595	4474.48	N	695000	38000	15	33	23	0.74	6	0
11/16/2018	2070	1035	0	910.80	0	910.80	N	112000	63000	16	42	33	0.94	T	0
11/17/2018	130	315	0	277.20	0	277.20	Y	0	0	17	49	34	0	0	1
11/18/2018	230	115	0	101.20	0	101.20	Y	39000	0	18	44	30	0	0	0
11/19/2018								47000	0	19	47	38	T	0	0
11/20/2018	283	142	0	124.52	0	124.52	N	0	0	20	40	33	0.2	0	0
11/21/2018	487	244	0	214.28	0	214.28	Y	2000	0	21	42	24	T	T	0
11/22/2018	40	20	0	17.60	0	17.60	Y	1000	0	22	24	15	0	0	0
11/23/2018								0	0	23	32	13	0	0	0
11/24/2018	283	142	0	124.52	0	124.52	Y	0	0	24	46	25	T	0	0
11/25/2018								25000	0	25	48	38	1.44	0	0
11/26/2018								0	0	26	46	33	1.02	0	0
11/27/2018								0	0	27	45	36	0.32	0	0
11/28/2018								0	0	28	44	35	0	0	0
11/29/2018	487	244	0	214.28	0	214.28	Y	0	0	29	45	33	0	0	0
11/30/2018	40	20	0	17.60	0	17.60	Y	0	0	30	41	28	T	0	0

MONTHLY TOTALS 14552 7190 1190 6327.20 595 6922.20 2,740 985,000 101,000

10.57 6

PVD December 2018 Monthly Deicing Usage and Collection

Date	Applied						Estimated Amount Recovered			Weather					
	Type I	Pure Type I	Type IV	Type I	as PG Type IV	Total	Collected	Diverted Terminal	Diverted Cargo	Date	Actuals (°)	Precip Amounts	Precip	Snow	Ground
12/1/2018	485	243	0	213.40	0	213.40	659	0	0	1	45	31	T	0	0
12/2/2018								0	0	2	59	37	0.69	0	0
12/3/2018								0	0	3	59	43	T	0	0
12/4/2018								0	0	4	43	26	0	0	0
12/5/2018	508	254	0	223.52	0	223.52	Y	0	0	5	38	21	0	0	0
12/6/2018	325	163	0	143.00	0	143.00	1265	0	0	6	42	25	T	T	0
12/7/2018	562	281	0	247.28	0	247.28	Y	0	0	7	38	24	T	T	0
12/8/2018	145	73	0	63.80	0	63.80	796	34000	0	8	32	18	0	0	0
12/9/2018	195	98	0	85.80	0	85.80	Y	0	0	9	35	19	0	0	0
12/10/2018	250	125	0	110.00	0	110.00	Y	0	0	10	39	23	0	0	0
12/11/2018	368	184	0	161.92	0	161.92	399	0	0	11	36	16	T	T	0
12/12/2018	105	53	0	46.20	0	46.20	Y	0	0	12	38	22	0	0	0
12/13/2018	70	35	0	30.80	0	30.80	Y	12000	0	13	36	21	T	T	0
12/14/2018	532	266	0	234.08	0	234.08	266	118000	0	14	47	22	0	0	0
12/15/2018								0	0	15	52	41	0.04	0	0
12/16/2018	55	28	0	24.20	0	24.20		0	0	16	43	39	0.82	T	0
12/17/2018								0	0	17	42	36	0.05	T	0
12/18/2018	85	43	0	37.40	0	37.40	Y	0	0	18	37	23	T	T	0
12/19/2018	20	10	0	8.80	0	8.80	178	0	13000	19	41	18	0	0	0
12/20/2018	562	281	0	247.28	0	247.28	Y	0	14000	20	49	23	0	0	0
12/21/2018								51000	0	21	59	43	1.69	0	0
12/22/2018								0	0	22	54	36	0.03	0	0
12/23/2018	70	35	0	30.80	0	30.80		0	0	23	41	31	0	0	0
12/24/2018	1198	599	265	527.12	133	659.62	662	0	0	24	36	28	0.02	0.3	0
12/25/2018	622	311	0	273.68	0	273.68	474	0	0	25	40	26	0	0	0
12/26/2018	142	71	0	62.48	0	62.48	620	0	0	26	40	22	0	0	0
12/27/2018	10	5	0	4.40	0	4.40		0	0	27	40	31	0	0	0
12/28/2018								0	0	28	56	34	0.96	0	0
12/29/2018	20	10	0	8.80	0	8.80		0	0	29	56	33	0	0	0
12/30/2018								0	0	30	37	26	0	0	0
12/31/2018	593	297	0	260.92	0	260.92		0	0	31	45	25	0.47	0	0

MONTHLY TOTALS

6922 3461 265 3045.68 133 3178.18

5,319 215,000 27,000

4.77 0.3