NSW Health Approved Form 3 Report

Location:	CLINGCAST METALS	**System name:**	BAC
Client:	CLINGCAST METALS PTY LTD		
Client No:	N14779		
Contract:	NC10691	**Month:**	February 2022

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 person listed below.

<table>
<tr><th>Record</th><th colspan="2">Details</th></tr>
<tr><td>Site Address</td><td colspan="2">98 BATH ROAD, KIRRAWEE, NSW, 2322</td></tr>
<tr><td rowspan="2">Cooling water system details (number of cooling towers and unique identification number for each cooling tower)</td><th>Number of cooling towers</th><th>UID</th></tr>
<tr><td>1</td><td>● SSC-HLT832583-0026&#65533;-01</td></tr>
<tr><td>Local government authority (where this system is located)</td><td colspan="2">Sutherland Shire Council</td></tr>
<tr><td>Occupier name and contact details (the person or entity who owns the system)</td><td colspan="2">Name: Paul L Clingan
Email Address: Paul@clingcast.com.au
Phone: 02 9521 1382 Phone Type: BUS DIR
Address: PO Box 531, NSW, 1499</td></tr>
<tr><td colspan="3">Duly qualified person</td></tr>
<tr><td>Duly qualified person name (the person who attended the site during this month)</td><td colspan="2">LYNDSEY CHAN</td></tr>
<tr><td>Employer and contact details (the person or entity who operates or maintain the system)</td><td colspan="2">HydroChem
Address: 12/71A Milperra Road, Revesby NSW 2212
Tel: (02) 9792 1444
Email: nsw@hydrochem.com.au</td></tr>
</table>

Period covered by this monthly report

Record	Details
Period being reported (calendar month)	February
Period covered by current RMP (up to 5 year period)	20 Jul 2021 TO 30 Jun 2022
Date(s) of inspection(s) carried out this month	• 04 Feb 2022

Microbial testing- in accordance with section 3.2 and 3.3 of AS/NZS 3666.3:2011

Record	Details	Date(s) sampled
Legionella Count	0	04 Feb 2022
HCC Count	1000	04 Feb 2022

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

Record	Details		Date(s) tested
Conductivity/TDS	350 (Min= 500.0 Max= 1500.0)		04 Feb 2022
pH	7.1 (Min= 7.0 Max= 8.2)		04 Feb 2022
TAH	0 (Min= 0.4 Max= 1.0)		04 Feb 2022
Other criteria necessary for effective management of corrosion, scaling, fouling and microbial growth	Inhibitor	200 (Min= 200.0 Max= 400.0)	04 Feb 2022
	Chloride	130 (Min= 200.0 Max= 500.0)	04 Feb 2022
	M Alkalinity	40 (Min= 20.0 Max= 300.0)	04 Feb 2022
Temperature (measured at the return line)	26.2		04 Feb 2022

Inspection and other checks- in accordance with section 3.4 and 3.5 of AS/NZS 3666.3:2011

Record	Details	Date(s) reviewed
Physical condition of the system	Fair	04 Feb 2022
Operation of the bleed control system	operating	04 Feb 2022
Operation of the make-up water system (including chemical dosing and control system)	operating	04 Feb 2022
Cycles of concentration	NA	NA

Corrosion rate (involving monthly visual assessment and/or quarterly laboratory testing, as required by RMP)	none evident				04 Feb 2022	
	Coupon Type	**Date In**	**Weight In**	**Date Out**	**Weight Out**	**Corrosion Rate (mpy)**
	NA	NA	NA	NA	NA	NA

Inspection and other checks- in accordance with section 3.4 and 3.5 of AS/NZS 3666.3:2011

Record	Details	Date(s) reviewed
Adequacy of scale and corrosion inhibition	200 (Min= 200.0 Max= 400.0)	04 Feb 2022
Cleanliness of wet surfaces (visibly free from accumulation of sludge, foam, slime, rust, scale, dirt and larger mineral or organic deposits)	mildly dirty	04 Feb 2022
Date of most recent cleaning (in accordance with the RMP)		04 Feb 2022
Changes in the local environment (for example, local building demolition or construction, which should be recorded if noted during inspection)	no changes	04 Feb 2022

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. Action may be taken in response to a significant change in the local environment, work practice or equipment. The duly qualified person can use this step to prompt the occupier to engage a competent person to take a preventative or corrective actions, corrective actions, and potentially undertake a new risk assessment and RMP.

List of remedial action taken or recommended this month.		
no action taken		Action Taken

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

The Regulation require certain result 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 and 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)
LYNDSEY CHAN	(02) 9792 1444

Signature of person completing the form	Date
LYNDSEY CHAN	14 Mar 2022

Role of person completing the form	Employer (name of company or organization)
Services Engineer	HydroChem

CLINGCAST METALS PTY LTD

CLINGCAST METALS

February 2022

This report summarises all Legionella and HCC results for **CLINGCAST METALS** for **February 2022**

1. BAC

Legionella Species Report:

Date	Service Call ID	Result (CFU/mL)	Acceptable
04 Feb 2022	2202-1711	0	YES

1. BAC

Heterotrophic Colony Count Report:

Date	Service Call ID	Result (CFU/mL)	Acceptable
04 Feb 2022	2202-1711	1000	YES

2. WHAT DO MY RESULTS MEAN?

Legionella Species Report:

A zero result indicates less than 10 organisms per 1 millilitre (AS/NZS 3896). Results were estimated after an incubation period of 7 days at 36C+/-1C. Sampled using procedures certified to ISO 9001 (Reg No 6465). Analyses carried out using procedures to AS3896. All samples were tested by a NATA Registered Laboratory

Heterotrophic Colony Count Report:

HCC Result is useful in assessing the efficacy of biocidal treatment and state of microbiological control of organisms in the system. It is not a measurement of Legionella and does not reflect the physical condition of the cooling water.

Results are reported as colony forming units in 1 millilitre of sample. Samples incubated for 48 hours at 36C+/-1C as per AS4276.3.1/2. All samples were tested by a NATA Registered Laboratory

Contact Us

At HydroChem we're recognised as the clear market leader in Australia's water treatment industry. Our mission is simple: to bring world-class water treatment products and services to clients across Australia. Please contact your account manager for any queries.

Cooling Tower Cleaning Report

HydroChem Water Treatment Specialists

Location:	**CLINGCAST METALS**		
Client:	**CLINGCAST METALS PTY LTD**		
Attention:	**PAUL***	**Technician:**	**BRAYDON MANFONG**
Date:	**4/02/2022**	**Service Call:**	**2201-1720**
Client No:	**N14779**	**Issued By:**	**SYDN**
Contract:	**NC10691**	**Contact No:**	**02 9792 1444**

Risk Assessment
If risk identified, refer to JSEA for details (√ = pass, X = fail)

- ☑ Safe access (falls, slips, trips)?
- ☑ Safe manual handling?
- ☑ Adequate lighting?
- ☑ Acceptable noise level with use of PPE?
- ☑ Shutdown procedure?
- ☑ Other (refer JSA)

Results

	BAC CT (SSC-HLT832583-0026-01)
Tower Inspection Before Clean	
Visible Condition	Mildly dirty.
Cleaning Maintenance Procedure	
1. Start:	
Measures in relation to safety have been observed	☑
Isolated plant and dosing equipment	☑
2. Disinfect:	
Adjust pH to between 7 - 7.6 and maintain for 1 hour	☐
Add chlorinated detergent Hydro 464 and Hydro 360	☑
Circulate for one hour and keep free chlorine concentration above 10 ppm.	☐
Neutralise chlorine where necessary	☑
3. Clean:	
Drain cooling tower	☑
Remove drift eliminators. If not, why? (see comments)	☐
Clean drift eliminators	☑
Manually scrub high pressure water clean any safely accessible internal sludge, slime and dirt	☑
Remove residual water and sludge from the tower basin using wet vac.	☑
4. Re-disinfect:	
Refill cooling tower with water	☑
Adjust pH to between 7 - 7.6 and maintain for 1 hour	☐
Add Hydro 360	☑
Circulate for one hour and keep free chlorine concentration above 10 ppm.	☐
5. Recommission System:	
Add inhibitor, biocide and neutralise chlorine where necessary	☑
Restart plant as per checklist	☑
Check pH and inhibitor concentration	☑
Initial disinfection	
pH at 30 minutes	
Free chlorine at 30 mins	
Second disinfection	
pH at 30 minutes	
Free chlorine at 30 mins	
Final readings	
pH	7.5
Inhibitor	295
Plant Restart Check List	
REPLACED tower strainer	☑
SHUT drain valves	☑
OPEN make-up water valves	☑
REPLACED splash eliminators	☑
OPEN suction return valves	☑
OPEN balance line	☐
SHUT quick fill valves	☑
Tower fan ON	☑
Circulating pump ON	☑
Ball valve and water level satisfactory	☑
Chiller ON/RESET	☐
Hatches checked for leaks	☑
Water treatment re-instated	☑
Floor clear of spillage & clean	☑

Comments

CLEANS: Cooling tower cleaned in accordance with the above procedure.

Site Signature

N/A

Water Treatment Service Report

HydroChem Water Treatment Specialists

Location:	**CLINGCAST METALS**		
Client:	**CLINGCAST METALS PTY LTD**		
Attention:	**PAUL***	**Technician:**	**LYNDSEY CHAN**
Date:	**4/02/2022**	**Service Call:**	**2202-1711**
Client No:	**N14779**	**Issued By:**	**SYDN**
Contract:	**NC10691**	**Contact No:**	**02 9792 1444**

Risk Assessment
If risk identified, refer to JSEA for details (√ = pass, X = fail)

- ☑ Safe access (falls, slips, trips)?
- ☑ Acceptable noise level with use of PPE?
- ☑ Safe manual handling?
- ☑ Shutdown procedure?
- ☑ Adequate lighting?
- ☑ Other (refer JSA)

Results

	BAC CT (SSC-HLT832583-0026-01)		
Analysis			
pH	7	7.1	8.2
M Alkalinity (CaCO3)	20	40	300
Chloride (CaCO3)	200	130	500
TDS (CaCO3)	500	350	1500
Inhibitor	Hydro 260		
	200	200	400
Free Available Halogen	Hydro 360		
	0.4	0	1
Inhibitor adjustments			
Adjustment (L / Kg)	Hydro 260		
Adjustment (L / Kg)	Hydro		
Inhibitor pump			
Start% / Added / Finish%	Hydro 260		
	85		85
Operational	☑		
Biocide adjustments			
Adjustment (L / Kg)	Hydro 360		
	0.5		
Adjustment (L / Kg)	Hydro 256		
Biocide pump 1			
Start% / Added / Finish%	Hydro 360		
	25	8	100
Operational	☑		
Biocide pump 2			
Start% / Added / Finish%	Hydro 256		
	90		90
Operational	☑		
Other tests			
Cycles	3.5		
ORP set point (mV)			
Water Meter Reading			
Make up Reading			
Bleed Reading			
Cooling tower inspection			
Visible condition	Satisfactory.		

How to interpret the results

All results in mg/L unless indicated otherwise

Chemical analysis

Desired minimum → 7 | 7.7 ← Actual result | 9.5 ← Desired maximum

Dosing tank / pump

Product name → Hydro 464

Tank start level % → 75 | 6.2 ← Tank final level % | 100

Amount added in litres → ☑ ← Pump operational

Comments

CTS: TDS/Conductivity was outside desired limits. Low levels may be a result of water loss or low load. CTS: Oxidising biocide residual was outside desired limits. Adjustment was made to correct levels. Cooling tower drains flushed. Online disinfection carried out.

Site Signature

N/A