

Campbelltown Hospital Redevelopment




AIR MONITORING REPORT MARCH & APRIL 2020

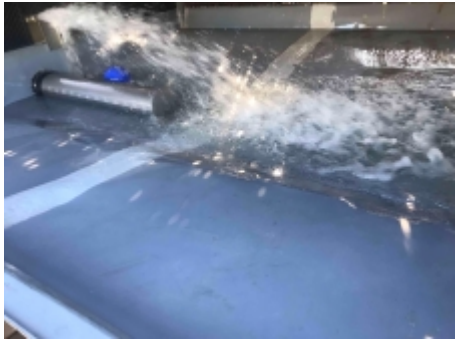
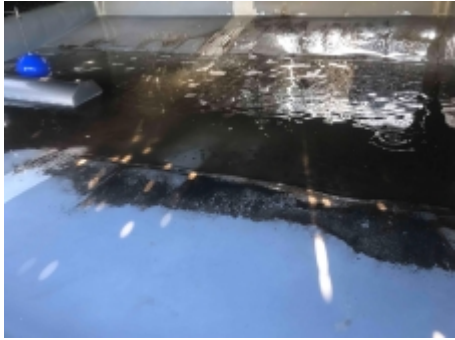
Monday, 4 May 2020

Prepared For CPB

Due to CPB policies regarding Covid -19, we were unable to access Plantroom's through out the LHD campus to record Differential Pressure readings across filter banks. We have provided air monitoring results for Building A and B via our online data loggers, and have provided Cooling Tower cleaning reports and Water Testing results.

We trust that this report demonstrates CPB's commitment to environmental monitoring whilst observing strict safety policies for our people during these unprecedented times.

SAS ASSET CLEANING REPORT									
CLIENT:	SWSLHD					JOB NUMBER:			
SITE NAME LOCATION:	Campbelltown Hospital - Therry Road Campbelltown 2560 New South Wales Australia					FORM I.D.:	00585		
ZONE:	B Block CT, Campbelltown Hospital					SYSTEM UID:	CTC-1042-01		
ATTENTION/CC:						DATE:	01st May, 2020		
KEYBOX/BOOM GATE/ETC:						ASSET TYPE:	Cooling Tower Common System (CTCS)		
SCOPE OF WORKS					COMPLETED	TOWER CLEAN CHECK			COMPLETED
Periodic cleaning as per AS/NZS 3666 Guidelines and updated N.S.W. Health Regulation					✓	Circulation of pre-clean chemicals			✓
						Isolated, Tagged and Drain Cooling Tower			✓
						Tower pressure washed and refilled			✓
						Re-instated water treatment program			✓
						Safety tags removed and system re-commissioned			✓
STOCK SITUATION					GENERAL REMARKS AND RECOMMENDATIONS				
Product	Delivered		Required						
RISK MANAGEMENT								IMMEDIATE ACTION REQUIRED BY CUSTOMER	
ASSET	TAKE 5 COMPLETED	SWMS Completed	RISK ASSESSMENT REVIEWED	NEW HAZARD IDENTIFIED	RISK CONTROL	NEW RISK CONTROL IMPLEMENTED			
4478	✓	✓	✓	X					
ASSET		TOWER CONDITION		ADDITIONAL SERVICES PERFORMED			REMARKS		
CTC-1042-01		Dirty					Flushed balance line pipe and cleaned fan stats.		
Non Conformance	System conforms				BAR Activities Performed				
SAS REPRESENTATIVE					CUSTOMER REPRESENTATIVE				
Signature					Signature				
Name:	Dylan Manley				Name:				



Before and after basins

Approved Form 3: Monthly report

Purpose of the approved form

The *Public Health Regulation 2012* (the Regulation) requires a monthly report to be prepared in accordance with Australian Standard (AS/NZS) 3666 Part 3, and the Risk Management Plan (RMP) in relation to inspection, maintenance (including servicing), chemical analysis, and microbial testing. This monthly report document is provided to assist the person preparing a monthly report. Additional monthly information generated by the occupier or duly qualified person can be attached to this form

The monthly report is an approved form under clause 13Q of the Regulation, and is used to demonstrate compliance to the independent auditor. The different sections of this form may need to be completed by different persons or organisations; however, the occupier is ultimately responsible for ensuring this form is completed every month, and provided to the auditor at the end of the 12 month audit period. Further information is provided in the NSW Guidelines for Legionella Control in Cooling Water Systems, available at www.health.nsw.gov.au/environment/legionellacontrol

Site and contact details

Provide the name, phone numbers (business hours, after hours and mobile numbers), email address, and postal address for each of the contact persons listed below.

Record	Details	
Site address	Therry Road Campbelltown 2560 New South Wales Australia - B Block CT, Campbelltown Hospital	
Cooling water system details (number of cooling towers, and unique identification number for each cooling tower)	System UID CTC-1042-01	Assett UID's CTC-1042-01CTC-1042-02CTC-1042-03
Local government authority (where this system is located)	Campbelltown City Council 91 Queen St, Campbelltown NSW 2560	
Occupier name and contact details (the person or entity who owns the system)	SWSLHD 2 Therry Rd, Campbelltown NSW 2560	
Duly qualified person		
Duly qualified person name (the person who attended the site during this month)	Matt Pitman	
Employer and contact details (the person or entity who operates or maintains the system)	SAS Water Solutions. Unit 30/9 Salisbury Road, Castle Hill NSW 2154 t: +61 2 9620 4900 e: servicesyd@saswater.com.au	

Period covered by this monthly report

Record	Dates
Period being reported (calendar month)	April
Period covered by current RMP (up to 5 year period)	17/01/2020 to 17/01/2021

Date(s) of inspection(s) carried out this month	07th Apr, 2020
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Microbial testing – in accordance with section 3.2 and 3.3 of AS/NZS 3666.3:2011

Record	Results (in cfu/mL)			Date(s) sampled
Legionella count	Sonic Testing:			07th Apr, 2020
	LP1/LP2-14	LSU	Total Legionella	
	<10	<10	<10	
	Occupier to insert other, ie. In case of independent sampling			
Heterotrophic colony count	Sonic Testing:			07th Apr, 2020
	<1000			
	Occupier to insert other, ie. In case of independent sampling			

Chemical analysis – in accordance with section 3.4 and 3.5 of AS/NZS 3666.3:2011

Record	Results		Date(s) tested
Conductivity/TDS	750		07th Apr, 2020
pH	8.7		07th Apr, 2020
Other criteria necessary for effective management of corrosion, scaling, fouling and microbial growth	Alkalinity (mg/L)	120	07th Apr, 2020
	Chlorides (mg/L)	200	
	Free Halogen residual (mg/L)	1	
	ORP (mV)	370	
	Copper (mg/L)	0.2	
	Iron (mg/L)	0.1	
Temperature (measured at the return line)	23.2		07th Apr, 2020

Inspection and other checks – in accordance with section 3.4 of AS/NZS 3666.3:2011

Record	Results	Date(s) reviewed
Physical condition of the system	System is in satisfactory physical condition	07th Apr, 2020

Operation of the bleed control system	• Automated Conductivity Control Bleed in place as part of controller. Tested operation of bleed control system and found to be satisfactory		07th Apr, 2020
Operation of the make-up water system (including chemical dosing and control system)	Mains Water Supply		07th Apr, 2020
	Chloride (mg/L)	35	
	TDS (mg/L)	110	
Cycles of concentration	5.17		07th Apr, 2020
Corrosion rate (involving monthly visual assessment and/or quarterly laboratory testing, as required by the RMP)	Corrosion monitoring results if applicable:		07th Apr, 2020
	Mild Steel		
	Copper		
	Stainless Steel		
	Galvanised Steel		
	No corrosion coupons in place. Visual assessment conducted and no corrosion evident		
Adequacy of scale and corrosion inhibition	Corrosion inhibitor result (ppm)	7	07th Apr, 2020
	-		
Cleanliness of wet surfaces (visibly free from accumulations of sludge, foam, slime, rust, scale, dirt and larger mineral or organic deposits)	Wet surfaces appear clean		07th Apr, 2020
Date of most recent cleaning (in accordance with the RMP)	17th Mar, 2020		07th Apr, 2020
Changes in the local environment (for example, local building demolition or construction, which should be recorded if noted during inspection)	Local construction nearby		07th Apr, 2020

Remedial actions taken or recommended – in accordance with section 3.7 of AS/NZS 3666.3:2011


Note any remedial actions taken or recommended by the duly qualified person during this month. Actions may be taken in response to a significant change in the local environment, work practices or equipment. The duly qualified person can use this step to prompt the occupier to engage a competent person to take preventative or corrective actions, and potentially undertake a new risk assessment and RMP.

List of remedial actions taken or recommended this month		Action Taken
Install a compliant corrosion coupon rack for corrosion measurement & monitoring		
Remedial Actions taken (if applicable)		
Equipment supplied/installed (if applicable)		
Stock delivered/required (if applicable)		
Delivered		
Required	SAS 203 SAS 206 SAS 118	
RMP Action Plan items (if applicable)		
System Conformance / Non-Conformance		
System Conformance		

Attach documents and photographs to support the monthly report after this page.

The Regulation requires certain results and records to be kept on the premises and made available immediately, or kept electronically and made available within 4 hours of request. These include: operating and maintenance manuals; RMPs; results of microbial testing and chemical analysis; and maintenance records (in accordance with section 3.7 of AS/NZS 3666.3:2011).

Details of person completing the form

Name of person completing the form	Contact details (phone number, email, postal address)
Matt Pitman	SAS Water Solutions. Unit 30/9 Salisbury Road, Castle Hill NSW 2154 t: +61 2 9620 4900 e: servicesyd@saswater.com.au
Signature of person completing the form	Date
	07th Apr, 2020
Role of person completing the form	Employer (name of company or organisation)
Service Technician	SAS Water Solutions. Unit 30/9 Salisbury Road, Castle Hill NSW 2154 t: +61 2 9620 4900 e: servicesyd@saswater.com.au

MICROBIOLOGY FINAL REPORT



SONIC
FOOD & WATER TESTING

CERTIFICATE OF ANALYSIS

X2004840

[]

. SAS WATER SOLUTIONS SYDNEY

UNIT 3D, 9 SALISBURY ROAD
CASTLE HILL NSW 2154

Lab Number:

844055435

Customer Reference Number:

Site:

CAMPBELLTOWN HOSPITAL, THERRY RD, B BLOCK
CTC-1042-01

Sample Type:

COOLING TOWER WATER

Sample Notes:

Date and Time of Collection:

07/04/20, 0900

Date and Time of Testing:

08/04/20, 0900

Collected By:

SAS

Tested:

As Received

SITE

HPC

CFU/mL

Legionella species: CFU/mL

LP1/LP2-14

LSU

Total Legionella

CTC-1042-01

< 1000

< 10

< 10

< 10

METHODS

* Legionella Count - Australian Standard 3896.

* Heterotrophic Plate Count - Spiral Spread Plate.

R2A agar 36C/48 hrs. AS/NZS 4276.3.2.

Legend:

HPC: Heterotrophic Plate Count

LP1/LP2-14: Legionella pneumophila serogroup 1 and 2-14

Total Legionella: Sum of LP1, LP2-14, LSU

LSU: Legionella species unidentified

< 10: Limit of Detection

CFU: Colony Forming Units

END OF REPORT

Signed:

bm

Date: 15/04/20

T. Morgan
Laboratory
Manager

K. McClenahan
Quality
Manager

H. Salepic
Technical
Officer

L. Vanhoff
Technical
Officer

P. Campora
Scientific
Officer

R. Bhatt
Scientific
Officer

N. Sazla
Scientific
Officer

N. Mccrory
Technical
Officer

Suguna L
Scientific
Officer

Sampling was conducted by the customer and results reported pertain only to the samples submitted. Sample identification obtained from container/COC as received at the laboratory.

This report cannot be reproduced except in full, without written approval from the laboratory.



Accreditation No.
4034


Accredited for compliance
with ISO/IEC 17025 - Testing

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A subsidiary of SONIC HEALTHCARE LIMITED • ACN 004 196 909 • 31 LAWSON STREET • PENRITH • NSW 2750 • AUSTRALIA
TEL (02) 4734 6580 • FAX (02) 4732 3306 • WEB www.sonicfoodandwatertesting.com.au • MAIL ADDRESS: PO BOX 443 • PENRITH • NSW 2751 • AUSTRALIA

24330 01/20

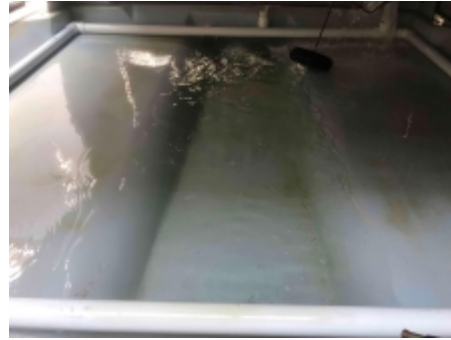
SAS ASSET CLEANING REPORT

CLIENT:	SWSLHD			JOB NUMBER:			
SITE NAME LOCATION:	Campbelltown Hospital - Therry Road Campbelltown 2560 New South Wales Australia			FORM I.D.:	00586		
ZONE:	D Block CT, Campbelltown Hospital			SYSTEM UID:	CTC-1041-01		
ATTENTION/CC:				DATE:	01st May, 2020		
KEYBOX/BOOM GATE/ETC:				ASSET TYPE:	Cooling Tower Common System (CTCS)		
SCOPE OF WORKS				COMPLETED	TOWER CLEAN CHECK		COMPLETED
Periodic cleaning as per AS/NZS 3666 Guidelines and updated N.S.W. Health Regulation				✓	Circulation of pre-clean chemicals		✓
					Isolated, Tagged and Drain Cooling Tower		✓
					Tower pressure washed and refilled		✓
					Re-instated water treatment program		✓
					Safety tags removed and system re-commissioned		✓
STOCK SITUATION					GENERAL REMARKS AND RECOMMENDATIONS		
Product	Delivered	Required					
Sas207	1		15 litre drum				
RISK MANAGEMENT							
ASSET	TAKE 5 COMPLETED	SWMS Completed	RISK ASSESSMENT REVIEWED	NEW HAZARD IDENTIFIED	RISK CONTROL	NEW RISK CONTROL IMPLEMENTED	IMMEDIATE ACTION REQUIRED BY CUSTOMER
4476	✓	✓	✓	✓		Ball float on tower two still isolated due to not working and cause towers to over fill. Requires repairing, also tower one has not overflow cap , which causes tower to have water loss through overflow.	
ASSET		TOWER CONDITION	ADDITIONAL SERVICES PERFORMED			REMARKS	
CTC-1041-01		Clean				Flushed balance line pipe and cleaned fans	

Non Conformance	1st non-conformance	BAR Activities Performed	
SAS REPRESENTATIVE		CUSTOMER REPRESENTATIVE	
Signature		Signature	
Name:	Dylan Manley	Name:	



Basin cleaned and over flow cap missing, you can see in picture



Approved Form 3: Monthly report

Purpose of the approved form

The *Public Health Regulation 2012* (the Regulation) requires a monthly report to be prepared in accordance with Australian Standard (AS/NZS) 3666 Part 3, and the Risk Management Plan (RMP) in relation to inspection, maintenance (including servicing), chemical analysis, and microbial testing. This monthly report document is provided to assist the person preparing a monthly report. Additional monthly information generated by the occupier or duly qualified person can be attached to this form

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Site and contact details

Provide the name, phone numbers (business hours, after hours and mobile numbers), email address, and postal address for each of the contact persons listed below.

Record	Details	
Site address	Therry Road Campbelltown 2560 New South Wales Australia - D Block CT, Campbelltown Hospital	
Cooling water system details (number of cooling towers, and unique identification number for each cooling tower)	System UID CTC-1041-01	Assett UID's CTC-1041-01CTC-1041-02
Local government authority (where this system is located)	Campbelltown City Council 91 Queen St, Campbelltown NSW 2560	
Occupier name and contact details (the person or entity who owns the system)	SWSLHD 2 Therry Rd, Campbelltown NSW 2560	
Duly qualified person		
Duly qualified person name (the person who attended the site during this month)	Matt Pitman	
Employer and contact details (the person or entity who operates or maintains the system)	SAS Water Solutions. Unit 30/9 Salisbury Road, Castle Hill NSW 2154 t: +61 2 9620 4900 e: servicesyd@saswater.com.au	

Period covered by this monthly report

Record	Dates
Period being reported (calendar month)	April
Period covered by current RMP (up to 5 year period)	17/01/2020 to 17/01/2021

Date(s) of inspection(s) carried out this month	07th Apr, 2020
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Microbial testing – in accordance with section 3.2 and 3.3 of AS/NZS 3666.3:2011

Record	Results (in cfu/mL)			Date(s) sampled
Legionella count	Sonic Testing:			07th Apr, 2020
	LP1/LP2-14	LSU	Total Legionella	
	<10	<10	<10	
	Occupier to insert other, ie. In case of independent sampling			
Heterotrophic colony count	Sonic Testing:			07th Apr, 2020
	<1000			
	Occupier to insert other, ie. In case of independent sampling			

Chemical analysis – in accordance with section 3.4 and 3.5 of AS/NZS 3666.3:2011

Record	Results		Date(s) tested
Conductivity/TDS	808		07th Apr, 2020
pH			07th Apr, 2020
Other criteria necessary for effective management of corrosion, scaling, fouling and microbial growth	Alkalinity (mg/L)	100	07th Apr, 2020
	Chlorides (mg/L)	240	
	Free Halogen residual (mg/L)	1	
	ORP (mV)	384	
	Copper (mg/L)	0.2	
	Iron (mg/L)	0.1	
Temperature (measured at the return line)	22.6		07th Apr, 2020

Inspection and other checks – in accordance with section 3.4 of AS/NZS 3666.3:2011

Record	Results	Date(s) reviewed
Physical condition of the system	System is in satisfactory physical condition	07th Apr, 2020

Operation of the bleed control system	• Automated Conductivity Control Bleed in place as part of controller. Tested operation of bleed control system and found to be satisfactory		07th Apr, 2020
Operation of the make-up water system (including chemical dosing and control system)	Mains Water Supply		07th Apr, 2020
	Chloride (mg/L)	35	
	TDS (mg/L)	122	
Cycles of concentration	6.85		07th Apr, 2020
Corrosion rate (involving monthly visual assessment and/or quarterly laboratory testing, as required by the RMP)	Corrosion monitoring results if applicable:		07th Apr, 2020
	Mild Steel		
	Copper		
	Stainless Steel		
	Galvanised Steel		
	No corrosion coupons in place. Visual assessment conducted and no corrosion evident		
Adequacy of scale and corrosion inhibition	Corrosion inhibitor result (ppm)	8	07th Apr, 2020
	-		
Cleanliness of wet surfaces (visibly free from accumulations of sludge, foam, slime, rust, scale, dirt and larger mineral or organic deposits)	System contains moderate amounts of suspended solids		07th Apr, 2020
Date of most recent cleaning (in accordance with the RMP)	16th Mar, 2020		07th Apr, 2020
Changes in the local environment (for example, local building demolition or construction, which should be recorded if noted during inspection)	Local construction nearby less than 100mtrs		07th Apr, 2020

Remedial actions taken or recommended – in accordance with section 3.7 of AS/NZS 3666.3:2011


Note any remedial actions taken or recommended by the duly qualified person during this month. Actions may be taken in response to a significant change in the local environment, work practices or equipment. The duly qualified person can use this step to prompt the occupier to engage a competent person to take preventative or corrective actions, and potentially undertake a new risk assessment and RMP.

List of remedial actions taken or recommended this month		Action Taken
Install a compliant corrosion coupon rack for corrosion measurement & monitoring		
Remedial Actions taken (if applicable)		
Equipment supplied/installed (if applicable)		
Stock delivered/required (if applicable)		
Delivered	SAS 206x 2 SAS 118 x 2	
Required	SAS 203 x 4	
RMP Action Plan items (if applicable)		
System Conformance / Non-Conformance		
System Conformance		

Attach documents and photographs to support the monthly report after this page.

The Regulation requires certain results and records to be kept on the premises and made available immediately, or kept electronically and made available within 4 hours of request. These include: operating and maintenance manuals; RMPs; results of microbial testing and chemical analysis; and maintenance records (in accordance with section 3.7 of AS/NZS 3666.3:2011).

Details of person completing the form

Name of person completing the form	Contact details (phone number, email, postal address)
Matt Pitman	SAS Water Solutions. Unit 30/9 Salisbury Road, Castle Hill NSW 2154 t: +61 2 9620 4900 e: servicesyd@saswater.com.au
Signature of person completing the form	Date
	07th Apr, 2020
Role of person completing the form	Employer (name of company or organisation)
Service Technician	SAS Water Solutions. Unit 30/9 Salisbury Road, Castle Hill NSW 2154 t: +61 2 9620 4900 e: servicesyd@saswater.com.au

MICROBIOLOGY FINAL REPORT



SONIC
FOOD & WATER TESTING

CERTIFICATE OF ANALYSIS

X2004839

[]

, SAS WATER SOLUTIONS SYDNEY

UNIT 30, 9 SALISBURY ROAD
CASTLE HILL NSW 2154

Lab Number:

844055436

Customer Reference Number:

Site:

CAMPBELLTOWN HOSPITAL, THERRY RD, D BLOCK
CTC-1041-01
COOLING TOWER WATER

Sample Type:

Sample Notes:

Date and Time of Collection:

07/04/20, 1000

Date and Time of Testing:

08/04/20, 1000

Collected By:

SAS

Tested:

As Received

SITE

HPC

CFU/mL

Legionella species: CFU/mL

LP1/LP2-14

LSU

Total Legionella

CTC-1041-01

<1000

<10

<10

<10

METHODS

* Legionella Count - Australian Standard 3896.

* Heterotrophic Plate Count - Spiral Spread Plate.

R2A agar 36C/48 hrs. AS/NZS 4276.3.2.

Legend:

HPC: Heterotrophic Plate Count

LP1/LP2-14: Legionella pneumophila serogroup 1 and 2-14

Total Legionella: Sum of LP1, LP2-14, LSU

LSU: Legionella species unidentified

<10: Limit of Detection

CFU: Colony Forming Units

"END OF REPORT"

Signed:

nm

Date: 15/04/20

T.Morgan
Laboratory
Manager

K.McClenahan
Quality
Manager

H.Sialepis
Technical
Officer

L.Vanhoff
Technical
Officer

P.Campora
Scientific
Officer

R.Bhatt
Scientific
Officer

N.Sarla
Scientific
Officer

N.Mecsey
Technical
Officer

Iuguna L
Scientific
Officer

Sampling was conducted by the customer and results reported pertain only to the samples submitted. Sample identification obtained from container/COC as received at the laboratory.

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Accreditation No.
4034

Accredited for compliance
with ISO/IEC 17025 - Testing

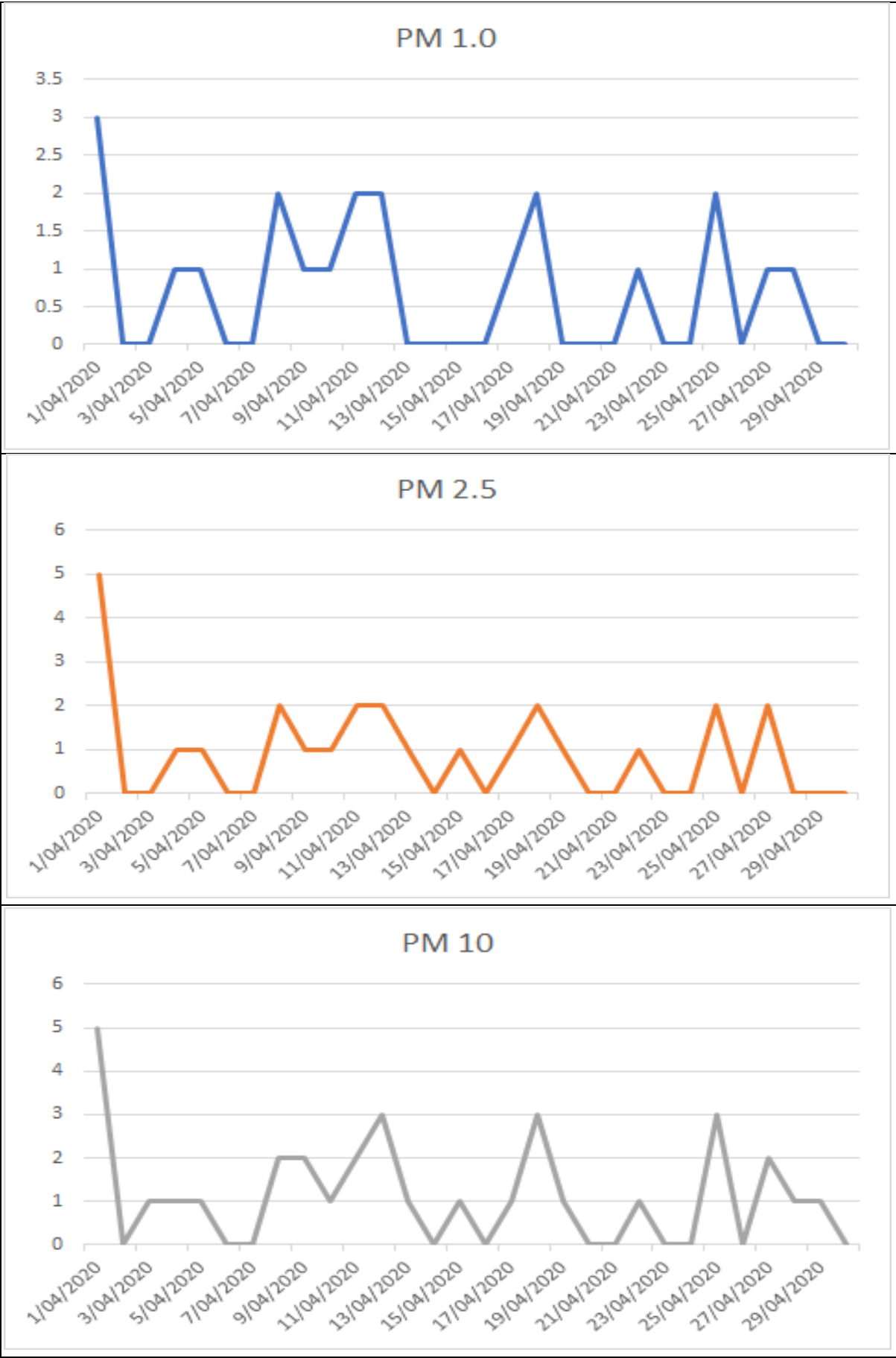
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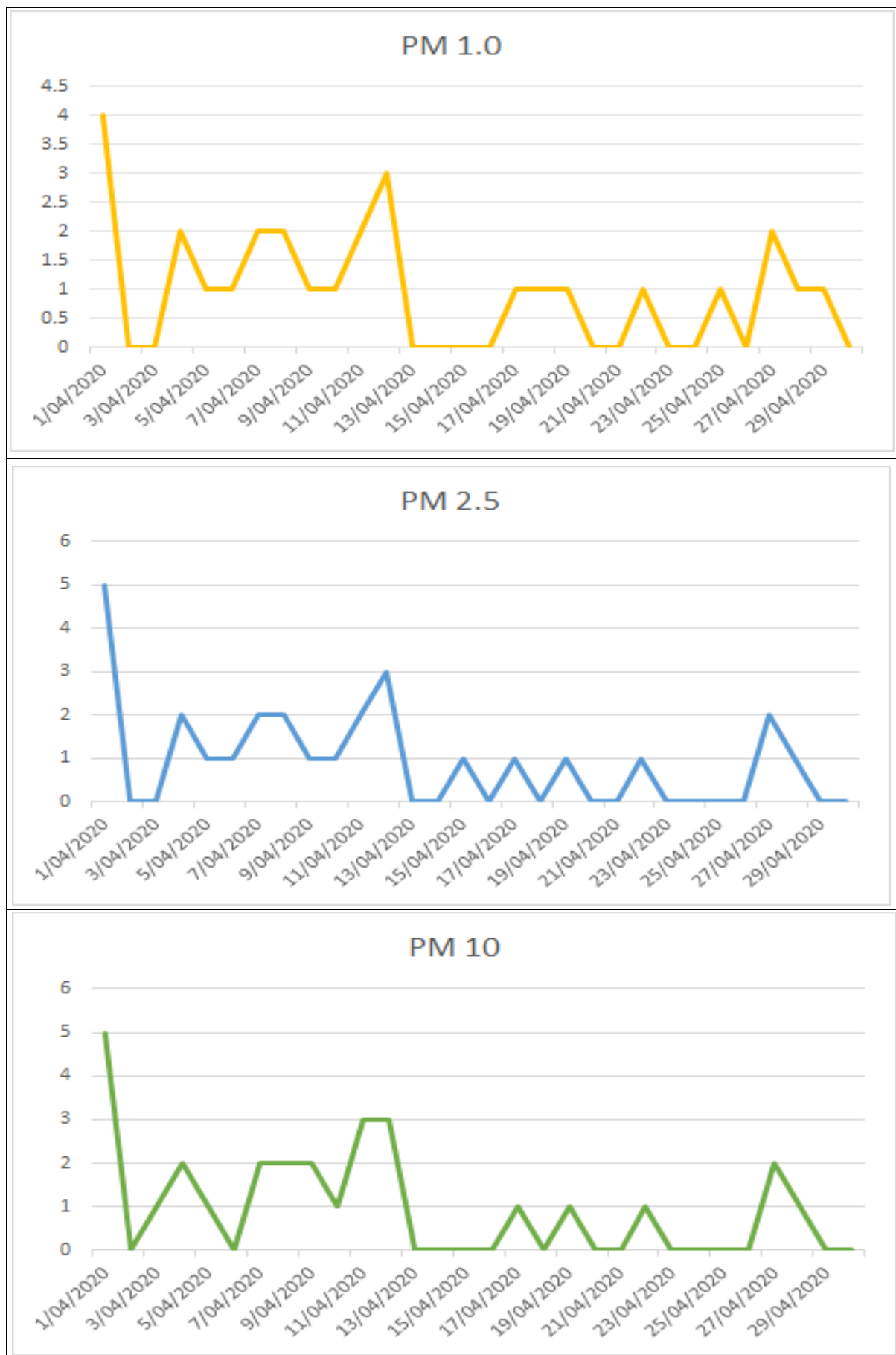
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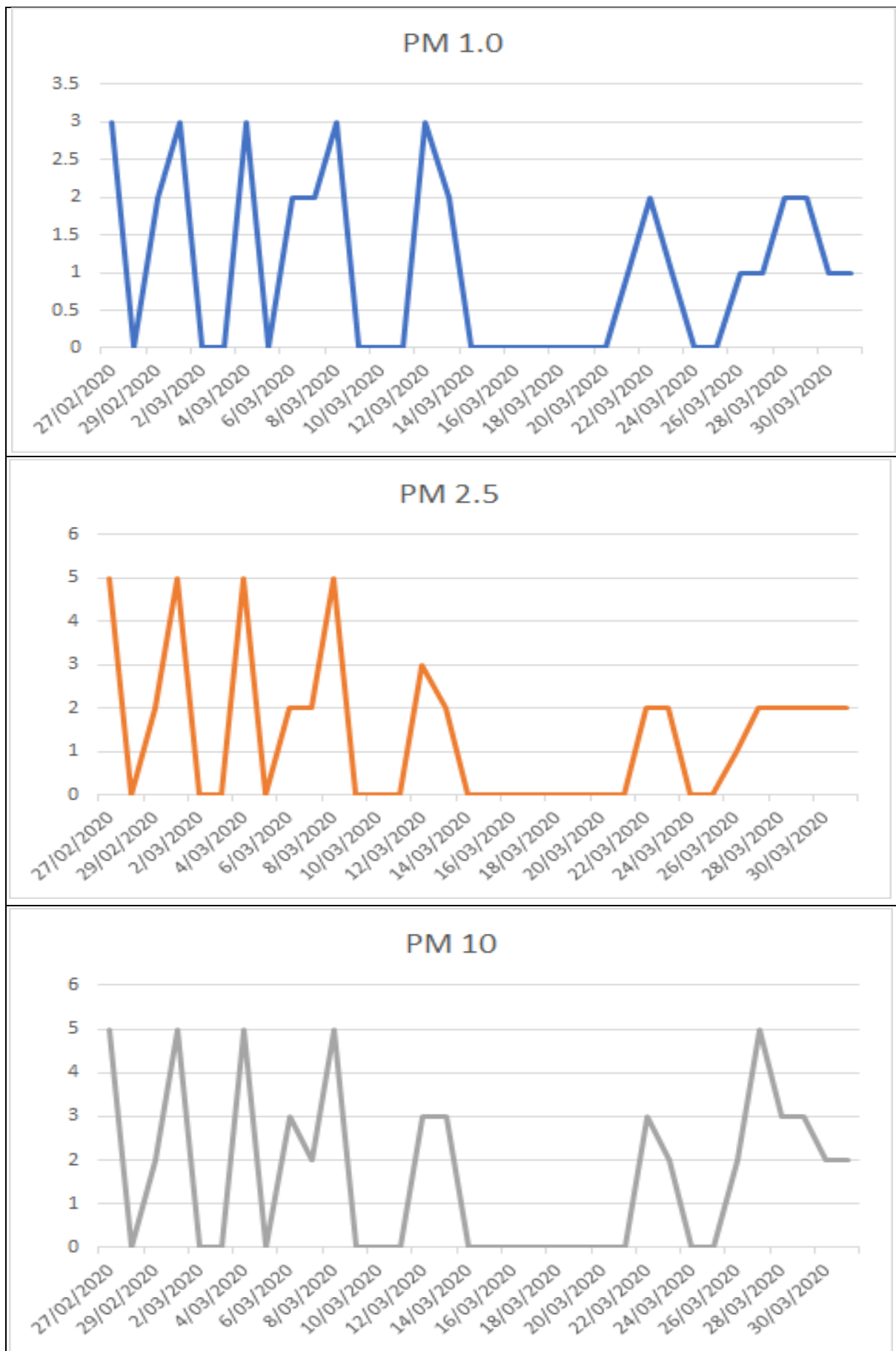
AIR MONITORING DATA - BUILDING A - APRIL



AIR MONITORING DATA - BUILDING B - APRIL



AIR MONITORING DATA - BUILDING A - MARCH



AIR MONITORING DATA - BUILDING B - MARCH

