



expert health and safety advice

## EXPERT INVESTIGATION REPORT

For: NGR Project Co. (Qtectic)

Re: An investigation into the COVID-19 cleaning & disinfecting of NGR trains in relation to CCTV footage in March 2021

- **NGR Project Co. (Qtectic) – NGR Trains**
- **Expert Investigation Report – COVID-19 cleaning of trains in March 2021**
- 15<sup>th</sup> July 2021



**PREPARED BY:**

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**CLIENT:**

**NGR Project Co. (Qtectic)**

**DATE:**

15<sup>th</sup> July 2021

**MATTER:**

**An investigation into COVID-19  
cleaning of NGR Multiple Units  
(trains)**

**BRIEF DESCRIPTION:**

An expert report on the findings of an investigation into the COVID-19 cleaning and disinfecting of NGR trains following the identification by Queensland Rail in CCTV footage of 7 files/instances in March 2021.

- **NGR Project Co. (Qtectic) – NGR Multiple Units (trains)**
- **Expert Investigation Report – COVID-19 cleaning of trains in March 2021**
- 15<sup>th</sup> July 2021



## REPORT CONTENTS

EXECUTIVE SUMMARY	4
INTRODUCTION	5
SUMMARY OF EXPERT’S QUALIFICATIONS	7
CONFLICT OF INTEREST DECLARATION.....	8
REFERENCE INFORMATION, DOCUMENTS & INVESTIGATION METHODOLOGY	8
SUMMARY FINDINGS OF INVESTIGATION	9
1.1. Identify each instance that the covid-19 cleaning has not been conducted since implementation of sv33	9
1.2. Provide an explanation of why the covid-19 cleaning was not performed in accordance with sv33	10
1.3. Provide details of whether any of the personnel of qtectic and the a&m subcontractor, or the management of cleaning subcontractor, were aware that the covid-19 cleaning was not being undertaken, if not, then why not?	11
1.4. Undertake an audit of each covid-19 cleaning service undertaken, including the amount of product used for the covid-19 cleaning over the relevant period (for example, invoices purchasing fogging product and delivery trans-shipment dockets)	11
CONCLUSION	13

## EXECUTIVE SUMMARY

Based on the 7 no. CCTV file footage evidence provided by Queensland Rail (**CCTV footage**), it appears that in all instances (circumstances) COVID-19 cleaning and disinfecting was not satisfactorily, undertaken, or not undertaken at all.

On the basis of the CCTV footage and other evidence:

- a) it is not possible to identify all instances in which COVID-19 cleaning has not been conducted over the review period in relation to the variation requirements (SV33) on the basis of the CCTV footage;
- b) the evidence of the COVID-19 cleaning examples contained within the 7 no. CCTV footage files supports the strong likelihood that COVID-19 cleaning and disinfecting has not been performed in accordance with that required for the variation requirements (SV33) due to a failure by the cleaners to undertake the obligations required of them; and
- c) relative to this investigation and report, it does not appear that Qtectic, nor Alstom knew of nor was aware that the COVID-19 cleaning was not being undertaken, however, the same cannot unequivocally be said with respect to the cleaning subcontractor (ICS).

Whilst there is no conclusive evidence of management of ICS knowing or being aware that the COVID-19 cleaning was not being undertaken, the writer is of the view that it could not have been unknown to personnel in ICS, including at management level.

This investigation and report includes a limited audit/review (based upon the limited evidence made available by the cleaning subcontractor) of the amount of product regularly being consumed for the COVID-19 cleaning over the relevant period. The result of which is a clearly identified deficiency in stock and consumption of the disinfectant product, coupled with the limited (deficient) amount of the product said to be used by cleaners for the COVID-19 cleaning.

The absence of any supporting evidence of the requisite usage of the disinfecting product in the volumes to an extent that can substantiate COVID-19 cleaning was able to be properly/effectively undertaken, or indeed at all, suggests the subcontractor cleaner (ICS) must have known the COVID-19 cleaning was not being undertaken.

- **NGR Project Co. (Qtectic) – NGR Multiple Units (trains)**
- **Expert Investigation Report – COVID-19 cleaning of trains in March 2021**
- 15<sup>th</sup> July 2021



## INTRODUCTION

The writer is informed that NGR Project Company Pty Ltd (**Qtectic**) has been engaged by the State of Queensland (acting through the Department of Transport and Main Roads) (**State**) to procure the construction of a new depot facility, new rollingstock and associated availability and maintenance services under the terms of a Project Deed dated 13 December 2019 (Project Deed). Qtectic subsequently engaged Bombardier Transportation Australia Pty Ltd (Bombardier) and IllQ Pty Ltd under a D&D Subcontract to undertake the procurement of the new depot facility and rollingstock. The writer is further informed that, Bombardier was also engaged under an A&M Subcontract to perform the availability and maintenance activities. It is noted that Bombardier has been acquired by the Alstom group of companies (hereinafter Bombardier is referred to as **Alstom**). Alstom has subcontracted cleaning services to International Cleaning Services Australia Pty Ltd (**ICS**) under a Cleaning Services Subcontract. ICS has further subcontracted a portion of the COVID-19 Cleaning to third parties, in addition to its own staff engaged in the performance of the contract.

The State issued an Emergency Variation (as defined by the Project Deed) (named “**SV33**”) under which Qtectic is required to undertake spot clean disinfection, fogging and high touch point disinfection on each Multiple Unit at the frequency specified and as described in the table below. The spot clean disinfection and high touch point disinfection was superseded by the fogging,. But, on the basis of this investigation report pertaining to and limited to the 7 no. CCTV footage, the focus of this report is on the fogging of the Multiple Units (**COVID-19 cleaning**).

The virucidal agent (**product**) used for disinfecting and cleaning the Multiple Units is Netbiokem DSAM Household/Commercial Grade (**Netbiokem**) and later on, Netbiokem DSAM+ Hospital Grade (**Netbiokem+**).

Work activity	Description
Spot Cleaning	Exchange of usual cleaning agent with Netbiokem
HTP	Performed until fogger became available in June 2020 or when fogger out of Service
Interpeak Fogging	Performed on 25 x MUs in peak service at Mayne between Mon - Fri.
Night Fogging	Performed on all MUs that were in service during the day at all remote outstations and Mayne prior to returning to Service

- **NGR Project Co. (Qtectic) – NGR Multiple Units (trains)**
- **Expert Investigation Report – COVID-19 cleaning of trains in March 2021**
- 15<sup>th</sup> July 2021



On 8 April 2021, the State wrote to Qtectic advising of observations made by Queensland Rail in respect of cleaners from ICS. The State reviewed the CCTV footage and raised a concern that on each of the Multiple Units from which the CCTV footage was taken, the COVID-19 Cleaning was not undertaken.

The State requested that Qtectic conduct a full investigation into the issue and provide a report on its findings. AusSafe and the writer has been retained to undertake an investigation of which this report seeks to address the following report, where possible:

- a) identify each instance that the COVID-19 cleaning has not been conducted since the implementation of SV33;
- b) provide an explanation of why the COVID-19 Cleaning was not performed in accordance with SV33;
- c) provide details of whether any of the Personnel of Qtectic and the A&M Subcontractor, or the management of the cleaning subcontractor (ICS), were aware that the COVID-19 cleaning was not being undertaken, if not, then why not?; and
- d) undertake an audit/review of each COVID-19 cleaning service undertaken, including the amount of product used for the COVID-19 cleaning over the relevant period (for example, invoices purchasing fogging product and delivery trans-shipping dockets).

This is a factual investigation report having regard to the evidence provided.

## **Exclusions**

This investigation report does not examine the adequacy of the virucidal agent selected, or the method used for disinfecting NGR trains, other than relative to the application requirements for the product used.

This is a factual investigation report only and as such there are no recommendations given in this report in relation to the findings of the investigation.

- **NGR Project Co. (Qtectic) – NGR Multiple Units (trains)**
- **Expert Investigation Report – COVID-19 cleaning of trains in March 2021**
- 15<sup>th</sup> July 2021



This report is prepared as an independent and impartial opinion, in which the opinion contained within, is given independently to assist Qtectic in the matter, as well as, for the purposes of addressing the requirements of the State in its request for the matter to be investigated and a report provided.

In this regard:

- the factual matters stated in this report are, as far as I am aware, true;
- I have made appropriate enquiries relative to the scope and nature of the request for this expert investigation report;
- the opinions stated in this report (where given) are genuine;
- this report contains reference to all matters I consider significant; and

## SUMMARY OF EXPERT'S QUALIFICATIONS

The writer, Adjunct Associate Professor Trevor Love, Principal of AusSafe Consulting, has over 40 years' experience as a safety and risk expert and professional. I commenced my career with the Queensland Government as a Professional Officer investigating and preparing technical evidence and/or Briefs for Coronial Inquests and prosecutory action in relation to workplace health and safety incidents and matters. Upon leaving the Queensland Government and setting up in private practice, I have been actively engaged as a leading expert in the profession, including 20 years in a senior position at a national level and state level within the professional body (the Safety Institute of Australia), including as (Acting Interim) Federal President, Federal Vice-President and State President and as an academic at university, including Queensland University of Technology and the University of Queensland. I also have a professional association with Melbourne University.

I have substantial experience as an expert witness and with the investigation of major catastrophic events in Australia, as well as numerous other incidents that have occurred in industry and the general community relating to the public. My work in this regard has varied, as chief investigator, as crown expert, and to investigating and acting as an expert in coronial inquiries, prosecutions, insurance and contract disputes/matters, industrial disputes and personal injury claims.

- **NGR Project Co. (Qtectic) – NGR Multiple Units (trains)**
- **Expert Investigation Report – COVID-19 cleaning of trains in March 2021**
- 15<sup>th</sup> July 2021



### Conflict of interest declaration

In relation to this matter, I do not have any conflict of interest, or that of any potential for a perceived conflict of interest, including with respect to the relevant and associated parties: ICS; Bombardier; Alstom; Qtectic; Qld Department of Transport and Queensland Rail.

## REFERENCE INFORMATION, DOCUMENTS & INVESTIGATION METHODOLOGY

The facts, assumptions and opinions upon which this report is based are set out within the body of this report and in particular that which is outlined below.

In conducting the investigation and preparing this report, the writer has relied upon information and documentation provided.

The investigation process has primarily involved the following:

- Briefings and discussions with Qtectic and Alstom.
- Review of the Brief of information
- Review of ICS safe work instructions, safe work method statements and other safety related information pertaining to COVID infection control and cleaning of the trains.
- Review of ICS training, instruction and toolbox talks records on the subject with respect to cleaners engaged in COVID- cleaning of trains.
- ICS internal investigation reports and findings on the incident.
- CCTV footage of ICS cleaning of trains, as provided by Queensland Rail.
- Interviews of cleaners at all 7 depots.
- Discussions with ICS senior managers (Regional Manager and General Manager).
- Site observations and inspections, including of cleaning equipment, storeroom and supplies.

## SUMMARY FINDINGS OF INVESTIGATION

### 1.1. Identify each instance that the COVID-19 cleaning has not been conducted since implementation of SV33

Based on the evidence provided within the 7 no. CCTV footage, which relate to a moment in time (March 2021), it is not possible to conclude from this whether the COVID-19 Cleaning Services has been conducted since the implementation of SV33. Nevertheless, the 7 no. CCTV footage viewed by the writer reveals that in all circumstances observed, COVID-19 Cleaning was either not satisfactorily undertaken, or not undertaken at all.

There were four main scenarios observed in the CCTV footage:

- a) **Interpeak fogging** - The cleaners enter the train with a fogging machine, place it in a corner and/or on a seat, leaving it in its stowed state, and then either proceed to do rubbish removal from the train, or partially remove PPE, sit and talk, or view their phones. Sometimes the two-person team sit and wait for a time (usually about 10 minutes or so), or one does spot cleaning or rubbish pick up while the other sits before both reinstating the PPE to leave the train.
- b) **Night fogging** – There may be a genuine attempt to fog the train, but there appears to be an insignificant amount and/or less than consistent amount of mist/fogging coming out of the nozzle and insufficient fogging coverage of the full train.
- c) **Night fogging** - There is an attempt to give an appearance by the cleaners to be undertaking the fogging but it appears as if there is not any agent in the machine and/or the machine is not operating at the time. Further to this, the cleaners generally do not complete a full train and often only a couple of cars, before stopping.
- d) **Night fogging** - No fogging cleaning team comes onto the train whilst it was idle at the depot.

The following specific observations were made from the CCTV footage provided:

MU & Date	Clean Type	Outcome	Location
739 (23/3/21)	Interpeak HTPC Fogging	Not Performed	Mayne
760 (24/3/21)	Night Fogging	Not Performed	Kippa-Ring
750 (23/3/21)	Night Fogging	Not Performed	Mayne

- NGR Project Co. (Qtectic) – NGR Multiple Units (trains)
- Expert Investigation Report – COVID-19 cleaning of trains in March 2021
- 15<sup>th</sup> July 2021



742 (24/3/21)	Night Fogging	Fogging Not Adequate	Kippa-Ring
743 (26/3/21)	Interpeak Fogging	Not Performed	Mayne
743 (26/3/21)	HTPC Backpack	Fogging Not Adequate	Robina
724 (26/3/21)	Night Fogging	Not Performed	Elimbah

*Fogging Performed* means fogging adequately undertaken (properly and effectively).

*Fogging Not Adequate* means fogging appearing to be attempted and/or undertaken, but not correctly, or adequately

*Not Performed* means no fogging undertaken.

### 1.2. Provide an explanation of why the COVID-19 cleaning was not performed in accordance with SV33

It was not possible for the writer to derive from the explanation of why the COVID-19 cleaning was not performed.

The CCTV footage suggests that the cleaners responsible for undertaking the COVID-19 cleaning activities elected not to perform the works. The writer has been unable to ascertain through interviews conducted and evidence provided whether these failures were due to deliberate personal acts, upon instruction, a lack of understanding (instruction and training), or due to external influences (such as inadequate supply).

It is noted that ICS provided documented evidence (records) in the form of work instructions, safe work method statements, pre-start briefings, and toolbox talks. The adequacy of these documented procedures is not within the scope of this report, however the following was observed, with respect to the issue of why the COVID-19 cleaning was not performed properly:

- The lack of consistent understanding across the ICS workforce suggests that formal training and induction on the documented processes and procedures was inadequate. All cleaners advised that they have not received any instruction or training on the use of the fogging machines.
- It would be expected that with proper formal training and induction on the documented processes and procedures there would be better and more accurate transfer of knowledge and more consistent understanding and of the relevant information and specifications for properly undertaking COVID-19 Cleaning.

- **NGR Project Co. (Qtectic) – NGR Multiple Units (trains)**
- **Expert Investigation Report – COVID-19 cleaning of trains in March 2021**
- 15<sup>th</sup> July 2021



- A new ICS cleaner interviewed had not yet received any training and I was informed by an ICS manager that the training was to be delivered via a “buddy system” of showing the person what to do as she goes along cleaning the train. This was contrary to what I had previously been informed on what the induction and training process is/was for ICS cleaners undertaking COVID-19 cleaning of Multiple Units.

**1.3. Provide details of whether any of the Personnel of Qtectic and the A&M Subcontractor, or the management of Cleaning Subcontractor, were aware that the COVID-19 Cleaning was not being undertaken, if not, then why not?**

Relative to this investigation and report, it does not appear that Qtectic, nor Alstom knew of, nor was aware that the COVID-19 cleaning was not being undertaken, however, the same cannot unequivocally be said with respect to the cleaning subcontractor (ICS).

Whilst there is no conclusive evidence of management of ICS knowing or being aware that the COVID-19 cleaning was not being undertaken, the writer is of the view that it could not have been unknown to personnel in ICS, including at management level.

Alstom appears to have accepted the work orders received from ICS as the assumed assurance that the COVID-19 cleaning was being completed. I am informed that Alstom considers that there was no evidence in the work orders that pertained to a failure in the COVID-19 cleaning.

**1.4. Undertake an audit of each COVID-19 Cleaning service undertaken, including the amount of product used for the COVID-19 Cleaning over the relevant period (for example, invoices purchasing fogging product and delivery trans-shipment dockets)**

It is evident that the quantity of product consumed (by that described by cleaners in interviews and observed in store and even available storage space) does not support the volume of product required to be used for the COVID-19 cleaning and in particular, based upon the following observations:

- There were low quantities of virucidal agent in stock (stored) compared with the usage rate that ought to have existed.

- **NGR Project Co. (Qtectic) – NGR Multiple Units (trains)**
- **Expert Investigation Report – COVID-19 cleaning of trains in March 2021**
- 15<sup>th</sup> July 2021



- There was a lack of empty containers compared again to the usage rate that ought to have existed which was reflected in the mix in Commercial Grade (DSAM) product and Hospital Grade (DSAM+) product - particularly given that the Commercial Grade product had been discontinued many months before and ought to have been used up by then given the usage rate that ought to have existed.
- It was not possible to validate the quantities on hand prior to the investigation period covering the entirety of the SV33 period. During site investigations, no suitable supply quantities were observed at the respective depots in order to meet the minimum required stock levels.
- All depots appeared to only have a fraction of the supply of the Netbiokem virucidal disinfecting agent (the fogging agent) required to meet the demand in the minimum technical specification/requirement for cleaning and disinfecting the Multiple Units.
- The writer was informed by Qtectic, that ICS representatives have advised the daily delivery of the requisite stock was performed by supervisors. No evidence was provided to suggest the minimum required daily quantities were being delivered to the depots. It was not evident that the requisite 7x 20 litre containers were routinely being delivered daily (7 days a week) to Mayne, nor were the requisite 3-4x 20 litre containers being routinely delivered a daily to Wulkuraka, Robina, or Kippa Ring.
- During interviews of ICS management and cleaners it was ascertained that generally only 20% of the minimum dose required was carried by the cleaners in order to undertake the COVID-19 Cleaning.

The writer requested purchase orders, invoices and consignment notes information from Qtectic, in which ICS representatives apparently informed Qtectic and hence the writer, that they were unable to provide evidence as they purchase the product in bulk and used the product across multiple different clients. Nonetheless, the writer is informed that deliveries of product has not been apparent to security personnel controlling entry to depots, let alone a regular and routine flow of deliveries that would undoubtedly be involved for the quantities required for effective and adequate COVID-19 cleaning. Nor is it generally likely to be able to be easily accommodated within a light vehicle of the type and nature observed in depot car parks that are likely to be those of the said ICS supervisors charged with delivering the product to their respective depots on a routine and regular basis. One would expect

- **NGR Project Co. (Qtectic) – NGR Multiple Units (trains)**
- **Expert Investigation Report – COVID-19 cleaning of trains in March 2021**
- 15<sup>th</sup> July 2021

that the journey to work at a depot for such supervisors would therefore require them to regularly drive to the main store for ICS first, to decant and transport the product from the bulk storage to their own depot in 20 litre containers.

## CONCLUSION

On the balance of probabilities and clear evidence, or lack thereof, the COVID-19 cleaning of NGR Multiple Units (trains) has not been undertaken satisfactorily, or not undertaken at all, particularly and namely, with respect to that observed within the 7 no. CCTV footage files of concern to Queensland Rail and where it has as a consequence identified that the COVID-19 cleaning has not been undertaken. This is likely to be because of deliberate intent, although the reasons for this is unknown to the writer and not apparent by any supporting evidence from this investigation.

A handwritten signature in blue ink, appearing to read 'T. Love'.

**Trevor Love**

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