

Our Reference: A561556

18 September 2013

Ministry for the Environment
23 Kate Sheppard Place, PO Box 10362
Wellington 6143

Attention: Emma Whaley

Dear Emma,

The ORC has prepared an application for an exceptional event, related to the exceedance of the NESAQ in Dunedin on Saturday, 27 September 2013. The daily PM₁₀ value for the day was 56µg/m³; this has been the only exceedance for the calendar year to date.

It is our contention that the mechanical failure of a valve seal on a nearby industry (Cerebos Gregg's Ltd.) allowed the escape of enough particulate to create several hours of high PM₁₀. The values of these high hours was enough to push the daily average over the NESAQ.

If you require any further information or have any questions on the application, please do not hesitate to get in touch with me.

Kind Regards,

Deborah Mills
Air Quality Scientist

Resource Management (National Environmental Standards for Air Quality) Regulations 2004 – Regulation 16A Exceptional Circumstances

APPLICATION FORM

Before completing this form please read section 3.8 of the 2011 User's Guide to the revised National Environmental Standards for Air Quality.

Need more help? If you have any questions email air@mfe.govt.nz.

Please send your completed application form and all attachments to air@mfe.govt.nz.

Alternatively, if attachments are too large to email, please post hard copies of the application form and all attachments, along with a CD containing all files, to:

Air Quality NES Exceptional Circumstances
Ministry for the Environment
PO Box 10362
Wellington 6143

1. Applicant details	
Name of regional council	Otago Regional Council
Contact person	Deborah Mills
Position	Air Quality Scientist
Email address	deborah.mills@orc.govt.nz
Telephone number	03 474 0827
Mobile number	n/a
Postal address	70 Stafford Street, Private Bag 1954, Dunedin
2. Details of exceedance event	
Contaminant	PM ₁₀ – Daily average 56µg/m ³
Date of exceedance <i>(must not be >3 months from date this application is received)</i>	Saturday, 27 July 2013
Relevant airshed	Airshed 3 – Central Dunedin
Monitoring station and technical specifications of monitor	Albany Street site (N4917501, E1407334.2 NZTM projection) MetOne Beta Attenuation Monitor 1020, USEPA equivalent-reference method Continuous hourly PM ₁₀ samples since 2006; air temperature, wind speed/direction Inlet height approximately 4 metres

Summary of monitoring reading showing exceedance event	See Appendix 1		
Analysis of baseline data	See Appendix 2		
Source speciation or other analysis	No speciation information is available as only PM ₁₀ is monitored at the site.		
Explanation of any previous exceedance event/s from this monitoring station in the past 5 years	See Appendix 3		
Monitoring readings covering exceedance event	<input checked="" type="checkbox"/> Attached (Refer to Appendix 1)	<input type="checkbox"/> Not attached	
3. Details of exceptional circumstances			
Exceptional circumstances leading to exceedance	<input checked="" type="checkbox"/> Localised impact on a monitor	<input type="checkbox"/> Anthropogenic extreme event	<input type="checkbox"/> Natural disaster or natural extreme event <input checked="" type="checkbox"/> Other
Explanation of circumstances leading to exceedance event	Mechanical failure of a valve seal on a nearby industry caused fine particulates to escape the stack, bypassing the existing baghouse filter. See Appendix 4 for a full explanation.		
Reasons why these circumstances were beyond the reasonable control of the regional council	See Appendix 5.		
Supporting evidence (eg, meteorological report)	<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> Not attached	

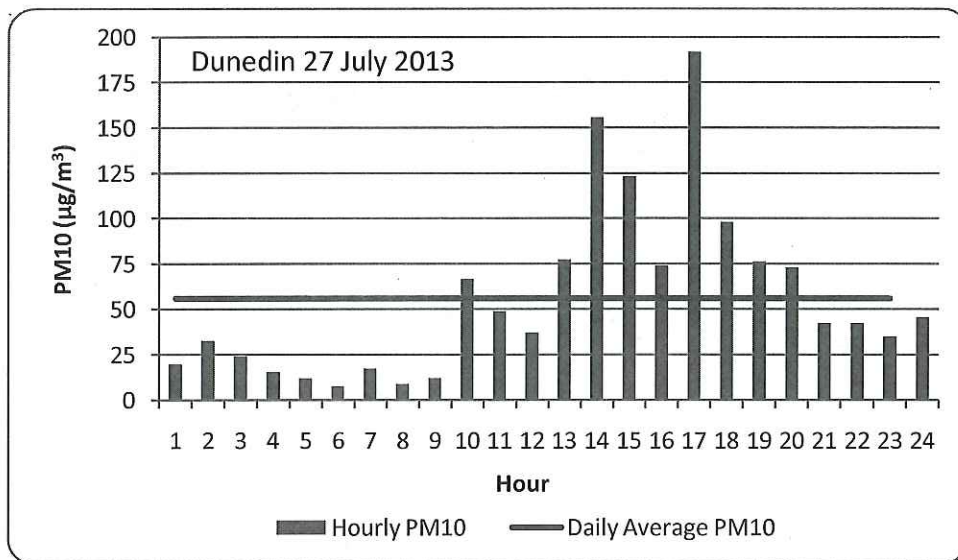
Dated

Signed

Appendix 1 – Summary of monitoring reading showing exceedance event

Central Dunedin (Airshed 3) experienced its first, and so far only, exceedance of the NESAQ this year on Saturday, 27 July with a PM₁₀ value of 56µg/m³ for the day recorded at the Albany Street monitor.

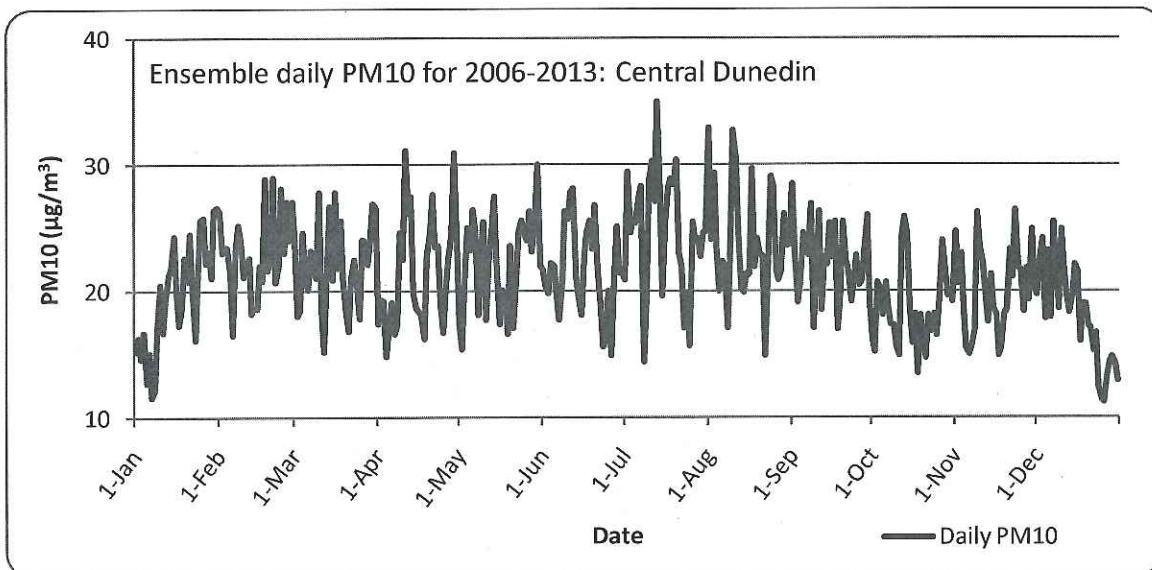
The graph below shows that hourly PM₁₀ values (shown by the blue bars) became elevated from between 9 and 10am and stayed relatively high throughout the day. Hourly PM₁₀ peaked at the site between 4-5pm at 192µg/m³. The daily average (56µg/m³) is shown in red.



Appendix 2 – Analysis of baseline data

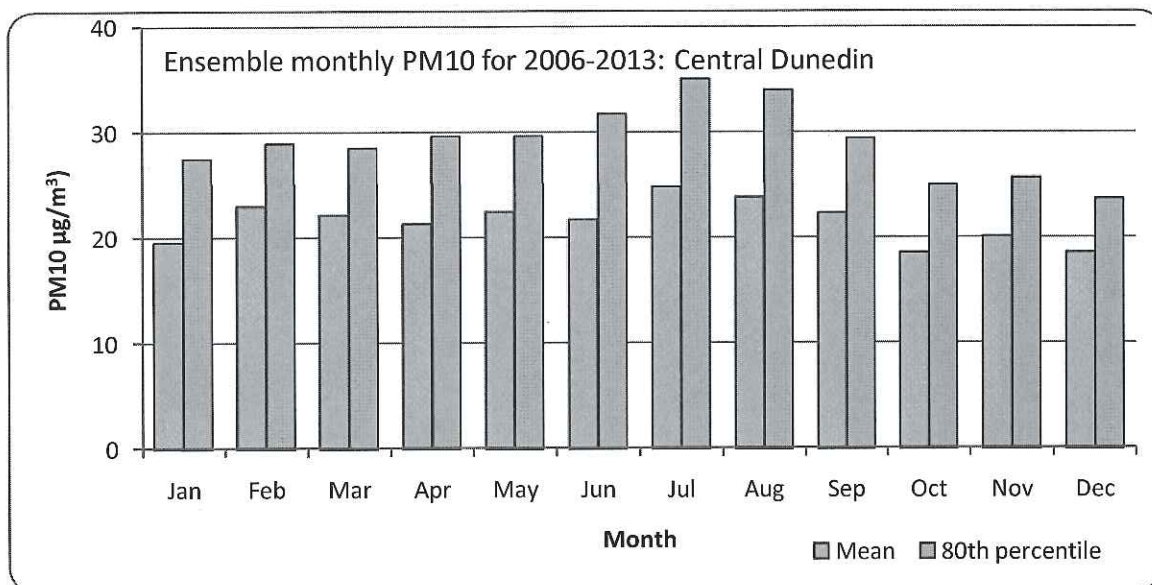
Annual Baseline

The Central Dunedin monitoring site is located in an urban environment; its typical annual PM₁₀ cycle is shown below. Ensemble data taken from June 2006 through July 2013 indicate that the Central Dunedin site does not exhibit as strong a seasonal trend as most other Otago towns. One noticeable seasonal trend, however, is a decrease in PM₁₀ over the Christmas holiday season.



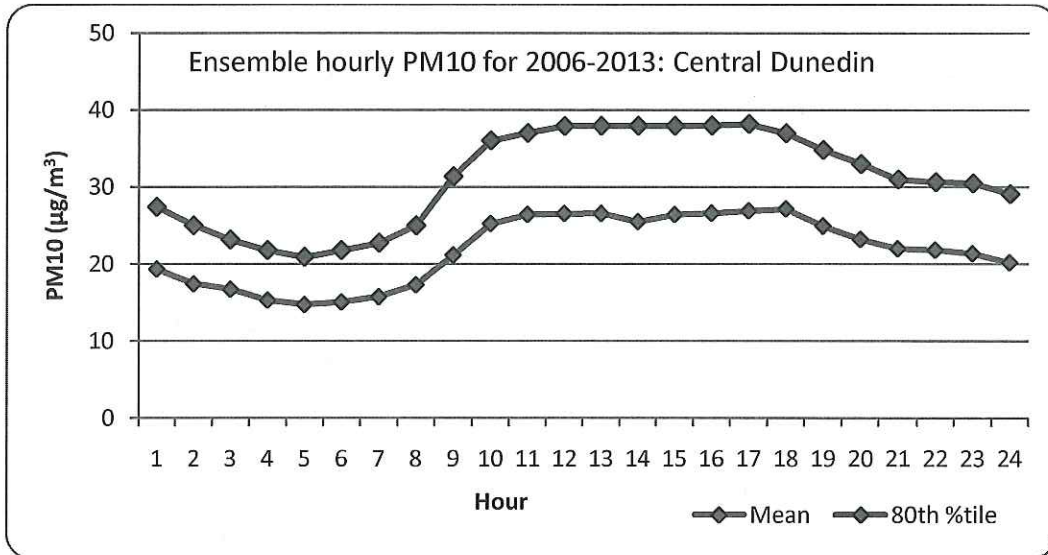
Monthly Baseline

Ensemble monthly data over the same period (2006-2013) indicates that, typically, July and August are the months with the highest average PM₁₀ and the highest 80th percentile. Throughout the year, the 80th percentile ranges between about 23-35µg/m³.

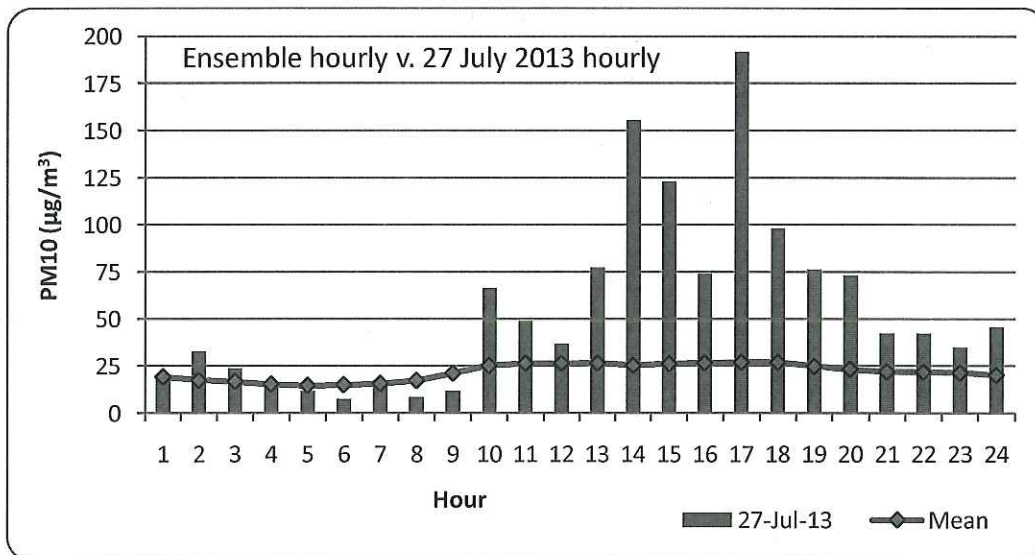


Daily Baseline:

Ensemble hourly data illustrates the urban/industrial contribution of PM₁₀; the hours with the highest PM₁₀ are through the working day, slowly diminishing through the evening. The majority of hourly PM₁₀ values throughout the day (at least 80% of the time) are less than 40µg/m³.



PM₁₀ data from 27 July 2013, graphed together with the ensemble hourly mean data is shown below.



Appendix 3: Explanation of any previous exceedance event/s from this monitoring station in the past 5 years.

The table below gives the number of annual exceedance figures for Dunedin since 2008:

2008	2009	2010	2011	2012	2013
9	6	12	14	1	1

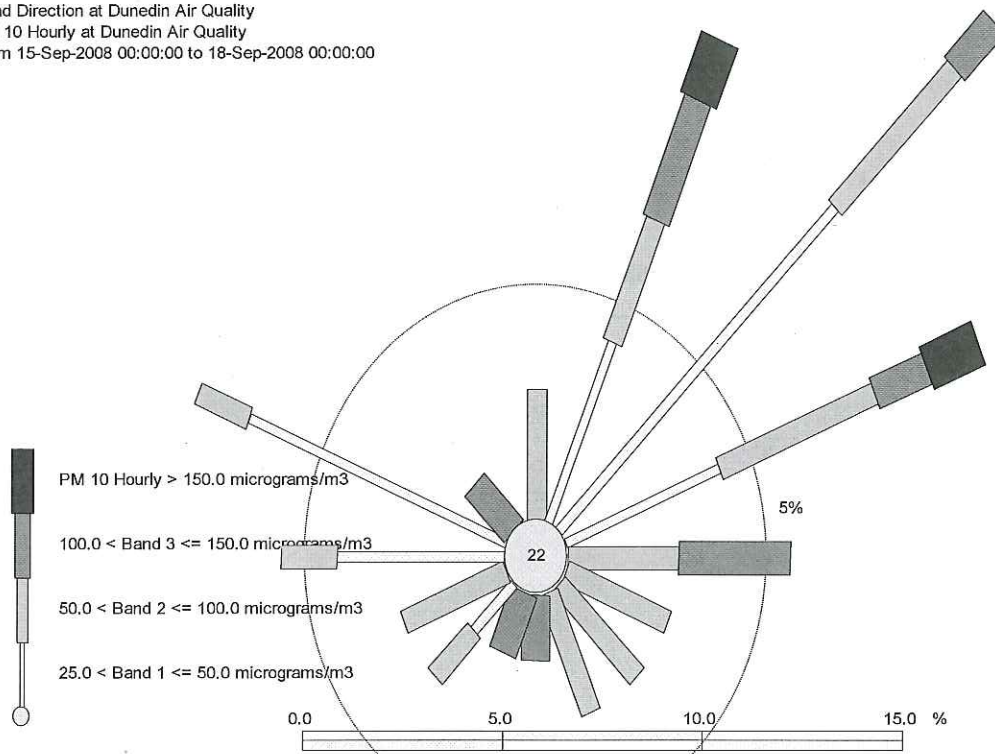
In **2008**, the following exceedances were recorded. All were due to a combination of industrial, vehicular (including road dust entrainment), commercial, and domestic emissions as well as marine aerosol. All occurred during periods of very calm weather conditions.

Date in 2008	Daily PM ₁₀ (µg/m ³)	Comment
12 June	61	High PM ₁₀ from 7am until midnight; calm
18 June	52	High PM ₁₀ from 11am until midnight; start of 3-day period of high daytime PM ₁₀
19 June	62	Part of a 3-day series of high daytime PM ₁₀ .
20 June	70	Highest PM ₁₀ during day; highest 1-hour value of 185µg/m ³ at 3pm; unknown origin
2 July	54	High PM ₁₀ from 11am-6pm; calm conditions.
14 July	57	High PM ₁₀ from 8am-8pm; calm conditions.
8 Sept	52	High PM ₁₀ from 9am-7pm; calm conditions.
15 Sept	67	High PM ₁₀ from 7am-8pm; calm conditions.
17 Sept	56	High PM ₁₀ from 7am-5pm; calm conditions.

A pollution rose of the 3-day September event indicates that the highest PM₁₀ hours took place when winds were from the northern to eastern sector; there are numerous industries as well as a quarry in that commonly upwind direction.

Almost all of the high PM₁₀ values occurred during daytime hours, beginning at the start of the workday; it is assumed that these are mostly influenced by industrial emissions. Wintertime inversion characteristics were most likely present at the time, thereby encouraging the stagnation of pollutants.

Wind Direction at Dunedin Air Quality
 PM 10 Hourly at Dunedin Air Quality
 From 15-Sep-2008 00:00:00 to 18-Sep-2008 00:00:00



Exceedances in 2009 were of similar origins and occurred during calm weather conditions, except for the one on 14 September which occurred during a strong northwest wind. An Australian dust storm was suspected, but this was never verified.

Date in 2009	Daily PM ₁₀ (µg/m ³)	Comment
27 May	52	2 nd of 3 day period with high PM ₁₀ ; high values lasted from 9am-midnight; calm conditions; unknown origin, general industry emissions mixed with domestic suspected.
17 July	58	High PM ₁₀ from 10am-midnight; calm conditions, sub-zero temps at night; suspect industry and domestic.
10 August	70	Very calm conditions; high PM ₁₀ from 9-5pm. Industrial emissions suspected.
11 August	68	High PM ₁₀ from 5am-5pm; very calm conditions, industry suspect.
8 Sept	52	High PM ₁₀ from 4am-10am; industrial emissions suspected.
14 Sept	77	High PM ₁₀ all day; strong northwest winds; suspect dust from Australian dust storm.

2010 was an unusual year for air quality in Central Dunedin; 12 exceedances were reported – twice the normal number - and they occurred from February through December, well outside the typical exceedance timeframe.

The 24 February exceedance was a direct result of a large forest fire to the northwest of the city on Mount Allan. Light northwest winds brought smoke across the city for several hours in the morning.

A major factor in the number and timing of exceedances in the city was the construction of the Forsyth Barr stadium which began early during the year. Initial activities included demolition and clearing of existing buildings near the monitoring site coupled with significantly increased truck traffic on the road adjacent to the monitor.

Further activity through the year included transporting construction materials nearby and stockpiling fill and related materials on-site. On various days, all of these emissions combined with other usual sources to push daily PM₁₀ over the NESAQ.

A GNS source apportionment study performed during 2010 confirmed that PM₁₀ at the Albany Street site was “dominated by crustal matter, construction/fertiliser and marine aerosol sources which are primarily coarse particle sources.”¹

Date in 2010	Daily PM ₁₀ (µg/m ³)	Comment
24 Feb	55	Mount Allan forest fire
31 Mar	51	High PM ₁₀ from 7am-7pm
22 Apr	54	High PM ₁₀ from 7am-3pm
5 May	54	High daytime PM ₁₀
10 May	56	High daytime PM ₁₀
18 June	52	High daytime PM ₁₀
7 July	51	High PM ₁₀ from am until midnight
13 July	62	High evening PM ₁₀
30 July	58	High PM ₁₀ from 4am-midnight
12 Aug	56	High daytime PM ₁₀
28 Sept	51	High morning PM ₁₀
8 Dec	51	High daytime PM ₁₀

¹ Perry Davy, Bill Trompetter, Andreas Markwitz, Source apportionment of airborne particles at Dunedin, GNS Science Consultancy Report 2011/131, July 2011

Smoke from the Mount Allan forest fire fills the city as shown in a photo taken from Unity Park, looking down to the city centre.



In **2011**, continuing work on the Forsyth Barr stadium and related SH88 road realignment took place throughout the first half of the year. Entrained road dust and construction soil residues were assumed to have added to the normal PM₁₀ load, pushing many days over the NES standard, similar to the previous year.

Date in 2011	Daily PM₁₀ (µg/m³)	Comment
11 April	70	Extremely calm, settled weather
12 April	60	Extremely calm, settled weather
13 April	61	Extremely calm, settled weather
19 April	51	High PM ₁₀ afternoon and evening
29 April	63	High daytime PM ₁₀
20 May	57	High daytime PM ₁₀
23 May	55	High daytime PM ₁₀
24 May	53	High daytime PM ₁₀
30 May	60	High daytime PM ₁₀
4 July	53	High PM ₁₀ from 10am-midnight
6 July	66	High PM ₁₀ from 10am-midnight
19 July	54	High evening PM ₁₀
1 August	66	High daytime PM ₁₀
10 August	52	High PM ₁₀ from 10am-midnight

By 2012, all construction activity had ceased, SH88 had been re-aligned and several consented industries in the Central Dunedin had upgraded their boilers to lower their emissions. Dramatic results were seen in the PM₁₀ levels for the year, as shown below.

Date in 2012	Daily PM ₁₀ (µg/m ³)	Comment
10 July	71	4am PM ₁₀ was 337µg/m ³ ; suspect a localised effect, but unconfirmed.

And, of course, in 2013, just this one exceedance of the NESAQ has been reported (as of 17 September) for which this application is being prepared.

Date in 2013	Daily PM ₁₀ (µg/m ³)	Comment
27 July	56	High PM ₁₀ from morning through 7pm; extremely calm conditions; suspect Gregg's Coffee Ltd.

Appendix 4: Explanation of circumstances leading to exceedance event

On the morning of Monday, 29 July 2013 the exceedance from previous Saturday was noted in the office. Because of the hourly values' unusual pattern, Deborah Mills (air quality scientist) asked Matt Cunningham (ORC compliance officer) to make some phone calls to nearby industries to see if there had been any incidents at their sites over the weekend. Cerebos Gregg's Ltd. was the first to be called as it is the closest to the monitor (see map).

Once Mr. Cunningham called Ms. Glenys Fraser (Production Manager at Gregg's), she conducted an investigation and found they 'had [an] increased level of coffee dust on the roof', more than they would normally expect. Because their sensors were not alerting them to any pressure failures in the plant they decided to clean the dust and conduct half-hourly observations throughout the day to see if there was indeed a problem. Dust continued to accumulate and they realised that the bypass valve in the baghouse collection system on the coffee dryer was faulty. The plant was shut down on Monday.

Also on 29 July 2013, ORC received the site audit report from the technician who serviced the monitor on Monday. He noted coffee deposits on the monitor and sensors as well as a strong coffee odour. The technician had been there two weeks earlier and not noted any such deposits on the monitor. Ms. Mills went to the monitoring site on Monday afternoon and took photos of the deposits (see below).

On Wednesday, Ms. Mills met with Ms. Fraser to discuss the incident. When Gregg's had shut down on Monday they investigated further and found that a seal to a bypass valve had failed. This meant that some of the coffee dust fines were going out through the stack without going through the baghouse system. They were going to keep the plant shut until new parts were received and installed.

The photographs of the monitor were shown to Ms. Fraser and she noted that the coffee dust on their roof looked exactly the same. As the monitor is not usually coated in coffee dust, we concluded that it had occurred on the Saturday when the valve had failed.

The photographs below show the coffee deposits on the monitor, the proximity of the monitor to the Gregg stacks, and the technician's site audit report is also included.

Ms. Fraser has provided a statement regarding the incident which is attached. It demonstrates that this was uncontrollable event which is not expected to recur. Gregg's is two years into a significant five-year plant upgrade programme; unfortunately, they have had 3 different malfunctions with new equipment. But they are committed to the upgrade. The plant was down for approximately 7 days during which time all systems were checked for any further complications, and the valve seal replaced.

Once they were back online, no spiking of PM₁₀ values was noted.



Top of the air quality monitor cabinet, taken on Monday 29 July 2013. Distinct brown deposits are shown. They have been affected by 2 mornings of dew and are therefore somewhat dilute and run together.



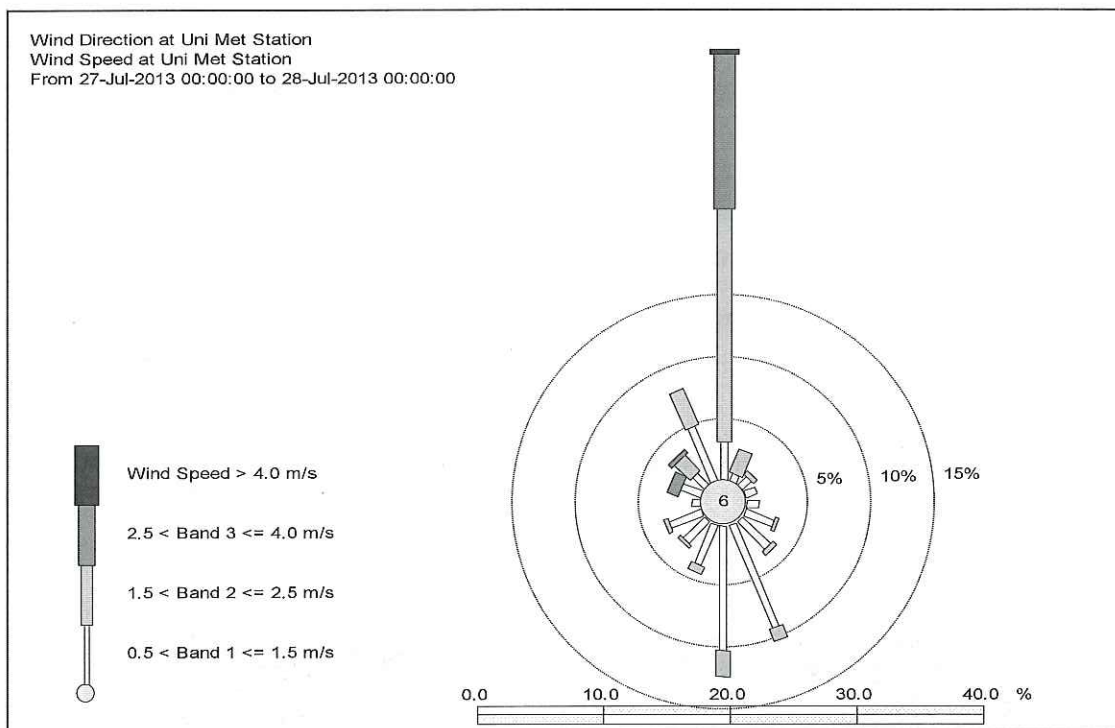
Proximity of Albany St. air quality monitor to Gregg's Coffee (multi-story building in the background with the two stacks). The distance is approximately 120 metres.

ORC contractor Kevin Edwards supplied the following site audit report for the morning of Monday, 29 July 2013. This was a scheduled maintenance visit which, fortunately, fell on that date. This provided immediate feedback regarding the coffee deposits. See the circled comment at the bottom.

BAM1020 Audit Sheet									
Model:	BAM1020	S/N:	D3918	Location:	Dunedin @ Albany				
Date:	29-Jul-13	Time In (STD):	830	Time Out (STD):	930	Audited By:			
						EDWARDS			
Current Operation Checks (Key OPERATE/NORMAL) EVERY VISIT									
Last C:	23	ug	(0-800)	(500-600)	Pressure:	383	mm		
Last m:	823	ug	(772-854)	(20-30)	RH:	38	%		
Q STD:	17.8	lpm	(14-15)	(off or on)	Heater:	OFF			
Q ACT:	16.7	lpm	(15-18)	(0-10)	Delta T:	10.4	deg C		
BAM time:	831	Sys time:	831	Change?	NO	AT:	B.1	dec C	(Key OPERATE/INSTANT) for AT
Visual Checks									
	found	left		found	left				
Nozzle Moves Freely:	Y	Y		Inlet watertight:	Y	Y			
Nozzle Area Clean:	N	Y		Sensors Clean:	N	Y			
Rollers Clean:	Y	Y		PM10 Head Clean:	N	Y			
Adequate Tape Remaining:	N	Y		Netting on Head:	N	N			
Unit Free of Debris (Bugs, etc.):	Y	Y		Site Clean:	Y	Y			
Drip Jar Empty:	Y	Y		Site Secure:	Y	Y			
Pump Tubing OK:	Y	Y		Unit Home:	Y	Y			
Setup and Calibration Values Audit NA									
Key SETUP - will stop unit									
	expected	found		expected	found				
S/C - Heater Control	auto	Y		S/H - Delta T Control	yes	Y			
S/C - Flow Type	STD	Y		S/H - Delta T setpt	10	Y			
S/C - Flow Rate	18.7	Y		S/H - Log delta T	yes	Y			
S/I - Cycle Mode	early	Y		S/S - BAM	60 mins	Y			
S/H - RH Control	Y	Y		S/S - Met	80 mins	Y			
S/H - RH setpoint	46%	Y		S/S - offset	-0.006	Y			
S/H - Datalog RH	Y	Y		S/S - Range	1	Y			
				S/S - Station No.	2	Y			
Analog Volt Output Audit									
DAC Screen	BAM Out			Membrane Audit:		Flow Calibrations			
0 mv		Setup/Cal		Cal Mass:		(see BAMCAL forms)			
500mv				ABS	81g	Passed:	PASS		
1000mv				Difference:		Failed:			
NA	NA			% Diff		Did Not Do:			
				NA	NA				
						1st Leak Test:	0.3	PASS	PASS
						2nd Leak Test:	0.5	PASS	PASS
Other Functions									
Data Offloaded:	Yes	No		Follow-up Action Required:	Yes	No			
Error Log Offloaded:	Yes				(see notes)				
Change Tape:	Yes			Hobo Download	YES				
Self Test Passed:	Yes			Hobo Battery	GOOD				
Notes: 2 Monthly Audit and Clean.									
Datalogger	Mod: CR110	S No. 12695							
All outside sensors and the top of the cabinet were covered in brown spots varying in size up to approximately 10mm. When I removed the PM10 head for cleaning I noticed the spots had a strong smell of coffee. I cleaned all the sensors with multi purpose cleaner, but not the top of the cabinet.									
Door Locked	Y	Airson On:	Y	Unit ON:	Y	Site Clear?	Y	CSI Plug In	Y
Q-STD:	Y	Clean		Monthly	Y	Call-out			
Office use only									
Checked	Tracey F	Completed			Completed	14/08/2013			

Further investigation involved examining the weather conditions for Saturday, 27 July.

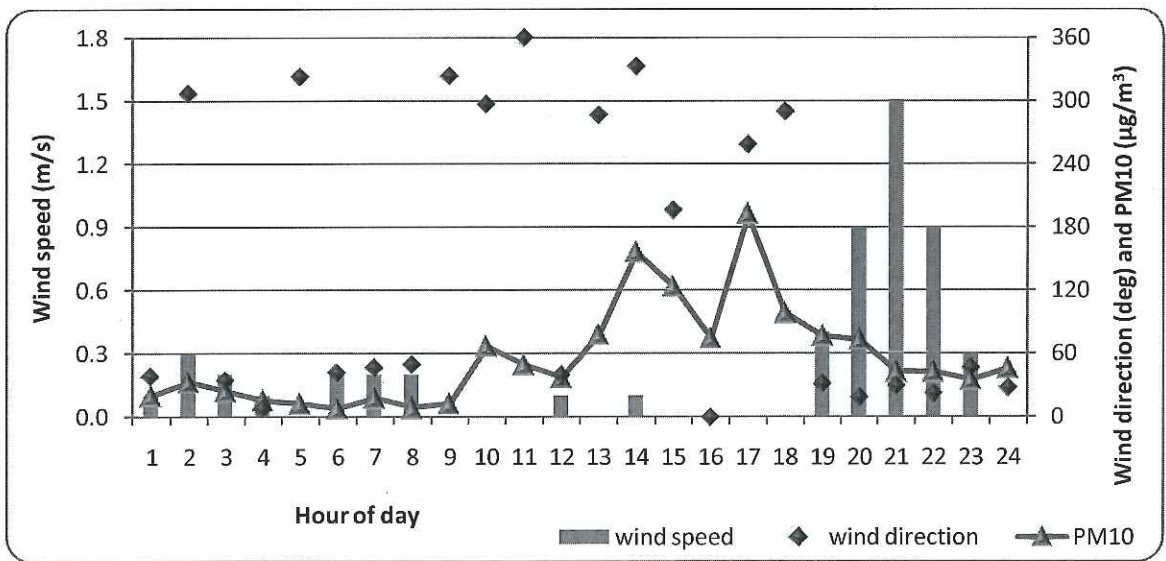
Saturday was extremely calm and morning temperatures were around 5 degrees, with no evidence of frost. The wind rose below is taken from data atop the University of Otago's physics department and gives an indication of higher elevation winds; the dominant northerly is evident.



Using wind speed and direction sampled at the monitor itself, the next graph shows wind data and hourly PM₁₀ data through the day. As stated earlier, it was extremely calm through the day with a slight breeze picking up in the evening hours. PM₁₀ was high from about 9am – 5pm when winds were predominantly from the north and speeds almost nil.

Any fine particulate emitted could have remained suspended in the surrounding area during the day.

While it's impossible to know how much of a contribution Cerebos Gregg's stray emission made to hourly PM₁₀, just a 20% reduction in hourly PM₁₀ over the hours of 9am-5pm would have yielded a daily value of 49µg/m³. PM₁₀ may very well have been elevated to the high 40s that day due to very calm conditions in town, but other days with similar meteorological conditions have not failed the NESAQ. Given the high values of 2-3pm and 4-5pm, it is apparent to ORC that an 'event' took place that day.



The map below depicts the relative locations of the monitor and industry stack. The monitor's location is shown as a green star and the factory stack locations are circled in red. They are approximately 120 metres to the north/northwest of the monitor.



Appendix 5. Reasons why these circumstances were beyond the reasonable control of the regional council

Cerebos Gregg's Limited is currently in the second year of a 5-year facility upgrade programme. Two baghouses were installed earlier this year, along with several other boiler upgrades. Several valves have been replaced with new parts.

Unfortunately, as they have worked through the upgrade, certain parts have failed. With this last valve seal malfunction, Gregg's immediately shut down the plant to investigate all of their systems, and replace the malfunctioning valve.

The attached document from Glenys Fraser, the Production Manager at Gregg's coffee, explains what happened at the plant and why.

There is no reason to believe that could have been foreseen or prevented. As it was, the ORC initiated the phone call to Gregg's to inquire about their operation on the Monday following the exceedance on Saturday. They immediately investigated and shutdown, thereby reducing the chance that PM₁₀ levels would remain elevated.

Since then, they have made the necessary repairs and initiated additional checks on their systems and there is no reason to believe that this situation will recur.

Even though this is the only exceedance of the year to date with no others anticipated, having zero "official" exceedances would reflect the hard work that's been done and good results achieved through industrial emission reductions.

BAM1020 Audit Sheet

Model: **BAM1020** S/N: **D3918** Location: **Dunedin @ Albany**

Date	Time In (STD)	Time Out (STD)	Audited By
29-Jul-13	830	950	EDWARDS

Current Operation Checks (Key OPERATE/NORMAL)				EVERY VISIT			
Last C:	23	ug	(0-800)	(500-600)	Pressure:	583	mm
Last m:	823	ug	(772-854) ± 5% ABS	(20-50)	RH:	38	%
Q STD:	17.8	lpm	(14-19)	(off or on)	Heater:	OFF	
Q ACT:	16.7	lpm	(15-18)	(0-10)	Delta T:	10.4	deg C
					AT:	8.1	dec C

BAM time: 851 Sys time: 851 Change? **NO** (Key OPERATE/INSTANT) for AT

Visual Checks					
	found	left		found	left
Nozzle Moves Freely:	Y	Y	Inlet watertight:	Y	Y
Nozzle Area Clean:	N	Y	Sensors Clean:	N	Y
Rollers Clean:	Y	Y	PM10 Head Clean:	N	Y
Adequate Tape Remaining:	N	Y	Netting on Head:	N	N
Unit Free of Debris (Bugs, etc.):	Y	Y	Site Clean:	Y	Y
Drip Jar Empty:	Y	Y	Site Secure:	Y	Y
Pump Tubing OK:	Y	Y	Unit Home:	Y	Y

Setup and Calibration Values Audit NA

Key SETUP - will stop unit					
	expected	found		expected	found
S/C - Heater Control	auto	Y	S/H - Delta T Control	yes	Y
S/C - Flow Type	STD	Y	S/H - Delta T setpt	10	Y
S/C - Flow Rate	16.7	Y	S/H - Log delta T	yes	Y
S/I - Cycle Mode	early	Y	S/S - BAM	50 mins	Y
S/H - RH Control	y	Y	S/S - Met	60 mins.	Y
S/H - RH setpoint	45%	Y	S/S - offset	-0.005	Y
S/H - Datalog RH	y	Y	S/S - Range	1	Y
			S/S - Station No.	2	Y

Analog Volt Output Audit

DAC Screen	BAM Out
0 mv	
500mv	
1000mv	
NA	NA

Membrane Audit

Cal Mass:	
ABS	813
Difference	
% Diff	
NA	NA

Flow Calibrations

(see BAMCAL forms)

Passed:	PASS
Failed:	
Did Not Do:	
	litres/min
1st Leak Test:	0.3
2nd Leak Test:	0.5
	Pass / Fail
	PASS

Other Functions

	Yes	No		Yes	No
Data Offloaded:	Yes		Follow-up Action Required:		No
Error Log Offloaded:	Yes			(see notes)	
Change Tape:	Yes				
Self Test Passed:	Yes		Hobo Download	YES	
			Hobo Battery	GOOD	

Notes: 2 Monthly Audit and Clean.
 Datalogger Mod: CR510 S No. 12695
 All outside sensors and the top of the cabinet were covered in brown spots varying in size up to approximately 10mm. When I removed the PM10 head for cleaning I noticed the spots had a strong smell of coffee. I cleaned all the sensors with multi purpose cleaner, but not the top of the cabinet.

Door Locked?	Y	Aircon On?	Y	Unit ON?	Y	Site Clear?	Y	CSI Plug In?	Y
								Q STD?	Y

Clean Monthly Call-out

Office use only
 Checked Tracey F Actions Completed 14/08/2013



Head Office: 291 East Tamaki Rd, East Tamaki, Manukau 2013, New Zealand
PO Box 58095, Botany, Manukau 2163 Ph +64 9 274 2777 Fax +64 9 274 2775

2 September 2013

TO WHOM IT MAY CONCERN

This is to confirm that the Cerebos Greggs Dunedin Instant Coffee plant recently suffered an incident where a valve on the drier baghouse failed, allowing instant coffee powder to escape to atmosphere. This event occurred on 27 July 2013.

We have recently installed 2 baghouses to capture instant coffee powder from the agglomeration and drying operations. They are designed to reduce the particulate output to levels that will allow a new Air Discharge consent to be issued.

The baghouses have valves that are normally closed during processing. They can be opened to enable cleaning to occur once processing is completed. Theoretically, when the valves are closed, no powder can escape. In this particular incident, a seal in one of the valves failed and because of this seal failure powder escaped while processing was underway.

Upon finding the issue, the plant was immediately shutdown and not restarted until new upgraded valves had been fitted. The replacement valves are larger and more robust than the previous model and are expected to function more reliably.

Whilst commissioning of this project has been time consuming and capital intensive, Cerebos Greggs remains committed to ensuring the equipment reaches expected standards of reliability and performance. This installation forms a part of the company's continued investment in environmental improvements at the Dunedin plant.

We are confident this is a "one off" event of special circumstances that has occurred due to faulty equipment supplied to us. Please do not hesitate to contact us any you required any further information.

Yours faithfully
CEREBOS GREGGS LIMITED

A handwritten signature in black ink, appearing to read 'Glenys Fraser', is written over the typed name.

Glenys Fraser
Production Manager

Wellington Branch
29 Jarden Mile, Ngauranga 6035
PO Box 38250, Wellington Mail Centre, LOWER HUTT 5045
Ph +64 4 815 8591 Fax +64 4 472 9870

Christchurch Branch
43a Moorhouse Ave. Addington 8011
PO Box 25314, Victoria Street, CHRISTCHURCH 8144
Ph +64 3 353 4670 Fax +64 3 377 5164

Dunedin Branch
51 Forth Street, Dunedin 9016
PO Box 956, DUNEDIN 9054
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