



Department of
**Environment and
Heritage Protection**

Contact Graham Rennex
Phone 07 3330 4468
Ref EPPR00244713

Attn. Nick Bolton
ACI Operations Pty Ltd
137 Montague Road
SOUTH BRISBANE QLD 4101

4 April 2014

Dear Mr Bolton

Re: Compliance Inspection of ACI Operations Pty Ltd for ERA 44 Glass or glass fibre manufacturing

I refer to the inspection of ACI Operations Pty Ltd at 137 Montague Road, South Brisbane on 19 February 2014, conducted by officers of the department.

The inspection was undertaken as part of the departments program to undertake regular inspections of activities carried out by operators registered with the department.

The primary purpose of the inspection was to assess whether the activities conducted on site were in compliance with Environmental Authority EPPR00244713 (Formerly IPDE00947108) and other obligations under the *Environmental Protection Act 1994* (EP Act) and subordinate legislation.

The inspection was not a complete audit of the site. You are reminded that section 319 of the *Environmental Protection Act 1994* (EP Act), which sets out the general environmental duty, requires anyone who carries out an activity that causes or is likely to cause environmental harm to take all reasonable and practicable measures to prevent or minimise the harm. In that regard, you are encouraged to actively identify all of the environmental risks associated with the activities conducted on the site on an ongoing basis, and to implement strategies to effectively address them.

During the inspection departmental officers observed the following environmental issues:

1. Release points were not labelled in accordance with the requirements of conditions B11 and B12;

2. ACI could not demonstrate how the stannic chloride fabric filter dust collector removal efficiency required by condition B16 is determined and maintained; and
3. ACI could not demonstrate how the release points complied with the requirements of *Australian Standard AS 4323. 1-1995 Stationary source emissions – Selection of sampling positions*.

It would appear that you were in breach of the above conditions of your Environmental Authority at the time of the inspection. You must immediately take all reasonable and practicable measures necessary to ensure compliance with the conditions of your Environmental Authority.

I draw your attention to Section 430 of the *Environmental Protection Act 1994* which states that it is an offence to contravene a condition of an Environmental Authority.

A written response to this letter must be provided to the department within 14 days of receipt of this letter. The response must include details of measures proposed to address the non-compliance issues, including proposed commencement and completion timeframes.

Should you have any further enquiries, please contact Graham Rennex of the department on telephone (07) 3330 4468.

Yours sincerely

sch4p4(6) Personal information

Kelly Gleeson
Manager
Brisbane City South
Environmental Services and Regulation Division
Department of Environment and Heritage Protection

Complaint/Report Details

Complaint/Report Ref: CR56335

Priority/Sensitive: N

Complainant

Ref	Name	Address	Phone	Mobile	Fax	Email
400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Alleged Source

Ref	Name	Address	Phone	Mobile	Fax	Email
400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Incident Location

Name	Risk Level	Address
137 Montague Rd South Brisbane		137 Montague Road SOUTH BRISBANE QLD 4101

Type: Incident

Nature: Air - GENERAL

Received Date: 30/OCT/12

Receiving Officer: RENNEX, Graham

Receiving Office: ES-RSD-SER-Brisbane City South

Status: Finalised

Origin: Notification by source

Notification Method: Email

Project Manager: RENNEX, Graham

Responsible Office: ES-RSD-SER-Brisbane City South

Description

Event On/From Date: Event On/From Time: Received Time:
Event To Date: Event To Time: Ongoing: N Print Related Permits:

Description

Overnight we experienced a minor opacity spike on QG3 as a result of the power grid issues. Below is the investigation report. There were no complaints.

Running Sheet Summary

Accrued Time: 3 hrs 0 mins

First Action	Date Commenced	Due Date	Action Type	Officer Involved	Outcome	Date Completed
Y	30/OCT/12	23/OCT/12	Allocation	RENNEX, Graham	NFA - activity in compliance	30/OCT/12

Related Complaints/Reports

Ref	Complainant	Alleged Source	Incident Location	Received Date
CR3832	ACI Operations Pty Ltd	ACI Operations Pty Ltd	137 Montague Rd South Brisbane	01/JUL/05
CR55192	ACI Operations Pty Ltd	ACI Operations Pty Ltd	137 Montague Rd South Brisbane	01/AUG/12
CR55193	ACI Operations Pty Ltd	ACI Operations Pty Ltd	137 Montague Rd South Brisbane	01/AUG/12

Related Compliance Activity

Ref	Type	Information Entered	Client	Activity Location
CA18766	Licence	12/MAR/09	ACI Operations Pty Ltd	137 Montague Rd South Brisbane
CA2192	Licensed Activity	30/MAR/05	ACI Operations Pty Ltd	137 Montague Rd South Brisbane
CA2661	Licensed Activity	27/APR/05	ACI Operations Pty Ltd	137 Montague Rd South Brisbane
CA3701	Licensed Activity	27/JUN/05	ACI Operations Pty Ltd	137 Montague Rd South Brisbane
CA8068	Licensed Activity	26/SEP/06	ACI Operations Pty Ltd	137 Montague Rd South Brisbane

QG1 Opacity Spike / Check DA.

CR56335

Rennex Graham

From: nick.bolton@ap.o-i.com
Sent: Wednesday, 31 October 2012 10:37 AM
To: Rennex Graham
Cc: Carissa.Bahr@ap.o-i.com
Subject: QG1 Opacity Spike
Hi Graham,

Please find attached incident investigation for a minor opacity spike experienced this morning.

15% spike + 20% EXCEEDANCE = ~~35~~ 35% visible smoke

Released by EHP under RTI Act 2008

31/10/2012

14-493

File A

4 of 229

Release

 How was the Permanent Resolution Verified?

Operator reacted immediately as per procedure and minimised opacity spike significantly.

 How was the Permanent Resolution Implemented?

Active monitoring by operator already in place for these types of works.

 Permanent Resolution:

Active monitoring of opacity during works where re-distribution of gas is required.

 Root Cause:

Design of furnace does not allow for re-distribution of air.

 Time and Place:

Site/Plant:	Brisbane	Site Env. Co-ord:	Carissa Bahr/Operations/Brisbane/ACI_GLASS/AU
Incident Date:	31/10/2012	Incident Time:	08:12:00 AM
Incident Reported To:	Nick Bolton/Brisbane/ACI_GLASS/AU	Time Reported:	10:21:49 AM

 Incident Information:

Nature of Incident:	☒ Air	☐ Trade Waste	☐ Waste	☐ Other
	☐ Noise	☐ Storm Water	☐ Property Risk	
Air Pollution:	☐ Dust	☐ Chemical	☐ Raw Material	☐ Other
	☐ Smoke	☐ Oil	☒ Stack	
Odour:	☐ Earthy	☐ Sewer	☐ Burnt/Smokey	☐ Sulphur
			☐ Chemical	
Source/Location:	QG1 Furnace			
Colour:	White			
Texture (Dense, Fluff.):				
Duration:	1 minute			
Wind Direction:				

 Additional Information:

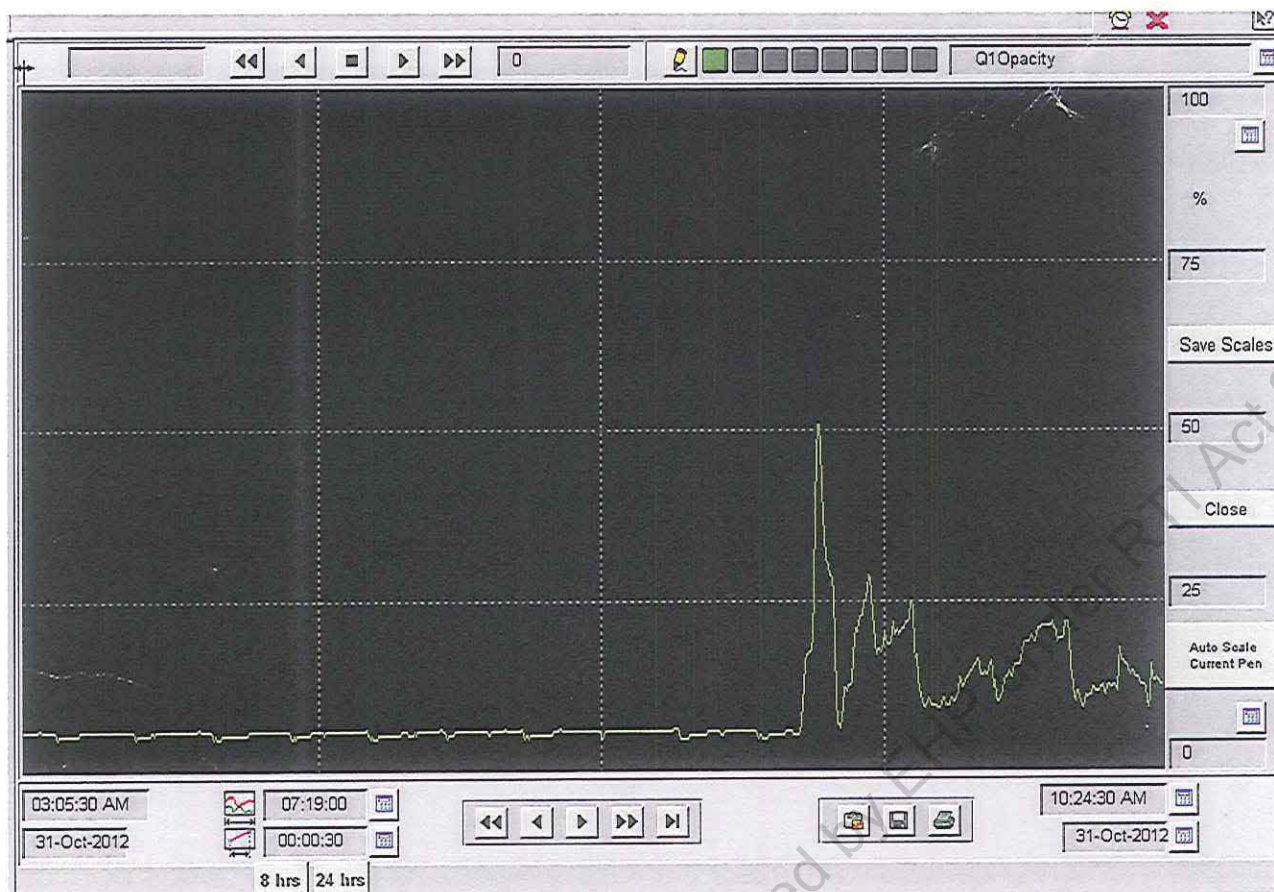
Scheduled work to replace faulty trimming valve to port 1. Gas fitters arrived on site. Port 1 isolated and gas redistributed to remaining 4 ports to maintain furnace temperature. Design of furnace does not allow to re-distribute air so more air needed at remaining ports. To achieve this, air/fuel ratio was increased to 15 from 13. During the first minutes it seemed ok at opacity reading of 15%. However it spiked to 50.7% and very quickly operator increased the air manually until stabilization under the 25% opacity mark.

 Immediate Action Taken:

When opacity spiked, operator immediately increased air manually until opacity stabilized.

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Released by EHP under RTI Act 2009



Nick Belton
Environment, Safety & RRTW Coordinator
Risk Department, O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane, 4101

Office: +61 7 3335 8023

sch4p4(6) Personal information

Fax: +61 7 3335 8163
Company Website: www.o-i.com

O-I makers of pure, sustainable,
brand-building glass packaging

GlassIsLife.com

31/10/2012

Complaint/Report Details

Complaint/Report Ref: CR55193

Priority/Sensitive: N

Complainant

Ref	Name	Address	Phone	Mobile	Fax	Email
400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Alleged Source

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Incident Location

Name	Risk Level	Address
137 Montague Rd South Brisbane		137 Montague Road SOUTH BRISBANE QLD 4101

Type: Incident

Nature: Air - GENERAL

Received Date: 01/AUG/12

Receiving Officer: RENNEX, Graham

Receiving Office: ES-RSD-SER-Brisbane City South

Status: Active

Origin: Notification by source

Notification Method: Email

Project Manager: RENNEX, Graham

Responsible Office: ES-RSD-SER-Brisbane City South

Description

Event On/From Date: Event On/From Time: Received Time:
Event To Date: Event To Time: Ongoing: N Print Related Permits: N

Description

QGe Opacity Spike 31 July 2012 - No complaints no odour issues - O-I told Compliance audit will take place in next 6 months of 2012

Running Sheet Summary

Accrued Time: 0 hrs 0 mins

First Action	Date Commenced	Due Date	Action Type	Officer Involved	Outcome	Date Completed
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Related Complaints/Reports

Ref	Complainant	Alleged Source	Incident Location	Received Date
CR3832	ACI Operations Pty Ltd	ACI Operations Pty Ltd	137 Montague Rd South Brisbane	01/JUL/05
CR55192	ACI Operations Pty Ltd	ACI Operations Pty Ltd	137 Montague Rd South Brisbane	01/AUG/12

Related Compliance Activity

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CA2192	Licensed Activity	30/MAR/05	ACI Operations Pty Ltd	137 Montague Rd South Brisbane
CA2661	Licensed Activity	27/APR/05	ACI Operations Pty Ltd	137 Montague Rd South Brisbane
CA3701	Licensed Activity	27/JUN/05	ACI Operations Pty Ltd	137 Montague Rd South Brisbane
CA8068	Licensed Activity	26/SEP/06	ACI Operations Pty Ltd	137 Montague Rd South Brisbane

QG 3

CR 58193

Rennex Graham

From: nick.bolton@ap.o-i.com
Sent: Tuesday, 31 July 2012 10:28 AM
To: Rennex Graham
Cc: Carissa.Bahr@ap.o-i.com
Subject: Opacity Spike QG3

Graham,

Below is the initial investigation report for the QG3 opacity spike that occurred this morning.

There were no complaints or odour issues.

 Description: ✓	
QG3 Opacity Spike	
Site/Plant: ✓	Brisbane
Incident Date: ✓	31/07/2012
Incident Reported To: ✓	Nick Bolton/Brisbane/ACI_GLASS/AU
 Incident Information:	
Nature of Incident: ✓	☒ Air ☐ Trade Waste ☐ Waste ☐ Other ☐ Noise ☐ Storm Water ☐ Property Risk
Air Pollution:	☐ Dust ☐ Chemical ☐ Raw Material ☐ Other ☐ Smoke ☐ Oil ☒ Stack
Odour:	☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur
Source/Location:	QG3 Furnace
Colour:	
Texture (Dense, Fluff.):	
Duration:	3 minutes
Wind Direction:	
 Additional Information:	
Opacity spike for 3 minutes total duration, peaking at 96.1% opacity. No complaints or odour issues. Conducting refractory work on Port 1, required to isolate port. Redistributed gas across remaining 5 ports	
 Immediate Action Taken: ✓	
Air ramped up to bring air/fuel ratio into control.	



Nick Bolton
 Environment, Safety & RRTW Coordinator
 Risk Department, O-I Brisbane Plant

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 137 Montague Road
 South Brisbane, 4101

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Complaint/Report Details

CK55192

Complaint/Report Ref: CR55192

Priority/Sensitive: N

Complainant

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400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Alleged Source

Ref	Name	Address	Phone	Mobile	Fax	Email
400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Incident Location

Name	Risk Level	Address
137 Montague Rd South Brisbane		137 Montague Road SOUTH BRISBANE QLD 4101

Type: Incident

Nature: Air - GENERAL

Received Date: 01/AUG/12

Receiving Officer: RENNEX, Graham

Receiving Office: ES-RSD-SER-Brisbane City South

Status: Active

Origin: Notification by source

Notification Method: Email

Project Manager: RENNEX, Graham

Responsible Office: ES-RSD-SER-Brisbane City South

Description

Event On/From Date:	Event On/From Time:	Received Time:
Event To Date:	Event To Time:	Ongoing: N Print Related Permits: N
Description Sunday 30 July 2012 O-I experienced an Opacity Spike on QG1 Furnace - due to faulty regulator - the furnace gas will run through the bypass regulator in the meantime - lasted for three minutes.		

Running Sheet Summary

Accrued Time: 2 hrs 0 mins

First Action	Date Commenced	Due Date	Action Type	Officer Involved	Outcome	Date Completed
Y	01/AUG/12	01/AUG/12	Allocation	RENNEX, Graham	NFA - EPA otherwise satisfied	01/AUG/12

Related Complaints/Reports

Ref	Complainant	Alleged Source	Incident Location	Received Date
CR3832	ACI Operations Pty Ltd	ACI Operations Pty Ltd	137 Montague Rd South Brisbane	01/JUL/05

Related Compliance Activity

Ref	Type	Information Entered	Client	Activity Location
CA18766	Licence	12/MAR/09	ACI Operations Pty Ltd	137 Montague Rd South Brisbane
CA2192	Licensed Activity	30/MAR/05	ACI Operations Pty Ltd	137 Montague Rd South Brisbane
CA2661	Licensed Activity	27/APR/05	ACI Operations Pty Ltd	137 Montague Rd South Brisbane
CA3701	Licensed Activity	27/JUN/05	ACI Operations Pty Ltd	137 Montague Rd South Brisbane
CA8068	Licensed Activity	26/SEP/06	ACI Operations Pty Ltd	137 Montague Rd South Brisbane

QG1

CR 55192

Rennex Graham

From: Rennex Graham
 Sent: Tuesday, 31 July 2012 8:48 AM
 To: nick.bolton@ap.o-i.com
 Cc: Rennex Graham
 Subject: RE: QG1 Opacity Spike

Hi Nick

Any complaints from neighbours if so let me know so I can follow up?
 Any odour issues to report?

Is this an ongoing maintenance issue – (Two notifications this month to the department?)
 Can you send me an update when issue is resolved?

In the coming months an audit inspection will be conducted at O-I
 O-I will be advised of an agreed time and date of the audit and any documents required by EHP

Regards

Graham Rennex
 Ph: 07 38963368
 QNET: 63368
 Environmental Services and Regulation Division
 Southern Region
 Brisbane City South
 Department of Environment and Heritage Protection
 Email: Graham.Rennex@ehp.qld.gov.au

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From: Butcher Paul
 Sent: Monday, 30 July 2012 4:12 PM
 To: Rennex Graham
 Subject: FW: QG1 Opacity Spike

FYI and follow up

Regards

Paul

From: nick.bolton@ap.o-i.com [mailto:nick.bolton@ap.o-i.com]
 Sent: Monday, 30 July 2012 3:59 PM
 To: Butcher Paul
 Cc: Carissa.Bahr@ap.o-i.com
 Subject: QG1 Opacity Spike

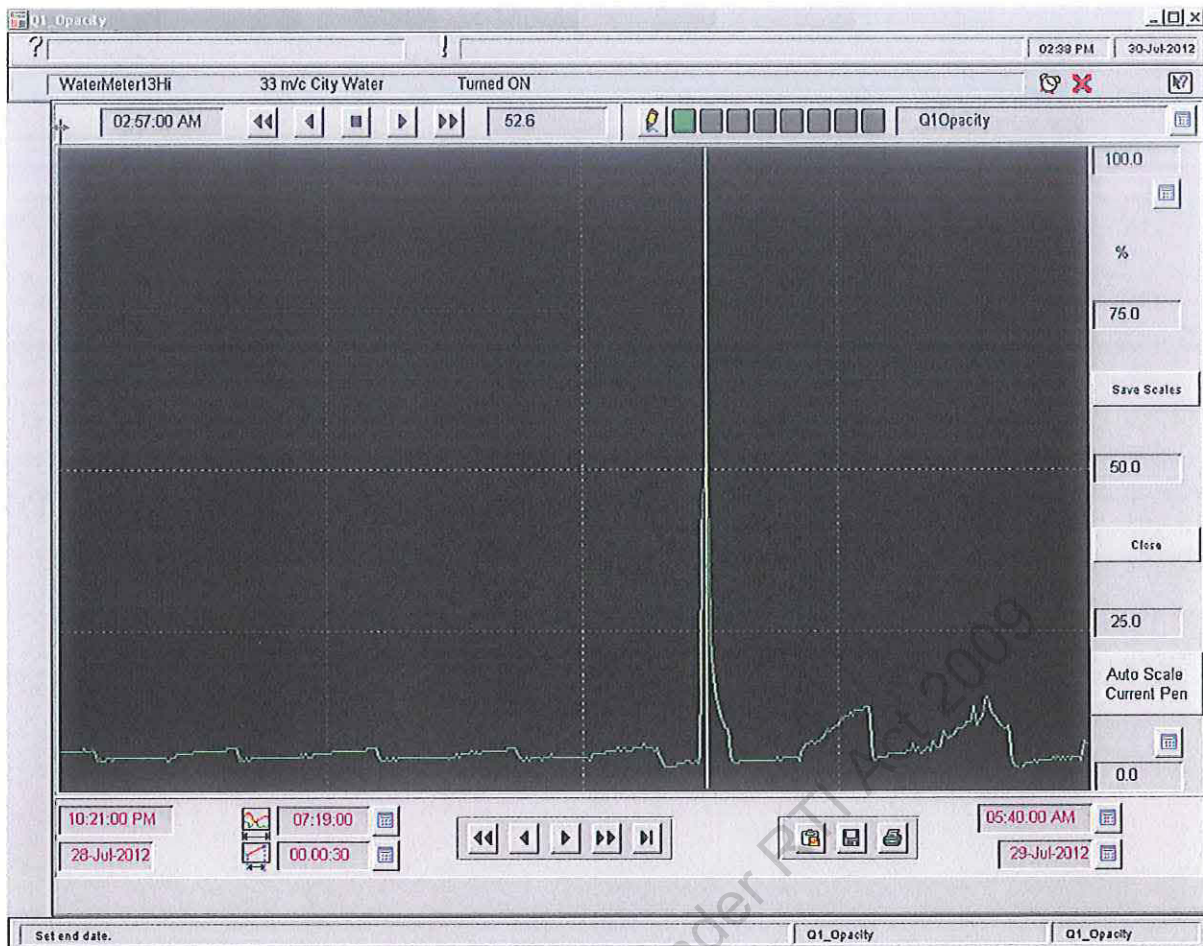
Hi Paul,

On Sunday morning we experienced an Opacity Spike on QG1 furnace. Below is the investigation report.

Implementation of the permanent resolution is in progress and is due for completion within 2 weeks. The furnace gas will run through the bypass regulator in the meantime.

Released by EHP under RTI Act 2009

Description:			
QG1 Opacity Spike			
How was the Permanent Resolution Implemented? ✓			
r			
Permanent Resolution:			
Replace faulty main gas regulator with a new regulator			
Root Cause:			
Faulty main gas regulator			
Time and Place:			
Site/Plant:	Brisbane	Site Env. Co-ord:	Carissa Bahr/Operations/Bris
Incident Date:	29/07/2012	Incident Time:	02:55:00
Incident Reported To:	Nick Bolton/Brisbane/ACL_GLASS/AU	Time Reported:	02:32:30 PM
Incident Information:			
Nature of Incident:	☒ Air ☐ Trade Waste ☐ Waste ☐ Other ☐ Noise ☐ Storm Water ☐ Property Risk		
Air Pollution:	☐ Dust ☐ Chemical ☐ Raw Material ☐ Other ☐ Smoke ☐ Oil ☒ Stack		
Odour:	☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ Chemical		
Source/Location:	QG1 Furnace		
Colour:	Grey		
Texture (Dense, Fluff.):			
Duration:	3 minutes		
Wind Direction:			
Additional Information:			
The gas regulator on QG1 failed to shut off the gas completely during a changeover, leading to a changeover abort. The controls were put into manual and the system reset so that the on and the system put back into automatic. The regulator allowed excess gas into the furnace, causing a high gas:air ratio, which resulted in an opacity spike of 52.6% for a total of 3 minutes.			
Immediate Action Taken:			
The gas was switched to the bypass regulator and the system stabilised.			



Nick Bolton
Environment, Safety & RRTW Coordinator
Risk Department, O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane, 4101

Office: +61 7 3335 8023
Fax: +61 7 3335 8163
Company Website: www.o-i.com

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O-I makers of pure, sustainable,
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Rennex Graham

From: nick.bolton@ap.o-i.com
 Sent: Tuesday, 31 July 2012 10:27 AM
 To: Rennex Graham
 Cc: Carissa.Bahr@ap.o-i.com
 Subject: RE: QG1 Opacity Spike

Graham,

There were no complaints or odour issues for this incident. No visual confirmation was made.

Unfortunately we have experienced another opacity spike this morning on our QG3 furnace. I will send an email directly with the investigation report.

Each incident is investigated with a Root Cause Analysis and Permanent Resolutions implemented and verified. We will continue to take a proactive approach to communicating with EHP in relation to any incidents.

You will be contacted today by O-I Brisbane Risk Manager Carissa Bahr to discuss a suitable time and date to conduct an on-site inspection.

Regards,

Nick Bolton
 Environment, Safety & RRTW Coordinator
 Risk Department, O-I Brisbane Plant

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 South Brisbane, 4101

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"Rennex Graham"
 <Graham.Rennex@ehp.qld.gov.au>

31/07/2012 08:47 AM

To <nick.bolton@ap.o-i.com>,
 cc "Rennex Graham"
 <Graham.Rennex@ehp.qld.gov.au>
 Subject RE: QG1 Opacity Spike

Hi Nick

Any complaints from neighbours if so let me know so I can follow up?
 Any odour issues to report?

Is this an ongoing maintenance issue – (Two notifications this month to the department?)

Can you send me an update when issue is resolved?

In the coming months an audit inspection will be conducted at O-I
 O-I will be advised of an agreed time and date of the audit and any documents required by EHP

Regards

Graham Rennex
 Ph: 07 38963368
 QNET: 63368
 Environmental Services and Regulation Division
 Southern Region

1/08/2012

14-493

File A

15 of 229

Brisbane City South

Department of Environment and Heritage Protection

Email: Graham.Rennex@ehp.qld.gov.au

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FYI and follow up

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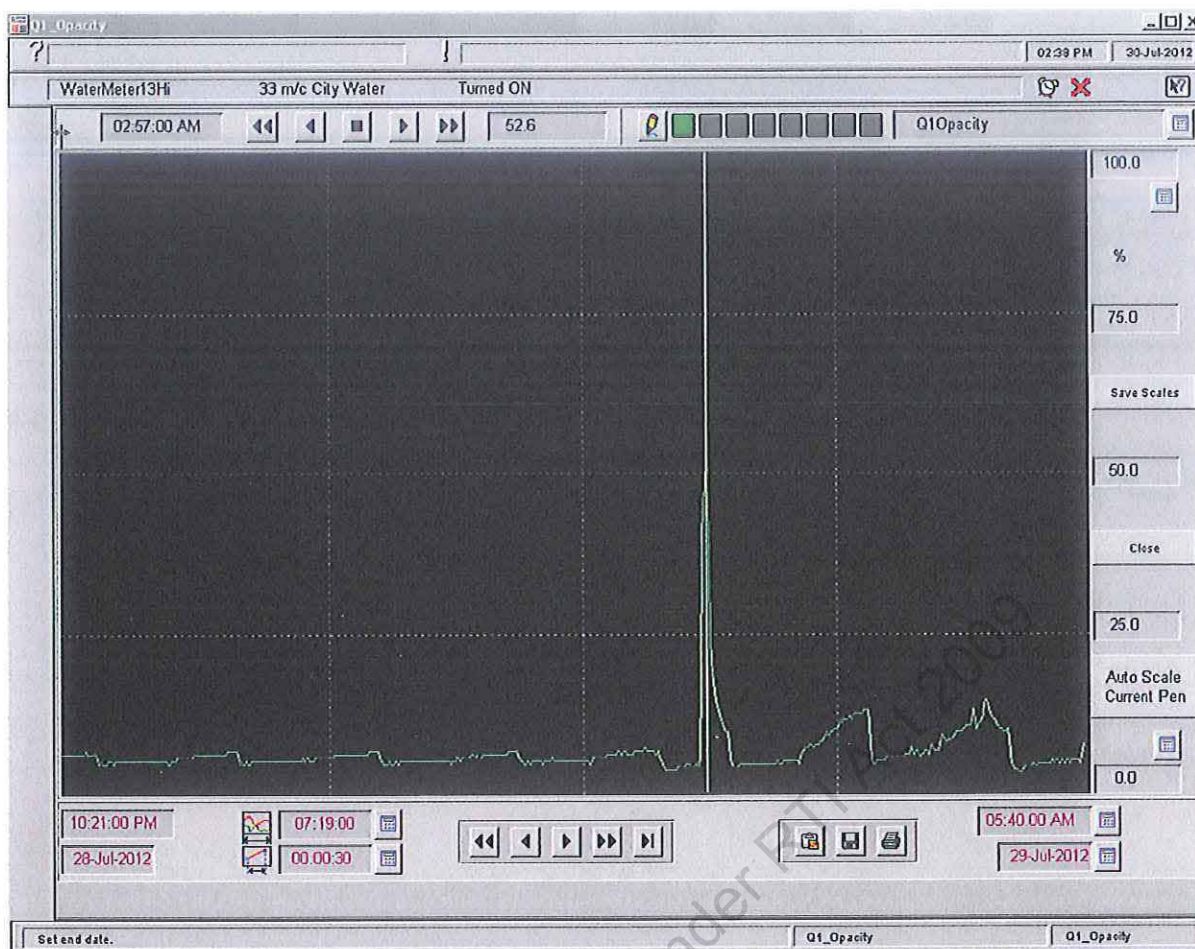
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To: Butcher Paul
Cc: Carissa.Bahr@ap.o-i.com
Subject: QG1 Opacity Spike

Hi Paul,

On Sunday morning we experienced an Opacity Spike on QG1 furnace. Below is the investigation report.

Implementation of the permanent resolution is in progress and is due for completion within 2 weeks. The furnace gas will run through the bypass regulator in the meantime.

Description:			
QG1 Opacity Spike			
How was the Permanent Resolution Implemented? ✓			
Permanent Resolution:			
Replace faulty main gas regulator with a new regulator			
Root Cause:			
Faulty main gas regulator			
Time and Place:			
Site/Plant:	Brisbane	Site Env. Co-ord:	Carissa Bahr/Operations/Bris
Incident Date:	29/07/2012	Incident Time:	02:55:00
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Incident Information:			
Nature of Incident:	☒ Air ☐ Trade Waste ☐ Waste ☐ Other ☐ Noise ☐ Storm Water ☐ Property Risk		
Air Pollution:	☐ Dust ☐ Chemical ☐ Raw Material ☐ Other ☐ Smoke ☐ Oil ☒ Stack		
Odour:	☐ Earthy ☐ Sewer ☐ Burn/Smokey ☐ Sulphur ☐ Chemical		
Source/Location:	QG1 Furnace		
Colour:	Grey		
Texture (Dense, Fluff.):			
Duration:	3 minutes		
Wind Direction:			
Additional Information:			
The gas regulator on QG1 failed to shut off the gas completely during a changeover, leading to a changeover abort. The controls were put into manual and the system reset so that the on and the system put back into automatic. The regulator allowed excess gas into the furnace, causing a high gas:air ratio, which resulted in an opacity spike of 52.6% for a total of 3 minutes.			
Immediate Action Taken:			
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QG1

CR55192

Rennex Graham

From: Butcher Paul
 Sent: Monday, 30 July 2012 4:12 PM
 To: Rennex Graham
 Subject: FW: QG1 Opacity Spike
 FYI and follow up

Regards

Paul

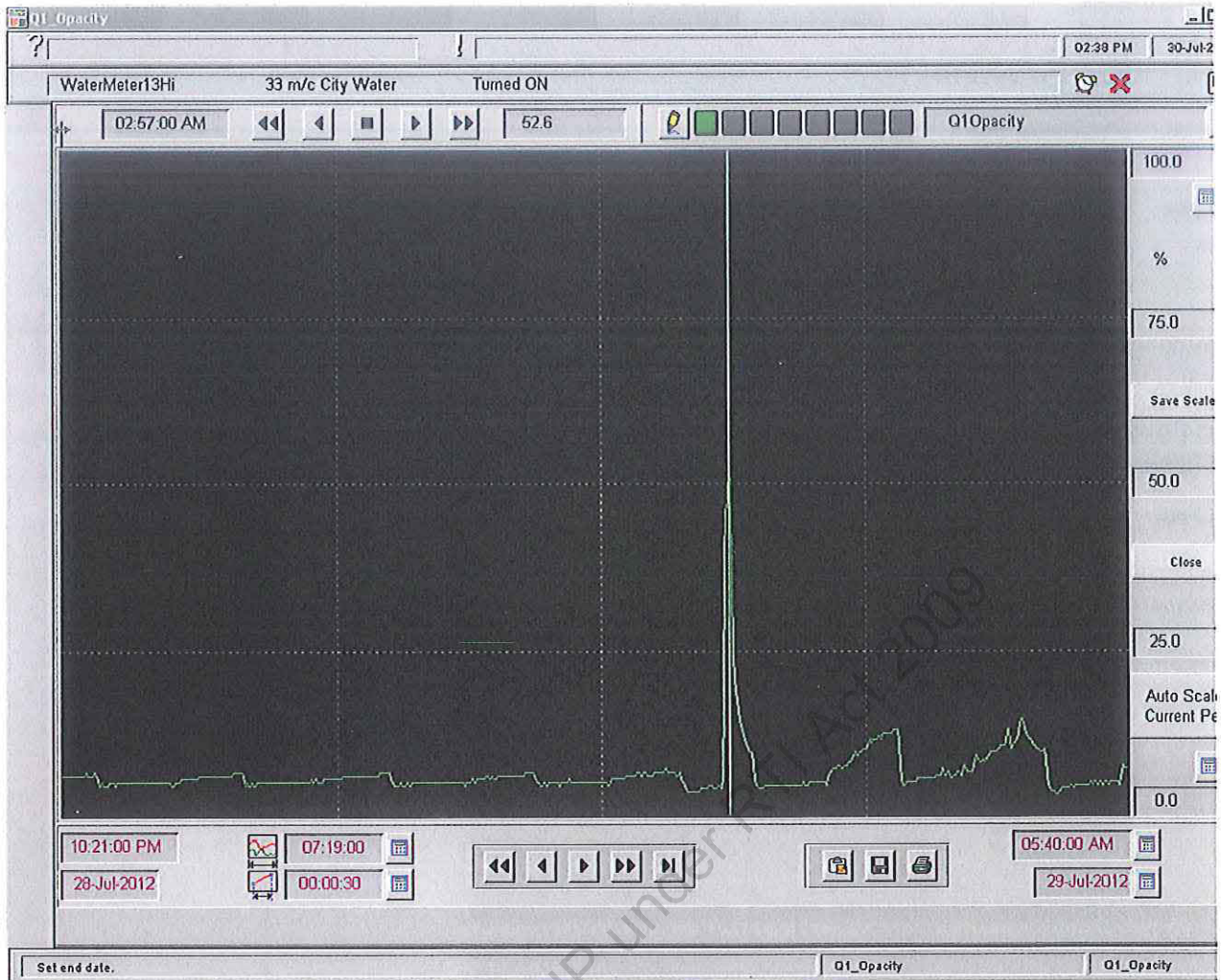
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✓	
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Root Cause:	
Faulty main gas regulator	
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Site/Plant:	Brisbane
Incident Date:	29/07/2012
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Source/Location:	QG1 Furnace
Colour:	Grey
Texture (Dense, Fluff..):	
Duration:	3 minutes
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Additional Information:	
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Immediate Action Taken:	
The gas was switched to the bypass regulator and the system stabilised.	



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Fax: +61 7 3335 8163

Company Website: www.o-i.com



makers of pure, sustainable,
brand-building glass packaging

GlassIsLife.com

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19

CR54959

Complaint/Report Details

Complaint/Report Ref: CR54959

Priority/Sensitive: N

Complainant

Ref	Name	Address	Phone	Mobile	Fax	Email
400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Alleged Source

Ref	Name	Address	Phone	Mobile	Fax	Email
400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Incident Location

Name	Risk Level	Address
ACI Glass Packaging Brisbane	2 Low	137 Montague Road SOUTH BRISBANE QLD 4101

Type: Alleged Compliance Issue

Nature: Air - GENERAL

Received Date: 06/JUL/12

Receiving Officer: RENNEX, Graham

Receiving Office: ES-RSD-SER-Brisbane City South

Status: Received

Origin: Notification by source

Notification Method: Email

Project Manager: RENNEX, Graham

Responsible Office: ES-RSD-SER-Brisbane City South

Description

Event On/From Date: Event On/From Time: Received Time:
Event To Date: Event To Time: Ongoing: N Print Related Permits: N

Description

Yesterday O-I experienced a minor opacity spike on our QG3 stack. We have identified the root cause and rectified the immediate issue and are in the process of implementing checks in our maintenance system to ensure this incident will not occur again.

Running Sheet Summary

Accrued Time: 2 hrs 0 mins

First Action	Date Commenced	Due Date	Action Type	Officer Involved	Outcome	Date Completed
Y	06/JUL/12	06/JUL/12	Allocation	RENNEX, Graham	NFA - enquiry answered	06/JUL/12

Related Complaints/Reports

Ref	Complainant	Alleged Source	Incident Location	Received Date
CR8591	sch3(10)(1)(b)	Confidential source of information	ACI Glass Packaging Brisbane	27/JUL/04



Running Sheet Summary

Complaint/Report Ref: CR54959

Complainant

Ref	Name	Address	Phone	Mobile	Fax	Email
400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Alleged Source

Ref	Name	Address	Phone	Mobile	Fax	Email
400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Incident Location

Name	Risk Level	Address
ACI Glass Packaging Brisbane	2 Low	137 Montague Road SOUTH BRISBANE QLD 4101

Source Ref: CR54959

Action Source Ref:

Date Commenced: 06/JUL/12

First Action: Y

Officer Involved: RENNEX, Graham

Responsible Office: ES-RSD-SER-Brisbane City South

Action Type: Allocation

Inspection Type: Proactive - Initial

Enforcement Measure Type: Management Program

Referral To: Other

Action: Yesterday we experienced a minor opacity spike on our QG3 stack. We have identified the root cause and rectified the immediate issue and are in the process of implementing checks in our maintenance system to ensure this incident will not occur again.

Time Spent Hours: 2

Time Spent Minutes:

Outcome: NFA - enquiry answered

Outcome Description: Below is the completed investigation report into the QG3 Opacity Spike of July 2nd. These are the responses to your previous email:

Was filter cleaning/replacement on the maintenance schedule (QG3 Stack)? The filter cleaning/replacement was not on the maintenance schedule.

If not why? The schedule was established by the previous Batch & Furnace Manager and was not inclusive of this item.

Can you send me a copy of the updated TPM check sheet? The updated TPM check sheet is in a screen shot within the investigation report below. Where there any complaints from the public/other businesses regarding this incident? There were no complaints from any parties

No Action Taken

Due Date: 06/JUL/12

Date Completed: 06/JUL/12

19

CR54959

ACI Now - Owens International (O-I)

Graham Rennex
Ph: 07 38963368
QNET: 63368
Environmental Services and Regulation Division
Southern Region
Brisbane City South
Department of Environment and Heritage Protection

Email: Graham.Rennex@ehp.qld.gov.au

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From: nick.bolton@ap.o-i.com [mailto:nick.bolton@ap.o-i.com]
Sent: Thursday, 5 July 2012 4:49 PM
To: Rennex Graham
Cc: Carissa.Bahr@ap.o-i.com; Rafael.Olguin@ap.o-i.com; Robert.Hawe@ap.o-i.com
Subject: Re: FW: O-I Brisbane Opacity Spike QG3

Hi Graham,

Below is the completed investigation report into the QG3 Opacity Spike of July 2nd. These are the responses to your previous email:

- **Was filter cleaning/replacement on the maintaince schedule (QG3 Stack)?** The filter cleaning/replacement was not on the maintenance schedule.
- **If not why?** The schedule was established by the previous Batch & Furnace Manager and was not inclusive of this item.
- **Can you send me a copy of the updated TPM check sheet?** The updated TPM check sheet is in a screen shot within the investigation report below.
- **Where there any complaints from the public/other businesses regarding this incident?** There were no complaints from any parties.

Please contact me if you require further information.

**Description:**

QG3 Opacity Spike

**Notification Required:**

External Regulatory Bodies Notification Required?	☒ Yes ☐ No
Notification Required By:	☒ Environmental Protection Authority ☐ ☐ Local Council ☐ ☐ Water Board
External Regulatory Bodies Notified:	☒ Environmental Protection Authority

Released by EHP under RTI Act 2009

**How was the Permanent Resolution Verified?**

Check is now in place in Brisbane Switchboard (see screenshot).

**How was the Permanent Resolution Implemented?**

Check was added to the TPM checksheet by Rafael Olguin, Batch & Furnace Manager.

**Permanent Resolution:**

Add a check of the keystone valve operation to the Total Predictive Maintenance checksheet.

**Root Cause:**

There was a dirty filter in the air supply to the pneumatic valve. This resulted in lower air pressure which accounted past the tolerable threshold and automatically adjusted air supply to compensate, resulting in a higher fuel:air

**Time and Place:**

Site/Plant:	Brisbane
Incident Date:	02/07/2012
Incident Reported To:	Nick Bolton/Brisbane/ACI_GLASS/AU

**Incident Information:**

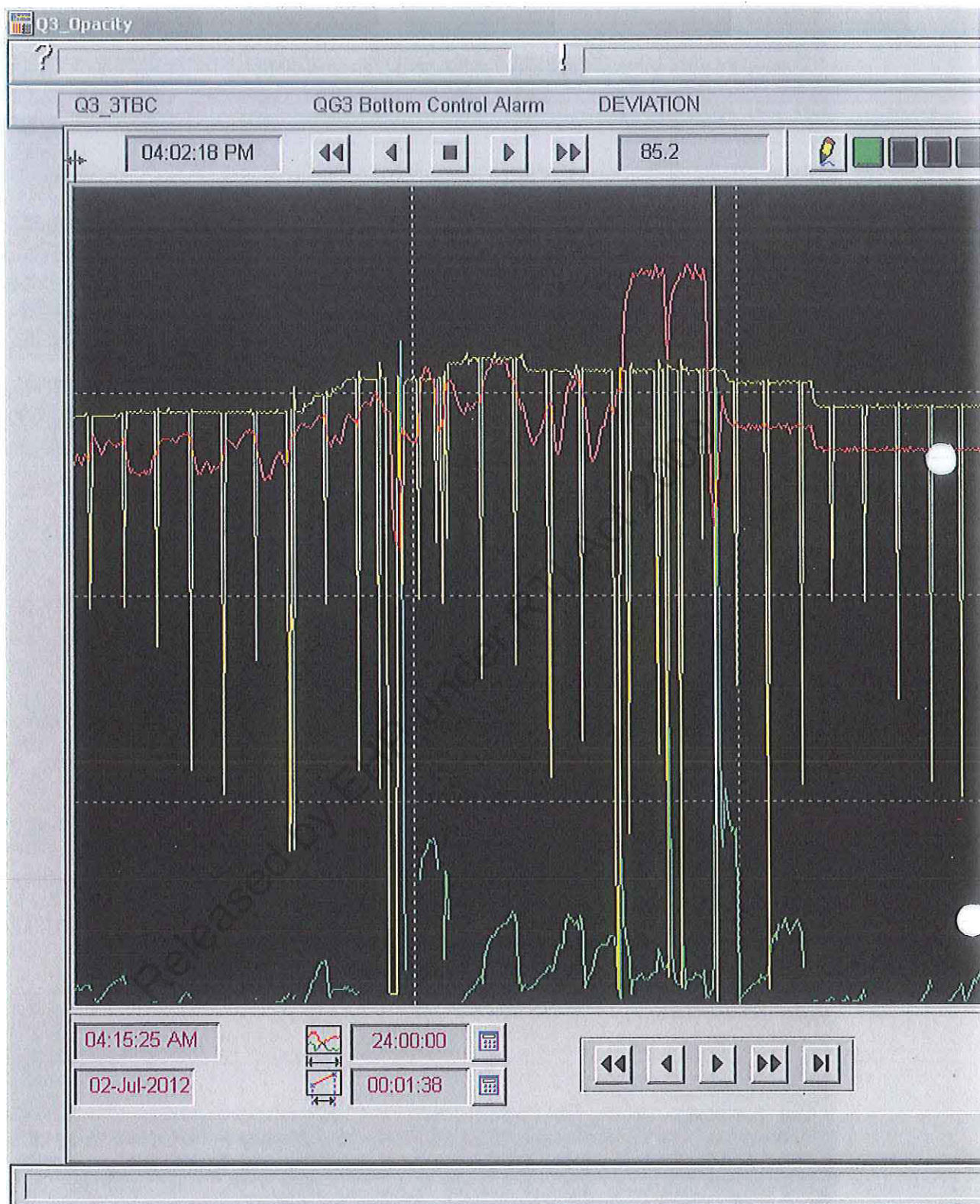
Nature of Incident:	☒ Air	☐ Trade Waste	☐ Waste	☐ Other
	☐ Noise	☐ Storm Water	☐ Property Risk	
Air Pollution:	☐ Dust	☐ Chemical	☐ Raw Material	☐ Other
	☐ Smoke	☐ Oil	☒ Stack	
Odour:	☐ Earthy	☐ Sewer	☐ Burnt/Smokey	☐ Sulphur
Source/Location:	QG3 Furnace			
Colour:	Grey			
Texture (Dense, Fluff..):				
Duration:	5 & 3 minutes			
Wind Direction:				

**Additional Information:**

During a changeover, the pneumatic keystone gang valve moved too slowly, resulting in excess oxygen in the compensate. The sudden drop in air supply created a higher gas:air ratio, causing the opacity to spike at 82.2 85.2% opacity. This was due to a higher gas:air ratio related to the first incident.

**Immediate Action Taken:**

After the first opacity spike, adjustments were made by an electrician to the controls and opacity returned to normal.





Brisbane Switchboard

Home Line Checks TPM EDS Reports CCP Planning Tools OH&S Traini

Rat holes? Please note location	Pass/Fail			
Previous Patches? Please note any deterioration	Pass/Fail			

QG3 Change Over

Category properties

Title: QG3 Change Over



Delete



Save

Check field recei
added to ensure
opacity issues ar

Checks in this category:

Title	Type	Units	Pass range	Warning range
Cable in good condition	Pass/Fail			
Prox switches in position	Pass/Fail			
Keystone valves operating at full motion?	Pass/Fail			

QG3 Throat

Nick Bolton
Environment, Safety & RRTW Coordinator
Risk Department, O-I Brisbane Plant

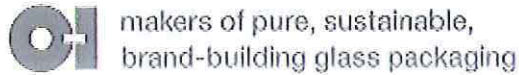
PO Box 3017
137 Montague Road
South Brisbane, 4101

Office: +61 7 3335 8023

sch3(10)(1)(b) Confidential source of information

Fax: +61 7 3335 8163

Company Website: www.o-i.com



GlassLife.com

"Rennex Graham"
<Graham.Rennex@ehp.qld.gov.au>

04/07/2012 08:51 AM

To <nick.bolton@ap.o-i.com>,
cc "Rennex Graham" <Graham.Rennex@ehp.qld.gov.au>
Subject FW: O-I Brisbane Opacity Spike QG3

Hi Nick

QG3 Opacity Spike

The root cause of the incident was a dirty filter

- Was filter cleaning/replacement on the maintainence schedule (QG3 Stack)?
- If not why?
- Can you send me a copy of the updated TPM check sheet?
- Where there any complaints from the public/other businesses regarding this incident?

Regards

Graham Rennex
Ph: 07 38963368
QNET: 63368
Environmental Services and Regulation Division
Southern Region
Brisbane City South
Department of Environment and Heritage Protection
Email: Graham.Rennex@ehp.qld.gov.au

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From: nick.bolton@ap.o-i.com [<mailto:nick.bolton@ap.o-i.com>]

Sent: Tuesday, 3 July 2012 12:01 PM

To: Butcher Paul

Subject: O-I Brisbane Opacity Spike QG3

Hi Paul,

Yesterday we experienced a minor opacity spike on our QG3 stack. We have identified the root cause and rectified the immediate issue and are in the process of implementing checks in our maintenance system to ensure this incident will not occur again.

Below is the investigation report as it currently stands. Please call me if you require further information.

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**Description:**

QG3 Opacity Spike

**Permanent Resolution:** ✓

Add filter cleaning of this air supply to Total Predictive Maintenance checksheet.

**Root Cause:**

There was a dirty filter in the air supply to the pneumatic valve. This resulted in lower air pressure which accou

**Time and Place:**

Site/Plant:	Brisbane
Incident Date:	02/07/2012
Incident Reported To:	Nick Bolton/Brisbane/ACI_GLASS/AU

**Incident Information:**

Nature of Incident:	☒ Air	☐ Trade Waste	☐ Waste	☐ Other
	☐ Noise	☐ Storm Water	☐ Property Risk	
Air Pollution:	☐ Dust	☐ Chemical	☐ Raw Material	☐ Other
	☐ Smoke	☐ Oil	☒ Stack	
Odour:	☐ Earthy	☐ Sewer	☐ Burnt/Smokey	☐ Sulphur
Source/Location:	QG3 Furnace			
Colour:	White			
Texture (Dense, Fluff..):				
Duration:	5 minutes			
Wind Direction:				

**Additional Information:**

During a changeover, the pneumatic keystone gang valve moved too slowly, resulting in excess oxygen in the

**Immediate Action Taken:**

Air/fuel ratio controls were put into manual until the keystone valve issue could be rectified.

Regards,

Nick Bolton

Environment, Safety & RRTW Coordinator
Risk Department, O-I Brisbane PlantPO Box 3017
137 Montague Road
South Brisbane, 4101Office: +61 7 3335 8023
sch4p4(6) Personal information

Fax: +61 7 3335 8163
Company Website: www.o-i.com



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(16)

CR52406

Butcher Paul

From: Carissa.Bahr@ap.o-i.com
Sent: Thursday, 29 September 2011 4:35 PM
To: Butcher Paul
Subject: QG1 Furnace Opacity Spike

Good afternoon Paul,

Please find attached the initial report of an Opacity Spike on QG1 Furnace. Opacity spiked at 74.7% for 1 minute although we have no visual confirmation on the emissions. We are completing the investigation at the moment and I'll send it through as soon as we complete it.

Regards
 Carissa Bahr

sch4p4(6) Personal information

Site/Plant	Brisbane	Site Env. Co-ord.	Carissa Ba
Incident Date	27/09/2011	Incident Time	3:32:26 pm
Incident Reported To	Carissa Bahr/Operations/Brisbane/ACI_GLASS/AU	Time Reported	
Incident Information 			
Nature of Incident	☒ Air ☐ Trade Waste ☒ Waste ☐ Other ☐ Noise ☐ Storm Water ☐ Property Risk		
Air Pollution	☐ Dust ☐ Chemical ☐ Raw Material ☐ Other ☒ Smoke ☐ Oil ☐ Stack		
Odour	☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ Chemical		
Source/Location	QG1 Furnace		
Colour			
Texture (Dense, Fluff...)	74.7% Opacity		
Duration	1min 6 secs		
Wind Direction			
Additional Information 			
At 3.32pm 27 September 2011 on QG1 Furnace the stack louvre was unable to move. This caused opacity to spike for 1 minute 6 seconds.			
Immediate Action Taken 			
Stack louvre was freed by the Furnace Operators.			

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Released by EHP under RTI Act 2009

Butcher Paul

From: Carissa.Bahr@ap.o-i.com
Sent: Friday, 30 September 2011 12:35 PM
To: Butcher Paul
Subject: RE: QG1 Furnace Opacity Spike
Attachments: Document.pdf

Hello Paul,

Please find attached the completed investigation report into the Opacity spike on QG1 Furnace. If you require further information, please let me know.

Regards
Carissa Bahr

sch4p4(6) Personal information

"Butcher Paul" <paul.butcher@derm.qld.gov.au>

29/09/2011 04:37 PM

To <Carissa.Bahr@ap.o-i.com>

cc

Subject RE: QG1 Furnace Opacity Spike

Thanks Carissa.

Regards

Paul Butcher

Principal Environmental Officer - Brisbane City South
Environmental Services - South East Region
Department of Environment and Resource Management
Ph:(07) 3238 3819 Fax: (07) 3406 2578

Level 4 Landcentre, Cnr Main and Vulture Streets, Woolloongabba Q 4102
GPO Box 2771 BRISBANE QLD 4001

From: Carissa.Bahr@ap.o-i.com [mailto:Carissa.Bahr@ap.o-i.com]
Sent: Thursday, 29 September 2011 4:35 PM
To: Butcher Paul
Subject: QG1 Furnace Opacity Spike

Good afternoon Paul,

4/10/2011
14-493

File A

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Please find attached the initial report of an Opacity Spike on QG1 Furnace. Opacity spiked at 74.7% for 1minute although we have no visual confirmation on the emissions. We are completing the investigation at the moment and I'll send it through as soon as we complete it.

Regards

Carissa Bahr

sch4p4(6) Personal information

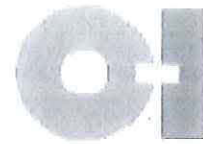
Site/Plant	Brisbane	Site Env. Co-ord.	Carissa Ba
Incident Date	27/09/2011	Incident Time	3:32:26 pm
Incident Reported To	Carissa Bahr/Operations/Brisbane/ACI_GLASS/AU	Time Reported	
Incident Information 			
Nature of Incident	☒ Air ☐ Trade Waste ☐ Waste ☐ Other ☐ Noise ☐ Storm Water ☐ Property Risk		
Air Pollution	☐ Dust ☐ Chemical ☐ Raw Material ☐ Other ☒ Smoke ☐ Oil ☐ Stack		
Odour	☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ Chemical		
Source/Location	QG1 Furnace		
Colour			
Texture (Dense, Fluff..)	74.7% Opacity		
Duration	1min 6 secs		
Wind Direction			
Additional Information 			
At 3.32pm 27 September 2011 on QG1 Furnace the stack louvre was unable to move. This caused opacity to spike for 1minute 6 seconds.			
Immediate Action Taken 			
Stack louvre was freed by the Furnace Operators.			

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Think B4U Print

1 ream of paper = 6% of a tree and 5.4kg CO2 in the atmosphere

Environmental Reporting Incident

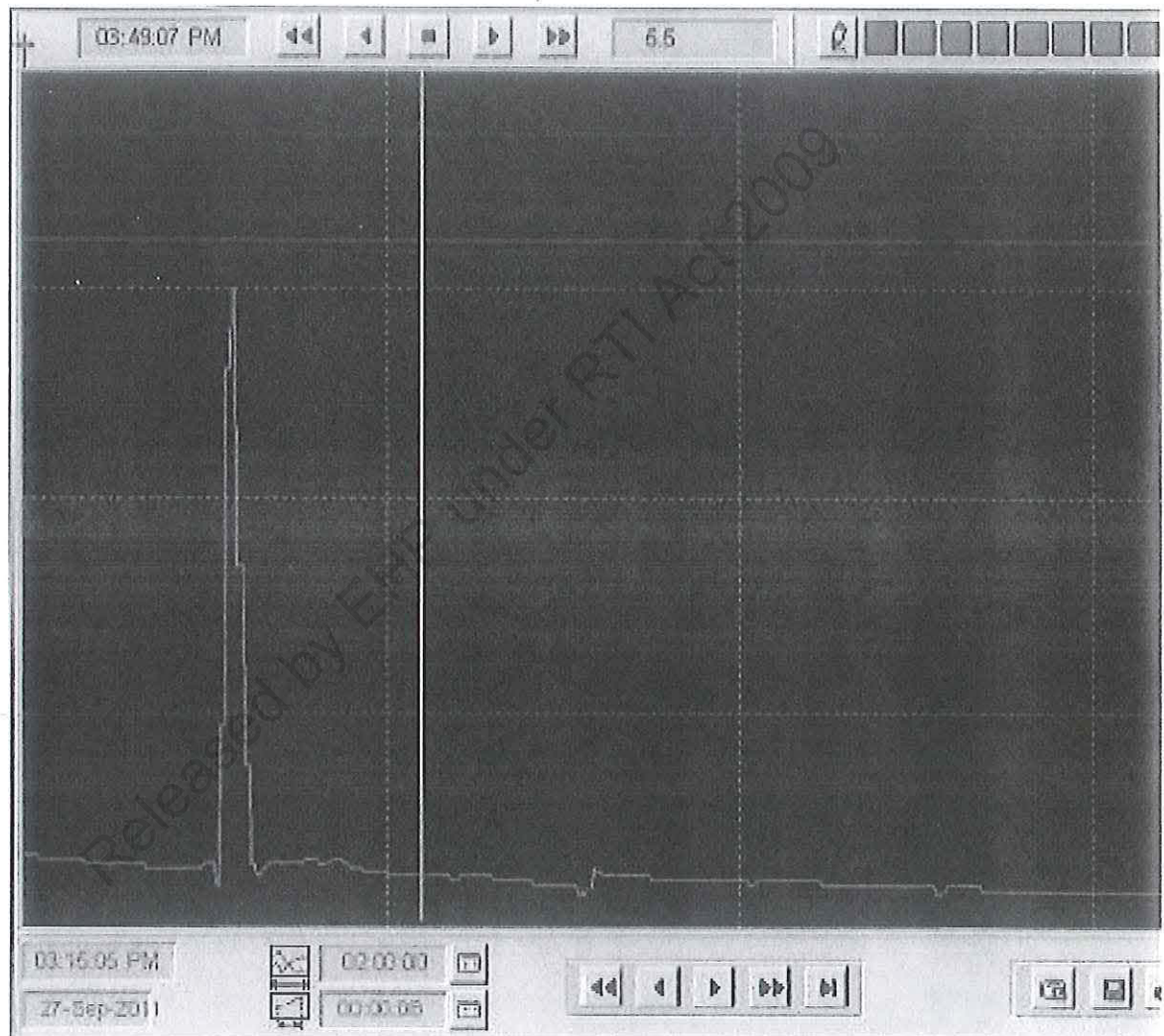


Stage 7. Closed

Work Notes / Attachments

No notes recorded

Attachments:



Related Issues

Description

CG1 Opacity Spike

Notification Required

External Regulatory Bodies ☒ Yes ☐ No

Notification Required?

Notification Required By:

- ☒ Environmental Protection Authority
 ☐ Work Cover
☐ Local Council
 ☐ FM Global
☐ Water Board

External Regulatory Bodies Notified: ☒ Environmental Protection Authority

How was the Permanent Resolution Verified?

Document entered into Hummingbird. Review of TPM Check sheet data.

How was the Permanent Resolution Implemented?

Batch & Furnace Manager Natasha Bova has reviewed the work instruction and entered it into Hummingbird. Reminders given to Furnace Operators on the importance of completing TPM Check Sheets.

Permanent Resolution

Opportunity taken to complete preventative maintenance actions on stack louvre.
 Review and modification to method in Work Instruction Isolation of Gas Ports QG1 (Document #335145).
 Reinforcement with Furnace Operators for TPM Check Sheets to be completed on day shift.

Root Cause

On investigation of the cause of the Stack Louvre not moving, it was found that batch material had jammed the mechanism. On further investigation it was found a number of factors contributed to the opacity spike:
 1. At the time of the incident, the gas for port 1 was being isolated in preparation for burner block maintenance. As the gas was reduced, the pressure inside the furnace was also adjusted meaning the stack louvre required to change.
 2. The daily TPM Check Sheet was not completed on the morning of the incident due to the maintenance work.

Time and Place

Site/Plant	Brisbane	Site Env. Co-ord.	Carissa Bahr/Operations/Brisbane/ACI_GLASS/AU
Incident Date	27/09/2011	Incident Time	3:32:28 pm
Incident Reported To	Carissa Bahr/Operations/Brisbane/ACI_GLA SS/AU	Time Reported	

Incident Information

Nature of Incident	☒ Air ☐ Trade Waste ☐ Waste ☐ Other ☐ Noise ☐ Storm Water ☐ Property Risk
Air Pollution	☐ Dust ☐ Chemical ☐ Raw Material ☐ Other ☒ Smoke ☐ Oil ☐ Stack
Odour	☐ Earthy ☐ Sewer ☐ Burnt/Smoky ☐ Sulphur ☐ Chemical
Source/Location	QG1 Furnace
Colour	
Texture (Dense, Fluff..)	74.7% Opacity
Duration	1min 6 secs
Wind Direction	

Additional Information

At 3:32pm 27 September 2011 on QG1 Furnace the stack louvre was unable to move. This caused opacity to a spike for 1minute 6 seconds to 74.7% - there was no visual confirmation by employees.

Natasha Bova, Batch & Furnace Manager reported the incident to Carissa Bahr, Risk Manager via email on 28 September 2011. An email was sent to Paul Butcher, Environmental Officer, DERM on 29 September 2011, reporting the opacity spike by Carissa Bahr.

Immediate Action Taken

Stack louvre was freed by the Furnace Operators.

(15)

Relates to CR52292

Butcher Paul

From: Carissa.Bahr@ap.o-i.com
Sent: Friday, 23 September 2011 2:44 PM
To: Butcher Paul
Subject: RE: Smoke issues
Importance: High
Attachments: Document.pdf

Good afternoon Paul,

Please find attached the investigation report into the smoke issue QG1 Furnace on 20th July 2011. The incident was fully investigated with controls immediately implemented on the day of the incident. I believe the controls implemented will prevent a similar incident occurring again. This was the first incident of smoke we have experienced since the re-start of the furnaces after the Brisbane River flood.

I found the incident had not been reported to my department and not recorded in the daily production log on the day, meaning a notification of an environmental incident was not completed although an investigation was and controls implemented. Due to the breakdown of our procedure for reporting an environmental incident, all O-I Brisbane Department Managers are undertaking re-training on the procedure to ensure it does not happen again. The Department Manager responsible has been spoken to and understands the importance of what has happened.

If you require further information regarding the incident, please contact me.

Regards

Carissa Bahr

Risk Manager

sch4p4(6) Personal information

"Butcher Paul" <paul.butcher@derm.qld.gov.au>

14/09/2011 04:27 PM

To <Carissa.Bahr@ap.o-i.com>

cc

Subject RE: Smoke issues

Thanks Carissa.

Regards

Paul Butcher

Principal Environmental Officer - Brisbane City South
 Environmental Services - South East Region
 Department of Environment and Resource Management
 Ph:(07) 3238 3819 Fax: (07) 3406 2578

23/09/2011

14-493

File A

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Level 4 Landcentre, Cnr Main and Vulture Streets, Woolloongabba Q 4102
GPO Box 2771 BRISBANE QLD 4001

From: Carissa.Bahr@ap.o-i.com [mailto:Carissa.Bahr@ap.o-i.com]
Sent: Wednesday, 14 September 2011 4:25 PM
To: Butcher Paul
Subject: Re: Smoke issues

Hi Paul,

I've had a quick look at the production recording for the 20th July and nothing out of the ordinary is recorded however I'll conduct a further review over the next few days and let you know the results.

Regards
Carissa

"Butcher Paul" <paul.butcher@derm.qld.gov.au>

14/09/2011 03:59 PM

To <Carissa.Bahr@ap.o-i.com>
cc
Subject Smoke issues

Hi Carissa,

Since we last corresponded, have you had any more issues with equipment failure etc that led to black smoke emissions? I have had a complaint belatedly come through to me about an incident on 20 July 2011 so I was after brief details of any incidents since late January that resulted in smoke, and specifically on that date.

Thanks,

Regards

Paul Butcher

Principal Environmental Officer - Brisbane City South
Environmental Services - South East Region
Department of Environment and Resource Management
Ph:(07) 3238 3819 Fax: (07) 3406 2578

Level 4 Landcentre, Cnr Main and Vulture Streets, Woolloongabba Q 4102
GPO Box 2771 BRISBANE QLD 4001

From: Carissa.Bahr@ap.o-i.com [mailto:Carissa.Bahr@ap.o-i.com]
Sent: Monday, 24 January 2011 9:44 AM
To: Butcher Paul
Subject: RE: Update on Flood Recovery

Hi Paul,

We received no complaints from residents for the smoke.

Regards
Carissa Bahr

"Butcher Paul" <paul.butcher@derm.qld.gov.au>

24/01/2011 09:37 AM

To <Carissa.Bahr@ap.o-i.com>
cc
Subject RE: Update on Flood Recovery

Thanks Carissa. Did you receive any complaints about the smoke?

Regards

Paul Butcher

Principal Environmental Officer - Brisbane City South
Environmental Services - South East Region
Department of Environment and Resource Management
Ph:(07) 3238 3819 Fax: (07) 3406 2578

Level 4 Landcentre, Cnr Main and Vulture Streets, Woolloongabba Q 4102
GPO Box 2771 BRISBANE QLD 4001

*Nominations for the 2011 Premier's ClimateSmart Sustainability Awards, which recognise Queenslanders who are ClimateSmart champions achieving excellence in sustainability, are open until **Friday 4 March 2011**. For more information on how to enter visit www.derm.qld.gov.au/premiersawards*

From: Carissa.Bahr@ap.o-i.com [mailto:Carissa.Bahr@ap.o-i.com]
Sent: Saturday, 22 January 2011 10:34 AM
To: Butcher Paul
Subject: Update on Flood Recovery

Good Morning Paul,

I thought I would give you a quick update on our recovery from the flood.

- We spent last weekend cleaning mud and removing water from the plant. We had over 300,000L of water pumped out of our pits & basement and sent to treatment facilities. The equipment in those areas have been removed and currently under repair and re-installation by our contracting companies.
- QG3 Furnace started melting glass on Thursday 21 January and we started producing bottles on Friday 22 January. It will take a few days for the furnace to settle down and for the glass quality to improve before we are back to full production.
- QG1 furnace is taking longer. We could not get heat back into the furnace until Sunday and we have slowly brought the temperature up. On Thursday 21 January, evening, we were able to start the main gas burners. Unfortunately, as the stack and regenerators were still cold, we had black smoke on changeovers. We installed more portable burners into the furnace and stopped the black smoke. The stack and regenerators are now up to normal operating temperature, and we have removed the burners with no further incidents. We are slowly melting the frozen glass in the furnace and will be unable to start production until then. At this time we have no timeframe of when this will be - it is solely dependant on the glass remelting.

If you require any further information, please let me know. I will send another update next week.

Regards
 Carissa Bahr
 Risk Manager

O-I Brisbane Plant
 137 Montague Road
 South Brisbane

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+-----+

Think B4U Print

1 ream of paper = 6% of a tree and 5.4kg CO2 in the atmosphere

3 sheets of A4 paper = 1 litre of water

+-----+

Environmental Reporting Incident



Stage 7. Closed

Work Notes / Attachments

No notes recorded


Butler Paul
 paul.butler@epa.qld.gov.au
 14/09/2011 03:53 PM

To: Carole Bahr@epa.qld.gov.au
 cc: [Redacted]
 bcc: [Redacted]
 Subject: Site Issues

From: [Redacted] (This message has been replied to and forwarded.)

Hi Carole,

Since we last corresponded, have you had any more issues with equipment failure etc that led to black smoke emissions? I have had a complaint lately even though I'm about an incident on 20 July 2011 so I was also brief details of any incidents since late January had resulted in smoke, and specifically on that date. Thanks,

Regards

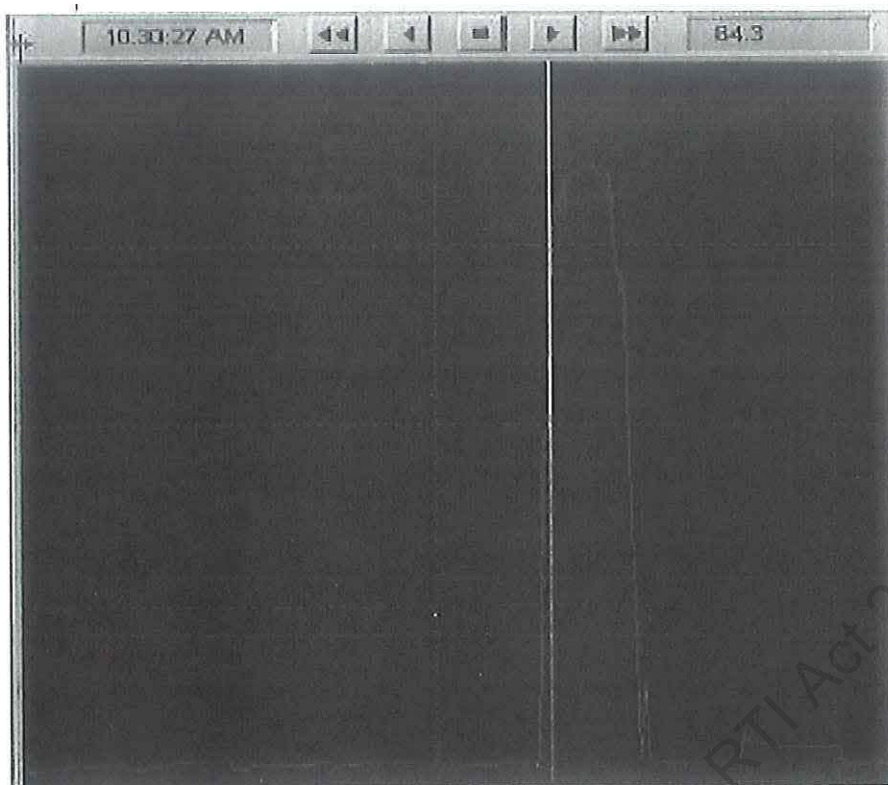
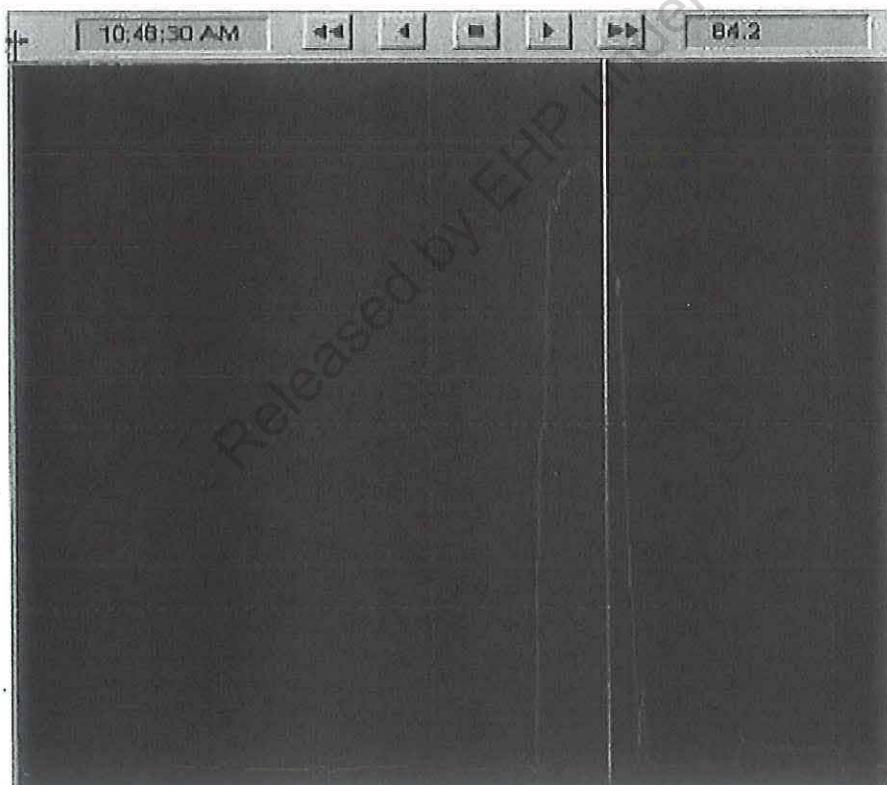
Paul Butler

Principal Environmental Officer - Brisbane City South
 Environmental Services - South East Region
 Department of Environment and Heritage Protection
 Ph (07) 3238 3019 Fax (07) 3406 2578

Level 4 Lakeside, 100 Main and Victoria Streets, West Brisbane QLD 4102
 GPO Box 27168 SANE QLD 4001

Attachments:

Released by EHP under RMA Act 2009



Related Issues

Description 

QG1 Black Smoke

Notification Required

External Regulatory
Bodies Notification
Required?☒ Yes ☐ No

Notification Required By:

☒ Environmental Protection Authority ☐ Work Cover
☐ Local Council ☐ FM Global
☐ Water BoardExternal Regulatory
Bodies Notified:☒ Environmental Protection Authority

How was the Permanent Resolution Verified?

Work instruction entered into Hummingbird

How was the Permanent Resolution Implemented?

Batch & Furnace Manager has updated the work instruction for operation of the furnace during maintenance.

Permanent Resolution

Batch & Furnace Manager has changed the procedure for when maintenance is conducted on the furnace. The procedure is now that all ports are placed in manual operation, not just the port where maintenance is conducted, for the duration of the maintenance. Only when all maintenance is completed is the furnace put back into automatic operation. This process is now removed a contributing factor to the incident.

Root Cause

Natasha Bowe, Batch & Furnace Manager, and the Process Control Engineer, Peter Benn conducted an investigation into why the process parameters changed when the furnace was placed into automatic operation from manual operation at the time of the incident. The exact root cause was unable to be determined however it is believed a computer error in the program (MCS) has caused the parameters to change. Contributing factors - only one port was in manual changing back to automatic, the furnace conducted a changeover immediately after the port was placed back into automatic.

Time and Place

Site/Plant

Brisbane

Site Env.
Co-ord.Carlssa
Bahr/Operations/Brisbane/ACI_GLASS/AU

Incident Date

20/07/2011

Incident
Time

10.26 am

Incident Reported
To:Natasha
Bowe/Operations/Brisbane/ACI_GLA
SS/AUTime
Reported

Incident Information

Nature of
Incident☒ Air ☐ Trade Waste ☐ Waste ☐ Other
☐ Noise ☐ Storm Water ☐ Property Risk

Air Pollution

☐ Dust ☐ Chemical ☐ Raw Material ☐ Other
☒ Smoke ☐ Oil ☐ Stack

Odour

☐ Earthy ☐ Sewer ☐ Burnt/Smoky ☐ Sulphur ☐ ChemicalSource/Locati
on

QG1 Furnace

Colour

Black

Texture
(Dense,
Fluffy)

86% Opacity

Duration

10.30am - 10.48am = 18
minutes

Wind Direction

Additional Information

Maintenance had been undertaken on QG1 Furnace on the morning of 20 July 2011. For preparation of the maintenance, the furnace is placed into manual operation from automatic, the maintenance is set up then the furnace is placed back into automatic except for the port where the maintenance is being conducted - this is kept in manual. Once the maintenance had been completed, the port was placed back into Automatic operation. On doing this, the set points changed from normal

parameters and the opacity of the emissions spiked at 86%.

Carissa Bahr, Risk Manager, received an email from Paul Butcher, Principle Environmental Officer DERM on 14 September 2011 informing the O-I Brisbane that he had received a complaint from a member of the community for black smoke on 20 July. On investigation by Risk Manager, it was found the incident did take place and was fully investigated by Batch 8 Furnace Manager with controls implemented however the information was not passed on to the Risk Department for notification of an environmental incident to DERM. A training program for the site's Department Managers is in progress, for re-training all person on the requirements of notification of an environmental incident.

Immediate Action Taken

CC1 Furnace was placed back into Manual operation and all set points returned to nominal operating parameters.

Released by EHP under RTI Act 2009

14

Enquires: Graham Rennex
Telephone: 07 38963368
Your reference:
Our reference: CR48183
Email: graham.rennex@derm.qld.gov.au

sch3(10)(1)(b) Confidential source of information

8 March 2010

RE: Complaint 14/02/2010 ACI Glass Factory

sch3(10)(1)(b) Confidential source of information

The Department of Environment and Resource Management (DERM) received a complaint from you on the 19 February 2010 regarding a discharge of smoke from a business located in South Brisbane. In your complaint form submitted on 1 March 2010 you stated that black smoke and ash were coming from the premises of O-I Glass Packaging Brisbane 137 Montague Road South Brisbane (formerly ACI Operations). DERM was also supplied with photographs of the incident.

On the 14 February 2010, O-I Glass Packaging Brisbane had a breakdown of a combustion air fan on a furnace after a bearing failure, causing loss of air and the discharge of black smoke through the stack. O-I notified DERM of the incident as required by the conditions of their Development Approval issued under the *Environmental Protection Act 1994*. The contaminants released would have consisted of particulates, oxides of nitrogen and oxides of sulphur.

Two DERM officers met with the company on 2 March 2010 and discussed the emission incident. O-I outlined the actions taken at the time of the incident to limit environmental harm and subsequent actions to reduce the likelihood of a recurrence. These actions include a review of procedures and the procurement of backup equipment to facilitate timely repairs should there be a recurrence of the equipment failure.

DERM is satisfied with the actions taken by O-I in response to this incident and do not intend to take any further action beyond the continued monitoring of compliance with the Development Approval. Should you wish to contact O-I directly about this incident or have other queries, please contact Carissa Bahr of O-I on 3335 8121.

With regard to your query about noise limits, O-I has an Emission of Noise Schedule as part of their Development Approval that requires the monitoring of noise levels on a six monthly basis. A noise monitoring event undertaken in January 2010 in accordance with these conditions concluded that O-I operations are in compliance with the noise limits of their Development Approval.

If you have any further queries in relation to this matter, please contact Graham
Remmex on 3896 3368.

Yours Sincerely

Scott Robinson
Manager – Brisbane City South
Environmental Services
Department of Environment and Resource Management

Released by EHP under RTI Act 2009

Environmental Reporting Incident



Stage 4: Implement permanent resolution

Assigned to Nick Bolton

Due Date 19-04-2010

Work Notes / Attachments

08/02/2010 - ENTRY BY NICK BOLTON AT STAGE: 1. RECORD INCIDENT & IMMEDIATE ACTION TAKEN

Lost gas

- reduced air into furnace to 2000scmh (manually) - 2 hours
- increased air to 7000scmh (automatic)

Gas back

- increased gas to 1100scmh (manually ramped up)
- automatic settings too slow - took 6 minutes for air:gas ratio to stabilise

Attachments:

Related Issues

Description

QG1 Black Smoke Discharge

Environmental Permit Number - ENRE00772608

Holder - ACI Operations Pty Ltd

Contact Person - Ms Carissa Bahr, Risk Manager (6) Personal information

How was the Permanent Resolution Implemented?

Permanent Resolution

Write procedure to manage adjustments of Air/Fuel ratio

Root Cause

Process - (automatic system) air doesn't ramp up at the same speed as gas, causing incorrect air:fuel ratio

Time and Place

Site/Plant Brisbane

**Site Env.
Co-ord.**

Carissa
Bahr/Operations/Brisbane/ACI_GLASS/AU

Incident Date 07-02-2010

**Incident
Time**

14:06:00

**Incident
Reported To** Carissa
Bahr/Operations/Brisbane/ACI_GLA
SS/AU

**Time
Reported**

Incident Information

**Nature of
Incident**

- ☒ Air ☐ Trade Waste ☐ Waste ☐ Other
☐ Noise ☐ Storm Water ☐ Property Risk

Air Pollution

- ☐ Dust ☐ Chemical ☐ Raw Material ☐ Other
☒ Smoke ☐ Oil ☒ Stack

Odour

- ☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ Chemical

**Source/Locati
on**

QG1

Colour

Black

Texture (Dense, Fluff..)	Black smoke above 90% opacity
Duration	6 minutes
Wind Direction	N

Additional Information

At approximately 4am, portable compressor failed due to an overheating issue, causing significant reduction in air. There was not enough air to do changeovers on the furnace, furnace into standby mode. The compressor was repaired and an attempt to start the firing on the furnace started - found a low pressure switch had failed on the gas rig due to moisture from extreme rain event overnight so still unable to restore gas to furnace, Pressure switch repaired and firing of the furnace started. As the gas was increased manually, the combustion air was set on automatic - the air did not respond at the same time as the gas, causing black smoke until the air/fuel ratio was stabilised.

Immediate Action Taken

Stabilised air:fuel ratio stopping black smoke

Released by EHP under RTI Act 2009

Environmental Reporting Incident



Stage **7. Closed**

Work Notes / Attachments

05/02/2010 - ENTRY BY NICK BOLTON AT STAGE: 1. RECORD INCIDENT & IMMEDIATE ACTION TAKEN
Contractor working on trade waste - unknown sequence of events - pump left on
Meant process failure of pumps & QG1 area flooded
Close to area a ground stormwater pipe broken
Process water entered drain - flows to Brisbane River

Attachments:

Related Issues

Description

Environmental Permit Number - ENRE00772608
Holder - ACI Operations Pty Ltd
Contact Person - Ms Carissa Bahr, Risk Management (4) (6) Personal information

Flooding of QG1 Basement Area with process water entering stormwater system through a broken pipe and flowing to Brisbane River

Notification Required

External Regulatory Bodies
Notification Required?

Notification Required By:

☒ Yes ☐ No

☒ Environmental Protection Authority ☐ Work Cover
☐ Local Council ☐ FM Global
☐ Water Board

External Regulatory Bodies Notified:

☒ Environmental Protection Authority

How was the Permanent Resolution Verified?

Visual inspection of repaired section and river outfall undertaken by Nick Bolton on Monday 8th February.

How was the Permanent Resolution Implemented?

Cap placed over open section of pipe and concreted over by contractors on Saturday 6th February

Procedure DM#210605 Stormwater Management Plan reviewed by Carissa Bahr on 15th February for any changes required with known information from incident. No changes were made to procedure.

Permanent Resolution

Drain repaired and permanently sealed to prevent process waters entering stormwater system

Root Cause

On Friday 5th February, contractor was working at O-I Brisbane Plant, attempting to fix the faulty Trade Waste meter. To complete the task, the trade waste pump was put into manual. It is unknown the next sequence of events however it was found the trade waste pump was left in manual, flooding the API Pit. This water was then pumped over to QG1 Cullet Pond. As the pumps in the QG1 Cullet pond were not primed (they had been pumped dry and need to be manually primed), the QG1 basement area began to fill with water. As the Engineering Fitters were priming the pumps, the water in the QG1 area reached a point where a ground stormwater pipe had been broken. Approximately 100L of water flowed through the broken stormwater pipe before a temporary bund was installed. The system was put back into normal operating sequence immediately after the bund was installed and the water pumped away.

Root cause - a broken stormwater drain allowing process waters to enter stormwater system

Time and Place

Site/Plant

Brisbane

Site Env.

Carissa

		Co-ord.	Bahr/Operations/Brisbane/ACI_GLASS/AU
Incident Date	05-02-2010	Incident Time	12:30:00
Incident Reported To	Carissa Bahr/Operations/Brisbane/ACI_GLA SS/AU	Time Reported	12:45:00 PM

Incident Information

Nature of Incident	☐ Air	☐ Trade Waste	☐ Waste	☐ Other
	☐ Noise	☒ Storm Water	☐ Property Risk	
Source/Location	Stormwater drain near cullet pond QG1 Basement			
Duration	5 minutes			

Additional Information

Engineering Department Filters notified Engineering Manager, Mr Gary Prickett of incident at the time. Ms Carissa Bahr, Risk Manager was notified at 12.45pm via phone of the incident.

Immediate Action Taken

Prevented more water from entering drain by placing sand bund around broken pipe. Environmental Student, Mr Nick Bolton, inspected Brisbane River at outfall - no sign of oil or contaminants. Second inspection undertaken at 3.00pm by Nick Bolton and Carissa Bahr - no sign of oil or contaminants.

Environmental Reporting Incident



Stage 4. Implement permanent resolution

Assigned to Nick Bolton

Due Date 19-04-2010

Work Notes / Attachments

12/02/2010 - ENTRY BY NICK BOLTON AT STAGE: 1. RECORD INCIDENT & IMMEDIATE ACTION TAKEN

Batch house breakdown prevented normal batch mix being sent to hoppers.

Hoppers kept topped up with 100% cullet.

Batch pattern moved back from bridge wall (due to cullet being easier to melt than batch) and crown and bridge wall temperatures started to

Furnace crown temperature elevated beyond alarm limit and PDP control system started to pull gas from the furnace.

Fuel distribution changed to remove some of the gas from ports 5 & 6 and prevent overheating of refractories, and increased Air/Fuel ratio cooling down.

After the crown temp had dropped, increased the gas and returned the Air fuel ratios to normal.

Outside the plume appeared normal - however possibly combustion air hadn't yet caught up with the set point, and was still running at an e

Over the next few minutes, as the air dropped, ports 1, 2, 3 & 4 became starved of combustion air and flames extended far into the regens very smokey.

Mike Woods saw the black smoke 10 or 15 mins later, and notified Brian Langley.

Temporarily increased the Air/Fuel ratios again to immediately prevent the black smoke, then returned the fuel distribution to normal.

The Air/Fuel ratios were then also returned to normal

Attachments:

Related Issues

Description

QG3 Black Smoke Discharge

Environmental Permit Number - ENRE00772608

Holder - ACI Operations Pty Ltd

Contact Person - Ms Carissa Bahr, Risk Manager, 0421 616 950

How was the Permanent Resolution Implemented?

Permanent Resolution

Write procedure to manage adjustments of Air/Fuel ratio

Root Cause

Incorrect adjustment of Air/Fuel ratio. Not enough air therefore black smoke emitted

Time and Place

Site/Plant Brisbane

Site Env.
Co-ord.

Carissa
Bahr/Operations/Brisbane/ACI_GLASS/AU

Incident Date 11-02-2010

Incident
Time

16:23:27

Incident
Reported To Carissa
Bahr/Operations/Brisbane/ACI_GLA
SS/AU

Time
Reported

Incident Information

Nature of
Incident

☒ Air
☐ Noise

☐ Trade Waste
☐ Storm Water

☐ Waste
☐ Property Risk

☐ Other

Air Pollution

☐ Dust
☒ Smoke

☐ Chemical
☐ Oil

☐ Raw Material
☒ Stack

☐ Other

Odour	☐ Earthy	☐ Sower	☐ Burnt/Smokey	☐ Sulphur	☐ Chemical
Source/Location	QG3				
Colour	Black				
Texture (Dense, Fluff..)	Black smoke above 90% opacity				
Duration	18 minutes				
Wind Direction	NE				

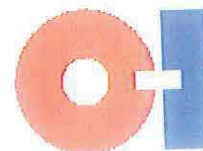
Additional Information

Batch house breakdown early on 11th February prevented normal batch mix being sent to hoppers (sand elevator). Hoppers kept topped up with 100% cullet. Batch pattern moved back from bridge wall (due to cullet being easier to melt than batch) and crown and bridge wall temperatures started to increase. Furnace crown temperature elevated beyond alarm limit and PDP control system started to pull gas from the furnace. Manufacturing Improvement Manager, Brian Langley, changed the fuel distribution to remove some of the gas from ports 5 & 6 and prevent overheating of refractories, and increased Air/Fuel ratio to assist with cooling down. After the crown temp had dropped, gas increased and returned the Air fuel ratios to normal. Brian Langley went outside and the plume appeared normal - however it is believed that the combustion air hadn't yet caught up with the set point, and was still running at an elevated level. Over the next few minutes, as the air dropped, ports 1, 2, 3 & 4 became starved of combustion air and flames extended far into the regenerators and were thus very smokey. Mike Woods, Manufacturing Manager, saw the black smoke 10 or 15 mins later, and notified Brian Langley. Temporarily increased the Air/Fuel ratios again to immediately prevent the black smoke, then returned the fuel distribution to normal. The Air/Fuel ratios were then also returned to normal.

Immediate Action Taken

Temporarily increased Air/Fuel ratios to prevent black smoke, then returned fuel distribution to normal. Air/Fuel ratios then also returned to normal.

Environmental Reporting Incident



Smoke to air

14/2/10

Stage

7. Closed

Work Notes / Attachments

No notes recorded

Attachments:

Related Issues

Description

QG3 Black Smoke Discharge

Notification Required

External Regulatory Bodies
Notification Required?

☒ Yes ☐ No

Notification Required By:

☒ Environmental Protection Authority ☐ Work Cover
☐ Local Council ☐ FM Global
☐ Water Board

External Regulatory Bodies
Notified:

☒ Environmental Protection Authority

How was the Permanent Resolution Verified?

Operation of combustion air fan and natural draught door visually inspected by Batch and Furnace Manager Mr Rafael Olguin and Environmental Student Nick Bolton at 3:45pm on 17/02/10.

How was the Permanent Resolution Implemented?

Combustion air fan was repaired. Boilermaker adjusted natural draught door level so it opens fully.

Permanent Resolution

Repair combustion air fan and natural draught door lever.

Root Cause

Lost combustion air fan and natural draught door not opening properly.

Time and Place

Site/Plant

Brisbane

Site Env.
Co-ord.

Carissa
Bahr/Operations/Brisbane/ACI_GLASS/AU

Incident Date

14-02-2010

Incident
Time

07:38:47

Incident Reported
To

Nick
Bolton/Brisbane/ACI_GLASS/AU

Time
Reported

Incident Information

Nature of
Incident

☒ Air ☐ Trade Waste ☐ Waste ☐ Other
☐ Noise ☐ Storm Water ☐ Property Risk

Air Pollution

☐ Dust ☐ Chemical ☐ Raw Material ☐ Other
☒ Smoke ☐ Oil ☒ Stack

Odour

☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ Chemical

Source/Location

QG3

Colour	Black
Texture (Dense, Fluff..)	Black, grey and white smoke of >75% opacity
Duration	07:38 - 07:39 -- >85% opacity (black smoke) 09:28 - 09:30 -- >75% opacity (grey smoke) 09:41 - 11:05 -- fluctuating between 30% and >90% opacity (grey smoke) 11:33 - 12:19 -- fluctuating between 25% and >90% (grey smoke) 16:09 - 17:08 -- >90% opacity (white smoke) 17:23 - 17:25 -- >80% opacity (white smoke)
Wind Direction	

Additional Information



Combustion air fan broke down causing a loss of air therefore black smoke discharge. Air flow sensors registered no air flow. Automatic system cut off gas within a minute.

Immediate Action Taken



Furnace operators isolated combustion air vent and attempted to open natural draught door. Found lever to be stuck therefore not allowing enough air to enter system (air flow sensor lights displaying red). Diverted cooling air for flux lines into combustion air system. Gradually ramped up gas.

Released by EHP under RTI Act 2005

Paul Butcher

From: Carissa.Bahr@ap.o-i.com
Sent: Wednesday, 17 February 2010 11:20 AM
To: Paul Butcher
Subject: Reports
Attachments: EPA Reports.pdf

Good Morning Paul,

Please find attached the incident reports for the following events:

- Stormwater Discharge
- QG1 Black Smoke
- QG3 Black Smoke

Unfortunately, we had another significant break down on Sunday 14th February (14 hours zero production) where the combustion fan on QG3 Furnace had bearings on the motor fail. We are still in the process of compiling the report and will send it through to you as soon as possible.

Please let us know of a suitable time for us to meet and review the incidents. I am available most days over the next two weeks.

Regards
 Carissa Bahr
 Risk Manager

O-I Glass Packaging - Brisbane Plant
 137 Montague Road
 South Brisbane
 Phone: 07 3335 8121

Mobile: 04 (6) Personal information

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24/02/2010

Environmental Reporting Incident

Process water to river
5/2/10



Stage 7. Closed

Work Notes / Attachments

05/02/2010 - ENTRY BY NICK BOLTON AT STAGE: 1. RECORD INCIDENT & IMMEDIATE ACTION TAKEN
Contractor working on trade waste - unknown sequence of events - pump left on
Meant process failure of pumps & QG1 area flooded
Close to area a ground stormwater pipe broken
Process water entered drain - flows to Brisbane River

Attachments:

Related Issues

Description

Environmental Permit Number - ENRE00772608
Holder - ACI Operations Pty Ltd
Contact Person - Ms Carissa Bahr, Risk Manager (6) Personal information

Flooding of QG1 Basement Area with process water entering stormwater system through a broken pipe and flowing to Brisbane River

Notification Required

External Regulatory Bodies
Notification Required?

Notification Required By:

☒ Yes ☐ No

☒ Environmental Protection Authority ☐ Work Cover
☐ Local Council ☐ FM Global
☐ Water Board

External Regulatory Bodies Notified:

☒ Environmental Protection Authority

How was the Permanent Resolution Verified?

Visual inspection of repaired section and river outfall undertaken by Nick Bolton on Monday 8th February.

How was the Permanent Resolution Implemented?

Cap placed over open section of pipe and concreted over by contractors on Saturday 6th February

Procedure DM#210605 Stormwater Management Plan reviewed by Carissa Bahr on 15th February for any changes required with known information from incident. No changes were made to procedure.

Permanent Resolution

Drain repaired and permanently sealed to prevent process waters entering stormwater system

Root Cause

On Friday 5th February, contractor was working at O-I Brisbane Plant, attempting to fix the faulty Trade Waste meter. To complete the task, the trade waste pump was put into manual. It is unknown the next sequence of events however it was found the trade waste pump was left in manual, flooding the API Pit. This water was then pumped over to QG1 Cullet Pond. As the pumps in the QG1 Cullet pond were not primed (they had been pumped dry and need to be manually primed), the QG1 basement area began to fill with water. As the Engineering Fitters were priming the pumps, the water in the QG1 area reached a point where a ground stormwater pipe had been broken. Approximately 100L of water flowed through the broken stormwater pipe before a temporary bund was installed. The system was put back into normal operating sequence immediately after the bund was installed and the water pumped away.

Root cause - a broken stormwater drain allowing process waters to enter stormwater system

Time and Place

Site/Plant Brisbane

Site Env. Carissa

		Co-ord.	Bahr/Operations/Brisbane/ACI_GLASS/AU
Incident Date	05-02-2010	Incident Time	12:30:00
Incident Reported To	Carissa Bahr/Operations/Brisbane/ACI_GLASS/AU	Time Reported	12:45:00 PM

Incident Information 

Nature of Incident	☐ Air ☐ Trade Waste ☐ Waste ☐ Other
	☐ Noise ☒ Storm Water ☐ Property Risk
Source/Location	Stormwater drain near cullet pond QG1 Basement
Duration	5 minutes

Additional Information 

Engineering Department Fitters notified Engineering Manager, Mr Gary Prickett of incident at the time. Ms Carissa Bahr, Risk Manager was notified at 12.45pm via phone of the incident.

Immediate Action Taken 

Prevented more water from entering drain by placing sand bund around broken pipe. Environmental Student, Mr Nick Bolton, inspected Brisbane River at outfall - no sign of oil or contaminants. Second inspection undertaken at 3.00pm by Nick Bolton and Carissa Bahr - no sign of oil or contaminants.

Released by EHP under RTI Act 2009

Environmental Reporting Incident

Smoke to air
7/2/10



Stage	4. Implement permanent resolution
Assigned to	Nick Bolton
Due Date	19-04-2010

Work Notes / Attachments

08/02/2010 - ENTRY BY NICK BOLTON AT STAGE: 1. RECORD INCIDENT & IMMEDIATE ACTION TAKEN

Lost gas

- reduced air into furnace to 2000scmh (manually) - 2 hours
- increased air to 7000scmh (automatic)

Gas back

- increased gas to 1100scmh (manually ramped up)
- automatic settings too slow - took 6 minutes for air:gas ratio to stabilise

Attachments:

Related Issues

Description	<p>QG1 Black Smoke Discharge</p> <p>Environmental Permit Number - ENRE00772608</p> <p>Holder - ACI Operations Pty Ltd</p> <p>Contact Person - Ms Carissa Bahr, Risk Manager (6) Personal information</p>
-------------	--

How was the Permanent Resolution Implemented?	
---	--

Permanent Resolution	<p>Write procedure to manage adjustments of Air/Fuel ratio</p>
----------------------	--

Root Cause	<p>Process - (automatic system) air doesn't ramp up at the same speed as gas, causing incorrect air:fuel ratio</p>
------------	--

Time and Place	<table border="1"> <tr> <td>Site/Plant</td> <td>Brisbane</td> <td>Site Env. Co-ord.</td> <td>Carissa Bahr/Operations/Brisbane/ACI_GLASS/AU</td> </tr> </table>	Site/Plant	Brisbane	Site Env. Co-ord.	Carissa Bahr/Operations/Brisbane/ACI_GLASS/AU
Site/Plant	Brisbane	Site Env. Co-ord.	Carissa Bahr/Operations/Brisbane/ACI_GLASS/AU		

Incident Date	07-02-2010	Incident Time	14:06:00
Incident Reported To	Carissa Bahr/Operations/Brisbane/ACI_GLASS/AU	Time Reported	

Incident Information	
Nature of Incident	☒ Air ☐ Trade Waste ☐ Waste ☐ Other ☐ Noise ☐ Storm Water ☐ Property Risk
Air Pollution	☐ Dust ☐ Chemical ☐ Raw Material ☐ Other ☒ Smoke ☐ Oil ☒ Stack
Odour	☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ Chemical
Source/Location	QG1
Colour	Black

Texture (Dense, Fluff..)	Black smoke above 90% opacity
Duration	6 minutes
Wind Direction	N

Additional Information

At approximately 4am, portable compressor failed due to an overheating issue, causing significant reduction in air. There was not enough air to do changeovers on the furnace, furnace into standby mode. The compressor was repaired and an attempt to start the firing on the furnace started - found a low pressure switch had failed on the gas rig due to moisture from extreme rain event overnight so still unable to restore gas to furnace, Pressure switch repaired and firing of the furnace started. As the gas was increased manually, the combustion air was set on automatic - the air did not respond at the same time as the gas, causing black smoke until the air/fuel ratio was stabilised.

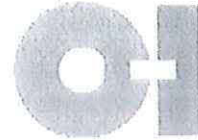
Immediate Action Taken

Stabilised air:fuel ratio stopping black smoke

Released by EHP under RTI Act 2009

Environmental Reporting Incident

Smoke to air
11/2/10



Stage	4. Implement permanent resolution
Assigned to	Nick Bolton
Due Date	19-04-2010

Work Notes / Attachments

12/02/2010 - ENTRY BY NICK BOLTON AT STAGE: 1. RECORD INCIDENT & IMMEDIATE ACTION TAKEN
Batch house breakdown prevented normal batch mix being sent to hoppers.
Hoppers kept topped up with 100% cullet.
Batch pattern moved back from bridge wall (due to cullet being easier to melt than batch) and crown and bridge wall temperatures started to rise.
Furnace crown temperature elevated beyond alarm limit and PDP control system started to pull gas from the furnace.
Fuel distribution changed to remove some of the gas from ports 5 & 6 and prevent overheating of refractories, and increased Air/Fuel ratio cooling down.
After the crown temp had dropped, increased the gas and returned the Air fuel ratios to normal.
Outside the plume appeared normal - however possibly combustion air hadn't yet caught up with the set point, and was still running at an elevated rate.
Over the next few minutes, as the air dropped, ports 1, 2, 3 & 4 became starved of combustion air and flames extended far into the regens very smokey.
Mike Woods saw the black smoke 10 or 15 mins later, and notified Brian Langley.
Temporarily increased the Air/Fuel ratios again to immediately prevent the black smoke, then returned the fuel distribution to normal.
The Air/Fuel ratios were then also returned to normal

Attachments:

Related Issues

Description

QG3 Black Smoke Discharge

Environmental Permit Number - ENRE00772608

Holder - ACI Operations Pty Ltd

Contact Person - Ms Carissa Bohr, Risk Management (6) Personal information

How was the Permanent Resolution Implemented?

Permanent Resolution

Write procedure to manage adjustments of Air/Fuel ratio

Root Cause

Incorrect adjustment of Air/Fuel ratio. Not enough air therefore black smoke emitted

Time and Place

Site/Plant	Brisbane	Site Env. Co-ord.	Carissa Bohr/Operations/Brisbane/ACI_GLASS/AU
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Incident Date	11-02-2010	Incident Time	16:23:27
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Incident Reported To	Carissa Bohr/Operations/Brisbane/ACI_GLASS/AU	Time Reported	
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Incident Information

Nature of Incident	☒ Air	☐ Trade Waste	☐ Waste	☐ Other
	☐ Noise	☐ Storm Water	☐ Property Risk	
Air Pollution	☐ Dust	☐ Chemical	☐ Raw Material	☐ Other
	☒ Smoke	☐ Oil	☒ Stack	

Odour	☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ Chemical
Source/Location	QG3
Colour	Black
Texture (Dense, Fluff..)	Black smoke above 90% opacity
Duration	18 minutes
Wind Direction	NE

Additional Information

Batch house breakdown early on 11th February prevented normal batch mix being sent to hoppers (sand elevator).
 Hoppers kept topped up with 100% cullet.
 Batch pattern moved back from bridge wall (due to cullet being easier to melt than batch) and crown and bridge wall temperatures started to increase.
 Furnace crown temperature elevated beyond alarm limit and PDP control system started to pull gas from the furnace.
 Manufacturing Improvement Manager, Brian Langley, changed the fuel distribution to remove some of the gas from ports 5 & 6 and prevent overheating of refractories, and increased Air/Fuel ratio to assist with cooling down.
 After the crown temp had dropped, gas increased and returned the Air fuel ratios to normal.
 Brian Langley went outside and the plume appeared normal - however it is believed that the combustion air hadn't yet caught up with the set point, and was still running at an elevated level.
 Over the next few minutes, as the air dropped, ports 1, 2, 3 & 4 became starved of combustion air and flames extended far into the regenerators and were thus very smokey.
 Mike Woods, Manufacturing Manager, saw the black smoke 10 or 15 mins later, and notified Brian Langley.
 Temporarily increased the Air/Fuel ratios again to immediately prevent the black smoke, then returned the fuel distribution to normal.
 The Air/Fuel ratios were then also returned to normal

Immediate Action Taken

Temporarily increased Air/Fuel ratios to prevent black smoke, then returned fuel distribution to normal. Air/Fuel ratios then also returned to normal

Compliance inspection report

Compliance inspections (Level C)

Checklist, on-site record & inspection report

This toolkit is for internal use to assist Environmental Services officers when conducting Level A, B and C site inspections to record general details of the site being inspected, pre-inspection considerations and planning, on-site observations and to document recommendations and obtain approval for compliance/enforcement action. For Levels B and C, refer to addendum sheets also. This document can be used in hard copy and taken with the officer to be completed on site. The soft copy document can be completed upon return to the office.

Part A. General Information

Company name: ACI Operations Pty Ltd (O-I Illinois Brisbane)	Date of inspection: 24 January 2013	Time: 10.00 – 14.30hrs
Trading as: Now trading as O-I Illinois Brisbane ACN: 004 230 326	EN/DA number (if applicable): ENRE00772608-ERA 44 Glass or glass fibre manufacturing – will be addressed in this assessment report. IPDE00947108 – ERA 44 – will be addressed in this report	
Description of business activity/ERAs: Glass or glass fibre manufacturing	File number: BST365 / SOR117767 Development Approval IPDE00947108 (SR0071)	
Street address: 137 Montague Road, SOUTH BRISBANE	Real property description (lot on plan): Lot 1 Plan RP10756, Lot 2 RP10756, Lot 3 Plan10756, Lot 4 Plan RP10756, Lot 5 Plan10756	
Site representative/s: Carissa Barh & Nick Bolton	Position/s: Risk Management & Environment	Contact telephone: 07 3335 8121 or sch4p4(6) Personal information
Department's representatives: Graham Rennex, Ashley Fowler and Lao Eliezer		
Registered business address: O-I Illinois Brisbane, 137 Montague Road, SOUTH BRISBANE		
Inspection level (check box): Level A ☐ Level B ☐ Level C ☒ Ecotrack: CA2711		

Part B. Pre-inspection considerations

Environmental risk	High
Last inspection date	CA18766 – 12 March 2009
General description of location and surrounding environment	<ul style="list-style-type: none"> O-I operates a glass bottle manufacturing plant at this site. The area surrounding the site is industrial to the southeast. There is also some mixed residential to the southeast. Residential areas are growing. The Brisbane River is on the northwest. There are industrial areas to the northeast and southwest.

<p>Process Description</p>	<p><u>Insert map of the site.</u> Map has been attached to the end of this assessment.</p> <p>Raw material and recycled glass are delivered to the Batch House at the rear of the plant and tipped into the receiving hoppers. Within the Batch House they are then weighed and mixed in the precise proportions required and directed to one of two existing furnaces. This delivery is currently effectuated by elevators and conveyors.</p> <p>In the furnaces the raw materials are melted. The furnaces are fired with natural gas to a maximum temperature of 1590 oC. There is also a supplementary electrical energy input known as electro boosting.</p> <p>From the furnace the molten glass flows through forehearth where it is conditioned. The molten glass is fed from the forehearth and is sheared automatically into a measured quantity, known as a gob. The gobs are then directed into the first moulding station, called a blank.</p> <p>The gob is then blown by compressed air or pressed into its first stage, the parison. This consists of a formed neck with a rough shape of the rest of the container. The parison is transferred to a second station called the blow mould, where the body of the bottle is blow into its final shape.</p> <p>The container is then taken from the mould and while still hot is coated with tin oxide and provides a base for the external polyethylene to adhere to.</p> <p>The finished container is then conveyed automatically into a tunnel kiln, or lehr, where it is annealed or tempered. The temperature of the glass is carefully reduced from about 650 oC to room temperature.</p> <p>On emerging from the lehr at the "Cold End", each container is coated externally with polyethylene, to improve lubricity and prevent scratching.</p> <p>The container is then inspected automatically and manually for defects before being palletised and stored in a warehouse for a minimum of 24 hours.</p> <p>Furnaces have around a 20 year life expectancy.</p>
<p>History of the activity</p>	<ul style="list-style-type: none"> • Current activities have been carried out on the site since 1918 • O-I Illinois Brisbane operating as ACI Operations Pty Ltd applied for an EA in 1995. • Main clients are Castlemaine Perkins, Fosters and Bundaberg Ginger Beer. • The area has transformed from a predominantly industrial area to a commercial / residential area. • Noise and odour issues have now become an issue. • O-I have responded by putting in place, mechanisms to minimise their impact on neighbours. • The site has non-compliance with stack emissions in the past. • Inspections 2002, 2005, 2006 & 2009 found no instances of non-

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	<p>compliance.</p> <ul style="list-style-type: none"> • The site has housekeeping issues – it is a dirty site. • ACI was bought by Owens Illinois (O-I) founded 1903, Headquarters Perrysburg, Ohio, USA.
Outstanding issues and/or non-compliances/enforcement (e.g. environmental protection orders)	<ul style="list-style-type: none"> • Noise and odour complaints. • Stack emissions opacity spikes. • There has been no evidence of non-compliance during inspections.
Industry specific hazards – consider personal safety	
Engineering	High temperature electric induction furnace (2).
Light manufacturing	Infrastructure maintenance, emissions from furnace stacks
Waste	Fuel, chemical waste, trade waste, oil waste sludge
Other	Minor spills and contaminants on roadways sand / ash (housekeeping).
Personal protective equipment (PPE) – consider whether any PPE is required.	
Safety helmet	Yes ☒ No ☐
Hearing protection	Yes ☒ No ☐
Eye protection	Yes ☒ No ☐
Protective clothing	Yes ☒ No ☐ - high-visibility vests
Protective footwear	Yes ☒ No ☐
Respiratory protection	Yes ☐ No ☒
Other	Yes ☒ No ☐ (Long sleeve shirt, trousers and wide brim hat)
Arrange safety induction training with occupier of site before any work is done	Yes ☒ No ☐

Part C. Inspection plan including opening meeting checklist for Level B and C inspections

Topic	Details	Confirmed in opening meeting
Objectives and scope	<p>Address all schedules of the development approval:</p> <p>Schedule A – General conditions</p> <p>Schedule B – Air</p> <p>Schedule C – Water</p> <p>Schedule D – Stormwater Management</p> <p>Schedule E – Land Application</p> <p>Schedule F – Noise</p> <p>Schedule G – Waste Management</p> <p>Schedule H – Monitoring and reporting</p>	Yes ☒ No ☐
Agenda and timeframe	<p>O-I South Brisbane Site</p> <p>10.00 – 14.30hours</p>	Yes ☒ No ☐

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Audit team - roles and responsibilities of team members	<ul style="list-style-type: none"> Graham Rennex – Auditor Lao Eliezer – Auditor 	Yes ☒ No ☐
Methods and procedures to be used	<ul style="list-style-type: none"> Digital camera (photo register) Appropriate documentation Site documentation Kit bag 	Yes ☒ No ☐
Onsite staff accompanying audit/inspection team (names and positions)	Carissa Barh – Risk Management. Nick Bolton - Environment	Yes ☒ No ☐

Part D. Conditions for assessment (Use for Level B or C inspections, add or delete lines as necessary) **Observations** (include name and relevant comments made by any on-site staff)

Condition number: A1, A2 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐		Photos taken Yes ☐ No ☒
SCHEDULE A – GENERAL CONDITIONS Element/question: preventative measures are in place and maintenance is evident.		Photo's at the end of this assessment
A1 – Compliance with Environmental Authority In carrying out the environmentally relevant activities, contaminants not expressly provided for in this environmental authority that will or may cause environmental harm must not be released to the environment. A2 – The holder of this environmental authority must: <ul style="list-style-type: none"> (a) install and operate all works and control equipment, and (b) take all measures, perform all acts and do all things, necessary to ensure compliance with the conditions of this environmental authority. 		
Observations: O-I have implemented an Environmental Management System to comply with conditions A1-A2.		
Condition number: A3, A4, A5 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐		Photos taken Yes ☐ No ☒
Element/question: see development approval and records		
A3 – A copy of this environmental authority must be kept in the location readily accessible to personnel carrying out this activity. A4 – Any record required to be kept by a condition of this environmental authority must be kept at the licensed place and be available for examination by an authorised person. A5 - Copies of any record required to be kept by a condition of this environmental authority must be provided to any authorised person or the administering authority on request.		
Observations: A copy of the DA is kept on SharePoint and can be accesses by operators on the production line. Carissa Barth has a hard copy on her desk.		
– DA was sighted on the day of inspection. – Requested documents requested to be sent to the department by email direct to the compliance officer to save time		

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Condition number: A6	Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☐ No ☒
Element/observation:		
A6 – No change, replacement or operation of any plant or equipment is permitted if the change, replacement or operation of the plant or equipment increases, or is likely to substantially increase, the risk or environmental harm.		
Observations: No changes to A6		
Condition number: A7	Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☐ No ☒
Element/question:		
A7 – All instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority must be calibrated, and appropriately operated and maintained.		
Observations: Furnace Opacity Meters self-calibrate – they are checked during the schedule maintenance run by engineers and sent away for repairs if required – the meters are checked in the afternoon.		
O-I have Total Preventable Maintenance system (TPM) everything is documented in TPM who / when engineers are required to do maintenance.		
A8 - Notwithstanding any other condition of this environmental authority, this environmental authority does not authorise any release of contaminants which causes or is likely to cause an environmental nuisance beyond the boundaries of the licensed place.		
Observations: Several opacity spikes in 2012.		
Condition number: A9, A10, A11, A12	Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☐ No ☒
Element/question:		
A9 – Site Based Management Plan By the first Annual Return of this environmental authority the holder of this environmental authority must develop and implement a Site-based Management Plan which provides for the effective and appropriate management by the holder of this environmental authority of the actual and potential environmental impacts resulting from the carrying out of the environmentally relevant activity and the associated activities (crushing, milling or grinding and fuel burning).		
A10 - The Site Based Management Plan must address at least the following matters:		
<ul style="list-style-type: none"> operating procedures to prevent or minimise environmental harm, however occasioned or caused during normal operations; maintenance practices and procedures; furnace maintenance program; contingency plans to deal with foreseeable risks and hazards including corrective responses to prevent and mitigate environmental harm (including any necessary site rehabilitation and the loading/unloading of bulk materials to take place only within designated vehicle loading/unloading areas); replacement bags for FFDC; 		

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<ul style="list-style-type: none"> • management (use, storage, reuse/disposal) of empty drums; • monitoring of the release of contaminants into the environment including procedures, methods, record keeping and notification of results; • assessment of the environmental impact of any releases of contaminants into the environment including procedures, methods, record keeping and notification of results; • emergency procedures; • lines and methods of communication to be utilised for the communication of procedures, plans, incidents, potential environmental problems and results, including a feedback mechanism to ensure that management is made aware of potential environmental problems and any failure of procedures adopted; • handling of environmental complaints; • keeping and production of environmental records and reports; and • staff training and awareness of environmental issues related to the operation of the environmentally relevant activities. <p>A11 - A copy of the Site-based Management Plan and any subsequent amendment of the Site based Management Plan must be kept at the licensed place and be available for examination by an authorised person on request.</p> <p>A12- The holder of this environmental authority must not implement a Site-based Management Plan or amend a Site-based Management Plan where such implementation or amendment would result in a contravention of any condition of this environmental authority.</p>	
<p>Observations: O-I have a simplified /streamlined SBMP Carissa will send a copy of the new SBMP to the department. SBMP received 4 February 2013.</p>	
<p>- SBMP was supplied to the department after the 2009 compliance inspection.</p>	
<p>Condition number: B1 and B2 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐</p>	<p>Photos taken Yes ☐ No ☒</p>
<p>SCHEDULE B – AIR Element/question: non-specified release of contaminants to the atmosphere</p>	
<p>B1 - Except as otherwise provided by the conditions of the Air Schedule of this environmental authority the environmentally relevant activities must be carried out by such practicable means necessary to prevent the release or likelihood of release of contaminants to the atmosphere.</p> <p>B2 - Where it is not practicable to prevent a release of contaminants to the atmosphere as required by condition B1, the ERA must be carried out by such practicable means necessary to minimise the release or likelihood of any such release of contaminants to the atmosphere.</p>	
<p>Observations: New training has been implemented to ensure that Opacity Spikes are minimised. Procedures have been changed to reflect the new training program.</p> <p>O-I discovered that Opacity Spikes were most likely to occur if Air and Gas are turned on at the same time.</p> <p>O-I discovered that if the Air is turned on first followed by the gas Opacity Spike are less likely to occur.</p> <p>O-I have implemented new emergency training over a two week period.</p>	
<p>- No dust/air complaints were received by the department in 2012.</p>	

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Condition number: B3, B4, B5, B6, B7, B8 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☐ No ☒
Element/question: Specific Releases	
<p>B3 - Contaminants resulting from the operations of the sources described in Table 1 of the Air Schedule must only be released to the atmosphere from those release points specified in Table 1 of the Air Schedule.</p> <p>B4 - Contaminants released from each release point specified in Table 1 of the Air Schedule must be directed vertically upwards without any impedance or hindrance.</p> <p>B5 - Contaminants must be released to the atmosphere from a release point at a height above ground level not less than the corresponding height stated for that release point in Table 1 of the Air Schedule.</p> <p>B6 - Contaminants must be released to the atmosphere from a release point at a velocity not less than the corresponding velocity stated for that release point in Table 1 of the Air Schedule.</p> <p>B7 - Contaminants must not be released to the atmosphere from a release point at a mass emission rate, as measured at a monitoring point specified in Schedule H, in excess of that stated in Table 2 of the Air Schedule.</p> <p>B8 - Contaminants must not be released to the atmosphere from a release point at a concentration, as measured at a monitoring point specified in Schedule H, in excess of that stated in Table 2 of the Air Schedule.</p>	
Observations: Compliant	
<ul style="list-style-type: none"> - B3 No odour complaint had be received by the department in 2012. - B5 The department received some releases during 2012. These release were in compliant with this condition. 	
Condition number: B9, B10 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☐ No ☒
Element/question: Improvement of Contaminant Levels released to the Atmosphere	
<p>B9 - Any replacement or refurbishment of the glass furnaces QG1 and QG3 must be carried out in such a manner as to reduce the total mass of contaminants released to the atmosphere, taking into consideration :</p> <ul style="list-style-type: none"> • NH&MRC ambient air quality goals; • the requirements of any relevant Environment Protection Policy; and • best practice environmental management <p>B10 - In the event of any planned replacement or major refurbishment of the glass furnaces QG1 and/or QG3, the holder of this environmental authority must prepare and submit to the administering authority at least three months prior to any such replacement or refurbishment a report which addresses at least the following:</p> <ul style="list-style-type: none"> • details of the replacement or refurbishment; • the expected reduction in the total mass of contaminants released to the atmosphere; • expected impact on the receiving environment determined by air dispersion modelling. 	

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Observations: O-I Risk assessment – environmental assessment – life span of furnaces is approximately 20 years.		
Condition number: B11, B12 inspected ☐	Compliant: Yes ☒ No ☐ TBA ☐ Not	Photos taken Yes ☐ No ☒
Element/question: Labelling of Discharge Points		
<p>B11 - Within three months of the date of issue of this environmental authority all release points referred to in Table 1 of the Air Schedule must be conspicuously marked with the following details:</p> <p>(i) the corresponding release point number referred to in Table 1 of the Air Schedule.</p> <p>B12 - The label required for each release point must be readily visible from both ground level and at any required sampling point.</p>		
Observations: All discharge points are labelled.		
Condition number: B13	Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☒ No ☐
Element/question: Spray Booths		
B13 - All emissions from the Solid Film Lubricant (SFL) Fume Extraction must pass through a fabric filter prior to release to the atmosphere.		
Observations: Main Stannic Chloride Dust Collector Technical Data received. No non-complaint issues		
Condition number: B14, B15, B16, B17, B18, B19 TBA ☐	Compliant: Yes ☒ No ☐	Photos taken Yes ☐ No ☒
Element/question: Fabric Filter Dust Collector (FFDC)		
<p>B14 - All contaminants from the Stannic Chloride Application Area must be treated in a fabric filter dust collector (FFDC) prior to release to the atmosphere.</p> <p>B15 - All collected material removed from the FFDC must be removed and disposed of in a manner that will not cause the release of contaminants to the atmosphere or to waters.</p> <p>B16 -The FFDC must have a removal efficiency of not less than 99.7 percent in respect of the release of stannic chloride and ammonia chloride particulate matter.</p> <p>B17 - A filter medium breakthrough detector must be installed in the outlet of the FFDC.</p> <p>B18 - An audible and visual alarm must warn the operator in charge of the FFDC whenever the filter is not functioning correctly which includes when a filter medium breakthrough occurs.</p> <p>B19 - In the event of a failure of the Stannic Chloride Baghouse the bypass Baghouse is to be used while repairs are promptly effected.</p>		
<p>Observations: The main baghouse runs for two hours and then the secondary baghouse cuts in to allow primary baghouse to be cleaned.</p> <p>Filters are as requested in B16.</p>		

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Remondis Australia waste services take the prescribed waste away.		
Condition number: B20	Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☐ No ☐
Element/question: Fuel Burning		
B20 - The only type of fuel to be burned in industrial fuel burning equipment is natural gas for the glass furnaces and diesel for the stand by generator.		
Observations: Compliant		
Condition number: B21, B22	Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☒ No ☐
Element/question: Standby Generator – how many times a year is generator tested – when is fuel stored, is it banded?		Attached
B21 - Stand-by electricity generators are to be operated only during testing or when mains electricity supply is not available.		
B22 - The sulphur content of any fuel burned in the stand-by generator is not to exceed 1 percent by weight		
Observations: The generator is tested twice a year and emissions has created problems in the past. No complaints were received by the department in 2011-2012. The generator is an old model 1940-1950 and predates the environmental standards of today – the area is fully banded.		Attached
Condition number: C1	Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☒ No ☐
SCHEDULE C - WATER		
Element/question: release of contaminants to water		
C1 - Contaminants must not be directly or indirectly released from the licensed place to any waters or the bed and banks of any waters except as permitted under the Water Schedule or the Stormwater Management Schedule or to a sewer as permitted or otherwise agreed from time to time by the relevant Local Government.		
Observations: O-I have a Trade Waste Agreement with QUU – No reported release to the receiving environment in 2011 – 2012.		Attached
Condition number: D1, D2	Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☒ No ☐
SCHEDULE D – STORMWATER MANAGEMENT		
Element/question – Contaminant Releases caused by Rainfall		
D1 - The environmentally relevant activity must be carried out by such practicable means necessary to prevent the contact of incident rainfall and stormwater runoff with wastes or other contaminants.		

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<p>D2 - Where it is not practicable to prevent contact as required by condition number D1 above the environmentally relevant activity must be carried out by such practicable means necessary to minimise any such contact</p>		
<p>Observations: All stormwater drains are fitted with sock filters to stop contaminants from entering the stormwater system. On site cleaning of the sock filters and stormwater drains are done under contract. No truck washing takes place on-site. All trucks leaving the site have their tyres broomed.</p> <p>O-I have a Stormwater Management Plan see BST365 / SOR117767.</p>		
<p>Condition number: D3 – D4 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐</p>	<p>Photos taken Yes ☒ No ☐</p>	
<p>Element/question – Release of contaminated stormwater runoff</p>		
<p>D3 - Except as otherwise provided by the conditions of the Stormwater Management Schedule and the Water Schedule of this environmental authority, the environmentally relevant activity must be carried out by such practicable means necessary to prevent the release or likelihood of release of contaminated runoff from the licensed place to any stormwater drain or waters or the bed or banks of any such waters.</p> <p>D4 - Where it is not practicable to prevent any release of contaminated runoff as required by condition number D3 above, the environmentally relevant activity must be carried out by such practicable means necessary to minimise any such release or the likelihood of any such release.</p>		
<p>Observations: A new copy of the SWMP was received by the department 4 February 2013. No non-compliance issues.</p>		
<p>Condition number: D5, D6, D7 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐</p>	<p>Photos taken Yes ☐ No ☒</p>	
<p>Element/question – Stormwater Management Plan</p>		
<p>D5 - The holder of this environmental authority must implement an effective and appropriate Stormwater Management Plan which details how the holder of this environmental authority will manage the actual and potential environmental impacts resulting from the contamination of stormwater at the licensed place.</p> <p>D6 - A copy of the Stormwater Management Plan and any subsequent amendment of the Stormwater Management Plan must be kept at the licensed place and be available for examination by an authorised person on request.</p> <p>D7 - The holder of this environmental authority must not implement a Stormwater Management Plan or amend a Stormwater Management Plan where such implementation or amendment would result in a contravention of any condition of this environmental authority.</p>		
<p>Observations: A new copy of the SWMP was received by the department 4 February 2013. No non-compliance issues.</p>		
<p>Condition number: D8, D9, D10, D11, D12, D13, D14 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐</p>	<p>Photos taken Yes ☒ No ☐</p>	
<p>Element/question – Bunding</p>		
<p>D8 - All chemical tank storages must be bunded so that the capacity of the bund is sufficient to contain at least 100 % of the largest storage tank plus 10 % of the second largest tank within</p>		<p>Attached</p>

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<p>the bund.</p> <p>D9 - All chemical drum storages must be bunded so that the capacity of the bund is sufficient to contain at least 25 % of the maximum design storage volume within the bund.</p> <p>D10 - All bunding must be constructed and maintained so as to be sufficiently impervious to allow retention and recovery of any materials being stored within the bund.</p> <p>D11 - All bunding must be roofed where practicable.</p> <p>D12 - A collection sump must be provided in the floor of the bunding to facilitate the removal of liquids. The bund floor must be graded so that the fall is towards the collection sump.</p> <p>D13 - All required pipework from the bunded areas must be directed over the bund wall and not through it.</p> <p>D14 - Where vehicle access to a bunded area is required, the access must be by way of a rollover bund.</p>	
<p>Observations: The 22,000Lt diesel tank is bunded with taps locked. Chemical areas are bunded. The main production building is fully bunded and captures waste that goes to trade waste. The trade waste bund and all other bunded areas need to have integrity tests this is proving difficult due to the nature of where the bunds are – O-I have looked at X-raying the concrete but it is proving expensive and drilling through the bund is not acceptable as the bund becomes violated.</p> <p>Taking bore samples along the fence is suggested as a way of achieving an outcome with integrity. Due to the Brisbane River being tidal and the flow of the ground water at the facility (which is unknown) advice is that it would not be practical for integrity to be done testing by drilling bores.</p>	
<p>Bunding integrity is an issue and O-I are investigating how internal bunds will be tested so far there have been very few options that would allow this to happen – x ray of the bunds is being considered but is not cost effective – another options that has been suggested to Carissa is draining all the material from the bunds, cleaning the inside of the bund area and applying a coat of some material that will seal the inside of the bund / plenty of photos –</p>	
<p>Condition number: D15 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐</p>	<p>Photos taken Yes ☒ No ☐</p>
<p>Element/question – Underground Petroleum Storage System</p>	<p>Attached</p>
<p>D15 - The holder of this environmental authority must operate and maintain all Underground Petroleum Storage Systems using all reasonable and practicable measures to prevent or minimise environmental contamination. Reasonable and practicable measures may include but are not limited to; the use of non-corrodible tanks and pipes, overfill protection devices and leak detection programs.</p>	
<p>Observations: Compliant with condition D15.</p>	
<p>Condition number: E1, E2 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐</p>	<p>Photos taken Yes ☐ No ☐</p>
<p>SCHEDULE E – LAND APPLICATION Element/question – Release of Contaminants to Land</p>	

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<p>E1 - The environmentally relevant activity must be carried out by such practicable means necessary to prevent the release or likelihood of release of contaminants to land that will or may cause environmental harm.</p> <p>E2 - Where it is not practicable to prevent any release of contaminants to land as required by condition number E1, the environmentally relevant activity must be carried out by such practicable means necessary to minimise the release or likelihood of release of any such contaminants to land.</p>		
<p>Observations: The site is all hardstand.</p>		
<p>Condition number: G1 – G8 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐</p>	<p>Photos taken Yes ☐ No ☒</p>	
<p>SCHEDULE F - NOISE Element/question – Emission of Noise</p>		
<p>F1 - The environmentally relevant activities must be carried out by such practicable means necessary to prevent the emission or likelihood of emission of noise that constitutes annoyance.</p> <p>F2 - Where it is not practicable to prevent the emission or likelihood of emission of noise as required by condition number F1, the environmentally relevant activities must be carried out by such practicable means necessary to minimise the emission or likelihood of emission of noise that constitutes annoyance.</p> <p>F3 - The emission of noise from the licensed place must not result in levels greater than those specified in Schedule F, Table 1 for the corresponding time period.</p>		
<p>Observations: Noise monitoring reports sent to EHP. No noise issues 2011-1012.</p>		<p>BST365 / SOR117767</p>
<p>Condition number: F4 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐</p>	<p>Photos taken Yes ☐ No ☒</p>	
<p>Element/question – Monitoring Locations</p>		
<p>F4 - Monitoring and recording of noise levels from the environmentally relevant activity to check conformity with condition number F3 above must be undertaken at the monitoring locations described as:</p> <p>Monitoring Location No.1 - described as the footpath adjoining # 10 Brereton Street, South Brisbane;</p> <p>Monitoring Location No.2 - described as the footpath adjoining # 23 Norfolk Street, South Brisbane;</p> <p>Monitoring Location No.3 - described as the footpath adjoining #2 Cameron Street, South Brisbane.</p>		
<p>Observations: All monitoring completed as per condition F4.</p>		<p>BST365 / SOR117767</p>
<p>Condition number: G1, G2, G3 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐</p>	<p>Photos taken Yes ☐ No ☐</p>	

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SCHEDULE G – WASTE MANAGEMENT	
Element/question – General	
<p>G1 – Waste must not be released to the environment, stored, transferred or disposed of contrary to any condition of this environmental authority.</p> <p>G2 - The holder of this environmental authority must not:</p> <ul style="list-style-type: none"> (i) burn waste at or on the licensed place; nor (ii) allow waste to burn or be burnt at or on the licensed place; nor (iii) remove waste from the licensed place and burn such waste elsewhere. <p>G3 - Records of trade waste agreements must be made available for inspection on request.</p>	
<p>Observations: Waste tracking docs sent to EHP.</p>	<p>BST365 / SOR117767</p>
<p>Condition number: G4, G5, G6, G7, Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐</p>	<p>Photos taken Yes ☐ No ☐</p>
Element/question – Waste Management Plan (WMP)	
<p>G4 - By the first Annual Return the holder of this environmental authority, must develop and implement an effective and appropriate Waste Management Plan which details how the holder of this environmental authority will manage the actual and potential environmental impacts resulting from all wastes produced at the licensed place.</p> <p>G5 - The Waste Management Plan must detail at least the following:</p> <ul style="list-style-type: none"> • the quantity and nature of each waste produced, and • the current method of disposal, and • proposed methods of pre-treatment or disposal, and • storage and handling of raw waste or processed waste materials, and • bunding and containment of waste storage areas, and • expected reduction in quantity of waste produced through waste minimisation and cleaner production, and • areas to be set aside for the segregation and storage of recyclable solid wastes, and • reasonable and practicable steps to be taken to ensure recyclable waste is not deposited in the general waste stream where a no - cost recycling service is available; (such steps may include, but not be limited to provision of receptacles, suitable signage and promotion of awareness of the recycling service among staff), and • provisions for carrying out and submitting to the administering authority a waste audit within two (2) years from the date of issue of this environmental authority and thereafter every five (5) years. <p>G6 - A copy of the Waste Management Plan and any subsequent amendment of the Waste Management Plan must be kept at the licensed place and be available for examination by an</p>	

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authorised person on request.	
G7 - The holder of this environmental authority must not implement a Waste Management Plan or amend a Waste Management Plan where such implementation or amendment would result in a contravention of any condition of this environmental authority.	
Observations: Copy of the WMP BST365 – G5, G6 compliant.	
Condition number: G8, G9 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☐ No ☒
Element/question: Off Site Movement	
<p>G8 - Where regulated waste is removed from the licensed place (other than by a release as permitted under another schedule of this environmental authority), the holder of this environmental authority must monitor and record the following:</p> <p>(a) the date, quantity and type of waste removed; and (b) name of the waste transporter and/or disposal operator that removed the waste; and (c) the intended treatment/disposal destination of the waste.</p> <p>(NOTE: Records of documents maintained in compliance with a waste tracking system established under the <i>Environmental Protection Act 1994</i> or any other law for regulated waste will be deemed to satisfy this condition.)</p> <p>G9 - Regulated waste must not be sent for disposal at any facility without the written approval of the person operating that facility.</p>	
Observation: Waste transport certificate Q 00449656 -	BST365 / SOR117767
Received by EHP 22 Jan 2013	
Condition number: G10 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☐ No ☐
Element/question: Record	
G10 - Records must be maintained for a period of five (5) years for all wastes mentioned in this schedule.	
Observations: All drums are taken away monthly – Drums are capped while waiting to be disposed.	
Condition number: H1, H2 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐	Photos taken Yes ☐ No ☒

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SCHEDULE H – SELF MONITORING AND REPORTING	
Element/question: Compliant Recording	
<p>H1 - All complaints received by the holder of this environmental authority relating to operations at the licensed place must be recorded in a log book with the following details:</p> <ul style="list-style-type: none"> (i) time, date and nature of the complaint; (ii) type of communication (telephone, letter, personal etc.); (iii) name, contact address and contact telephone number of complainant (Note: if the complainant does not wish to be identified then "Not identified" is to be recorded); (iv) response and investigation undertaken as a result of the complaint; (v) name of person responsible for investigating complaint; and (vi) action taken as a result of the complaint investigation and signature of responsible person. <p>H2 - The complaints record required by condition number H1 must be maintained for a period of not less than five (5) years.</p> <p>Observations: No complaints 2011-2012</p>	
<p>Condition number: H3, H4 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected</p>	<p>Photos taken Yes ☐ No ☒</p>
Element/question: Incident recording	
<p>H3 - A record must be maintained of events including but not limited to:</p> <ul style="list-style-type: none"> (i) the time date and duration of equipment malfunctions that may affect the environmental performance of the licensed place; (ii) any shut-downs of the glass furnace(s) and/or stannic chloride baghouse; (iii) any incidents of power failure where the standby generator is required to be used; (iv) any overflows from the cullet ponds to the stormwater system; <p>H4 - The record required by condition number H3 must be maintained for a period of not less than five (5) years.</p>	
<p>Observations: O-I Brisbane environmental management system (ems) – policy manual contains a section regarding incident reporting.</p>	
<p>Condition number: H5, H6, H7, H8 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected</p>	<p>Photos taken Yes ☐ No ☒</p>
Element/question: Notification of Emergencies and Incidents	
<p>H5 - As soon as practicable after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority, the holder of this environmental authority must notify the administering authority of the release by telephone or facsimile.</p> <p>H6 - The notification of emergencies or incidents as required by condition number H5 must include but not be limited to the following:</p>	

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<ul style="list-style-type: none"> (i) the holder of the environmental authority; (ii) the location of the emergency or incident; (iii) the number of the environmental authority; (iv) the name and telephone number of the designated contact person; (v) the time of the release; (vi) the time the holder of the environmental authority became aware of the release; (vii) the suspected cause of the release; (viii) the environmental harm and or environmental nuisance caused, threatened, or suspected to be caused by the release; and (ix) actions taken to prevent further any release and mitigate any environmental harm and or environmental nuisance caused by the release. <p>H7 - Not more than 14 days following the initial notification of an emergency or incident, the holder of the environmental authority must provide written advice of the information supplied in accordance with condition number H6 in addition to:</p> <ul style="list-style-type: none"> (i) proposed actions to prevent a recurrence of the emergency or incident; and (ii) outcomes of actions taken at the time to prevent or minimise environmental harm and or environmental nuisance. <p>H8 - As soon as practicable, but not more than six weeks following the conduct of any environmental monitoring performed in relation to the emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority, the holder of the environmental authority must provide written advice of the results of any such environmental monitoring performed.</p>	
<p>Observations: O-I have responded to incidents in compliance with all conditions set out in H5, H6, H7 & H8.</p>	
<p>Condition number: H9, H10 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected</p>	<p>Photos taken Yes ☐ No ☐</p>
<p>Element/question: Monitoring of Contaminant Releases to the Atmosphere</p>	
<p>H9 - The holder of this environmental authority must conduct a monitoring program of contaminant releases to the atmosphere at the release points, frequency, and for the parameters specified in Schedule H Table 1 and which complies with the following:</p> <ul style="list-style-type: none"> (a) All determinations of the quality of contaminants released must be made by a person or body possessing appropriate experience and qualifications to perform the required measurements. (b) Monitoring provisions for the release points listed in Schedule H Table 1 must comply with the Australian Standard AS 4323.1 - 1995 "Stationary source emissions Method 1: Selection of sampling provisions". (c) The following tests must be performed for each required determination specified in Table 1: <ul style="list-style-type: none"> (i) gas velocity and volume flow rate (ii) temperature (iii) water vapour concentration (d) Where practicable samples taken must be representative of the contaminants 	

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<p>discharged when emissions are expected to be normal.</p> <p>(e) During the sampling period the following additional information must be gathered:</p> <ul style="list-style-type: none"> • production rate, • equipment operating, • product made, • date of sampling, • start and end time of sampling, • fuel type, and • fuel rate. <p>H10 - Upon completion of the determinations required by condition number H9 of this environmental authority, the results of the monitoring of emissions from release points 1 and 2 must be incorporated into an appropriate air dispersion model to determine the theoretical Ground Level Concentration (GLC) for each of the prescribed contaminants.</p>		
<p>Observations: Monitoring results sent 23 January 2013</p>		<p>BST365 / SOR117767</p>
<p>Condition number: H11 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected</p>		<p>Photos taken Yes ☐ No ☒</p>
<p>Element/question: Records</p>		
<p>H11 – Records must be kept of the results of all monitoring of releases of contaminants to the atmosphere for a period of at least five (5) years.</p>		
<p>Observations: All records are kept according to condition H11.</p>		
<p>Condition number: H12, H13, H14, H15, H16, H17, H18 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected</p>		<p>Photos taken Yes ☐ No ☒</p>
<p>Elements/questions: Noise monitoring</p>		
<p>H12 – For the purposes of checking compliance with condition number F3 of Schedule F – Noise, and for the investigation of complaints of noise annoyance, the noise levels from the environmentally relevant activity must be undertaken for at least the following descriptors, characteristics and conditions:</p> <ul style="list-style-type: none"> (vi) $L_{Amax, Adj T}$ (ii) $L_{Aeq, T}$ (or $L_{A90, T}$); (vi) $L_{AN, T}$ (where N equals statistical levels of 1, 10, 50, 90 and 99); (iv) The level and frequency of occurrence of impulsive or tonal noise; (v) Atmospheric conditions including temperature, relative humidity and wind speed and direction; and (vi) Effects due to extraneous factors such as traffic noise. <p>H13 – In conjunction with the measurement and recording of the noise, the following parameters and conditions must be recorded</p>		

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<p>(i) Location, date and time of recording.</p> <p>H14 – The holder of this environmental authority must monitor and record the noise levels as often as is necessary to check compliance with the condition number F3 of this environmental authority but not less frequently than at least six-monthly (at least once in summer and once in winter).</p> <p>H15 – Environmental noise monitoring must be undertaken to investigate any complaint of noise annoyance upon receipt of a written request from the administering authority to carry out such monitoring.</p> <p>H16 – The method of measurement and reporting of noise levels must comply with the Department of Environment Noise Measurement Manual, second edition, March 1995, or more recent additions or supplements to that document as they become available.</p> <p>H17 – The method of measurement and reporting of noise levels must be undertaken by a person or body possessing appropriate experience and qualifications to perform the required measurements.</p> <p>H18 – Records must be kept of the results of all monitoring of noise levels and other information required to be recorded in conjunction with such monitoring for a period of at least five (5) years.</p>	
<p>Condition number: H19 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected</p>	<p>Photos taken Yes ☐ No ☐</p>
<p>Element/question: Report Submission</p>	
<p>H19 – The holder of this environmental authority must ensure that the results of all monitoring performed in accordance with this environmental authority are submitted with the initial Annual Return. Each subsequent Annual Return must include details of the results of monitoring performed during the 12 months preceding that Annual Return.</p>	
<p>Observations: Monitoring results sent 23 January 2013</p>	<p>BST365 / SOR117767</p>
<p>Condition number: H20, H21 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected</p>	<p>Photos taken Yes ☐ No ☒</p>
<p>Element/question: Exception Reporting</p>	
<p>H20 - The holder of this environmental authority must notify the administering authority in writing of any monitoring result which indicates an exceedance of any licence limit within 28 days of completion of analysis.</p> <p>H21 - The written notification required by condition number H20 above must include:</p> <ul style="list-style-type: none"> (i) The full analysis results, and (ii) Details of investigation or corrective actions taken, and (iii) Any subsequent analysis. 	

Observations: H20, H21 are fully compliant	

Part D. Inspection results summary

1. Overall findings

<p>General observation/s: Development Approval SR71 conditions have been addressed in the first part of the assessment.</p> <p>Photos:</p>	<p>Site Inspection:</p> <p>The site is well maintained and managed.</p> <p>Housekeeping of the site has improved since the last inspection in 2009. The site is now neat and tidy. The eastern side of the facility contains a large warehouse called the 'Major Storage Area'. Stored in the warehouse are bottles ready for market, moulds and operational spare parts. There were no oils or any other contaminants in the area. The warehouse is not bunded.</p> <p>West of the major storage area is a hardstand where broken and rejected bottles are stored and crushed for re-use. Bottles are stored in bunded areas. The crushed glass is heavy and surrounded by bunding on three sides. Flooding has the potential to deposit crushed glass into the receiving environment (Brisbane River) creating an environmental issue.</p> <p>In the middle of the hardstand is the old plant manager's house which is now leased to a theatre group.</p> <p>West of the hardstand is the minor storage area where raw materials, coal, ash, empty oil drums stannic residue and shrink wrap are stored. This area is fully enclosed.</p> <p>Remondis Australia are contracted to sweep the roads, hardstand and take away waste.</p> <p>At the Batch House the raw materials are mixed before going to the furnace. Spill Kit on site.</p> <p>Next to the batch is the chemical storage area all chemicals are separated. The area is bunded.</p>
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	<p>The main factory area is fully bunded and waste goes to trade waste.</p> <p>The bag house has 2 bag houses the major bag house operates for 2-3 hours and then the secondary bag house cuts in allowing maintenance to the first bag house.</p> <p>In the trade waste area the recycling of water is a priority for O-I. The facility recycles 150kl a day and sends 10kl a day to sewer. Oil skimmers capture any oil residue which is recycled.</p> <p>At the back of the main operations area there is the reject area and the QG1 cullet pond where the water is allowed to cool down and is recycled.</p> <p>The compressor room is clean, oil drums are bunded there is a spill kit and no internal stormwater drains.</p> <p>The generator is tested twice a year and due to its age produces a lot of fumes. The area is fully bunded.</p> <p>Stormwater drains are lined with a fabric filters and are cleaned out by contractor.</p> <p>Engineers room is clean no environmental issues and trucks leaving the facility have their tyres broomed.</p> <p>Officers did not notice any non-compliance issues.</p>
Compliance level	<p>☐ Environmental nuisance/<u>minor non-compliance</u></p> <p>☐ Actual or risk of material harm/repeat non-compliance</p> <p>☐ Actual or risk of serious harm</p> <p>☒ Compliant</p> <p>☐ Fully compliant/best practice</p>
Environmental risk	<p>☐ (1) Very low</p> <p>☐ (2) Low</p> <p>☐ (3) Moderate</p> <p>☒ (4) High</p> <p>☐ (5) Very high</p>

2. Client action/s required

Non-Compliances

Condition number & requirement legislation reference	Observations:	Recommended action (Officers should document the evidence supporting the recommendation)	Client agreement
			Yes ☐ No ☐ TBD ☐
			Yes ☐ No ☐ TBD ☐
			Yes ☐ No ☐ TBD ☐
			Yes ☐ No ☐ TBD ☐

3. The Department's actions taken/recommended (complete where relevant)

Enforcement measure/s taken during inspection	Date issued:	Type: Nil	Next due date:
Justification			

Part E. Natural justice

- ☐ The person has been provided with the opportunity to put their side of the story forward.
- ACI Operations Pty Ltd was provided in advance that the inspection was to be undertaken and particular documents in advance that need to be supplied.
 - During the site inspection discussion were held regarding level of compliance, and the proposed remedial action require to fix the problem was also discussed.

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- Open discussion regarding the level of compliance was also discussed; therefore natural justice has been exercised.
- ☐ List any information and/or defences provided.
- Documents and records requested by administering authority were exercised to display compliance.
- ☐ The department has considered the information or defences provided.
- ☐ The decision-maker and environmental officer are free from bias or the perception of bias.

Part I. Ecotrack

Ecotrack case number	CA2711	
Activity	Time (hours)	Comments
Planning	14 hours	
Inspection	09 hours	Sizable site. 3 officers x 3hours = 9hrs
Reporting	14 hours	
Total	37 hours	

Part F. Approval

sch4p4(6) Personal information	
Environmental officer	Supervisor
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">sch4p4(6) Personal information</div> <div style="width: 45%;">sch4p4(6) Personal information</div> </div>	
Name: Graham Rennex	Name: Eliezer Lao & Ashley Fowler
Date: 3 April 2013	Date: 3 April 2013

PHOTO REGISTER -



Photo: 1020588 – Glass bottles to be dispatched to clients.

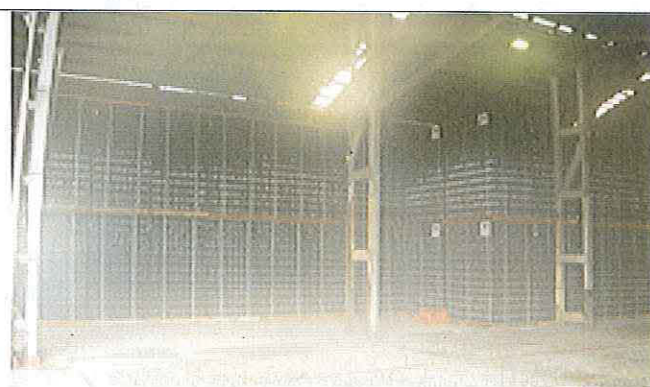


Photo: 1020585 – Inside large warehouse.



Photo: 1020594 – Hardstand area – crushed glass is banded – the product is recycled.



Photo: 1020597 – Second Warehouse



Photo: 1020601 – Glass bottles to be recycled



Photo: 1020610 – Batch house.

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Photo: 1020631 – Chemical storage – rollover bund at entrance



Photo: 1020635 – Housekeeping has improved since the last inspection in 2009.



Photo: 1020654 – Collection area for runoff from the production area – oil and trade waste end up here from QE3.

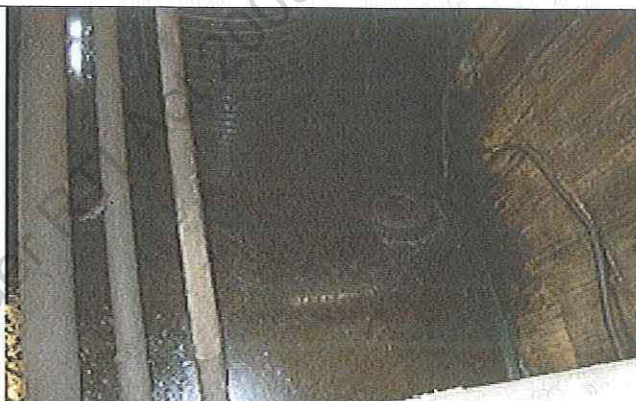


Photo: 10210659 – Trade Waste sump- Integrity testing is an issue.



Photo: 1020664 – Back of main production building – the production building is fully bunded including the area shown in the picture – The water here is cooled in the cooling pond and recycled through QG1.



Photo: 1020666 – as before

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Photo: 1020676 – This is the diesel engine that runs the generator.



Photo: 1010678 –Stormwater fabric filter.



Photo: 1020681 – Improved housekeeping



Photo: IMG2783 – QG3



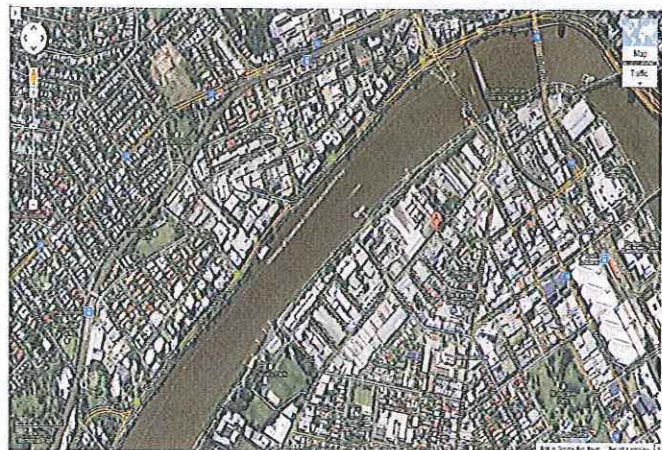
Photo: IMG2783 – What is the integrity of the tile and what is under the tile?



Photo: IMG2803 - Baghouse



Photo: IMG2843 – Housekeeping in 2009.



– Site of O-I Brisbane

Owens Illinois Brisbane
137 Montague Road
South Brisbane

1. Environmental Management System (EMS) – The new Site Based Management Plan (SBMP) replaces the old SBMP found in (BST365). A copy of the EMS can be found in SOR117767.
2. O-I Brisbane have a new Stormwater Management Plan (SMP):
 - Site stormwater plan
 - Bunding checklist
 - Stormwater drain inspectionA copy of the SMP can be found in SOR117767
3. Waste Management Plan (WMP):
 - Waste audit
 - Waste ContractA copy of the WMP can be found in
4. Main Stannic Chloride Dust collector filter bags information sheet. A copy of this document can be found in SOR117767.

Development Approval SR71:

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Condition F3 Schedule F, Table 1 & F4 Monitoring locations

Savery & Associates Pty Ltd
Acoustic and Vibration Consultants
Document No. SP0230
13 January 2012

Period	Monitoring Location No 1	Monitoring Location No 2	Monitoring Location No 3	Compliant or non-compliant
Schedule F – Table 1 10pm-7am	52	55	50	
11:56pm	50			Compliant
11:24pm		44		Compliant
10:54pm			43	Compliant

Savery & Associates Pty Ltd
Acoustic and Vibration Consultants
Document No. SP0230
5 July 2012

Period	Monitoring Location No 1	Monitoring Location No 2	Monitoring Location No 3	Compliant or non-compliant
Schedule F – Table 1 10pm-7am	52	55	50	
10:46pm	52			Compliant
11:14pm		43		Compliant
11:42pm			41	Compliant

A copy of the reports can be found in SOR117767.

Stack Emission Survey:
Stephenson
Environmental Management Australia
Project No: 4981/S211129/12
Date of Survey: 6-9 February 2012
Date of issue: 27 March 2012

QG1 – Average particulate matter emission rate was 27.7 g/min – permit limit 140 g/ min. **Compliant**

- Oxides of Nitrogen – was 337 ppm (691 mg/m³) – the maximum 1 hour average mass emission rate was 330 g/min – permit limit 600 g/min. **Compliant**
- Sulphur Dioxide – was 146 ppm (417 mg/m³) – the maximum 1 hour mass rate was 186 g/min – permit limit 480 g /min. **Compliant**
- Velocity – 7.4 m/s – permit limit 6 m/s - Good

QG3 – Average particulate matter emission rate was 37.2 g/min – permit limit 140 g/min. **Compliant**

- Oxides of Nitrogen – was 440ppm (904 mg/m³) – the maximum 1 hour mass emission rate was 608 g/min – permit limit 146 ppm (417 mg/m³) – permit limit 700 g/min. **Compliant**
- Sulphur Dioxide – was 143 ppm (408 mg/m³). The maximum 1 hour mass emission rate was 298 g/min – permit limit 480 g/min. **Compliant**
- Velocity – 6.4 m/s – permit limit 6 m/s – Good

Mould shop solid film lubricant spray booth:

- Velocity – 10.2 m/s – permit 10 m/s – Good

Stannic baghouse:

- Velocity – 12.9 m/s – permit 10 m/s – Good

For further information please consult File SOR117767

Released by EHP under RTI Act 2009

Released by EHP under RTI Act 2009

Released by EHP under RTI Act 2009

Released by EHP under RTI Act 2009

Rennex Graham

From: Nick.Bolton@ap.o-i.com
Sent: Tuesday, 12 November 2013 4:34 PM
To: Rennex Graham
Subject: RE: QG1 Opacity Spike



How was the Permanent Resolution Verified?

Verification of new process will occur during the next isolation of any ports. None are planned at this stage.



How was the Permanent Resolution Implemented?

The newly created air/fuel ratio for port isolation calculating spreadsheet will be used prior to any port isolation for e



Permanent Resolution:

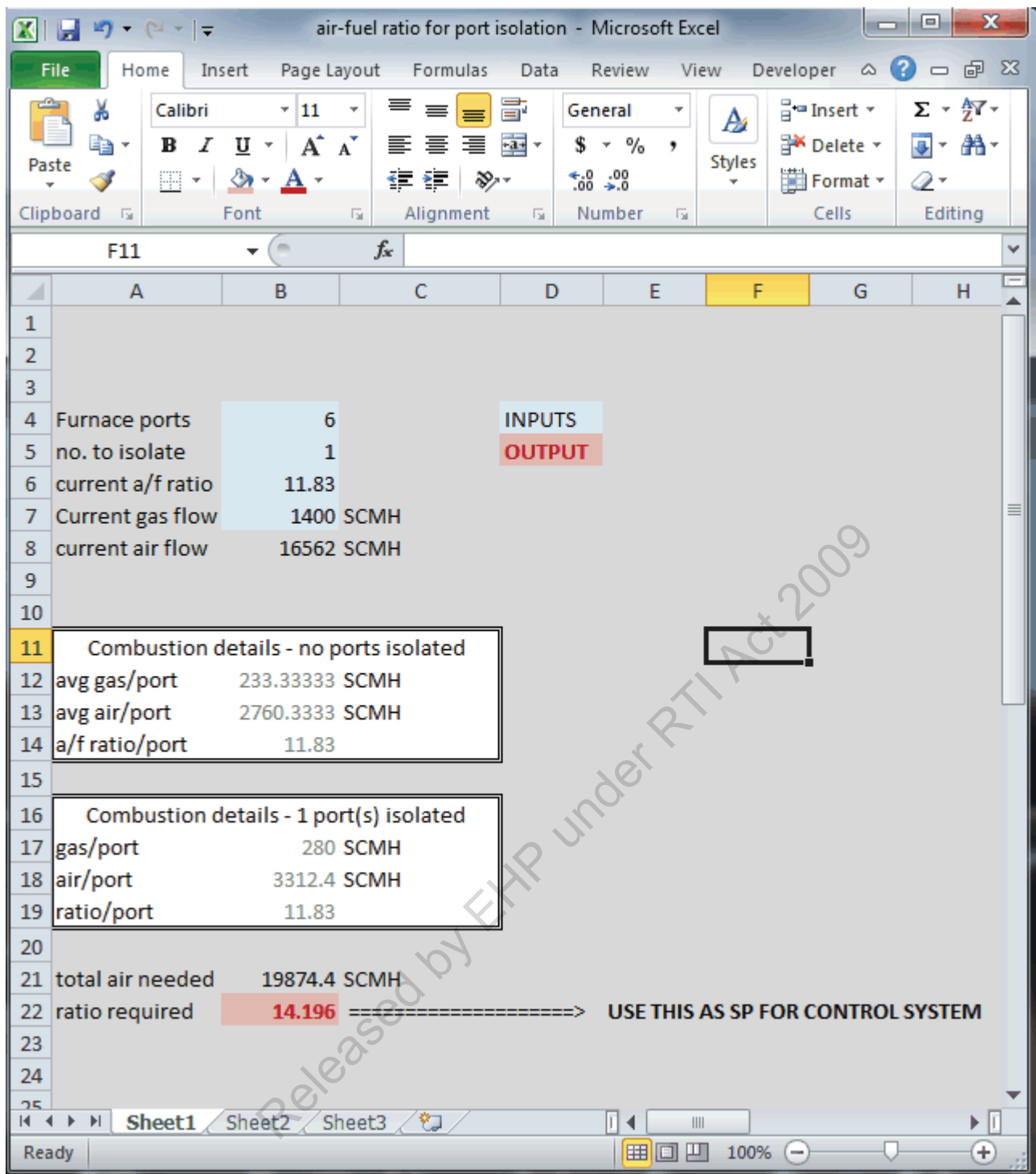
Because there is no physical way of isolating the combustion air to any ports, a higher set point for air/fuel ratio need



Root Cause:

Not enough air to ports 2 to 6 after the re-distribution of gas

Released by EHP under RTI Act 2009



Nick Bolton
LSS Black Belt
O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane 4101

Office: +61 7 3335 8123
Home: +61 7 3335 8163
Fax: +61 7 3335 8163
Company Website: www.o-i.com

O-I makers of pure, sustainable,
brand-building glass packaging
GlassLife.com

From: "Rennex Graham" <Graham.Rennex@ehp.qld.gov.au>
To: <Nick.Bolton@ap.o-i.com>
Cc: "Rennex Graham" <Graham.Rennex@ehp.qld.gov.au>
Date: 22/10/2013 08:11 AM
Subject: RE: QG1 Opacity Spike

Hi Nick

Send me the final report when it is finalised

Regards

Graham Rennex
Environmental Officer
Brisbane SouthSouthern Region
Environmental Services and Regulation Division Department of Environment and Heritage Protection

T: (07) 3330 4468 F: (07) 3330 5754
Email: graham.rennex@ehp.qld.gov.au

8th Floor, 400 George Street
BRISBANE QLD 4001
GPO Box 2771, BRISBANE QLD 4001

From: Nick.Bolton@ap.o-i.com [<mailto:Nick.Bolton@ap.o-i.com>]
Sent: Friday, 18 October 2013 10:45 AM
To: Rennex Graham
Cc: Philip.Woods@ap.o-i.com
Subject: QG1 Opacity Spike

G'day Graham,

Yesterday we experienced an opacity spike on our QG1 furnace. We have had a very good run since implementing new controls at the front end of the year. The investigation into the root cause is ongoing. A full report will be sent to you once this is complete.

**Description: ✓**

『QG1 opacity spike』

**Site/Plant: ✓**

『Brisbane』▼

Incident Date: ✓

『17/10/2013』

Incident Reported To: ✓

『Rafael Olguin/Brisbane/ACI_GLASS/AU』▼

**Incident Information:****Nature of Incident: ✓**
☒ Air ☐ Trade Waste ☐ Waste ☐ Other
☐ Noise ☐ Storm Water ☐ Property Risk
Air Pollution:
☐ Dust ☐ Chemical ☐ Raw Material ☐ Other
☐ Smoke ☐ Oil ☒ Stack
Odour:
☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ C
Source/Location:

『QG1 Furnace』

Colour:

『White』▼

Texture (Dense, Fluff.):

『』

Duration:

『9 min』

Wind Direction:

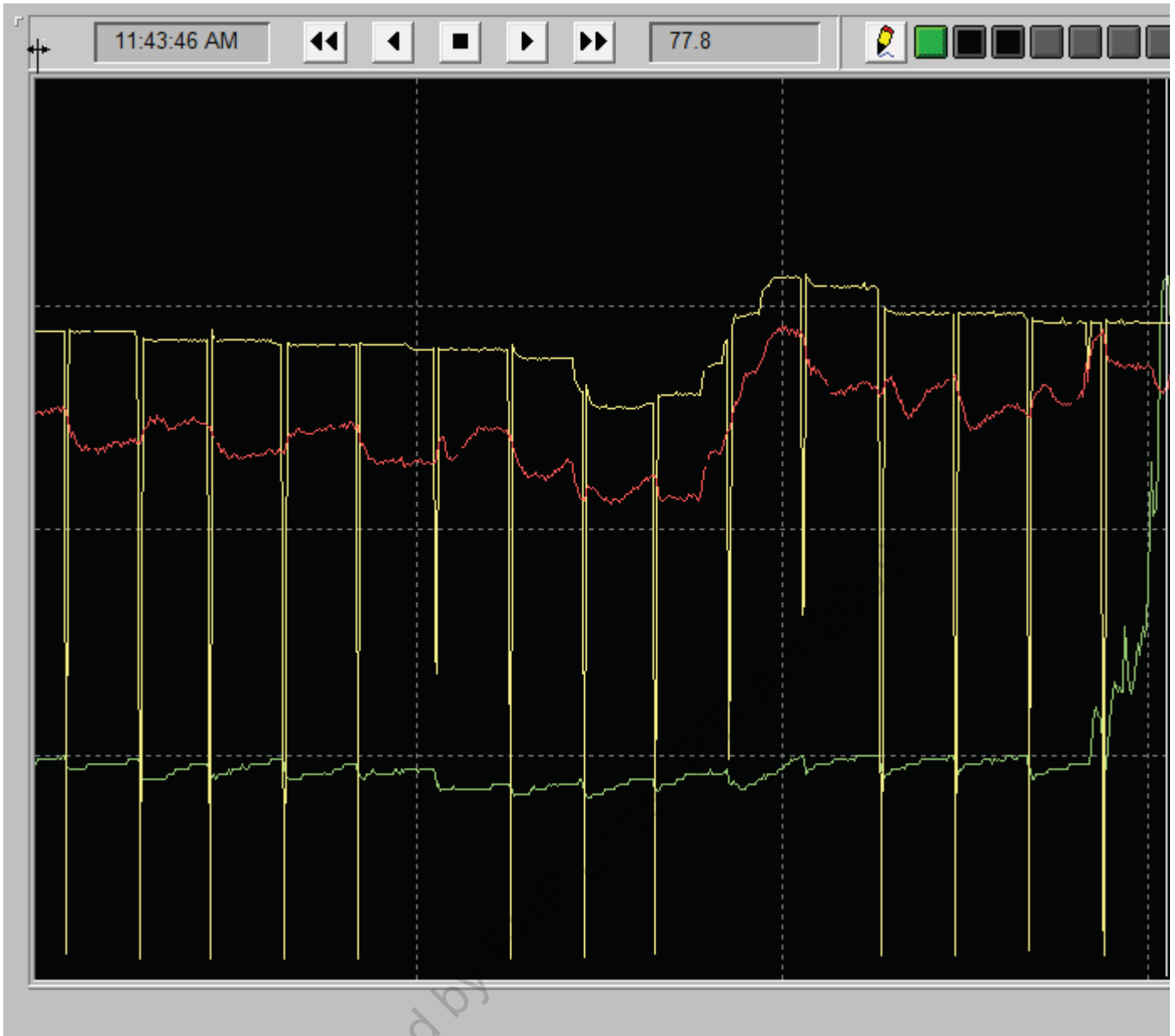
『』▼

**Additional Information:**

『Isolation of gas to port no. 1 on the left hand side of QG3 furnace was required for repair of refractories. Gas was sl increased as there is no independent isolation of combustion air per port. Hence ratio increased by 1 compensate

**Immediate Action Taken: ✓**

『Furnace operator rang Batch and Furnace manager and reported the white opacity. Manager asked operator to n then the air/fuel ratio was increased by 1.5.』



Cheers,

Nick Bolton
LSS Black Belt
O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane 4101

Office: +61 7 3335 8123
Sch4p4 (6) Personal information
Fax: +61 7 3335 8163
Company Website: www.o-i.com

 makers of pure, sustainable,
brand-building glass packaging
GlassIsLife.com

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OK 58082

Rennex Graham

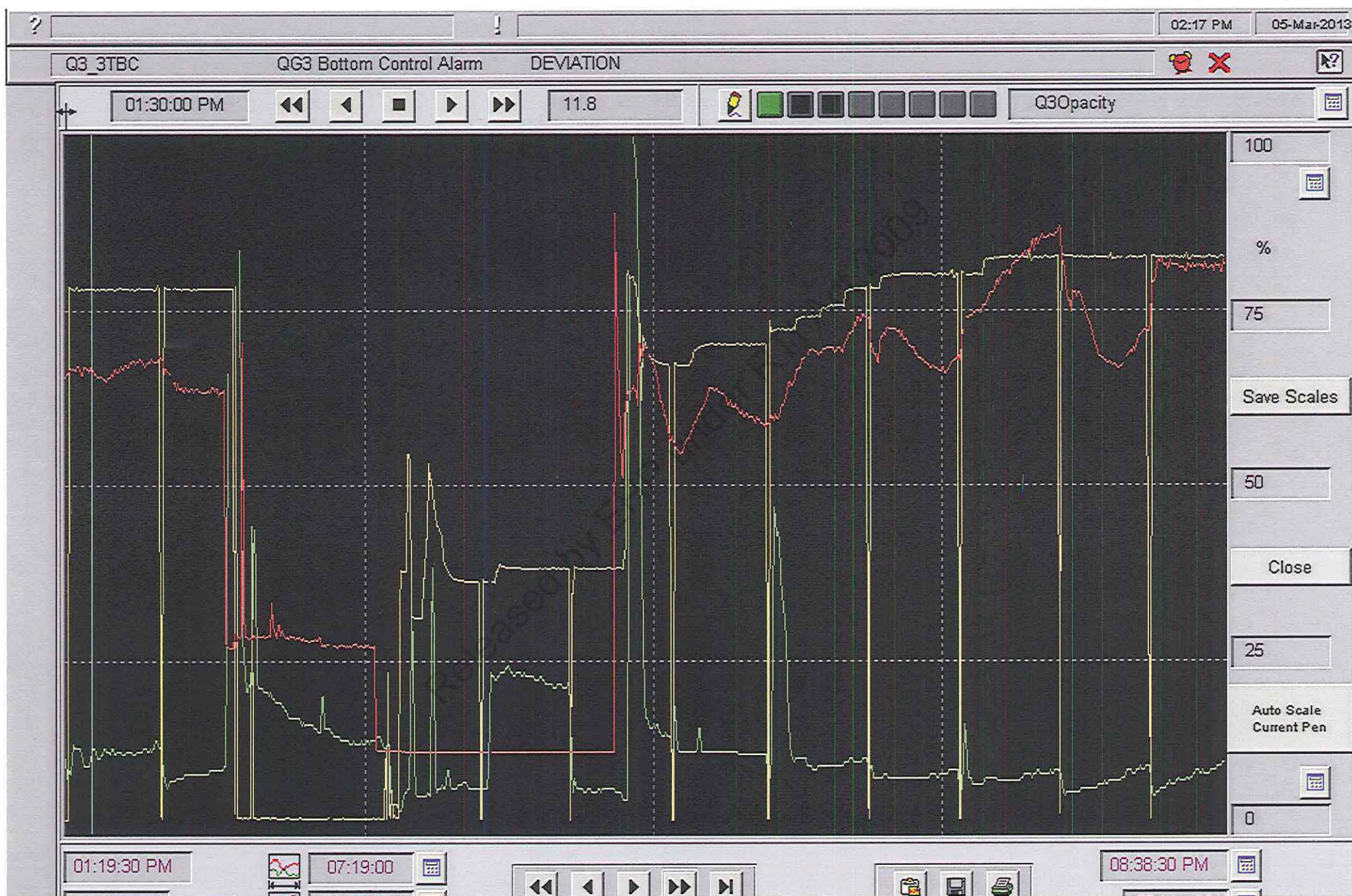
From: Nick.Bolton@ap.o-i.com
Sent: Monday, 11 March 2013 12:22 PM
To: Rennex Graham
Cc: Carissa.Bahr@ap.o-i.com
Subject: RE: QG3 Opacity Spike

Graham,

Here is the completed investigation report for the recent QG3 Opacity Spike.

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External Regulatory Bodies Notified:		☒ Environmental Protection Authority	
 How was the Permanent Resolution Verified?			
Spike #1: Physical inspection of fuse in switchboard by licenced electrician. Spike #2: Training record provided.			
 How was the Permanent Resolution Implemented?			
Spike #1: Fuse replaced and tightened in switchboard. Spike #2: Training delivered to operator.			
 Permanent Resolution:			
Spike #1: Replace fuse and tighten in switchboard. Spike #2: Deliver training to operator on re-establishing gas and air to control opacity.			
 Root Cause:			
Spike #1: Loose fuse in switchboard blew, taking out combustion fan, which resulted in high gas:air ratio. Spike #2: Furnace operator brought gas back on too quickly after combustion air re-established, resulting in high gas:air ratio.			
 Time and Place:			
Site/Plant:	Brisbane	Site Env. Co-ord:	Carissa Bahr/Op
Incident Date:	03/03/2013	Incident Time:	02:26:00PM and
Incident Reported To:	Nick Bolton/Brisbane/ACI_GLASS/AU	Time Reported:	02:39:10 PM
 Incident Information:			
Nature of Incident:	☒ Air ☐ Trade Waste ☐ Waste ☐ Other ☐ Noise ☐ Storm Water ☐ Property Risk		
Air Pollution:	☐ Dust ☐ Chemical ☐ Raw Material ☐ Other ☐ Smoke ☐ Oil ☒ Stack		
Odour:	☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ Chemical		
Source/Location:	QG3 Furnace		
Colour:			



Nick Bolton
Environment, Safety & RRTW Coordinator
Risk Department, O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane, 4101

Office: +61 7 3335 8023
+61 7 3335 8164 (6) Personal information
Fax: +61 7 3335 8163
Company Website: www.o-i.com



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Running Sheet Summary

Complaint/Report Ref: CR58082

Complainant						
Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Alleged Source						
Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Incident Location		
Name	Risk Level	Address
SOUTH BRISBANE QLD 4101		SOUTH BRISBANE QLD 4101

Source Ref: CR58082

Action Source Ref:

Date Commenced: 15/MAR/13 First Action: Y

Officer Involved: RENNEX, Graham

Responsible Office: ES-RSD-SER-Brisbane City South

Action Type: Allocation

Inspection Type: Proactive - initial

Enforcement Measure Type: Management Program

Referral To: Other

Action: N/A

Time Spent Hours: 2

Time Spent Minutes:

Outcome: NFA - activity in compliance

Outcome Description: Switchboard blew taking out combustion fan which resulted in high gas air ratio. Problem has been resolved - no complaints from residence

Due Date: 15/MAR/13

Date Completed: 15/MAR/13

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Complaint/Report Details

Complaint/Report Ref: CR58082

Priority/Sensitive: N

Complainant

Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Alleged Source

Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Incident Location

Name	Risk Level	Address
SOUTH BRISBANE QLD 4101		SOUTH BRISBANE QLD 4101

Type: Incident

Nature: Air: Odour: General

Received Date: 15/MAR/13

Receiving Officer: RENNEX, Graham

Receiving Office: ES-RSD-SER-Brisbane City South

Status: Finalised

Origin: Notification by source

Notification Method: Email

Project Manager: RENNEX, Graham

Responsible Office: ES-RSD-SER-Brisbane City South

Description

Event On/From Date:	Event On/From Time:	Received Time:	
Event To Date:	Event To Time:	Ongoing: N	Print Related Permits: N
Description Here is the completed investigation report for the recent QG3 Opacity Spike.			

Running Sheet Summary

Accrued Time: 2 hrs 0 mins

First Action	Date Commenced	Due Date	Action Type	Officer Involved	Outcome	Date Completed
Y	15/MAR/13	15/MAR/13	Allocation	RENNEX, Graham	NFA - activity in compliance	15/MAR/13

Related Complaints/Reports

Ref	Complainant	Alleged Source	Incident Location	Received Date
s.73 Irrelevant information				

RENNEX Graham

From: Nick.Bolton@ap.o-i.com
Sent: Thursday, 17 April 2014 2:16 PM
To: RENNEX Graham
Cc: Greg.McGraw@ap.o-i.com
Subject: Response to Compliance Inspection notice

Follow Up Flag: Follow up
Flag Status: Flagged

G'day Graham,

Below is a screen shot of our Audit action database, through which we manage all internal and external audits including compliance inspections. I have entered the 3 non-conformances identified in the notice and created actions for each. They have all commenced and are currently in progress. Due dates for all 3 actions are set to 30/5/14. If you have any further questions just shoot me an email or feel free to call any time.

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System Audit Manager Audit Report

Details of Audit Issue	Process Description	Audit Summary
Previous Audit:		
Audit Report No:	QG2661	Audit Type: External
Process:	EXTERNAL AUDIT - THIRD PARTY (ENVIRONMENT)	National Audit Due Date: 19/02/2014
System Area(s):	GPA	Department Manager: Chris W Thorne
Audit Status:	Completed	Location: Brisbane
Audit Objective:	Annual Compliance Inspection of ACI Operations Pty Ltd for ERA 44 Glass or glass fibre manuf	
Audit Scope:	The primary purpose of the inspection was to assess whether the activities conducted on site v Environmental Authority EPPR00244713 and other obligations under the Environmental Protect legislation. This was not a complete audit of the site and focused mainly on emissions.	
Lead Auditor: ✓	Graham Rennex (DEHP)	Other Auditor(s):
Auditees:	Nick Bolton	Others:
Checklist:	 Notice.pdf	

External Audit Actions

No.	Issue Type	Responsible	Audit Details	Action Details
▼ In Progress				
1	NC	Nick Bolton	Release points were not labelled in accordance with the requirements of conditions B11 and B12	Ensure correct labelling of all site with licence conditions B11 and B
2	NC	Nick Bolton	ACI could not demonstrate how the stannic chloride fabric filter dust collector removal efficiency required by condition B16 is determined and maintained	Verify removal efficiency of stanni required under licence condition I
3	NC	Nick Bolton	ACI could not demonstrate how the release points complied with the requirements of Australian Standard AS 4323.1-1995 Stationary source emissions - Selection of sampling positions	Verify compliance to AS 4323.1-1

Cheers,

Nick Bolton
Energy & Environment Coordinator
EHS Risk Department

PO Box 3017
137 Montague Road
South Brisbane 4101

Office: +61 7 3335 8123
 schap (6) Personal information
 Fax: +61 7 3335 8163
 Company Website: www.o-i.com

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RENNEX Graham

From: Nick.Bolton@ap.o-i.com
Sent: Thursday, 12 June 2014 12:52 PM
To: RENNEX Graham
Subject: O-I Brisbane - Testing backup generator

G'day Graham,

Just a quick one to inform you that we will be conducting our test of the backup diesel generator on Monday 16th in the morning from approximately 8am according to the plan.

This will generate extra noise and air emissions, particularly on startup. It is expected that we will be running this for no longer than 30 minutes to allow for operational diagnostics and system supply tests.

Let me know if you have any queries.

Cheers,

Nick Bolton
Energy & Environment Coordinator
EHS Risk Department

PO Box 3017
137 Montague Road
South Brisbane 4101

Office: +61 7 3335 8123
Sch 4 (6) Personal information
Fax: +61 7 3335 8163
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Department of
**Environment and
Heritage Protection**

19 February 2015

ACI Operations Pty Ltd
PO Box 3017
SOUTH BRISBANE QLD 4101

Attention: Jason Achatz

Dear Jason

Compliance inspection – 13 January 2015

I refer to the compliance inspection of ACI Operations Pty Ltd (ACI) conducted at 137 Montague Road, South Brisbane (the site), on 13 January 2015 by authorised officers Paul Butcher and Sasha Hindmarsh of the Department of Environment and Heritage Protection (the department). The site inspection was conducted in the presence of Nick Bolton and yourself.

The purpose of the inspection was to evaluate compliance of environmentally relevant activity (ERA) 44 – manufacturing 200t or more of glass or glass fibre in a year being conducted on the site with conditions prescribed in the environmental authority (EA) EPPR00244713 (formerly known as IPDE00947108/SR71) with a focus on general site housekeeping. The inspection was not a full audit of your activities. It is important to note that the inspection does not relieve ACI of other obligations under the *Environmental Protection Act 1994* (EP Act).

Site Observations

The following environmental issues pertaining to operation of ACI were identified during the inspection:

1. Outside the loading bay (diagonal to the mould shop), sediment laden water was observed leaving the bay and entering a stormwater drain (please refer to photo 1 and 2 in attachment 1). ACI staff informed officers that a Drain Warden was installed within the stormwater drain to contain oil and sediment run-off.

There is an increased potential for an offence of condition C1, which states that contaminants must not be directly or indirectly released from the licensed place to any waters, and section 440ZG of the EP Act. A discussion was held on site about the assertion of the inert properties of glass; please note that glass is a listed prescribed water contaminant under Schedule 9 of the *Environmental Protection Regulation 2008*. The increased potential for a breach is a result of varying sizes of products used on site (e.g. fine silica sand, crushed glass) and the limitations of Drain Wardens capabilities, as detailed in product specification document supplied to the department.

2. General housekeeping of the site (note previous compliance inspections by the department have indicated that housekeep was of a high-quality, unfortunately this was not the instance on 13th January 2015). Storage and stockpile management throughout the site was managed in haphazard manner, which appears to be exacerbated by surplus material following reduced production (please refer to photo 3 and 4 in attachment 1).

Furthermore the site appears to rely predominantly on water treatment systems such as Drain Wardens to manage the risk of contaminant releases to receiving waters (please refer to photo 1 and 2 in attachment 1). This management approach is confirmed in the Stormwater Management Plan and Stormwater Inspection documents supplied i.e. site sediment is marked for cleaning once in the drain, it is not addressed at the source.

This risk is best managed is via a treatment train which starts by minimising risk at the source by ensuring sound housekeeping practices, such as good stockpile management and appropriate spill control procedures across the site, thereby ensuring that the last line of defence, the Drain Warden are not unnecessarily loaded. This will also help to limit unrealistic reliance on the effectiveness of the Drain Warden.

3. The submitted *O-I Brisbane: Waste Management Plan* appears to lack sufficient information to inform staff to differentiate between waste streams e.g. general waste and regulated waste (which requires a higher level of management).

The department advises that ACI reviews its waste management obligations to ensure that waste streams are managed appropriately e.g. segregated waste; tracking certificates are filled out when required. The *Environmental Protection (Waste Management) Regulation 2000* can be found on the Queensland Government Legislation website www.legislation.qld.gov.au; furthermore an information guideline "Managing waste tracking in QLD" can be found on the department's website www.ehp.qld.gov.au

Obligations

As a result of the events surrounding matters outlined above you are reminded of your obligations pursuant to section 319 of the EP Act, which sets out the general environmental duty, and requires anyone who carries out an activity that causes or is likely to cause environmental harm to take all reasonable and practical measures to prevent or minimise the harm. Accordingly any person carrying out an activity must have in place effective protective measures and response plans and procedures to deal with foreseeable events that may occur and impact on the environment at, or adjacent to, the site where the activity is being carried out. In that regard, you are encouraged to actively identify all environmental risk factors with the activities conducted on the site on an ongoing basis, and to implement strategies and processes to effectively manage them.

The department thanks you for your co-operation during the inspection and looks forward to your continued co-operation in the environmental management of the site. A proposed follow-up inspection of the site is tentatively scheduled for **June 2015**. Should you have any further enquiries, please contact Sasha Hindmarsh, of the department on telephone 07 3330 5521.

Yours sincerely

Nadine Cooper
Acting Compliance Delivery Manager
Brisbane/Moreton Bay
Department of Environment and Heritage Protection

Attachment:

1. Photos Attachment

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ATTACHMENT 1

The following photos were taken by departmental officer Paul Butcher during the site inspection conducted on the 13 January 2015.



Photo 1. Loading bay diagonal to mould shed/spray booth.



Photo 2. Stormwater drain with 'drain warden', photo captured looking at the entry driveway near Montague Road/Brereton Street.



Photo 3. Surplus stockpile management of recycled glass.



Photo 4. Stockpile management of raw material.

ATTACHMENT A.

ACI Operations Pty Ltd (137 Montague Road, South Brisbane)
Site inspection conducted on 13 January 2015 by Paul Butcher and Sasha Hindmarsh of EHP, accompanied
by Jason Achatz and Nick Bolton of ACI.



Photo 1 – Loading bay diagonal to mould shed.



Photo 2 – Photo captured looking at the entry driveway near Montague Road/Brereton Street. Note sediment laden water in channel flowing to stormwater drain.



Photo 3 – Loading bay.



Photo 4 – Surplus stockpiling of crushed glass and silica sand.

ATTACHMENT A.

ACI Operations Pty Ltd (137 Montague Road, South Brisbane)
Site inspection conducted on 13 January 2015 by Paul Butcher and Sasha Hindmarsh of EHP, accompanied
by Jason Achatz and Nick Bolton of ACI.



Photo 5 – Bag house.



Photo 6 – Surplus stockpiling of crushed glass, banded by cement bollards.



Photo 7 – Bag house.



Photo 6 – Water treatment system.

ATTACHMENT A.

ACI Operations Pty Ltd (137 Montague Road, South Brisbane)
Site inspection conducted on 13 January 2015 by Paul Butcher and Sasha Hindmarsh of EHP, accompanied
by Jason Achatz and Nick Bolton of ACI.



Photo 9 – Water treatment system.



Photo 11 – Process line.



Photo 10 – Process line.



Photo 12 – Bunded sodium hypochlorite water treatment system.

ATTACHMENT A.

ACI Operations Pty Ltd (137 Montague Road, South Brisbane)
Site inspection conducted on 13 January 2015 by Paul Butcher and Sasha Hindmarsh of EHP, accompanied
by Jason Achatz and Nick Bolton of ACI.



Photo 13 – Spill kit.



Photo 14 – Loading bay of silica sand.



Photo 15 – Loading bays of silica sand.



Photo 16 – Water treatment system, water returned to production.



Photo 18 – Stockpiles silica sand.

ATTACHMENT A.

ACI Operations Pty Ltd (137 Montague Road, South Brisbane)
Site inspection conducted on 13 January 2015 by Paul Butcher and Sasha Hindmarsh of EHP, accompanied
by Jason Achatz and Nick Bolton of ACI.

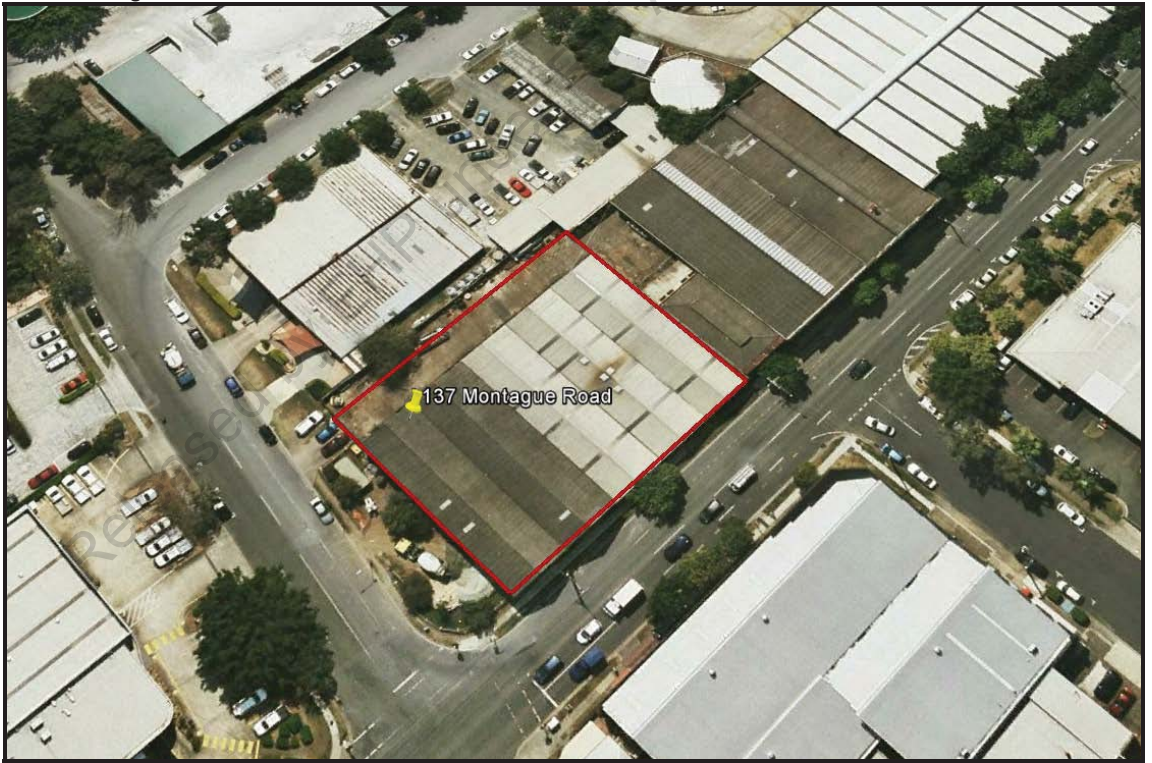


Photo 19 – Chemical storage area.

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QUICK INFO SHEET – 16 April 2015

Company Name	ACI Operations Pty Ltd (O-I Australia)	
Facility Name	ACI Operations	
Site activities	Glass container manufacture – packaging and tableware	
Client contact	<p>Jason Achatz EH&S Manager Jason.achatz@ap.o-i.com Website: http://www.o-i.com/Contacts-and-Locations/Asia-Pacific/ Phone: (07) 3335 8121 Mobile:sch4p4(6) Personal information Fax: Application Id: ACN:</p>	<p>Registered Address: 36 Burwood Road, Hawthorn VIC 3122 ABN: Postal Address: 137 Montague Rd, South Brisbane, QLD 4101, Australia</p>
Address	<p>137 Montague Rd, South Brisbane</p> 	

Lot/RP	<p>Lots 1 - 5 on Plan RP10756</p> 
Permit/Licence Number	<p>Ecotrack Ref: 240710 Permit: EPPR00244713 (DA: IPDE00947108)</p>
Annual Return Anniversary	February 13
File Number	<p>File- 101/0007332 Historical – BST365 SOR/117767</p>
ERA(s) (EP Regulation 2008)	ERA 44 – Glass or glass fibre manufacturing of 200t or more in a year.
AES Score	67
Site History/ Process Description	<ul style="list-style-type: none"> - Current activities have been carried out on the site since 1918. - ACI Operations PTY Ltd applied for an EA in 1995. - Main clients are Castlemaine Perkins, Fosters and Bundaberg Ginger Beer - The area has transformed from a predominantly industrial area to a commercial/residential area. - Noise and odour issues have been addressed; ACI have responded by putting in place mechanisms to minimise their impact on neighbours. - Inspections during 2011, 2012, and 2013 found no instances of non-compliance but the 2015 inspection highlighted a number of issues. - ACI was bought by Owens Illinois (O-I) in 2005. O-I was founded in 1903. Headquarters

	<p>Perrysburg, Ohio, USA</p> <p>O-I operates a glass bottle manufacturing plant, raw material and recycled glass are delivered to the Batch House at the rear of the plant and tipped into the receiving hoppers. Within the Batch House they are then weighed and mixed in the precise proportions required and directed to one of two existing furnaces. This delivery is currently effectuated by elevators and conveyors. In the furnaces the raw materials are melted. The furnaces are fired with natural gas to a maximum temperature of 1590degrees Celsius. There is also a supplementary electrical energy input known as electro boosting.</p> <p>From the furnace the molten glass flows through the forehearths where it is conditioned. The molten glass is fed from the forehearth and is sheared automatically into a measured quantity, known as a gob. The gobs are then directed into the first moulding station, called a blank.</p> <p>The gob is then blown by compressed air or pressed into its first stage, the parison. This consists of a formed neck with a rough shape of the rest of the container. The parison is transferred to a second station called the blow mould, where the body of the bottle is blown into its final shape.</p> <p>The container is then taken from the mould and while still hot is coated with tin oxide and provides a base for the external polyethylene to adhere to. The finished container is then conveyed automatically into a tunnel kiln, or lehr, where it is annealed or tempered. The temperature of the glass is carefully reduced from about 650degrees Celsius to room temperature.</p> <p>On emerging from the lehr at the "cold end", each container is coated externally with polyethylene, to improve lubricity and prevent scratching. The container is then inspected automatically and manually for defects before being palletised and store in a warehouse for a minimum of 24 hours.</p>
Potential site issues	<p>AIR Emissions to air from:</p> <ul style="list-style-type: none"> • oxides of nitrogen, sulphur dioxide and carbon monoxide (combustion gases) • particulate matter • volatile organic compounds. <p>NOISE Noise impacts on nearby sensitive receptors from the general operation of the activity.</p> <p>WATER Impacts to the receiving environment (surface waters) from contaminated process/cooling water and stormwater runoff. Contaminants of concern include:</p> <ul style="list-style-type: none"> • chemicals • metals • total suspended solids. <p>LAND Soil contamination where onsite treatment, storage or disposal of waste is proposed or where releases occur. Handling and storage of chemicals and fuels onsite.</p> <p>WASTE Storage and disposal of wastes.</p>
Outstanding Actions	Follow up on corrective actions identified during compliance inspection in Feb 2015 (see below).
Last compliance inspection	CA33977 – 19/02/2015 – Sediment laden stormwater observed in drain. Poor housekeeping in regard to storage and stockpile management, insufficient water treatment procedures (e.g. drain warden). Waste management plan not detailed enough.
Compliance inspection priority	June 2015 – tentative follow up inspection proposed by officer (Sasha Hindmarsh) who conducted most recent inspection in February.
Complaints	<ul style="list-style-type: none"> • CR65151 – 01/12/2014 – Opacity spikes in air emissions during storm. Not considered to be a problem due to no related licence conditions and instigation of incident by weather

	<p>conditions. {Related Correspondence – December 2, 2014 see notes}</p> <ul style="list-style-type: none"> • CR61165 – 05/12/2013 – Opacity spike associated with cleaning activities required for regenerator efficiency. • CR57912 – 04/03/2013 - Switchboard failure took out combustion fan supplying air to the furnace. Gas and Air ratio too high gas was backed off and Air ramped up to bring opacity back down - time was 5min. • CR56335 – 30/10/2012 - Overnight we experienced a minor opacity spike on QG3 as a result of the power grid issues. • CR55801 – 14/09/2012 - ACI / OI Reported a opacity spike on QG3 Furnace after a full site compressor outage on 30 August 2012. • CR55537 – 24/08/2012 - Approximately 2 - 3 tonnes of soda ash material was spilt (calculated as the truck was 2 -3 tonnes lighter when weighed on their weighbridge). As the truck pulled in he had to climb a hill/bump over the gutter which is when the spill was noticed - the soda ash spill was trailed over the weighbridge. The amount spilt on their site was very light in comparison to that on the road and was swept up immediately using their on site sweeper, the contaminant did not reach stormwater drains. She stated that the truck driver had not informed them that he had spilt material anywhere else and was told not to bring that particular truck back onto their site in future. The truck was empty when it left. They were later notified that the spill had in fact started on the road. <p>Business operational for 15 years involving transport of sand, gravel, soda ash and soil. At time of incident, one truck (Mitsubishi) was meant for transport of sand and gravel and another specifically for soda ash transport (with grain locks) – but it had been in the repair shop for two weeks. They had no licences or permits. Spill procedure involved stopping the vehicle, engaging the tray angles, ringing the office and waiting for the appropriate assistance (arranged from the office). Incident occurred due to a series of errors - the sand and gravel truck was used in place of the appropriate soda ash transport truck, the driver had not put the safety locks in place, he thought he just had a slow leak but in fact the tailgate had popped open. The truck had travelled from the Hamilton Wharf to Montague St with the spill beginning from Countess St. The truck was taken back to the depot once the load had been delivered but nothing could be found wrong with it. The company are getting an expert to look at the truck. Loakes Transport Pty Ltd are being issued a PIN (PIN5545) for contravening section 440zG of the Environmental Protection Act 1994.</p> <ul style="list-style-type: none"> • CR55193 and CR55192 – 01/08/2012 – Opacity spikes due to faulty regulators. • CR54959 – 06/07/2012 – Opacity spike due to maintenance issues regarding filter cleaning.
--	---

Additional site details



- Light industry, residential and commercial area.
- In close proximity to the Brisbane River.

Notes:

Internal correspondence regarding an opacity spike between Sasha Hindmarsh and Suhail Kahn.

Hi Sasha,

I understand, there is no opacity emission limit in the licence. Opacity can be used to convert opacity data to particulate emissions if a site specific relationship is available. It is also used as a surrogate to determine visible plume from the source. According to NSW POEO Regulation 2010, the opacity limit for glass furnace is 20% for a facility approved after 2005.

	<p>I think the shot events (less than 1 hour in total) of opacity greater than 20%, as a result of severe storm is not a problem. Regards, Dr Suhail Khan</p>
--	---

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Photo 1 – Truck loading area



Photo 5 – Stormwater drain with drain warden (filter sock)



Photo 2 – Hardstand outside factory



Photo 6 – Close up of stormwater drain



Photo 3 – As above in photo 2



Photo 7 – Processing equipment



Photo 4 – As above in photo 1



Photo 8 – Crush colour bay



Photo 9 – View into factory



Photo 13 – Hardstand where glass shards were stored during previous inspection.



Photo 10 – Carpark where overflow glass material was stored during previous inspection



Photo 14 – Current stockpiles of glass for recycling.



Photo 11 – Bottle stockpile for recycling



Photo 15 – Glass stockpiles the hardstand. Dust/glass particulate fence along site boundary.



Photo 12 – Grass area that was covered with stockpiled glass shards during last inspection



Photo 16 – Dust/particulate fence finishes before the end of the site boundary.



Photo 17 – Glass 'fines' dust



Photo 18 – View of processing factory.

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Date of Compliance Inspection:	26 June 2015
Compliance Inspection Reason:	Site familiarisation and follow up inspection from January.
Compliance Inspection Type:	Level B
Ecotrack Compliance Action/ Complaint Record No.	CA36282
Compliance Level of Site/Risk:	Medium

Registered Operator Details	
Registered Operator and/or Company Name:	ACI Operations Pty Ltd (Now O-I)
Site Address	137 Montague Rd, South Brisbane, QLD 4101, Australia
Registration Certificate No. and/or Development Approval No.	EPPR00244713 (DA: IPDE00947108)
Environmentally Relevant Activity (number & name):	- ERA 44 – Glass or glass fibre manufacturing of 200t or more in a year.
Name and Position of Contact Person/s during Inspection:	Jason Achatz – Phone 07 3334 8121 Mobile 04 (6) Personal information

General Description of the site and surrounding environment

- Current activities have been carried out on the site since 1918.
- ACI Operations PTY Ltd applied for an EA in 1995.
- Main clients are Castlemaine Perkins, Fosters and Bundaberg Ginger Beer
- The area has transformed from a predominantly industrial area to a commercial/residential area.
- Noise and odour issues have been addressed; ACI have responded by putting in place mechanisms to minimise their impact on neighbours.
- Inspections during 2011, 2012, and 2013 found no instances of non-compliance but the 2015 inspection highlighted a number of issues.
- ACI was bought by Owens Illinios (O-I) in 2005. O-I was founded in 1903. Headquarters Perrysburg, Ohio, USA
- Light industry, residential and commercial area.
- In close proximity to the Brisbane River.

Process Description

O-I operates a glass bottle manufacturing plant, raw material and recycled glass are delivered to the Batch House at the rear of the plant and tipped into the receiving hoppers. Within the Batch House they are then weighed and mixed in the precise proportions required and directed to one of two existing furnaces. This delivery is currently effectuated by elevators and conveyors. In the furnaces the raw materials are melted. The furnaces are fired with natural gas to a maximum temperature of 1590degrees Celsius. There is also a supplementary electrical energy input known as electro boosting.

From the furnace the molten glass flows through the forehearth where it is conditioned. The molten glass is fed from the forehearth and is sheared automatically into a measured quantity, known as a gob. The gobs are then directed into the first moulding station, called a blank.

The gob is then blown by compressed air or pressed into its first stage, the parison. This consists of a formed neck with a rough shape of the rest of the container. The parison is transferred to a second station called the blow mould, where the body of the bottle is blown into its final shape.

The container is then taken from the mould and while still hot is coated with tin oxide and provides a base for the external polyethylene to adhere to. The finished container is then conveyed automatically into a tunnel kiln, or lehr, where it is annealed or tempered. The temperature of the glass is carefully reduced from about 650degrees Celsius to room temperature.

On emerging from the lehr at the "cold end", each container is coated externally with polyethylene, to improve lubricity and prevent scratching. The container is then inspected automatically and manually for defects before being palletised and store in a warehouse for a minimum of 24 hours

Non-Compliances and/or new identified issues and observations

Primary focus of inspection was to follow up on the issues that were identified on the previous inspection (CA33977) on 13 January 2015

- 1) Limitations associated with existing water treatment systems (primarily Drain Wardens) onsite, increasing the potential for contaminated stormwater to be released to waters.
- 2) General housekeeping onsite – particularly with regard to storage and stockpile management.
- 3) The O-I Brisbane Waste Management Plan supplied appears insufficient to appropriately manage different waste streams onsite.

Observations:

- Officers observed the drain warden in place in the stormwater system which was quite full of sediment. Jason advised that the drain wardens are inspected every 6 months or earlier if necessary, with removal and replacement carried out by contracted company – Absorb Environmental. He noted that they would need to be replaced soon and that they were intending to get the water quality tested at the time of removal, using the guidelines that were sent to him prior to the inspection as he requested. The test results will indicate whether the drain wardens are effective enough for stormwater protection and shall be provided to EHP.
- Process changes have been implemented in the crush colour bay, with smaller scoops being taken to load up the trucks reducing spills. A street sweeper runs over the site twice a week.
- The carpark and grass areas that were filled with large stockpiles of glass in January have been cleared away. The cause of these stockpiles was due to storm damage to the asbestos warehouse roofs which prevented normal operation from occurring. It was not feasible to shut the boilers off because they would need to be completely destroyed and rebuilt. Production was reduced to the bare minimum but as a result glass product still accumulated and had to be stored somewhere while the roofs were being repaired. Therefore this situation has been rectified.
- Officers observed that the sediment sock and fence along the sites boundary fence-line (see attached photos) did not extend all the way to the end. This was brought the Mr Achatz attention, who responded that he would look into getting a sediment sock installed between the fence and warehouse 410 to ensure that there would be no potential for stormwater drainage offsite.
- Waste oils from processing machinery are dealt with by tradewaste, and the only other regulated waste stream that is produced/used onsite is static chloride, which is removed by Remondis.

Consultation with Operator (including commitments for improvements/required actions)

- Officers discussed with JA the possibility of investigating alternative ways of presenting air quality monitoring data with regard to opacity.

Recommendation

No further action

Report Completed by:

Name:	Kylie Nordstrand	Date:	03 July 2015
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Position	Environmental Officer	Signature:	
Report Reviewed by:			
Name:	Ben McKenzie	Date:	
Position:		Signature:	

Attachments: Site Inspection Photographs

Released by EHP under RTI Act 2009

Disclaimer

The information provided in this compliance inspection report cannot be seen as a comprehensive report of the compliance conditions on the site. It is prepared for a specific purpose only. Although the Department attempts to provide reliable and accurate information in these reports at the time of their completion, we do not guarantee this as circumstances on site can change quite quickly and there may be errors or omissions. The information in this report is not, nor is it intended to be, legal, commercial or professional advice of any kind and should not be relied upon as such. You should consult your own professional advisors for individual advice regarding your own situation before taking any action, or refraining from any action, based on any information appearing in this report. The Queensland Government does not accept responsibility for any loss or damage, however caused (including through negligence), which you may directly or indirectly suffer in connection with your use of this report. Nor do we accept any responsibility for any such loss arising out of your use or reliance on information contained in this report.

Attachments: Photographs



Photo 5 – Stormwater drain with drain warden (filter sock)



Photo 6 – Close up of stormwater drain



Photo 8 – Crush colour bay



Photo 10 – Carpark where overflow glass material was stored during previous inspection



Photo 11 – Bottle stockpile for recycling



Photo 12 – Grass area that was covered with stockpiled glass shards during last inspection



Photo 13 – Hardstand where glass shards were stored during previous inspection.



Photo 14 – Current stockpiles of glass for recycling.



Photo 15 – Glass stockpiles the hardstand. Dust/glass particulate fence along site boundary.



Photo 16 – Dust/particulate fence finishes before the end of the site boundary.

Released by EHP under RTI Act 2009



Department of
**Environment and
Heritage Protection**

Ref: CA36282/EPPR00244713

06/07/2015

ACI Operations Pty Ltd
PO Box 3017
SOUTH BRISBANE
QLD 4101

Via email: Jason.Achatz@ap.o-i.com

Dear Mr Achatz

Re: Meeting and compliance inspection ACI Operations Pty Ltd at 137 Montague Road, South Brisbane, on 26 June 2015.

I refer to the meeting and compliance inspection of ACI Operations conducted at 137 Montague Road, South Brisbane on 26 June 2015, by officers Ben McKenzie and Kylie Nordstrand of the Department of Environment and Heritage Protection (the department). The site inspection was conducted in the presence of yourself; Jason Achatz, as the Environment Health and Safety Officer for ACI. The department appreciates the time taken by ACI to accompany officers during the inspection.

The purpose of this visit was to conduct a follow up site inspection evaluating actions taken to address the following issues identified during a previous inspection conducted on 13 January, 2015 (CA33977):

- 1) Limitations associated with existing water treatment systems (primarily Drain Wardens) onsite, increasing the potential for contaminated stormwater to be released to waters.**
- 2) General housekeeping onsite, particularly with regard to storage and stockpile management.**

The inspection was not a full audit of your activities. It is important to note that the inspection does not relieve ACI of other obligations under the *Environmental Protection Act 1994* (EP Act).

Departmental officers did not observe any non-compliances during the inspection. However, officers brought to your attention that the sediment sock did not extend the entire length of the perimeter fence line. You indicated that you would look into installing a sediment sock between the fence line and warehouse 410 to minimise the likelihood of contaminated stormwater leaving the site. Photographic evidence is requested once this additional sediment sock has been installed. Further, you advised officers of plans to undertake onsite water quality testing in the stormwater system to

determine the effectiveness of installed drain wardens. As discussed, a copy of these results is requested once they are available.

You are reminded of your obligations under section 319 of the *Environmental Protection Act 1994*, which sets out the general environmental duty, and requires anyone who carries out an activity that causes or is likely to cause environmental harm to take all reasonable and practical measures to prevent or minimise the harm. In that regard, you are encouraged to actively identify all environmental risk factors with the activities conducted on the site on an ongoing basis, and to implement strategies and processes to effectively manage them.

The department would like to thank you for your time and assistance with the meeting and compliance inspection and looks forward to a prompt resolution of the matters raised.

Should you wish to discuss any of the matters raised in this letter, please contact Kylie Nordstrand, Environmental Officer of the department on 07 3330 5544.

Yours sincerely,

Matt Karle

A/Manager (Moreton Bay)

Environmental Services and Regulation

Department of Environment and Heritage Protection

Compliance inspection report

Compliance inspections (Level C)

Checklist, on-site record & inspection report

This toolkit is for internal use to assist Environmental Services officers when conducting Level A, B and C site inspections to record general details of the site being inspected, pre-inspection considerations and planning, on-site observations and to document recommendations and obtain approval for compliance/enforcement action. For Levels B and C, refer to addendum sheets also. This document can be used in hard copy and taken with the officer to be completed on site. The soft copy document can be completed upon return to the office.

Part A. General Information

Company name: Owen Illinios (O-I) Australia	Date of inspection: 19 February 2014	Time: 10.00 – 14.30hrs
Trading as: ACI Operations Pty Ltd ABN: 94 004 230 326		EA/DA / number (if applicable): EPPR00405513 / ENRE00772608- ERA 44 Glass or glass fibre manufacturing – will be addressed in this assessment report. IPDE00947108 – ERA 44 – will be addressed in this report
Description of business activity/ ERAs: Glass or glass fibre manufacturing		File number: BST365 / SOR117767
Street address: 137 Montague Road, SOUTH BRISBANE		Real property description (lot on plan): Lot 1 Plan RP10756, Lot 2 RP10756, Lot 3 Plan10756, Lot 4 Plan RP10756, Lot 5 Plan10756
Site representative/s: Nick Bolton	Position/s: Risk Management	Contact telephone: 07 3335 8123 or 0429 139787
Department's representatives: Graham Rennex, Stacey Robinson, Principal Project Officer, Dr Ralph Riese, Project Support, State-wide Environmental Assessment, Department of Environment and Heritage Protection & Lisa Mee, Principal Project Officer, Air Quality Services, Department of Science Information Technology Innovation and Arts.		
Registered business address: O-I Brisbane Pty Ltd, 137 Montague Road, SOUTH BRISBANE		
Inspection level (check box): Level A ☐ Level B ☐ Level C ☒ In 2014 the focus will be on Air Emission issues.		

Part B. Pre-inspection considerations

Environmental risk	High
Last inspection date	CA18766 – 24 January 2013
General description of location and surrounding environment	<ul style="list-style-type: none"> O-I operates a glass bottle manufacturing plant at this site. The area surrounding the site is industrial to the southeast. There is also some mixed residential to the southeast. Residential areas are growing.

Inspection toolkit

Checklist, on-site record & inspection report

<p>Process Description</p>	<ul style="list-style-type: none"> • The Brisbane River is on the northwest. • There are industrial areas to the northeast and southwest. <p>Map of the site attached: see photo register</p> <p>Raw material and recycled glass are delivered to the Batch House at the rear of the plant and tipped into the receiving hoppers. Within the Batch House they are then weighed and mixed in the precise proportions required and directed to one of two existing furnaces. This delivery is currently effectuated by elevators and conveyors.</p> <p>In the furnaces the raw materials are melted. The furnaces are fired with natural gas to a maximum temperature of 1590 oC. There is also a supplementary electrical energy input known as electro boosting.</p> <p>From the furnace the molten glass flows through forehearths where it is conditioned. The molten glass is fed from the forehearth and is sheared automatically into a measured quantity, known as a gob. The gobs are then directed into the first moulding station, called a blank.</p> <p>The gob is then blown by compressed air or pressed into its first stage, the parison. This consists of a formed neck with a rough shape of the rest of the container. The parison is transferred to a second station called the blow mould, where the body of the bottle is blow into its final shape.</p> <p>The container is then taken from the mould and while still hot is coated with tin oxide and provides a base for the external polyethylene to adhere to.</p> <p>The finished container is then conveyed automatically into a tunnel kiln, or lehr, where it is annealed or tempered. The temperature of the glass is carefully reduced from about 650 oC to room temperature.</p> <p>On emerging from the lehr at the "Cold End", each container is coated externally with polyethylene, to improve lubricity and prevent scratching.</p> <p>The container is then inspected automatically and manually for defects before being palletised and stored in a warehouse for a minimum of 24 hours.</p>
<p>History of the activity</p>	<ul style="list-style-type: none"> • Current activities have been carried out on the site since 1918 • ACI Operations Pty Ltd applied for an EA in 1995. • Main clients are Castlemaine Perkins, Fosters and Bundaberg Ginger Beer. • The area has transformed from a predominantly industrial area to a commercial / residential area. • Noise and odour issues have been addressed. • ACI have responded by putting in place, mechanisms to minimise their impact on neighbours. • Current inspections 2011, 2012 & 2013 found no instances of non-compliance. • Housekeeping is good. • ACI was bought by Owens Illinios (O-I) in 2005. O-I was founded in 1903. Headquarters Perrysburg, Ohio, USA.

Inspection toolkit
Checklist, on-site record & inspection report

<p>Outstanding issues and/or non-compliances/enforcement (e.g. environmental protection orders)</p>	<ul style="list-style-type: none"> • No noise or odour complaints in 2013. • Stack emissions opacity spikes have decreased from 6+ in 2010-2012 to only two opacity spikes in 2013.
<p>Proposed increase in production 2014</p>	<p>The business is potentially looking to increase capacity in the Brisbane Plant by an approximate 30,000 tonnes per year. The mechanism to achieve this would be to replace one of our 8 section, triple cavity machines with a 10 section, triple cavity machine as well as replacing a 10 section, triple cavity machine with a 10 section, quad cavity machine. This would increase our ability to pull greater tonnes from the existing furnaces and maximise their throughout suggested energy efficiency gains as a by-product.</p> <p>O-I Furnace Manager:</p> <p>"The average emission of CO₂ to increase by between 40% and 50% total cullet usage is 0.31144 CO₂/T. Hence with a 30K Tons increase per year, an additional 9.343 Ton/year of CO₂ would be emitted to atmosphere, roughly."</p>
<p>Response to the increase in production 2014</p>	<p>NOTE: O-I Brisbane have not submitted an application to EHP for an increase in production at their South Brisbane plant.</p> <p>Dr Ralph Riese:</p> <p>O-I's information regarding the proposed increase in production does not address the existing contaminants. As minimum, the department would need to know:</p> <ul style="list-style-type: none"> • are the changes to plant and equipment likely to result in changes to emissions of total particulates, oxides of nitrogen (NOX) and /or oxides of sulphur (SOX); • have the changes been characterised and quantified; • has risk of adverse impacts on air quality resulting from those changes been assessed against the relevant ambient air quality criteria containment in the EPP (Air); • are the changes to plant and equipment likely to result in any new emission that are scheduled in the EPP (Air); • what amounts of new the emissions will be generated / released; and • has the risk of adverse impact on air quality resulting from those changes been assessed against the relevant ambient air quality criteria contained in the EPP(Air). <p>The NSW "Protection of the Environment Operation (Clean Air) Regulation 2002" contains best practice emission release limited for a wide range of activities, including glass production. The release limits are provided as a range based on equipment age – oldest having the highest release limits, and newest having the lowest. If we were looking at a new facility, the limits, would look something like:</p>

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	<ul style="list-style-type: none"> • any melting furnace – total particulates - 50 mg/m³; • any crushing, grinding, separating or materials handling activity – total particulates – 20 mg/m³; • any melting furnace except manufacture of glass from sodium nitrate (NaNO₃) – total oxides of nitrogen expressed as nitrogen dioxide – 700 mg /m³; • any melting furnace for manufacture of glass using sodium nitrate (NaNO₃) – total oxides of nitrogen expressed as nitrogen dioxide – 1500 mg /m³; • no release limits are provided for SOX – presumably because the furnaces would be fired on sulphur-free natural gas; and • release limits for metals and materials are also contained in the NSW Regulation. The existing EA does not regulate these however they are listed in the EPP (Air). <p>Note: In the Brisbane Times 9 October 2013, it was confirmed by Cr Cooper from the Brisbane City Council that talks had begun to encourage ACI Glass to move from their present facility at South Brisbane and relocate. It is understood the state government has taken responsibility for encouraging ACI to relocate.</p>
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Industry specific hazards – consider personal safety

Engineering	High temperature electric induction furnace (2).
Light manufacturing	Infrastructure maintenance, emissions from furnace stacks
Waste	Fuel, chemical waste, trade waste, oil waste sludge
Other	Minor spills and contaminants on roadways sand / ash (housekeeping).

Personal protective equipment (PPE) – consider whether any PPE is required anxious

Safety helmet	Yes ☒ No ☐
Hearing protection	Yes ☒ No ☐
Eye protection	Yes ☒ No ☐
Protective clothing	Yes ☒ No ☐ - high-visibility vests / EHP shirts
Protective footwear	Yes ☒ No ☐
Respiratory protection	Yes ☐ No ☒
Other	Yes ☒ No ☐ (Long sleeve shirt, trousers and wide brim hat)
Arrange safety induction training with occupier of site before any work is done	Yes ☒ No ☐

Part C. Inspection plan including opening meeting checklist for Level C inspections

Topic	Details	Confirmed in opening meeting
Objectives and scope	Address all schedules of the development approval: Schedule B – Air	Yes ☒ No ☐

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	Schedule H – Monitoring and reporting	
Agenda and timeframe	O-I Brisbane Site 10.00 – 14.30hours	Yes ☒ No ☐
Audit team - roles and responsibilities of team members	<ul style="list-style-type: none"> Graham Rennex – Auditor Stacey Robinson - Auditor Dr Ralph Riese – Auditor Lisa Mee - Auditor 	Yes ☒ No ☐
Methods and procedures to be used	<ul style="list-style-type: none"> Digital camera (photo register) Appropriate documentation Site documentation Kit bag 	Yes ☒ No ☐
Onsite staff accompanying audit/inspection team (names and positions)	Nick Bolton – Risk Management.	Yes ☒ No ☐

Part D. Conditions for assessment (Use for Level B or C inspections, add or delete lines as necessary) **Observations** (include name and relevant comments made by any on-site staff)

Condition number: B1 and B2 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐		Photos taken Yes ☐ No ☒
SCHEDULE B – AIR Element/question: non-specified release of contaminants to the atmosphere		
B1 - Except as otherwise provided by the conditions of the Air Schedule of this environmental authority the environmentally relevant activities must be carried out by such practicable means necessary to prevent the release or likelihood of release of contaminants to the atmosphere.		
B2 - Where it is not practicable to prevent a release of contaminants to the atmosphere as required by condition B1, the ERA must be carried out by such practicable means necessary to minimise the release or likelihood of any such release of contaminants to the atmosphere.		
Observations		
- No dust/air complaints were received by the department in 2013.		
Condition number: B3, B4, B5, B6, B7, B8 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐		Photos taken Yes ☒ No ☐
Element/question: Specific Releases		
B3 - Contaminants resulting from the operations of the sources described in Table 1 of the Air Schedule must only be released to the atmosphere from those release points specified in Table 1 of the Air Schedule.		
B4 - Contaminants released from each release point specified in Table 1 of the Air Schedule must be directed vertically upwards without any impedance or hindrance.		
B5 - Contaminants must be released to the atmosphere from a release point at a height above ground level not less than the corresponding height stated for that release point in Table 1 of the Air Schedule.		

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<p>B6 - Contaminants must be released to the atmosphere from a release point at a velocity not less than the corresponding velocity stated for that release point in Table 1 of the Air Schedule.</p> <p>B7 - Contaminants must not be released to the atmosphere from a release point at a mass emission rate, as measured at a monitoring point specified in Schedule H, in excess of that stated in Table 2 of the Air Schedule.</p> <p>B8 - Contaminants must not be released to the atmosphere from a release point at a concentration, as measured at a monitoring point specified in Schedule H, in excess of that stated in Table 2 of the Air Schedule.</p>	
<p>Observations</p> <p>B3 - No odour complaints were received by the department in 2013.</p> <p>B5 -The department received some opacity releases during 2013. These releases were in compliance with this condition.</p> <p>Release points 1 through 6 described in Schedule B – Table 1 were observed during the inspection. Requirements relating to access to stack sampling ports were in place for RP 1 and RP2, but did not look to be in place for RP3, RP4 or RP6. RP5 was not visible from ground level so access requirements could not be determined.</p> <p>Recommended action: that release points RP1 through RP6 be assessed for compliance with the requirements of <i>Australian Standard AS 4323.1-1995 Stationary source emissions - Selection of sampling positions</i>.</p>	
<p>Condition number: B9, B10 Compliant: Yes ☐ No ☐ TBA ☐ Not inspected ☒</p> <p>Released to Atmosphere</p>	<p>Photos taken</p> <p>Yes ☐ No ☒</p>
<p>Element/question: Improvement of Contaminant Levels released to the Atmosphere</p>	
<p>B9 - Any replacement or refurbishment of the glass furnaces QG1 and QG3 must be carried out in such a manner as to reduce the total mass of contaminants released to the atmosphere, taking into consideration :</p> <ul style="list-style-type: none"> • NH&MRC ambient air quality goals; • the requirements of any relevant Environment Protection Policy; and • best practice environmental management <p>B10 - In the event of any planned replacement or major refurbishment of the glass furnaces QG1 and/or QG3, the holder of this environmental authority must prepare and submit to the administering authority at least three months prior to any such replacement or refurbishment a report which addresses at least the following:</p> <ul style="list-style-type: none"> • details of the replacement or refurbishment; • the expected reduction in the total mass of contaminants released to the atmosphere; • expected impact on the receiving environment determined by air dispersion modelling. 	
<p>Observations / discussions: EHP officers discussed the conditions B9 and B10 in light of O-I's intentions to expand operations at South Brisbane. Air quality impact information required to satisfy EHP's administrative interests was provided to O-I, along with an offer to provide additional information as O-I develops the expansion plans.</p>	

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Condition number: B11, B12 Compliant: Yes ☐ No ☒ TBA ☐ Not inspected ☐ Labelling of Discharge Points	Photos taken Yes ☒ No ☐
Element/question: Labelling of Discharge Points	
B11 - Within three months of the date of issue of this environmental authority all release points referred to in Table 1 of the Air Schedule must be conspicuously marked with the following details: (i) the corresponding release point number referred to in Table 1 of the Air Schedule. B12 - The label required for each release point must be readily visible from both ground level and at any required sampling point.	
Observations: Photos of release points 1 through 6 show that only RP3 was labelled in such a way that it was readily visible from ground level. Recommended action: that release points RP1, RP2, RP4, RP 5, and RP6 be labelled in accordance with the requirements of conditions B11 and B12.	
Condition number: B13 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐ Spray Booths	Photos taken Yes ☒ No ☐
Element/question: Spray Booths	
B13 - All emissions from the Solid Film Lubricant (SFL) Fume Extraction must pass through a fabric filter prior to release to the atmosphere.	
Observations: The fabric filter installed in the SLF spray booth, extraction system and roofline stack (RP4) were observed during the inspection.	
Condition number: B14, B15, B16, B17, B18, B19 Compliant: Yes ☐ No ☐ TBA ☒ Fabric Filter Dust Collector	Photos taken Yes ☒ No ☐
Element/question: Fabric Filter Dust Collector (FFDC)	
B14 - All contaminants from the Stannic Chloride Application Area must be treated in a fabric filter dust collector (FFDC) prior to release to the atmosphere. B15 - All collected material removed from the FFDC must be removed and disposed of in a manner that will not cause the release of contaminants to the atmosphere or to waters. B16 -The FFDC must have a removal efficiency of not less than 99.7 percent in respect of the release of stannic chloride and ammonia chloride particulate matter. B17 - A filter medium breakthrough detector must be installed in the outlet of the FFDC. B18 - An audible and visual alarm must warn the operator in charge of the FFDC whenever the filter is not functioning correctly which includes when a filter medium breakthrough occurs. B19 - In the event of a failure of the Stannic Chloride Baghouse the bypass Baghouse is to be used while repairs are promptly effected.	
Observations: The stannic chloride application area and associated dust extraction and filtration equipment attached to the QG1 production line were observed during the inspection.	

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<p>O-I stated that it relies on the manufacturer's specification to comply with the requisite FFDC removal efficiency, however O-I was not able to demonstrate how removal efficiency is determined or maintained.</p> <p>Recommended action: that O-I determines how the stannic chloride fabric filter dust collector removal efficiency required by condition B16 is determined and maintained.</p>		
<p>Condition number: B20 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐</p> <p>Fuel Burning</p>		<p>Photos taken</p> <p>Yes ☐ No ☒</p>
<p>Element/question: Fuel Burning</p>		
<p>B20 - The only type of fuel to be burned in industrial fuel burning equipment is natural gas for the glass furnaces and diesel for the stand by generator.</p>		
<p>Observations: O-I confirmed that only natural gas is burned in the industrial fuel burning equipment, and that only diesel is burned in the standby generator.</p>		
<p>Condition number: B21, B22 Compliant: Yes ☒ No ☐ TBA ☐ Not inspected ☐</p> <p>Standby Generator</p>		<p>Photos taken</p> <p>Yes ☒ No ☐</p>
<p>Element/question: Standby Generator – how many times a year is generator tested – when is fuel stored, is it bunded?</p>		
<p>B21 - Stand-by electricity generators are to be operated only during testing or when mains electricity supply is not available.</p>		
<p>B22 - The sulphur content of any fuel burned in the stand-by generator is not to exceed 1 percent by weight</p>		
<p>Observations: The generator is tested once a year – fuel and generator are contained in a bunded covered area – no complaints have been received by the department about generator test run in 2013.</p>		
<p>Condition number: H1, H2 Compliant: Yes ☐ No ☐ TBA ☐ Not inspected ☐</p> <p>Self-Monitoring and Reporting</p>		<p>Photos taken</p> <p>Yes ☐ No ☐</p>
<p>Element/question: Compliant Recording</p>		
<p>H1 - All complaints received by the holder of this environmental authority relating to operations at the licensed place must be recorded in a log book with the following details:</p> <ul style="list-style-type: none"> (i) time, date and nature of the complaint; (ii) type of communication (telephone, letter, personal etc.); (iii) name, contact address and contact telephone number of complainant (Note: if the complainant does not wish to be identified then "Not identified" is to be recorded); (iv) response and investigation undertaken as a result of the complaint; (v) name of person responsible for investigating complaint; and (vi) action taken as a result of the complaint investigation and signature of responsible person. <p>H2 - The complaints record required by condition number H1 must be maintained for a period of not less than five (5) years.</p> <p>Observations</p>		

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Monitoring reports for 2013 were sent to the department by email 30/01/2014	
Condition number: H3, H4 Compliant: Yes ☐ No ☐ TBA ☐ Not inspected Incident Recording	Photos taken Yes ☐ No ☐
Element/question: Incident recording	
H3 - A record must be maintained of events including but not limited to: (i) the time date and duration of equipment malfunctions that may affect the environmental performance of the licensed place; (ii) any shut-downs of the glass furnace(s) and/or stannic chloride baghouse; (iii) any incidents of power failure where the standby generator is required to be used; (iv) any overflows from the cullet ponds to the stormwater system; H4 - The record required by condition number H3 must be maintained for a period of not less than five (5) years.	
Observations	
Condition number: H5, H6, H7, H8 Compliant: Yes ☐ No ☐ TBA ☐ Not Inspected Notification	Photos taken Yes ☐ No ☐
Element/question: Notification of Emergencies and Incidents	
H5 - As soon as practicable after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority, the holder of this environmental authority must notify the administering authority of the release by telephone or facsimile. H6 - The notification of emergencies or incidents as required by condition number H5 must include but not be limited to the following: (i) the holder of the environmental authority; (ii) the location of the emergency or incident; (iii) the number of the environmental authority; (iv) the name and telephone number of the designated contact person; (v) the time of the release; (vi) the time the holder of the environmental authority became aware of the release; (vii) the suspected cause of the release; (viii) the environmental harm and or environmental nuisance caused, threatened, or suspected to be caused by the release; and (ix) actions taken to prevent further any release and mitigate any environmental harm and or environmental nuisance caused by the release. H7 - Not more than 14 days following the initial notification of an emergency or incident, the holder of the environmental authority must provide written advice of the information supplied in accordance with condition number H6 in addition to:	

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<p>(i) proposed actions to prevent a recurrence of the emergency or incident; and</p> <p>(ii) outcomes of actions taken at the time to prevent or minimise environmental harm and or environmental nuisance.</p> <p>H8 - As soon as practicable, but not more than six weeks following the conduct of any environmental monitoring performed in relation to the emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority, the holder of the environmental authority must provide written advice of the results of any such environmental monitoring performed.</p>	
Observations	
Condition number: H9, H10 Compliant: Yes ☐ No ☐ TBA ☐ Not Inspected ☐	Photos taken Yes ☐ No ☐
Monitoring of Contaminant Releases to the Atmosphere	
Element/question: Monitoring of Contaminant Releases to the Atmosphere	
<p>H9 - The holder of this environmental authority must conduct a monitoring program of contaminant releases to the atmosphere at the release points, frequency, and for the parameters specified in Schedule H Table 1 and which complies with the following:</p> <p>(a) All determinations of the quality of contaminants released must be made by a person or body possessing appropriate experience and qualifications to perform the required measurements.</p> <p>(b) Monitoring provisions for the release points listed in Schedule H Table 1 must comply with the Australian Standard AS 4323.1 - 1995 "Stationary source emissions Method 1: Selection of sampling provisions".</p> <p>(c) The following tests must be performed for each required determination specified in Table 1:</p> <p style="margin-left: 40px;">(i) gas velocity and volume flow rate</p> <p style="margin-left: 40px;">(ii) temperature</p> <p style="margin-left: 40px;">(iii) water vapour concentration</p> <p>(d) Where practicable samples taken must be representative of the contaminants discharged when emissions are expected to be normal.</p> <p>(e) During the sampling period the following additional information must be gathered:</p> <ul style="list-style-type: none"> • production rate, • equipment operating, • product made, • date of sampling, • start and end time of sampling, • fuel type, and • fuel rate. <p>H10 - Upon completion of the determinations required by condition number H9 of this environmental authority, the results of the monitoring of emissions from release points 1 and 2, must be incorporated into an appropriate air dispersion model to determine the theoretical</p>	

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Ground Level Concentration (GLC) for each of the prescribed contaminants.	
Observations	
Condition number: H11 Compliant: Yes ☐ No ☐ TBA ☐ Not inspected	Photos taken Yes ☐ No ☐
Element/question: Records	
H11 - Records must be kept of the results of all monitoring of releases of contaminants to the atmosphere for a period of at least five (5) years.	
Observations	
Condition number: H12, H13, H14, H15, H16, H17, H18 Compliant: Yes ☐ No ☐ TBA ☐ Not inspected	Photos taken Yes ☐ No ☐
Noise Monitoring	
Elements/questions: Noise monitoring	
<p>H12 - For the purposes of checking compliance with condition number F3 of Schedule F – Noise, and for the investigation of complaints of noise annoyance, the noise levels from the environmentally relevant activity must be undertaken for at least the following descriptors, characteristics and conditions:</p> <ul style="list-style-type: none"> (i) $L_{Amax, Adj T}$ (ii) $L_{A90, T}$ (or $L_{A90, T}$); (iii) $L_{AN, T}$ (where N equals statistical levels of 1, 10, 50, 90 and 99); (iv) The level and frequency of occurrence of impulsive or tonal noise; (v) Atmospheric conditions including temperature, relative humidity and wind speed and direction; and (vi) Effects due to extraneous factors such as traffic noise. <p>H13 - In conjunction with the measurement and recording of the noise, the following parameters and conditions must be recorded</p> <ul style="list-style-type: none"> (i) Location, date and time of recording. <p>H14 - The holder of this environmental authority must monitor and record the noise levels as often as is necessary to check compliance with the condition number F3 of this environmental authority but not less frequently than at least six-monthly (at least once in summer and once in</p>	

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<p>winter).</p> <p>H15 - Environmental noise monitoring must be undertaken to investigate any complaint of noise annoyance upon receipt of a written request from the administering authority to carry out such monitoring.</p> <p>H16 - The method of measurement and reporting of noise levels must comply with the Department of Environment Noise Measurement Manual, second edition, March 1995, or more recent additions or supplements to that document as they become available.</p> <p>H17 - The method of measurement and reporting of noise levels must be undertaken by a person or body possessing appropriate experience and qualifications to perform the required measurements.</p> <p>H18 - Records must be kept of the results of all monitoring of noise levels and other information required to be recorded in conjunction with such monitoring for a period of at least five (5) years.</p>	
<p>Condition number: H19 Compliant: Yes ☐ No ☐ TBA ☐ Not inspected</p> <p>Report Submission</p>	<p>Photos taken</p> <p>Yes ☐ No ☐</p>
<p>Element/question: Report Submission</p>	
<p>H19 - The holder of this environmental authority must ensure that the results of all monitoring performed in accordance with this environmental authority are submitted with the initial Annual Return. Each subsequent Annual Return must include details of the results of monitoring performed during the 12 months preceding that Annual Return.</p>	
<p>Observations</p> <p>Monitoring reports for 2013 were sent to the department by email 30/01/2014</p>	
<p>Condition number: H20, H21 Compliant: Yes ☐ No ☐ TBA ☐ Not Inspected</p> <p>Exception Reporting</p>	<p>Photos taken</p> <p>Yes ☐ No ☐</p>
<p>Element/question: Exception Reporting</p>	
<p>H20 - The holder of this environmental authority must notify the administering authority in writing of any monitoring result which indicates an exceedance of any licence limit within 28 days of completion of analysis.</p> <p>H21 - The written notification required by condition number H20 above must include:</p> <ul style="list-style-type: none"> (i) The full analysis results, and (ii) Details of investigation or corrective actions taken, and (iii) Any subsequent analysis. 	
<p>Observations</p> <p>Conditions H20, H21 compliant</p>	

Part D. Inspection results summary

1. Overall findings

General observation/s	Dr Ralph Riese has made several observations and recommendations that are reported in section 2. Client action/s required observations.
Compliance level	☐ Environmental nuisance/minor non-compliance ☐ Actual or risk of material harm/repeat non-compliance ☐ Actual or risk of serious harm ☒ Compliant ☐ Fully compliant/best practice
Environmental risk	☐ (1) Very low ☐ (2) Low ☐ (3) Moderate ☒ (4) High ☐ (5) Very high

2. Client action/s required

Non-Compliances

Condition number & requirement legislation reference	Observations:	Recommended action (Officers should document the evidence supporting the recommendation)	Client agreement
B8	A letter to be sent to O-I Brisbane with the three compliance issues raised.	That release points be assessed for compliance with the requirements of <i>Australian Standard AS 4323.1-1995 Stationary source emissions - Selection of sampling positions</i> .	Yes ☐ No ☐ TBD ☒
B11 and B12	Release point labelling.	That release points be labelled in accordance with the requirements of conditions B11 and B12.	Yes ☐ No ☐ TBD ☒
B16	Stannic chloride fabric filter dust collector (baghouse) removal efficiency.	That O-I determines how the stannic chloride fabric filter dust	Yes ☐ No ☐

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		collector removal efficiency required by condition B16 is determined and maintained.	TBD ☒
			Yes ☐ No ☐ TBD ☐
			Yes ☐ No ☐ TBD ☐

Part E. Natural justice

- ☐ The person has been provided with the opportunity to put their side of the story forward.
- ACI Operations Pty Ltd was provided in advance that the inspection was to be undertaken on the 19 February 2014.
 - During the site inspection discussion will be held regarding level of compliance, and the proposed increases in production.
 - Open discussion regarding the level of compliance was also discussed; therefore natural justice has been exercised.
- ☐ List any information and/or defences provided.
- Documents and records requested by administering authority were exercised to display compliance.
- ☐ The department has considered the information or defences provided.
- ☐ The decision-maker and environmental officer are free from bias or the perception of bias.

Part I. Ecotrack

Ecotrack case number	CA30832	
Activity	Time (hours)	Comments
Planning	16 hours	
Inspection	14 hours	4 Audit Officers
Reporting	07 hours	
Total	37 hours	

Part F. Approval

Environmental officer <small>sch4p4(6) Personal information</small>	Supervisor
<small>sch4p4(6) Personal information</small>	<small>sch4p4(6) Personal information</small>
Name: Graham Rennex <i>21/2/14</i>	Name: Stacey Robinson <i>21/2/14</i>

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Date:	Date:
-------	-------

Ashleigh Fowler sch4p4(6) Personal information 21/2/14.

Delegated decision-maker	<u>Approve</u> /reject recommendation (circle one)
Reasons for decision	
I approve this recommendation based upon the information set above	
Name:	Kelly Gleeson
Date:	21/2/2014

sch4p4(6) Personal information

PHOTO REGISTER -

34 photos from the inspection as follows:

Released by EHP under RTI Act 2009

O-I Australia Ltd (ACI) Level C compliance inspection – Schedule B Air



A level C inspection of O-I's performance against Schedule B – Air (ENRE00772608 / IDPE00947108 / SR71) was undertaken on 19 February 2014. The following actions are recommended based on observations made during the inspection.

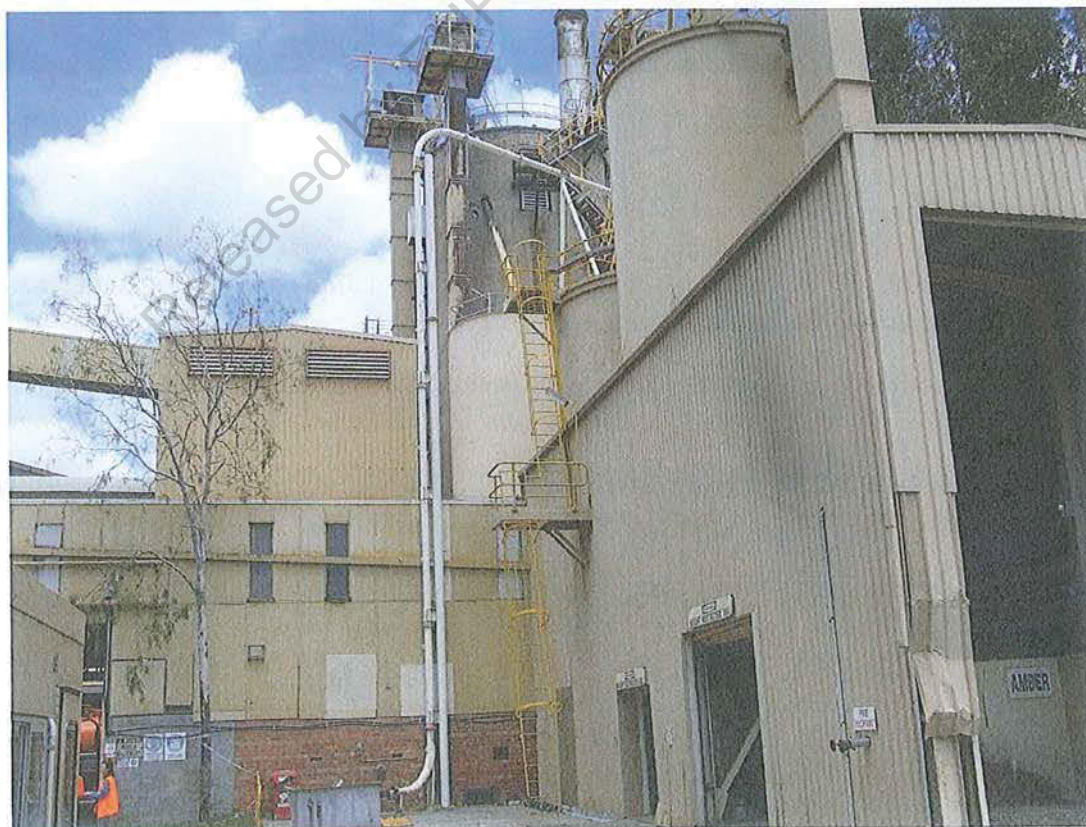
Recommended action 1: that release points be assessed for compliance with the requirements of *Australian Standard AS 4323.1-1995 Stationary source emissions - Selection of sampling positions*.

Recommended action 2: that release points be labelled in accordance with the requirements of conditions B11 and B12.

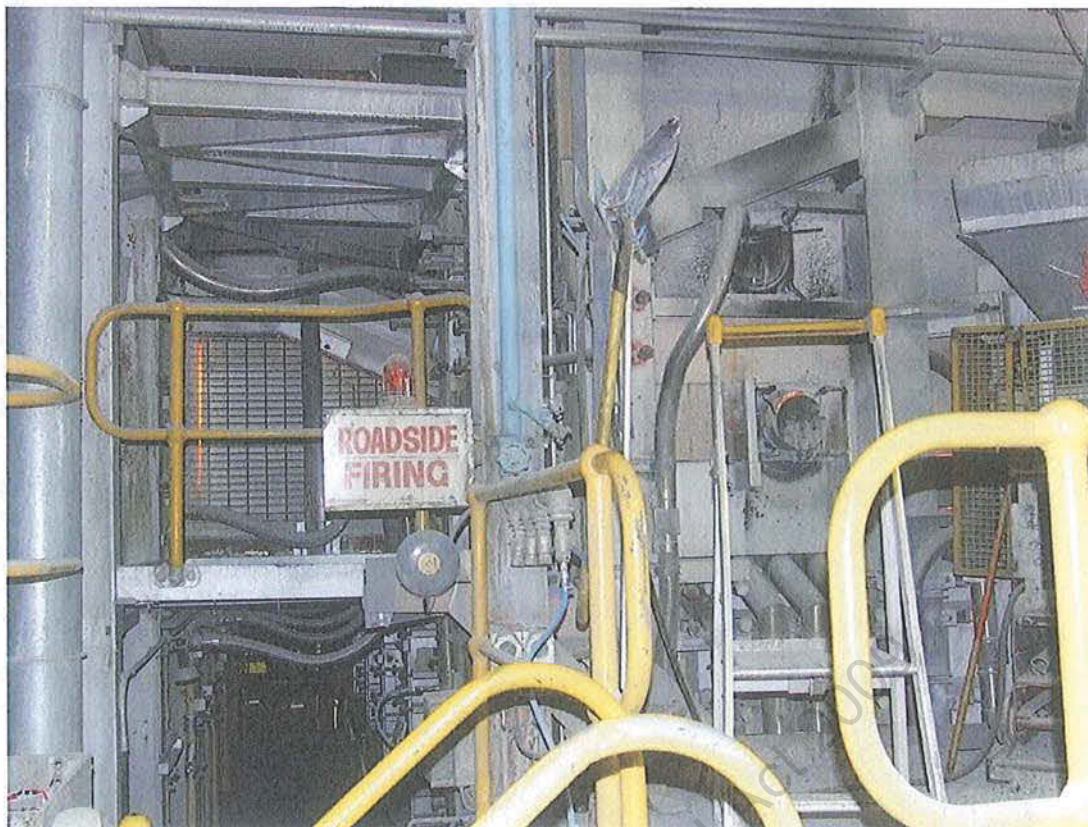
Recommended action 3: that O-I determines how the stannic chloride fabric filter dust collector removal efficiency required by condition B16 is determined and maintained.



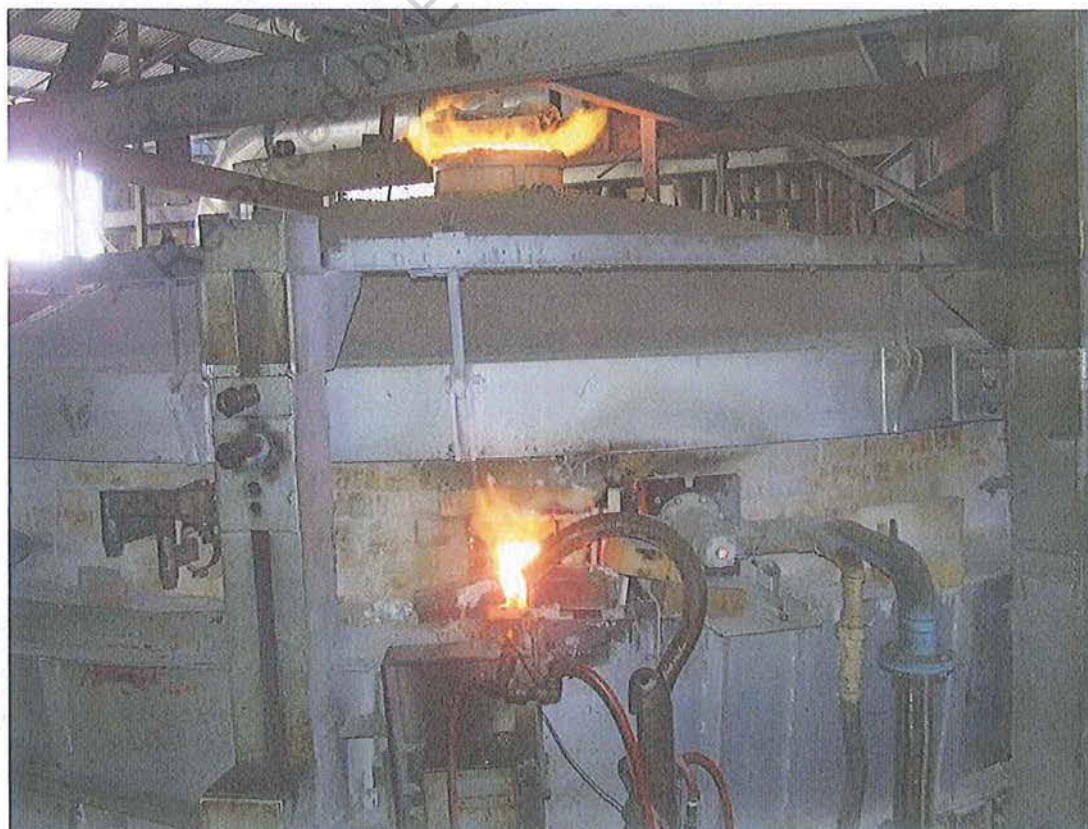
General view of the materials handling area where raw materials including silica, soda ash and recycled glass are delivered prior to batching for glass bottle manufacture. Flint (clear), amber, and green glass bottles form the majority of products manufactured at the site.



View showing the large raw materials silos.



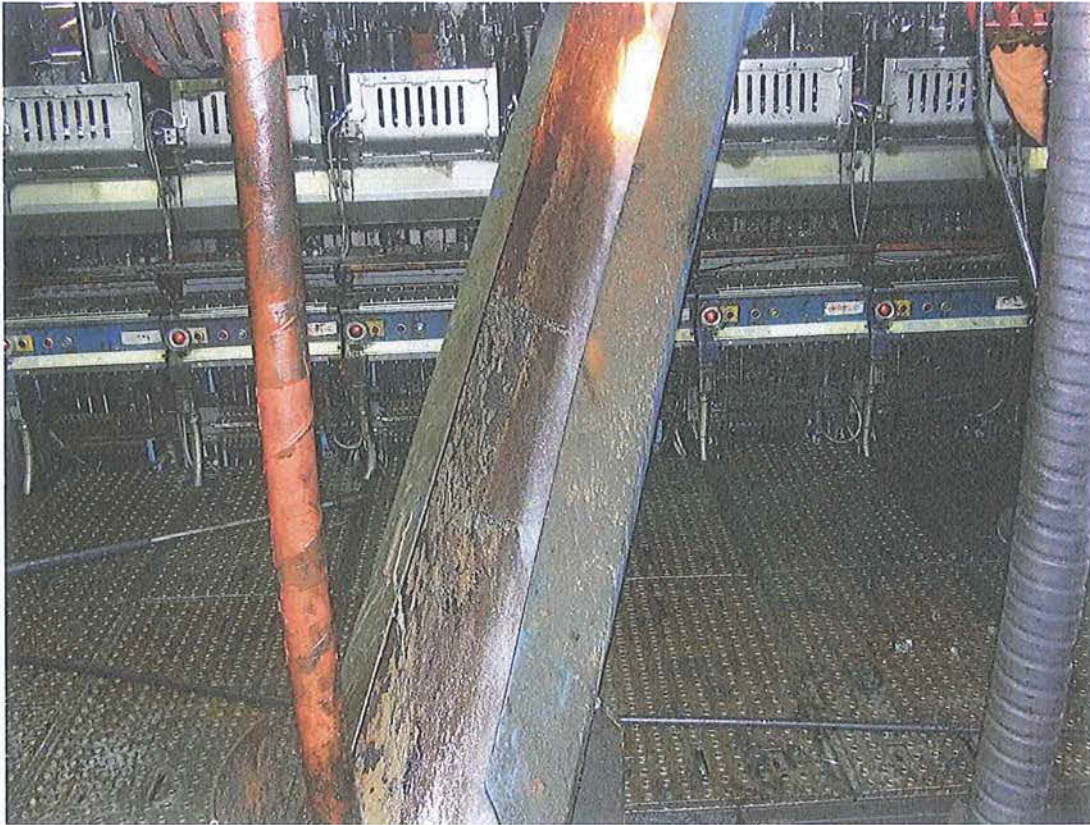
Two views of the QG (Queensland Glass) 1 furnace on the river-side of the site. QG1 and QG2 (on the road-side of the site) operate at around 1600 degrees Celsius. Raw materials are melted in the furnace to produce the molten glass needed for bottle manufacture.





Two views of the QG1 refiner, immediately downstream of the furnace. Specialty chemicals used to modify glass viscosity and other properties are added at the refining stage.

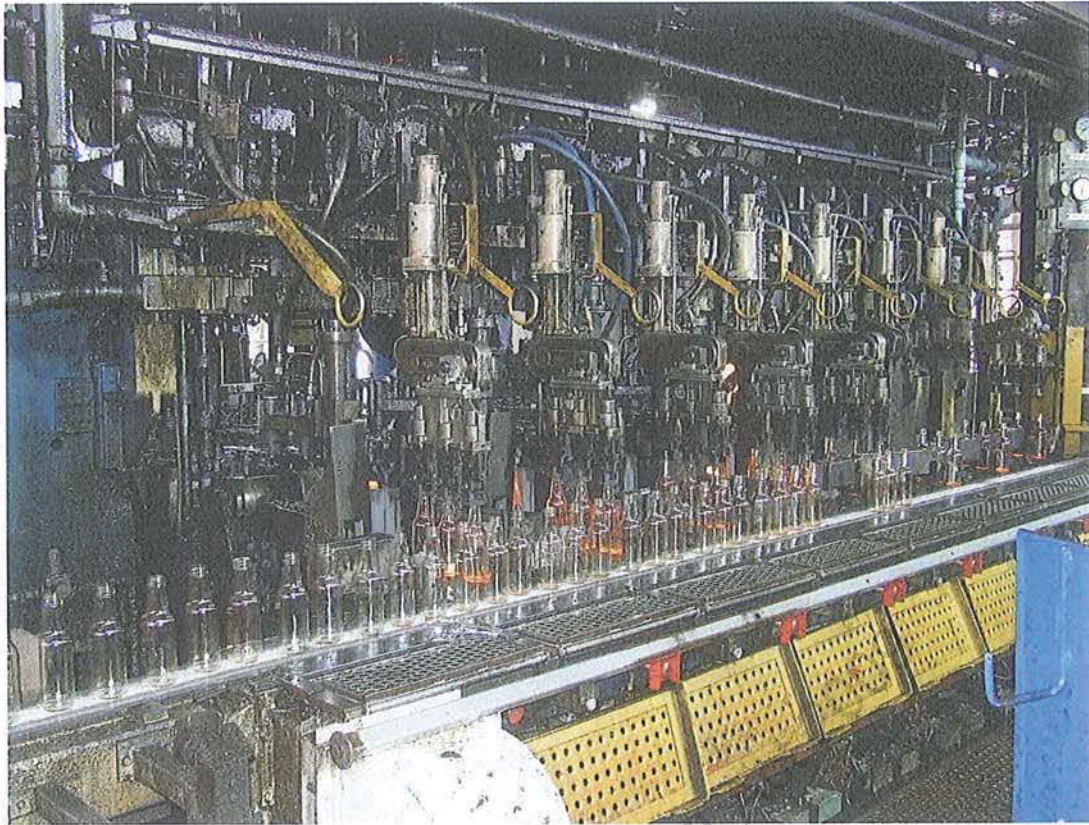




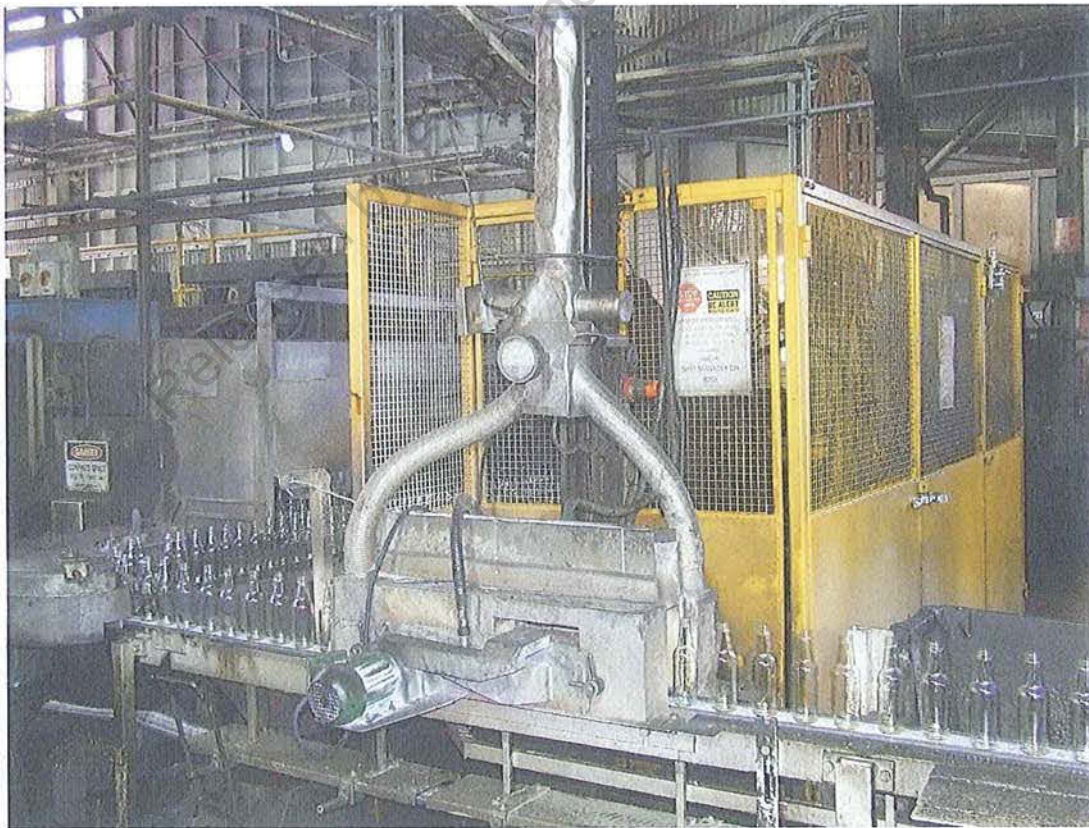
View showing a red-hot molten "gob" of glass. Gobs are automatically sized to the type of bottle being manufactured. The neck of the bottle is formed first, and then compressed air is blown into the necked gob to form the rest of the bottle.



View showing red-hot formed bottles.



View showing hot formed bottles travelling towards the stannic chloride application station.



View showing the stannic chloride application station. The station is fitted with a visible alarm. Automatic alarm messages are also sent to shift supervisor mobile phones (which satisfies condition B18 requirement for an audible alarm in case a filter medium breakthrough occurs).



View showing a cooled bottle travelling towards the quality control station. Hot bottles are cooled slowly from around 650 degrees Celsius to room temperature to minimise defect formation and optimise bottle strength. The site uses one electrically-heated, and four gas-heated bottle cooling stations. Emissions from the gas-fired stations are vented within the building.



View of Release Point 1 – the QG1 furnace stack.



View of the RP1 sampling port and associated sampling platforms. Condition B11 requires that release points be conspicuously marked with the release point number referred to in Table 1 of the Air Schedule. Condition B12 requires that the labelling be readily visible from the ground and at the sampling point. RP1 did not comply with the labelling requirements of conditions B11 and B12.



View of Release Point 2 – the QG2 furnace stack at centre-rear of the photograph.



View of the RP2 sampling port and associated sampling platforms. Condition B11 requires that release points be conspicuously marked with the release point referred to in Table 1 of the Air Schedule. Condition B12 requires that the labelling be readily visible from the ground and at the sampling point. RP2 did not comply with the labelling requirements of conditions B11 and B12.



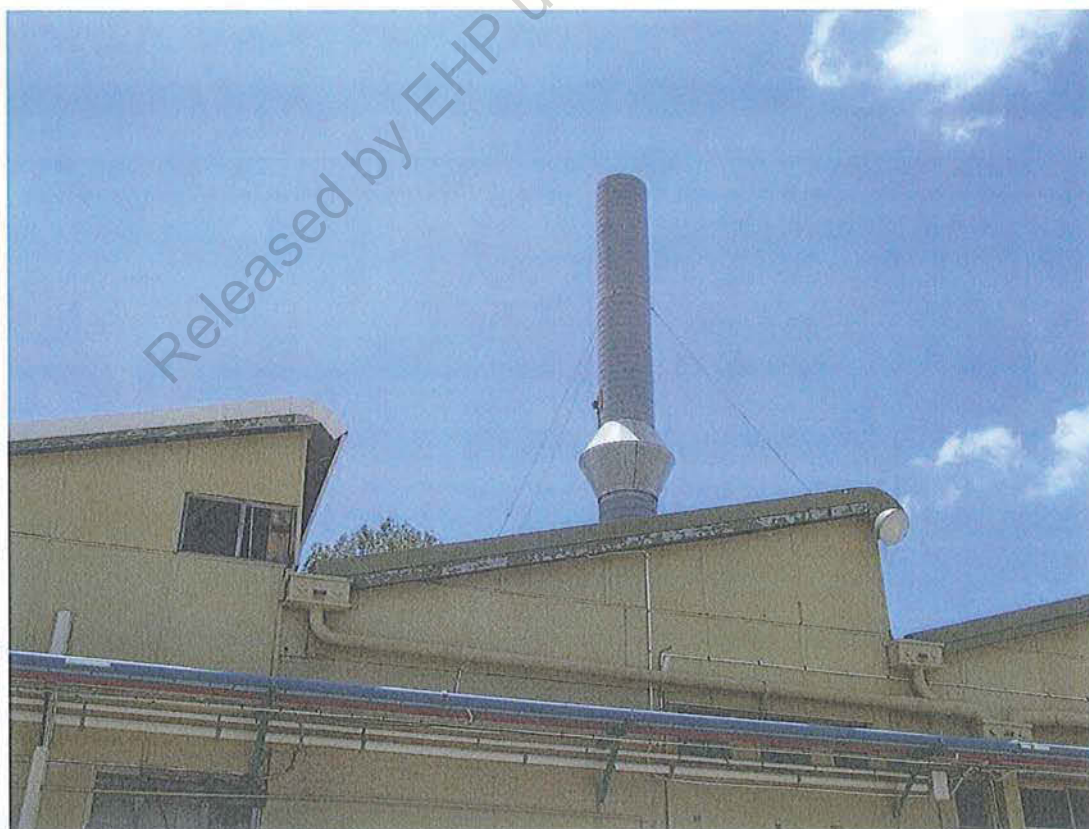
View of Release Point 3 – Machine shop fume extraction (larger stack framed by the high-rise construction).



View of the RP3 sampling port. RP3 complied with conditions B11 and B12 as it was conspicuously labelled, and the labelling was clearly visible from ground level and at the sampling point. Direct access to the sampling ports looked to be via the roof. This situation should be checked for compliance with the requirements of *Australian Standard AS 4323.1-1995 Stationary source emissions- Selection of sampling positions*.



View of Release Point 4 – Mould shop solid film lubricant spray booth. The booth is fitted with a fabric filter as required by condition B13.



View of the RP4 sampling port. RP4 was not compliant with the labelling requirements of requirements of conditions B11 and B12. Direct access to the sampling ports looked to be via the roof. This situation should be checked for compliance with the requirements of *Australian Standard AS 4323.1-1995 Stationary source emissions- Selection of sampling positions*.



View of the stannic chloride fabric filter dust collector (baghouse). Condition B16 requires that the collector is operated at an efficiency of no less than 99.7 percent for stannic chloride and ammonia chloride particulate matter. O-I was not able to describe how the collection efficiency for the collector was determined or maintained.



View of the 200 litre drum used to collect the stannic chloride and ammonia chloride particulate matter for disposal in accordance with condition B15.



View of Release Point 5 – stannic chloride fabric filter dust collector (baghouse). RP5 was not compliant with the labelling requirements of conditions B11 and B12. Direct access to the sampling ports looked to be via the roof. This situation should be checked for compliance with the requirements of *Australian Standard AS 4323.1-1995 Stationary source emissions- Selection of sampling positions*.



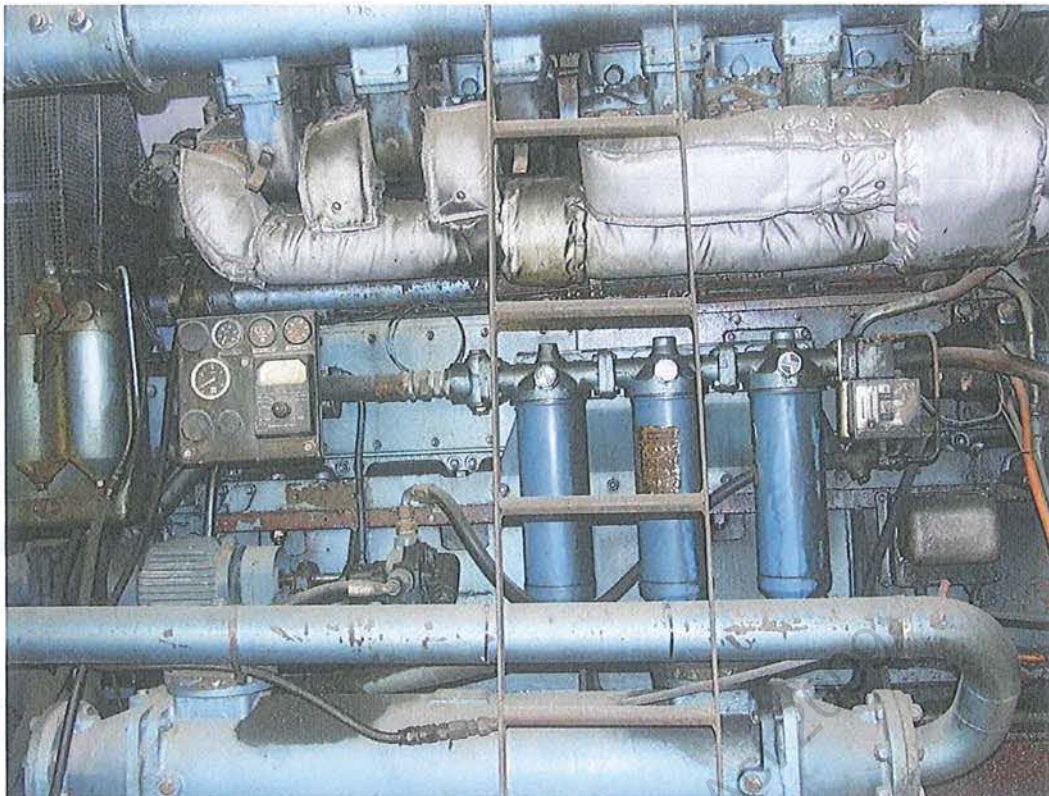
View of the gas-fired delivery cleaning oven.



View of Release Point 6 – delivery cleaning oven.



View of the RP6 sampling port. RP6 was not compliant with the labelling requirements of conditions B11 and B12. Direct access to the sampling ports looked to be via the roof. This situation should be checked for compliance with the requirements of *Australian Standard AS 4323.1-1995 Stationary source emissions- Selection of sampling positions*.



View of the backup diesel generator. Releases to atmosphere from the generator are not conditioned in the environmental authority.



View of the generator muffler.



View of the generator exhaust stack. No labelling or sampling access is required.



View if the site "sump". Localised odours of an unpleasant nature were readily detectable in the vicinity of the sump.

Rennex Graham

From: Rennex Graham
Sent: Friday, 6 December 2013 7:43 AM
To: Riese Ralph
Cc: Rennex Graham
Subject: RE: ACI Bottle Manufacturing South Brisbane - air emissions

Thanks Ralph

ACI are still in the decision period about expansion and asked for some input by the department

I will digest the information you have sent me and put together the information for ACI

You will gain a better understanding of their operations when we do the compliance inspection in 2014

This will be a good time to talk to their engineers about any changes to production

As usual your help is most welcomed

Regards

Graham Rennex

Environmental Officer

Brisbane SouthSouthern Region

**Environmental Services and Regulation Division Department of Environment and Heritage
Protection**

T: (07) 3330 4468 F: (07) 3330 5754

Email: graham.rennex@ehp.qld.gov.au

8th Floor, 400 George Street

BRISBANE QLD 4001

GPO Box 2771, BRISBANE QLD 4001

Grissa. Bahe

From: Riese Ralph
Sent: Friday, 6 December 2013 7:37 AM
To: Rennex Graham
Subject: ACI Bottle Manufacturing South Brisbane - air emissions

Graham: Schedule B – Table 2 of SR71 lists three criteria air pollutants that are related to the EPP (Air), namely: total particulates, oxides of nitrogen, and oxides of sulphur. These and their respective release limits were no doubt set on the basis of information received when the application for the environmental authority was assessed.

ACI's information regarding the increased production does not address the existing EA contaminants. As a minimum, we would need to know:

Firstly:

Are the changes to plant and equipment likely to result in changes to emissions of total particulates, oxides of nitrogen (NOX) and/or oxides of sulphur (SOX)?

Have the changes been characterised and quantified?

Has risk of adverse impacts on air quality resulting from those changes been assessed against the relevant ambient air quality criteria contained in the EPP (Air)?

Secondly:

Are the changes to plant and equipment likely to result in any new emissions that are scheduled in the EPP (Air)?

If so, what new emissions will result?

What amounts of the new emissions will be generated/released?

Has risk of adverse impacts on air quality resulting from those changes been assessed against the relevant ambient air quality criteria contained in the EPP (Air)?

A note on the existing release limits:

The NSW "Protection of the Environment Operation (Clean Air) Regulation 2002" contains best practice emission release limits for a wide range of activities, including glass production. The release limits are provided as a range based on equipment age – oldest having the highest release limits, and newest having the lowest. If we were looking at a new facility, the limits would look something like:

Any melting furnace – total particulates – 50 mg/m³

Any crushing, grinding, separating or materials handling activity – total particulates – 20 mg/m³

Any melting furnace except manufacture of glass from sodium nitrate (NaNO₃) – total oxides of nitrogen expressed as nitrogen dioxide – 700 mg/m³

Any melting furnace for manufacture of glass using sodium nitrate (NaNO₃) – total oxides of nitrogen expressed as nitrogen dioxide – 700 mg/m³

No release limits are provided for SOX – presumably because the furnaces would be fired on sulphur-free natural gas.

Release limits for metals and metaloids are also contained in the NSW Regulation. The existing EA does not regulate these however they are listed in the EPP (Air).

I'm not familiar with ACI's "cavity machines" so can't comment on whether the changes described below will result in changes to the total particulate/NOX/SOX emission profiles, or in emissions of other contaminants. Checking ACI's the National Pollutant Inventory reports may provide some information on contaminants not scheduled in the existing EA.

I'd be happy to meet with yourself and ACI to discuss a way forward.

Cheers, Ralph.

Dr Ralph Riese
Project Support, Statewide Environmental Assessment
Dept of Environment and Heritage Protection
Telephone: 61 7 3330 5706
Email: ralph.riese@ehp.qld.gov.au



From: Rennex Graham
Sent: Thursday, 5 December 2013 8:44 AM
To: Riese Ralph
Cc: Rennex Graham
Subject: RE: ACI Bottle Manufacturing South Brisbane

Hi Ralph

I have attached a copy of ACI EA – Schedule B – AIR page 5-6-7 & 8

If you require my help please contact me

Regards

Graham Rennex

Environmental Officer

Brisbane SouthSouthern Region

**Environmental Services and Regulation Division Department of Environment and Heritage
Protection**

T: (07) 3330 4468 F: (07) 3330 5754

Email: graham.rennex@ehp.qld.gov.au

8th Floor, 400 George Street

BRISBANE QLD 4001

GPO Box 2771, BRISBANE QLD 4001

From: Riese Ralph
Sent: Wednesday, 20 November 2013 2:09 PM
To: Rennex Graham
Subject: RE: ACI Bottle Manufacturing South Brisbane

Graham: for starters. the EPP (Air) does not include a goal for CO2 emissions. CO2 emissions are currently of interest to the National Greenhouse reporting requirements - which are not administered by EHP.

EHP will be interested in any changes that are likely to occur to those pollutants that are scheduled in the EPP (Air). ACI will be licensed to emit a number of EPP (Air)-scheduled pollutants. It may be that the amounts of these will change, or it may be that new pollutants will be generated. In both instances we'd need to understand whether those changes/additions have the potential to result in adverse environmental impact. Depending on the scale of emission changes, ACI may need to assess the impacts using atmospheric dispersion modelling.

We should start by looking at what ACI is licensed to release. If you send through a copy, I can get a feel for current emissions, and start thinking about what else we will need.

Dr Ralph Riese
Project Support, Statewide Environmental Assessment
Dept of Environment and Heritage Protection
Telephone: 61 7 3330 5706
Email: ralph.riese@ehp.qld.gov.au



From: Rennex Graham
Sent: Wednesday, 20 November 2013 1:17 PM
To: Riese Ralph
Cc: Rennex Graham
Subject: ACI Bottle Manufacturing South Brisbane

Hi Ralph

ACI want to increase production:

As discussed on the phone, the business is potentially looking to increase capacity in the Brisbane Plant by an approximate 30,000 tonnes per year. The mechanism to achieve this would be to replace one of our 8 section, triple cavity machines with a 10 section, triple cavity machine as well as replacing a 10 section, triple cavity machine with a 10 section, quad cavity machine. This would increase our ability to pull greater tonnes from our existing furnaces and maximise their throughput (energy efficiency gains as a by-product).

We are working out what the increased tonnage may do to our emissions, but would like to know what other things we would need to be aware of or processes that we would have to go through from an environmental perspective.

Question: What would be the increase in air emissions

"The average emission of CO2 between 40% and 50% total cullet usage is 0.31144 CO2/T. Hence with a 30K Tons increase per year, an additional 9.343 Ton/year of CO2 would be emitted to atmosphere, roughly."

This is not an official request yet but can you have a quick look and advise me on what I will require from ACI as far as air emissions is concerned

EA SR71 – condition (B9) reduction of total mass contaminants relates to changes such as replacement or refurbishment to the QG1 & QG3 glass furnaces

Regards

Graham Rennex

Environmental Officer

Brisbane SouthSouthern Region

Environmental Services and Regulation Division Department of Environment and Heritage
Protection

T: (07) 3330 4468 F: (07) 3330 5754

Email: graham.rennex@ehp.qld.gov.au

8th Floor, 400 George Street

BRISBANE QLD 4001

GPO Box 2771, BRISBANE QLD 4001

Released by EHP under RTI Act 2009

Rennex Graham

From: Nick.Bolton@ap.o-i.com
Sent: Monday, 18 November 2013 10:01 AM
To: Rennex Graham
Subject: RE: O-I Glass - Capacity Increase

This is the response from our Furnace Manager:

"The average emission of CO2 between 40% and 50% total cullet usage is 0.31144 CO2/T. Hence with a 30K Tons increase per year, an additional 9.343 Ton/year of CO2 would be emitted to atmosphere, roughly."

In terms of the other aspects of our emissions, I would need to do further investigation.

Nick Bolton
LSS Black Belt
O-I Brisbane Plant

PO Box 3017
37 Montague Road
South Brisbane 4101

Office: +61 7 3335 8123
Home: +61 7 3335 8163 (6) Personal information
Fax: +61 7 3335 8163
Company Website: www.o-i.com

 makers of pure, sustainable,
brand-building glass packaging
GlassIsLife.com

From: "Rennex Graham" <Graham.Rennex@ehp.qld.gov.au>
To: <Nick.Bolton@ap.o-i.com>
Date: 18/11/2013 09:36 AM
Subject: RE: O-I Glass - Capacity Increase

Question

What would be the increase in Air emissions

Graham Rennex
Environmental Officer
Brisbane SouthSouthern Region
Environmental Services and Regulation Division Department of Environment and Heritage Protection

T: (07) 3330 4468 F: (07) 3330 5754
Email: graham.rennex@ehp.qld.gov.au

8th Floor, 400 George Street
BRISBANE QLD 4001
GPO Box 2771, BRISBANE QLD 4001

From: Nick.Bolton@ap.o-i.com [<mailto:Nick.Bolton@ap.o-i.com>]
Sent: Monday, 18 November 2013 9:30 AM
To: Rennex Graham
Subject: O-I Glass - Capacity Increase

Graham,

As discussed on the phone, the business is potentially looking to increase capacity in the Brisbane Plant by an approximate 30,000 tonnes per year. The mechanism to achieve this would be to replace one of our 8 section, triple cavity machines with a 10 section, triple cavity machine as well as replacing a 10 section, triple cavity machine with a 10 section, quad cavity machine. This would increase our ability to pull greater tonnes from our existing furnaces and maximise their throughput (energy efficiency gains as a by-product).

We are working out what the increased tonnage may do to our emissions, but would like to know what other things we would need to be aware of or processes that we would have to go through from an environmental perspective.

Cheers,

Nick Bolton
LSS Black Belt
O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane 4101

Office: +61 7 3335 8123
Mobile: +61 7 3335 8163
Fax: +61 7 3335 8163
Company Website: www.o-i.com

 makers of pure, sustainable,
brand-building glass packaging
GlassIsLife.com

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Rennex Graham

From: Rennex Graham
Sent: Thursday, 5 December 2013 8:40 AM
To: Nick.Bolton@ap.o-i.com
Cc: Rennex Graham
Subject: RE: O-I Glass - Capacity Increase
Attachments: EnvProtAirPo08.pdf

Hi Nick

Be aware of the CO2 emission releases not under the department's jurisdiction

I have included the departments AIR EPP 2008 to give you guidance on release limits to the atmosphere

Depending on the scale of the emission changes ACI may need to assess the impacts using atmospheric modelling

That's about all I can tell you until a formal application is made

Regards

Graham Rennex

Environmental Officer

Brisbane SouthSouthern Region

**Environmental Services and Regulation Division Department of Environment and Heritage
Protection**

T: (07) 3330 4468 F: (07) 3330 5754

Email: graham.rennex@ehp.qld.gov.au

8th Floor, 400 George Street

BRISBANE QLD 4001

GPO Box 2771, BRISBANE QLD 4001

From: Nick.Bolton@ap.o-i.com [mailto:Nick.Bolton@ap.o-i.com]

Sent: Thursday, 21 November 2013 2:30 PM

To: Rennex Graham

Subject: RE: O-I Glass - Capacity Increase

No worries Graham, thanks for that.

Cheers,

Nick Bolton
LSS Black Belt
O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane 4101

Office: +61 7 3335 8123
sch4p4(6) Personal information
Fax: +61 7 3335 8163
Company Website: www.o-i.com

 makers of pure, sustainable,
brand-building glass packaging
GlassLife.com

From: "Rennex Graham" <Graham.Rennex@ehp.qld.gov.au>
To: <Nick.Bolton@ap.o-i.com>
Cc: "Rennex Graham" <Graham.Rennex@ehp.qld.gov.au>
Date: 21/11/2013 02:21 PM
Subject: RE: O-I Glass - Capacity Increase

Hi Nick

sch4p4(6) Personal information I have made some enquires about the capacity changes at ACI will send you more info when I get back

Cheers

Graham Rennex
Environmental Officer
Brisbane SouthSouthern Region
Environmental Services and Regulation Division Department of Environment and Heritage Protection

T: (07) 3330 4468 F: (07) 3330 5754
Email: graham.rennex@ehp.qld.gov.au

8th Floor, 400 George Street
BRISBANE QLD 4001
GPO Box 2771, BRISBANE QLD 4001

From: Rennex Graham
Sent: Monday, 18 November 2013 9:36 AM
To: 'Nick.Bolton@ap.o-i.com'
Subject: RE: O-I Glass - Capacity Increase

Question

What would be the increase in Air emissions

Graham Rennex
Environmental Officer
Brisbane SouthSouthern Region
Environmental Services and Regulation Division Department of Environment and Heritage Protection

T: (07) 3330 4468 F: (07) 3330 5754
Email: graham.rennex@ehp.qld.gov.au

8th Floor, 400 George Street
BRISBANE QLD 4001
GPO Box 2771, BRISBANE QLD 4001

From: Nick.Bolton@ap.o-i.com [<mailto:Nick.Bolton@ap.o-i.com>]
Sent: Monday, 18 November 2013 9:30 AM
To: Rennex Graham
Subject: O-I Glass - Capacity Increase

Graham,

As discussed on the phone, the business is potentially looking to increase capacity in the Brisbane Plant by an approximate 30,000 tonnes per year. The mechanism to achieve this would be to replace one of our 8 section, triple cavity machines with a 10 section, triple cavity machine as well as replacing a 10 section, triple cavity machine with a 10 section, quad cavity machine. This would increase our ability to pull greater tonnes from our existing furnaces and maximise their throughput (energy efficiency gains as a by-product).

We are working out what the increased tonnage may do to our emissions, but would like to know what other things we would need to be aware of or processes that we would have to go through from an environmental perspective.

Cheers,

Nick Bolton
LSS Black Belt
O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane 4101

Office: +61 7 3335 8123
Mobile: +61 7 3335 8163
Fax: +61 7 3335 8163
Company Website: www.o-i.com

 makers of pure, sustainable,
brand-building glass packaging
GlassIsLife.com

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Complaint/Incident

CR#	CR61165
Location	St. Busbone
Alleged source	
Date Opened	
Date Closed	
Officer Responsible	
File reference	

Checklist:

- ☐ Entered into Ecotrack
- ☐ Complainant responded to within 5 days
 - send 'source letter to complainant' if applicable
 - send 'covering letter to complaint form' if required with service request form send odour/noise/dust etc log if
- ☐ Source contacted (send 'source letter to source' if required).
- ☐ Site visited (if required).
- ☐ Referred to Council or other department if required. Complainant advised of outcome/referral.
- ☐ All correspondence copied on green paper and attached.
- ☐ Complaint closed on Ecotrack.
- ☐ Run sheet completed (on Ecotrack), printed and attached.
- ☐ File coversheet and attached documents in relevant volume of BST1235.



Running Sheet Summary

Complaint/Report Ref: CR61165

Complainant

Ref	Name	Address	Phone	Mobile	Fax	Email
400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Alleged Source

Ref	Name	Address	Phone	Mobile	Fax	Email
400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Incident Location

Name	Risk Level	Address
137 Montague Road SOUTH BRISBANE QLD 4101		

Source Ref: CR61165

Action Source Ref:

Date Commenced: 05/DEC/13

First Action: Y

Officer Involved: RENNEX, Graham

Responsible Office: ES-RSD-SER-Brisbane South

Action Type: Allocation

Inspection Type: Proactive - Initial

Enforcement Measure Type: Management Program

Referral To: Other

Action: O-I submitted a report of an opacity spike

Time Spent Hours: 2

Time Spent Minutes:

Outcome: NFA - EPA otherwise satisfied

Outcome Description: See Attachment

Due Date: 05/DEC/13

Date Completed: 05/DEC/13



Complaint/Report Details

Complaint/Report Ref: CR61165

Priority/Sensitive: N

Complainant

Ref	Name	Address	Phone	Mobile	Fax	Email
400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Alleged Source

Ref	Name	Address	Phone	Mobile	Fax	Email
400483	ACI Operations Pty Ltd	36 Burwood Road HAWTHORN VIC 3122	07 3335 8125		07 3844 3505	

Incident Location

Name	Risk Level	Address
137 Montague Road SOUTH BRISBANE QLD 4101		

Type: Incident

Nature: Air - GENERAL

Received Date: 05/DEC/13

Receiving Officer: RENNEX, Graham

Receiving Office: ES-RSD-SER-Brisbane South

Status: Finalised

Origin: Notification by source

Notification Method: Email

Project Manager: RENNEX, Graham

Responsible Office: ES-RSD-SER-Brisbane South

Description

Event On/From Date:	Event On/From Time:	Received Time:
Event To Date:	Event To Time:	Ongoing: N
Description		Print Related Permits:
Hole bricked up		

Running Sheet Summary

Accrued Time: 2 hrs 0 mins

First Action	Date Commenced	Due Date	Action Type	Officer Involved	Outcome	Date Completed
Y	05/DEC/13	05/DEC/13	Allocation	RENNEX, Graham	NFA - EPA otherwise satisfied	05/DEC/13

Related Complaints/Reports

Ref	Complainant	Alleged Source	Incident Location	Received Date
CR48018	Bahr, Carrissa	ACI Operations Pty Ltd	137 Montague Road SOUTH BRISBANE QLD 4101	05/FEB/10
CR48183		ACI Operations Pty Ltd	137 Montague Road SOUTH BRISBANE QLD 4101	19/FEB/10
sch3(10)(1)(b) Confidential source of information		ACI Operations Pty Ltd	137 Montague Road SOUTH BRISBANE QLD 4101	14/SEP/11
CR52292		ACI Operations Pty Ltd	137 Montague Road SOUTH BRISBANE QLD 4101	29/SEP/11
CR52406	None	ACI Operations Pty Ltd	137 Montague Road SOUTH BRISBANE QLD 4101	

Related Compliance Activity

Ref	Type	Information Entered	Client	Activity Location
CA27111	Southern Region Compliance Program	22/FEB/13	ACI Operations Pty Ltd	137 Montague Road SOUTH BRISBANE QLD 4101

Rennex Graham

From: Nick.Bolton@ap.o-i.com
Sent: Thursday, 21 November 2013 2:15 PM
To: Rennex Graham
Subject: Opacity Spike QG1 Furnace

G'day Graham,

Another spike on QG1, this time associated with some cleaning activities required for regenerator efficiency. Report attached.



Time and Place:

Site/Plant:	Brisbane
Incident Date:	20/11/2013
Incident Reported To:	Rafael Olguin/Brisbane/ACI_GLASS/AU



Incident Information:

Nature of Incident:	☒ Air ☐ Trade Waste ☐ Waste ☐ Other ☐ Noise ☐ Storm Water ☐ Property Risk
Air Pollution:	☐ Dust ☐ Chemical ☐ Raw Material ☐ Other ☐ Smoke ☐ Oil ☒ Stack
Odour:	☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ Ch
Source/Location:	QG1 Furnace
Colour:	Grey
Texture (Dense, Fluff..):	
Duration:	18 min & 5 min
Wind Direction:	



Additional Information:

--



Immediate Action Taken:

Hole bricked up



Description:

Road side regenerator has collapsed checker bricks that need to be raked out to have an unobstructed path for both flue chamber between the stack and port 1 to commence work to rake rubble out, no black/grey smoke was blown through, then the hole was closed with bricks again and opacity came back down to normal. One contractor refired, another opacity spike happened, this time I quickly ordered for the hole to be bricked up and opacity quickly came c



 Notification Required:	
External Regulatory Bodies Notification Required?	☒ Yes ☐ No
Notification Required By:	☒ Environmental Protection Authority ☐ Work C ☐ Local Council ☐ FM Glo ☐ Water Board
External Regulatory Bodies Notified:	☒ Environmental Protection Authority
 How was the Permanent Resolution Verified?	
Gave phone to raking workers. Observed operator calling prior to changeover. Opacity levels maintained.	
 How was the Permanent Resolution Implemented?	
Give raking workers a phone so furnace operator can ring 5 min before changover.	
 Permanent Resolution:	
When needing to rake rubble out of regenerators, holes are only to be opened to do so when the opposing side is fi	
 Root Cause:	
Because of the road side rengen being blocked at the bottom by 90% of its cross-sectional area with collapsed rubt posses resistance for the combustion air to flow from river to road and starves the gas when firing from river side.	

Cheers,

Nick Bolton
LSS Black Belt
O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane 4101

Office: +61 7 3335 8123
 (6) Personal information
 Fax: +61 7 3335 8163
 Company Website: www.o-i.com

 makers of pure, sustainable,
brand-building glass packaging

GlassIsLife.com

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CR 60632



Queensland Government
Environmental Protection Agency
Queensland Parks and Wildlife Service



Complaint/Report Details

Complaint/Report Ref: CR60632

Priority/Sensitive: N

Complainant

Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Alleged Source

Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Incident Location

Name	Risk Level	Address
MONTAGUE ROAD WEST END		MONTAGUE ROAD WEST END

Type: Alleged Compliance Issue

Nature: Air ; Light nuisance

Received Date: 22/OCT/13

Receiving Officer: RENNEX, Graham

Receiving Office: ES-RSD-SER-Brisbane South

Status: Finalised

Origin: Notification by source

Notification Method: Email

Project Manager: RENNEX, Graham

Responsible Office: ES-RSD-SER-Brisbane South

Description

Event On/From Date:	Event On/From Time:	Received Time:
Event To Date:	Event To Time:	Ongoing: N Print Related Permits:

Description

Yesterday we experienced an opacity spike on our QG1 furnace. We have had a very good run since implementing new controls at the front end of the year. The investigation into the root cause is ongoing. A full report will be sent to you once this is complete.

Running Sheet Summary

Accrued Time: 2 hrs 0 mins

First Action	Date Commenced	Due Date	Action Type	Officer Involved	Outcome	Date Completed
Y	22/OCT/13	22/OCT/13	Allocation	RENNEX, Graham	Action Required - awaiting response	22/OCT/13

CR60632

Rennex Graham

From: Nick.Bolton@ap.o-i.com
Sent: Friday, 18 October 2013 10:45 AM
To: Rennex Graham
Cc: Philip.Woods@ap.o-i.com
Subject: QG1 Opacity Spike

G'day Graham,

Yesterday we experienced an opacity spike on our QG1 furnace. We have had a very good run since implementing new controls at the front end of the year. The investigation into the root cause is ongoing. A full report will be sent to you once this is complete.

 Description: ✓	
r QG1 opacity spike	
Site/Plant: ✓	r Brisbane
Incident Date: ✓	r 17/10/2013
Incident Reported To: ✓	r Rafael Olguin/Brisbane/ACL_GLASS/AU
 Incident Information:	
Nature of Incident: ✓	☒ Air ☐ Trade Waste ☐ Waste ☐ Other ☐ Noise ☐ Storm Water ☐ Property Risk
Air Pollution:	☐ Dust ☐ Chemical ☐ Raw Material ☐ Other ☐ Smoke ☐ Oil ☒ Stack
Odour:	☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ C
Source/Location:	r QG1 Furnace
Colour:	r White
Texture (Dense, Fluff.):	r
Duration:	r 9 min
Wind Direction:	r
 Additional Information:	
r Isolation of gas to port no. 1 on the left hand side of QG3 furnace was required for repair of refractories. Gas was sl increased as there is no independent isolation of combustion air per port. Hence ratio increased by 1 compensate	
 Immediate Action Taken: ✓	
r Furnace operator rang Batch and Furnace manager and reported the white opacity. Manager asked operator to r then the air/fuel ratio was increased by 1.5.	



Cheers,

Nick Bolton
LSS Black Belt
O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane 4101

Office: +61 7 3335 8123
Mobile: +61 7 3335 8163
Fax: +61 7 3335 8163
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Rennex Graham

From: Nick.Bolton@ap.o-i.com
Sent: Tuesday, 12 November 2013 4:34 PM
To: Rennex Graham
Subject: RE: QG1 Opacity Spike



How was the Permanent Resolution Verified?

Verification of new process will occur during the next isolation of any ports. None are planned at this stage.



How was the Permanent Resolution Implemented?

The newly created air/fuel ratio for port isolation calculating spreadsheet will be used prior to any port isolation for e



Permanent Resolution:

Because there is no physical way of isolating the combustion air to any ports, a higher set point for air/fuel ratio need



Root Cause:

Not enough air to ports 2 to 6 after the re-distribution of gas

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air-fuel ratio for port isolation - Microsoft Excel							
File Home Insert Page Layout Formulas Data Review View Developer							
Clipboard Font Alignment Number Styles Cells Editing							
F11							
A B C D E F G H							
1							
2							
3							
4	Furnace ports	6	INPUTS				
5	no. to isolate	1	OUTPUT				
6	current a/f ratio	11.83					
7	Current gas flow	1400 SCMH					
8	current air flow	16562 SCMH					
9							
10							
11	Combustion details - no ports isolated						
12	avg gas/port	233.33333 SCMH					
13	avg air/port	2760.3333 SCMH					
14	a/f ratio/port	11.83					
15							
16	Combustion details - 1 port(s) isolated						
17	gas/port	280 SCMH					
18	air/port	3312.4 SCMH					
19	ratio/port	11.83					
20							
21	total air needed	19874.4 SCMH					
22	ratio required	14.196	USE THIS AS SP FOR CONTROL SYSTEM				
23							
24							
25							
Sheet1 Sheet2 Sheet3							
Ready 100%							

Nick Bolton
LSS Black Belt
O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane 4101

Office: +61 7 3335 8123
~~61 7 3335 8123~~ (6) Personal information
 Fax: +61 7 3335 8163
 Company Website: www.o-i.com

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brand-building glass packaging
GlassLife.com

From: "Rennex Graham" <Graham.Rennex@ehp.qld.gov.au>
To: <Nick.Bolton@ap.o-i.com>
Cc: "Rennex Graham" <Graham.Rennex@ehp.qld.gov.au>
Date: 22/10/2013 08:11 AM
Subject: RE: QG1 Opacity Spike

Hi Nick

Send me the final report when it is finalised

Regards

Graham Rennex
Environmental Officer
Brisbane SouthSouthern Region
Environmental Services and Regulation Division Department of Environment and Heritage Protection

T: (07) 3330 4468 F: (07) 3330 5754
Email: graham.rennex@ehp.qld.gov.au

10th Floor, 400 George Street
BRISBANE QLD 4001
GPO Box 2771, BRISBANE QLD 4001

From: Nick.Bolton@ap.o-i.com [<mailto:Nick.Bolton@ap.o-i.com>]
Sent: Friday, 18 October 2013 10:45 AM
To: Rennex Graham
Cc: Philip.Woods@ap.o-i.com
Subject: QG1 Opacity Spike

G'day Graham,

Yesterday we experienced an opacity spike on our QG1 furnace. We have had a very good run since implementing new controls at the front end of the year. The investigation into the root cause is ongoing. A full report will be sent to you once this is complete.

**Description: ✓**

QG1 opacity spike

**Site/Plant: ✓**

Brisbane

Incident Date: ✓

17/10/2013

Incident Reported To: ✓

Rafael Olguin/Brisbane/ACL_GLASS/AU

**Incident Information:****Nature of Incident: ✓**

☒ Air
 ☐ Trade Waste
 ☐ Waste
 ☐ Other
☐ Noise
 ☐ Storm Water
 ☐ Property Risk

Air Pollution:

☐ Dust
 ☐ Chemical
 ☐ Raw Material
 ☐ Other
☐ Smoke
 ☐ Oil
 ☒ Stack

Odour:

☐ Earthy
 ☐ Sewer
 ☐ Burnt/Smokey
 ☐ Sulphur
 ☐ C

Source/Location:

QG1 Furnace

Colour:

White

Texture (Dense, Fluff.):**Duration:**

9 min

Wind Direction:**Additional Information:**

Isolation of gas to port no. 1 on the left hand side of QG3 furnace was required for repair of refractories. Gas was sl increased as there is no independent isolation of combustion air per port. Hence ratio increased by 1 compensate

**Immediate Action Taken: ✓**

Furnace operator rang Batch and Furnace manager and reported the white opacity. Manager asked operator to n then the air/fuel ratio was increased by 1.5.

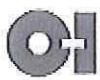


Cheers,

Nick Bolton
LSS Black Belt
O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane 4101

Office: +61 7 3335 8123
Mobile: +61 7 3335 8163
Fax: +61 7 3335 8163
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10



Department of
Environment and
Heritage Protection

Enquiries: Graham Rennex
Telephone: 07 3330 4468
Your reference: IPDE00947108
Our reference: CA27111

Carissa Barh
Risk Management
O-I Illinois Brisbane
137 Montague Road
SOUTH BRISBANE QLD 4101

12 April 2013

Dear Ms Barh

Re: Inspection of O-I Illinois Brisbane located at 137 Montague Road, South Brisbane

I refer to the inspection of the O-I Illinois Brisbane formally ACI Operations Pty Ltd at 137 Montague Road, South Brisbane on 24 January 2013, conducted by officers of the Department of Environment and Heritage Protection (EHP) in the company of Mr Nick Bolton and yourself.

The primary purpose of the inspection was to assess whether the activities conducted on site were in compliance with Development Approval Number IPDE00947108 and subordinate legislation.

The inspection was not a complete audit of the site. You are reminded that section 319 of the *Environmental Protection Act 1994* (EP Act), which sets out the general environmental duty, requires anyone who carries out an activity that causes or is likely to cause environmental harm to take all reasonable and practicable measures to prevent or minimise the harm. In that regard, you are encouraged to actively identify all of the environmental risks associated with the activities conducted on the site on an ongoing basis, and to implement strategies to effectively address them.

The inspection was undertaken as part of the EHP's program to undertake regular inspections of activities carried out by operators registered with EHP.

It appears that the requirements of development approval IPDE00947108 were met:

Page 1 of 2

Level 8
400 George Street Brisbane
GPO Box 2454 Brisbane
Queensland 4001 Australia
Telephone 07 33304468
Facsimile 07 3330 5754
Website www.ehp.qld.gov.au

ABN 46 640 294 485

If you wish to discuss this matter further please contact Mr Graham Rennex on telephone (07) 33304468.

sch4p4(6) Personal information
Yours sincerely,

sch4p4(6) Personal information

Graham Rennex
Environmental Officer - Brisbane South
Southern Region
Environmental Services and Regulation
Department of Environment and Heritage Protection

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Rennex Graham

CR58085

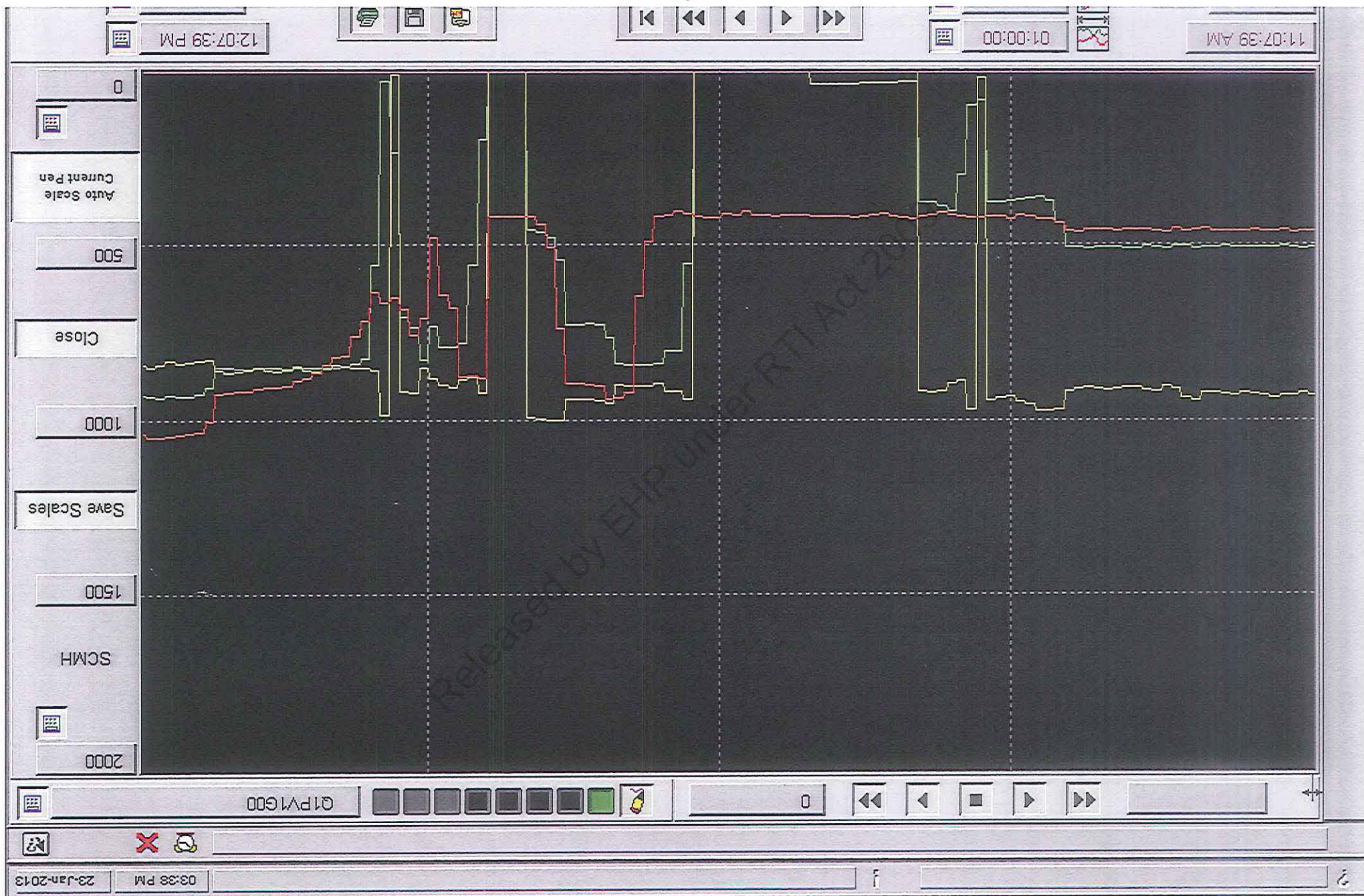
From: Nick.Bolton@ap.o-i.com
Sent: Monday, 11 March 2013 12:35 PM
To: Rennex Graham
Cc: Carissa.Bahr@ap.o-i.com
Subject: QG1 Opacity Spike

Graham,

This is the outstanding investigation report from the QG1 opacity spike we experienced the day before you came out to site. The reason for the delay sending this through is that the permanent resolution involved training a number of operators on different shifts and due to the roster this took some time to achieve.

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External Regulatory Bodies Notified:		☒ Environmental Protection Authority	
 How was the Permanent Resolution Verified?			
Trial of process with each operator. Training records kept.			
 How was the Permanent Resolution Implemented?			
Training package developed by Batch & Furnace Manager with assistance from Risk Department. Training schedule created for all Batch & Furnace Operators. Training del			
 Permanent Resolution:			
Retraining of all Batch & Furnace operators on managing opacity.			
 Root Cause:			
Operator error - Operator did not follow work instruction to raise air prior to gas.			
 Time and Place:			
Site/Plant:	Brisbane	Site Env. Co-ord:	Carissa Bahr/Op
Incident Date:	23/01/2012	Incident Time:	11:40:00 AM
Incident Reported To:	Nick Bolton/Brisbane/ACI_GLASS/AU	Time Reported:	01:00:29 PM
 Incident Information:			
Nature of Incident:	☒ Air ☐ Trade Waste ☐ Waste ☐ Other ☐ Noise ☐ Storm Water ☐ Property Risk		
Air Pollution:	☐ Dust ☐ Chemical ☐ Raw Material ☐ Other ☐ Smoke ☐ Oil ☒ Stack		
Odour:	☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ Chemical		
Source/Location:	QG1 Furnace		
Colour:	Black		
Texture (Dense, Fluff..):			
Duration:	2 minutes		



Nick Bolton
Environment, Safety & RRTW Coordinator
Risk Department, O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane, 4101

Office: +61 7 3335 8023
Mobile: +61 7 3335 8163
Fax: +61 7 3335 8163
Company Website: www.o-i.com



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Released by EHP under RTI Act 2009



Running Sheet Summary

Complaint/Report Ref: CR58085

Complainant						
Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Alleged Source						
Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Incident Location		
Name	Risk Level	Address
MONTAGUE ROAD SOUTH BRISBANE		MONTAGUE ROAD SOUTH BRISBANE SOUTH BRISBANE QLD 4101

Source Ref: CR58085	
Action Source Ref:	
Date Commenced: 15/MAR/13	First Action: Y
Officer Involved: RENNEX, Graham	
Responsible Office: ES-RSD-SER-Brisbane City South	
Action Type: Allocation	
Inspection Type: Proactive - Initial	
Enforcement Measure Type: Management Program	
Referral To: Other	
Action: N/A	
Time Spent Hours: 2	
Time Spent Minutes:	
Outcome: NFA - activity in compliance	
Outcome Description: Opacity spike occurred on 23 February 2013 - ACI (O-I) have implented new training and procedures in an effort to reduce or elimiate opacity spikes.	
Due Date: 15/MAR/13	
Date Completed: 15/MAR/13	



Complaint/Report Details

Complaint/Report Ref: CR58085

Priority/Sensitive: N

Complainant

Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Alleged Source

Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Incident Location

Name	Risk Level	Address
MONTAGUE ROAD SOUTH BRISBANE		MONTAGUE ROAD SOUTH BRISBANE SOUTH BRISBANE QLD 4101

Type: Incident

Nature: Air : Light nuisance

Received Date: 15/MAR/13

Receiving Officer: RENNEX, Graham

Receiving Office: ES-RSD-SER-Brisbane City South

Status: Finalised

Origin: Notification by source

Notification Method: Email

Project Manager: RENNEX, Graham

Responsible Office: ES-RSD-SER-Brisbane City South

Description

Event On/From Date:	Event On/From Time:	Received Time:	
Event To Date:	Event To Time:	Ongoing: N	Print Related Permits: N
Description Graham, This is the outstanding investigation report from the QG1 opacity spike we experienced the day before you came out to site. The reason for the delay sending this through is that the permanent resolution involved training a number of operators on different shifts and due to the roster this took some time to achieve.			

Running Sheet Summary

Accrued Time: 2 hrs 0 mins

First Action	Date Commenced	Due Date	Action Type	Officer Involved	Outcome	Date Completed
Y	15/MAR/13	15/MAR/13	Allocation	RENNEX, Graham	NFA - activity in compliance	15/MAR/13

Related Complaints/Reports

Ref	Complainant	Alleged Source	Incident Location	Received Date
		s.73 Irrelevant information		
CR55537	ACI Operations Pty Ltd	ACI Operations Pty Ltd	MONTAGUE ROAD SOUTH BRISBANE	24/AUG/12
CR55801	ACI Operations Pty Ltd	ACI Operations Pty Ltd	MONTAGUE ROAD SOUTH BRISBANE	14/SEP/12

Related Compliance Activity

Ref	Type	Information Entered	Client	Activity Location
CA21822	Environment	02/DEC/10	Parmalat Australia Ltd	MONTAGUE ROAD SOUTH BRISBANE

Rennex Graham

OK 58082

From: Nick.Bolton@ap.o-i.com
Sent: Monday, 11 March 2013 12:22 PM
To: Rennex Graham
Cc: Carissa.Bahr@ap.o-i.com
Subject: RE: QG3 Opacity Spike

Graham,

Here is the completed investigation report for the recent QG3 Opacity Spike.

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External Regulatory Bodies Notified:	☒ Environmental Protection Authority		
---	--	--	--

How was the Permanent Resolution Verified?
 Spike #1: Physical inspection of fuse in switchboard by licenced electrician.
 Spike #2: Training record provided.

How was the Permanent Resolution Implemented?
 Spike #1: Fuse replaced and tightened in switchboard.
 Spike #2: Training delivered to operator.

Permanent Resolution:
 Spike #1: Replace fuse and tighten in switchboard.
 Spike #2: Deliver training to operator on re-establishing gas and air to control opacity.

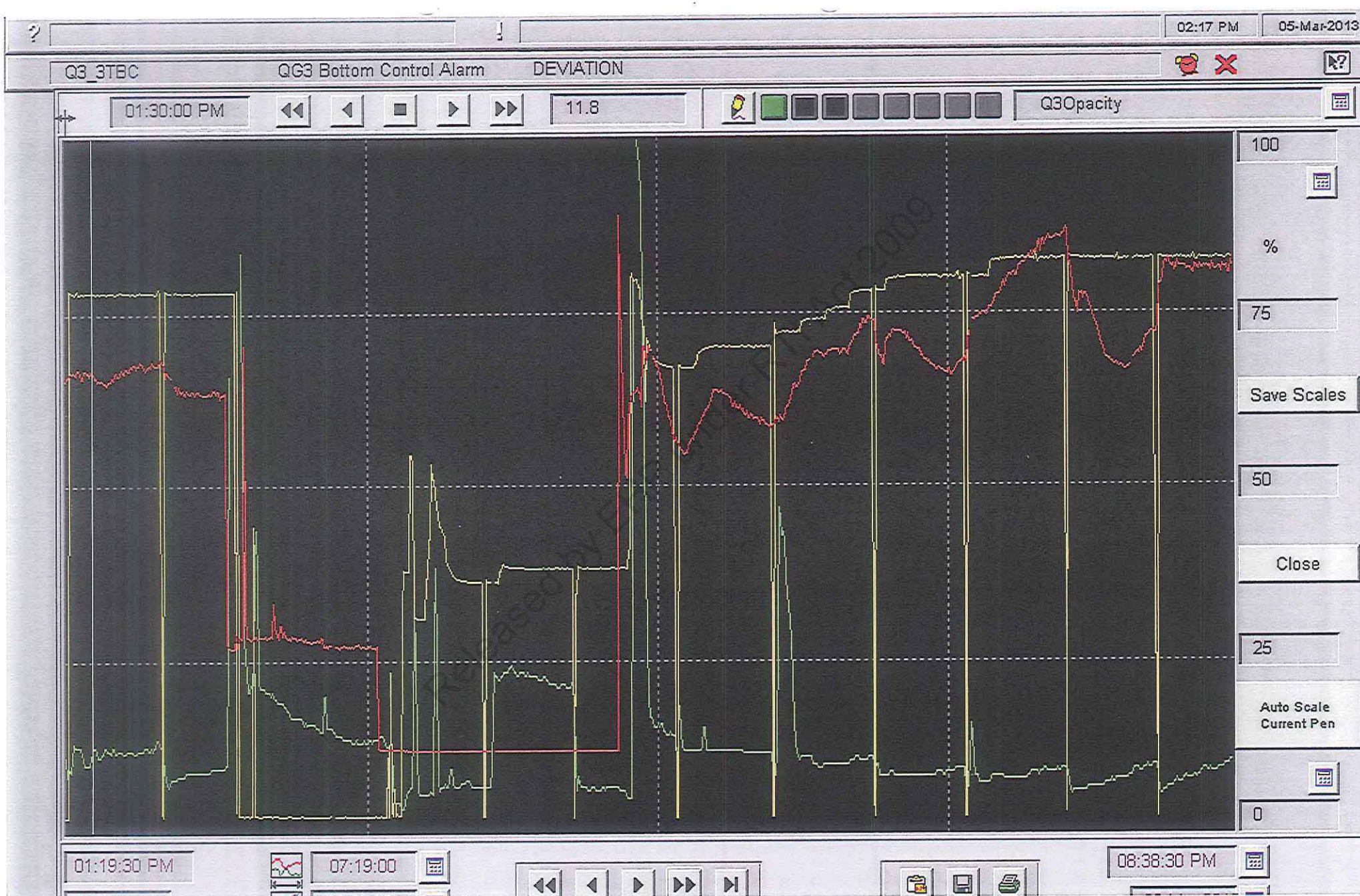
Root Cause:
 Spike #1: Loose fuse in switchboard blew, taking out combustion fan, which resulted in high gas:air ratio.
 Spike #2: Furnace operator brought gas back on too quickly after combustion air re-established, resulting in high gas:air ratio.

Time and Place:

Site/Plant:	Brisbane	Site Env. Co-ord:	Carissa Bahr/O
Incident Date:	03/03/2013	Incident Time:	02:26:00PM and
Incident Reported To:	Nick Bolton/Brisbane/ACI_GLASS/AU	Time Reported:	02:39:10 PM

Incident Information:

Nature of Incident:	☒ Air ☐ Trade Waste ☐ Waste ☐ Other ☐ Noise ☐ Storm Water ☐ Property Risk
Air Pollution:	☐ Dust ☐ Chemical ☐ Raw Material ☐ Other ☐ Smoke ☐ Oil ☒ Stack
Odour:	☐ Earthy ☐ Sewer ☐ Burnt/Smokey ☐ Sulphur ☐ Chemical
Source/Location:	QG3 Furnace
Colour:	



Nick Bolton
Environment, Safety & RRTW Coordinator
Risk Department, O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane, 4101

Office: +61 7 3335 8023
Mobile: +61 7 3335 8163
Fax: +61 7 3335 8163
Company Website: www.o-i.com



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Running Sheet Summary

Complaint/Report Ref: CR58082

Complainant						
Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Alleged Source						
Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Incident Location		
Name	Risk Level	Address
SOUTH BRISBANE QLD 4101		SOUTH BRISBANE QLD 4101

Source Ref: CR58082	
Action Source Ref:	
Date Commenced: 15/MAR/13	First Action: Y
Officer Involved: RENNEX, Graham	
Responsible Office: ES-RSD-SER-Brisbane City South	
Action Type: Allocation	
Inspection Type: Proactive - Initial	
Enforcement Measure Type: Management Program	
Referral To: Other	
Action: N/A	
Time Spent Hours: 2	
Time Spent Minutes:	
Outcome: NFA - activity in compliance	
Outcome Description: Switchboard blew taking out combustion fan which resulted in high gas air ratio. Problem has been resolved - no complaints from residence	
Due Date: 15/MAR/13	
Date Completed: 15/MAR/13	



Complaint/Report Details

Complaint/Report Ref: CR58082

Priority/Sensitive: N

Complainant

Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Alleged Source

Ref	Name	Address	Phone	Mobile	Fax	Email
357064	ACI Australia Limited					

Incident Location

Name	Risk Level	Address
SOUTH BRISBANE QLD 4101		SOUTH BRISBANE QLD 4101

Type: Incident

Nature: Air : Odour : General

Received Date: 15/MAR/13

Receiving Officer: RENNEX, Graham

Receiving Office: ES-RSD-SER-Brisbane City South

Status: Finalised

Origin: Notification by source

Notification Method: Email

Project Manager: RENNEX, Graham

Responsible Office: ES-RSD-SER-Brisbane City South

Description

Event On/From Date:	Event On/From Time:	Received Time:
Event To Date:	Event To Time:	Ongoing: N
Print Related Permits: N		

Description
Here is the completed investigation report for the recent QG3 Opacity Spike.

Running Sheet Summary

Accrued Time: 2 hrs 0 mins

First Action	Date Commenced	Due Date	Action Type	Officer Involved	Outcome	Date Completed
Y	15/MAR/13	15/MAR/13	Allocation	RENNEX, Graham	NFA - activity in compliance	15/MAR/13

Related Complaints/Reports

Ref	Complainant	Alleged Source	Incident Location	Received Date
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s.73 Irrelevant information

COMMONWEALTH OF AUSTRALIA
STATISTICAL DECLARATION
Form of Declaration - 1993

1 Insert the name,
address and
occupation of
person making
the declaration

sch4p4(6) Personal information

2 Set out matter
declared to in
numbered
paragraphs

3 Signature of
person making
the declaration

sch4p4(6) Personal information

4 Place

5 Day

6 Month and year

Macquarie

sch4p4(6) Personal information

7 Signature of
person before
whom the
declaration is
made (see over)

8 Full name,
qualification and
address of person
before whom the
declaration is
made (in printed
letters)

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A statutory declaration under the *Statutory Declarations Act 1959* may be made before—

(1) a person who is currently licensed or registered under a law to practise in one of the following occupations:

Chiropractor	Dentist	Legal practitioner
Medical practitioner	Nurse	Optometrist
Patent attorney	Pharmacist	Physiotherapist
Psychologist	Trade marks attorney	Veterinary surgeon

(2) a person who is enrolled on the roll of the Supreme Court of a State or Territory, or the High Court of Australia, as a legal practitioner (however described); or

(3) a person who is in the following list:

Agent of the Australian Postal Corporation who is in charge of an office supplying postal services to the public
Australian Consular Officer or Australian Diplomatic Officer (within the meaning of the *Consular Fees Act 1955*)
Bailiff

Bank officer with 5 or more continuous years of service
Building society officer with 5 or more years of continuous service
Chief executive officer of a Commonwealth court

Clerk of a court
Commissioner for Affidavits
Commissioner for Declarations

Credit union officer with 5 or more years of continuous service

Employee of the Australian Trade Commission who is:

- (a) in a country or place outside Australia; and
- (b) authorised under paragraph 3 (d) of the *Consular Fees Act 1955*; and
- (c) exercising his or her function in that place

Employee of the Commonwealth who is:

- (a) in a country or place outside Australia; and
- (b) authorised under paragraph 3 (c) of the *Consular Fees Act 1955*; and
- (c) exercising his or her function in that place

Fellow of the National Tax Accountants' Association

Finance company officer with 5 or more years of continuous service

Holder of a statutory office not specified in another item in this list

Judge of a court

Justice of the Peace

Magistrate

Marriage celebrant registered under Subdivision C of Division 1 of Part IV of the *Marriage Act 1961*

Master of a court

Member of Chartered Secretaries Australia

Member of Engineers Australia, other than at the grade of student

Member of the Association of Taxation and Management Accountants

Member of the Australasian Institute of Mining and Metallurgy

Member of the Australian Defence Force who is:

- (a) an officer; or
- (b) a non-commissioned officer within the meaning of the *Defence Force Discipline Act 1982* with 5 or more years of continuous service; or
- (c) a warrant officer within the meaning of that Act

Member of the Institute of Chartered Accountants in Australia, the Australian Society of Certified Practising Accountants or the National Institute of Accountants

Member of:

- (a) the Parliament of the Commonwealth; or
- (b) the Parliament of a State; or
- (c) a Territory legislature; or
- (d) a local government authority of a State or Territory

Minister of religion registered under Subdivision A of Division 1 of Part IV of the *Marriage Act 1961*

Notary public

Permanent employee of the Australian Postal Corporation with 5 or more years of continuous service who is employed in an office supplying postal services to the public

Permanent employee of:

- (a) the Commonwealth or a Commonwealth authority; or
- (b) a State or Territory or a State or Territory authority; or
- (c) a local government authority;

with 5 or more years of continuous service who is not specified in another item in this list

Person before whom a statutory declaration may be made under the law of the State or Territory in which the declaration is made

Police officer

Registrar, or Deputy Registrar, of a court

Senior Executive Service employee of:

- (a) the Commonwealth or a Commonwealth authority; or
- (b) a State or Territory or a State or Territory authority

Sheriff

Sheriff's officer

Teacher employed on a full-time basis at a school or tertiary education institution

HINDMARSH Sasha

From: Nick Bolton <Nick.Bolton@ap.o-i.com>
Sent: Monday, 1 December 2014 11:56 AM
To: Pollution Hotline
Subject: ACI Operations - Opacity Spikes Nov 27th 2014

During and after the severe storms last Thursday evening, we experienced multiple opacity spikes from our QG1 and QG3 furnace stacks over a number of hours.

The details are summarised as follows:

QG1 – 7:49pm, 1 minute duration @ 97.3% opacity; between 11:42pm-12:19am, multiple spikes total duration approx. 5 mins @ >50% opacity

QG3 – between 4:43pm-9:19pm, total duration approx. 45mins @>25% opacity (maximum 98.6%)

The location of the site is 137 Montague Road, South Brisbane.

Permit details (?) ENRE00772608

Regards,

Nick Bolton

Line Manager - QG15
O-I Brisbane Plant

PO Box 3017
137 Montague Road
South Brisbane 4101

Office: +61 7 3335 8023
Mobile: +61 7 3335 8163
Fax: +61 7 3335 8163
Company Website: www.o-i.com

 makers of pure, sustainable,
brand-building glass packaging
GlassLife.com

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From: Jason Achatz [Jason.Achatz@ap.o-i.com]

Sent: Monday, 19 January 2015 11:57 AM

To: HINDMARSH Sasha

CC: Nick Bolton; Greg McGraw

Subject: RE: ACI Operations Pty Ltd - Document Request

Attachments: 5362 OI Brisbane Six Monthly Report.pdf; Catch Basin Filter comparison chart.pdf; Email Re-Stock Piles Of Cullet.pdf; EMS - OI Brisbane Policy Manual.doc; GWF Drain Wardens 141219.doc; Hazard _ Risk Register - Environment.xls; Oregon DOT Approval Letter.pdf; Stormwater Inspection Record.xls; Stormwater Management Plan.doc; Ultra-Drainguard Effectiveness Study.pdf; Ultratech International Inc. Certification Letter.pdf; Waste Management Plan.docx

Categories: Red Category

Hi Sasha

Please find attached a number of documents as per your request.

- EMS - OI Brisbane Policy Manual
- Hazard Risk Register - Environment
- Stormwater Management Plan
- Stormwater Inspection Record
- Documents relating to storm warden performance.
- OI Brisbane Six Monthly Emissions Report (June 2014) – As discussed...due to a factory outage that began with the November 27th storm we have postponed the Stack emissions testing that would have occurred in December 2014 to when we are back to normal operations.
- Waste Management Plan
- Email from Nick Bolton regarding extra stock piles of cullet.
- As discussed on site, we cannot inspect the actual tank without destroying part of the bunding that surrounds the tank. As such the site has plans to replace the existing tank with a drop in module that is self-bunded and meets legislative requirements. The type of unit we purchase/lease will be dependent on the type of back-up generator that we will be installing on site in the near future.
- Maintenance of the storm wardens are captured in our stormwater inspections. These are scheduled on a 6 monthly basis for which automatic reminder a produced by our ERS system. Following our most recent inspection in December, we have purchased replacement wardens for the site which will be installed shortly following having the drains cleared via vacuum trucks.

Kind regards

Jason Achatz

From: HINDMARSH Sasha [mailto:Sasha.Hindmarsh@ehp.qld.gov.au]

Sent: Wednesday, 14 January 2015 1:58 PM

To: Jason Achatz

Cc: Nick Bolton; BUTCHER Paul

Subject: ACI Operations Pty Ltd - Document Request

Hi Jason and Nick

Thank you both for your time yesterday, as discussed during the inspection, the following documents/further information are requested:

- Site-Base Management Plan, as per conditions A9-A12;
- Stormwater Management Plan, as per conditions D5 – D7;
- Confirm integrity of aboveground diesel fuel tank (bunded by bricks), as per condition D11;
- Waste Management Plan, as per conditions G4 –G7;
- Results of Emission Monitoring Program, as per conditions H5 – H10 and H20;
- Please provide information regarding the management of surplus stockpiles, in particular stormwater intrusion and management; and
- Details of the water polishing capabilities of the 'storm warden' (e.g.) and maintenance records.

I have attached Environmental Authority EPPR00244713 (formerly known as SR71) for your reference.

Please submit the above request document to the department by 30th January 2015.

Happy to discuss.

Many thanks

Sasha Hindmarsh

Environmental Officer (Compliance), South Queensland Compliance | Brisbane - Moreton Bay

Environmental Services & Regulation

Department of Environment and Heritage Protection

Level 8 | 400 George Street| Brisbane

Tel 07 3330 5521 | **Fax** 07 3330 5754

www.ehp.qld.gov.au



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ANICI Damian

From: HINDMARSH Sasha
Sent: Friday, 20 February 2015 8:49 AM
To: jason.achatz@ap.o-i.com
Cc: Nick.Bolton@ap.o-i.com
Subject: ACI Compliance Inspection Correspondence
Attachments: ACI Compliance Letter.pdf

Hi Jason

Please find attached compliance letter following 13 January 2015, note that a follow-up inspection is tentatively scheduled for June.

If you have any questions or concerns please don't hesitate to contact me.

Many thanks

Sasha Hindmarsh

Environmental Officer (Compliance), South Queensland Compliance | Brisbane - Moreton Bay
Environmental Services & Regulation

Department of Environment and Heritage Protection

Level 8 | 400 George Street | Brisbane

Tel 07 3330 5521 | **Fax** 07 3330 5754

www.ehp.qld.gov.au





19 February 2015

ACI Operations Pty Ltd
PO Box 3017
SOUTH BRISBANE QLD 4101

Department of
**Environment and
Heritage Protection**

Attention: Jason Achatz

Dear Jason

Compliance inspection – 13 January 2015

I refer to the compliance inspection of ACI Operations Pty Ltd (ACI) conducted at 137 Montague Road, South Brisbane (the site), on 13 January 2015 by authorised officers Paul Butcher and Sasha Hindmarsh of the Department of Environment and Heritage Protection (the department). The site inspection was conducted in the presence of Nick Bolton and yourself.

The purpose of the inspection was to evaluate compliance of environmentally relevant activity (ERA) 44 – manufacturing 200t or more of glass or glass fibre in a year being conducted on the site with conditions prescribed in the environmental authority (EA) EP00244713 (formerly known as IPDE00947108/SR71) with a focus on general site housekeeping. The inspection was not a full audit of your activities. It is important to note that the inspection does not relieve ACI of other obligations under the *Environmental Protection Act 1994* (EP Act).

Site Observations

The following environmental issues pertaining to operation of ACI were identified during the inspection:

1. Outside the loading bay (diagonal to the mould shop), sediment laden water was observed leaving the bay and entering a stormwater drain (please refer to photo 1 and 2 in attachment 1). ACI staff informed officers that a Drain Warden was installed within the stormwater drain to contain oil and sediment run-off.

There is an increased potential for an offence of condition C1, which states that contaminants must not be directly or indirectly released from the licensed place to any waters, and section 440ZG of the EP Act. A discussion was held on site about the assertion of the inert properties of glass; please note that glass is a listed prescribed water contaminant under Schedule 9 of the *Environmental Protection Regulation 2008*. The increased potential for a breach is a result of varying sizes of products used on site (e.g. fine silica sand, crushed glass) and the limitations of Drain Wardens capabilities, as detailed in product specification document supplied to the department.

2. General housekeeping of the site (note previous compliance inspections by the department have indicated that housekeep was of a high-quality, unfortunately this was not the instance on 13th January 2015). Storage and stockpile management throughout the site was managed in haphazard manner, which appears to be exacerbated by surplus material following reduced production (please refer to photo 3 and 4 in attachment 1).

Furthermore the site appears to rely predominantly on water treatment systems such as Drain Wardens to manage the risk of contaminant releases to receiving waters (please refer to photo 1 and 2 in attachment 1). This management approach is confirmed in the Stormwater Management Plan and Stormwater Inspection documents supplied i.e. site sediment is marked for cleaning once in the drain, it is not addressed at the source.

This risk is best managed is via a treatment train which starts by minimising risk at the source by ensuring sound housekeeping practices, such as good stockpile management and appropriate spill control procedures across the site, thereby ensuring that the last line of defence, the Drain Warden are not unnecessarily loaded. This will also help to limit unrealistic reliance on the effectiveness of the Drain Warden.

3. The submitted *O-I Brisbane: Waste Management Plan* appears to lack sufficient information to inform staff to differentiate between waste streams e.g. general waste and regulated waste (which requires a higher level of management).

The department advises that ACI reviews its waste management obligations to ensure that waste streams are managed appropriately e.g. segregated waste; tracking certificates are filled out when required. The *Environmental Protection (Waste Management) Regulation 2000* can be found on the Queensland Government Legislation website www.legislation.qld.gov.au; furthermore an information guideline "Managing waste tracking in QLD" can be found on the department's website www.ehp.qld.gov.au

Obligations

As a result of the events surrounding matters outlined above you are reminded of your obligations pursuant to section 319 of the EP Act, which sets out the general environmental duty, and requires anyone who carries out an activity that causes or is likely to cause environmental harm to take all reasonable and practical measures to prevent or minimise the harm. Accordingly any person carrying out an activity must have in place effective protective measures and response plans and procedures to deal with foreseeable events that may occur and impact on the environment at, or adjacent to, the site where the activity is being carried out. In that regard, you are encouraged to actively identify all environmental risk factors with the activities conducted on the site on an ongoing basis, and to implement strategies and processes to effectively manage them.

The department thanks you for your co-operation during the inspection and looks forward to your continued co-operation in the environmental management of the site. A proposed follow-up inspection of the site is tentatively scheduled for **June 2015**. Should you have any further enquiries, please contact Sasha Hindmarsh, of the department on telephone 07 3330 5521.

Yours sincerely

sch4p4(6) Personal information

Nadine Cooper
Acting Compliance Delivery Manager
Brisbane/Moreton Bay
Department of Environment and Heritage Protection

Attachment:

1. Photos Attachment

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ATTACHMENT 1

The following photos were taken by departmental officer Paul Butcher during the site inspection conducted on the 13 January 2015.



Photo 1. Loading bay diagonal to mould shed/spray booth.



Photo 2. Stormwater drain with 'drain warden', photo captured looking at the entry driveway near Montague Road/Brereton Street.



Photo 3. Surplus stockpile management of recycled glass.



Photo 4. Stockpile management of raw material.

ANICI Damian

Subject: FW: Opacity level spikes - 14 April 2015

From: Jason Achatz [mailto:Jason.Achatz@ap.o-i.com]
Sent: Tuesday, 21 April 2015 2:27 PM
To: MCKENZIE Ben
Cc: Greg McGraw; Nick Bolton
Subject: RE: Opacity level spikes - 14 April 2015

Hi Ben,

Below is the email sent from our Batch & Furnace Manager regarding the two opacity spikes, their cause and preventative measures.

In relation to how opacity spikes relate to our licence we have requirements around out NOx & SOx emissions.
Under normal operations we understand that we meet all of the requirements of our licence.
However when we have an opacity spike we assume that for that brief moment we are emitting higher levels of both NOx and SOx.
We assume that we have exceeded the limits but do not have measurement tools to validate this.
Opacity measurements are not in any way a relative measure of emissions.
As a proactive measure we report these opacity spikes through to yourselves even though we don't know for sure that we have exceeded limits.

Kind regards

Jason Achatz

Hi Jason,

Original opacity event on QG1 was at 9:37 AM, and lasted 3 min. Driven by high pressure upon opening up regenerators for raking.
Once NPL were aware of issues around pressure, they minimised their work to 1 opening at a time.



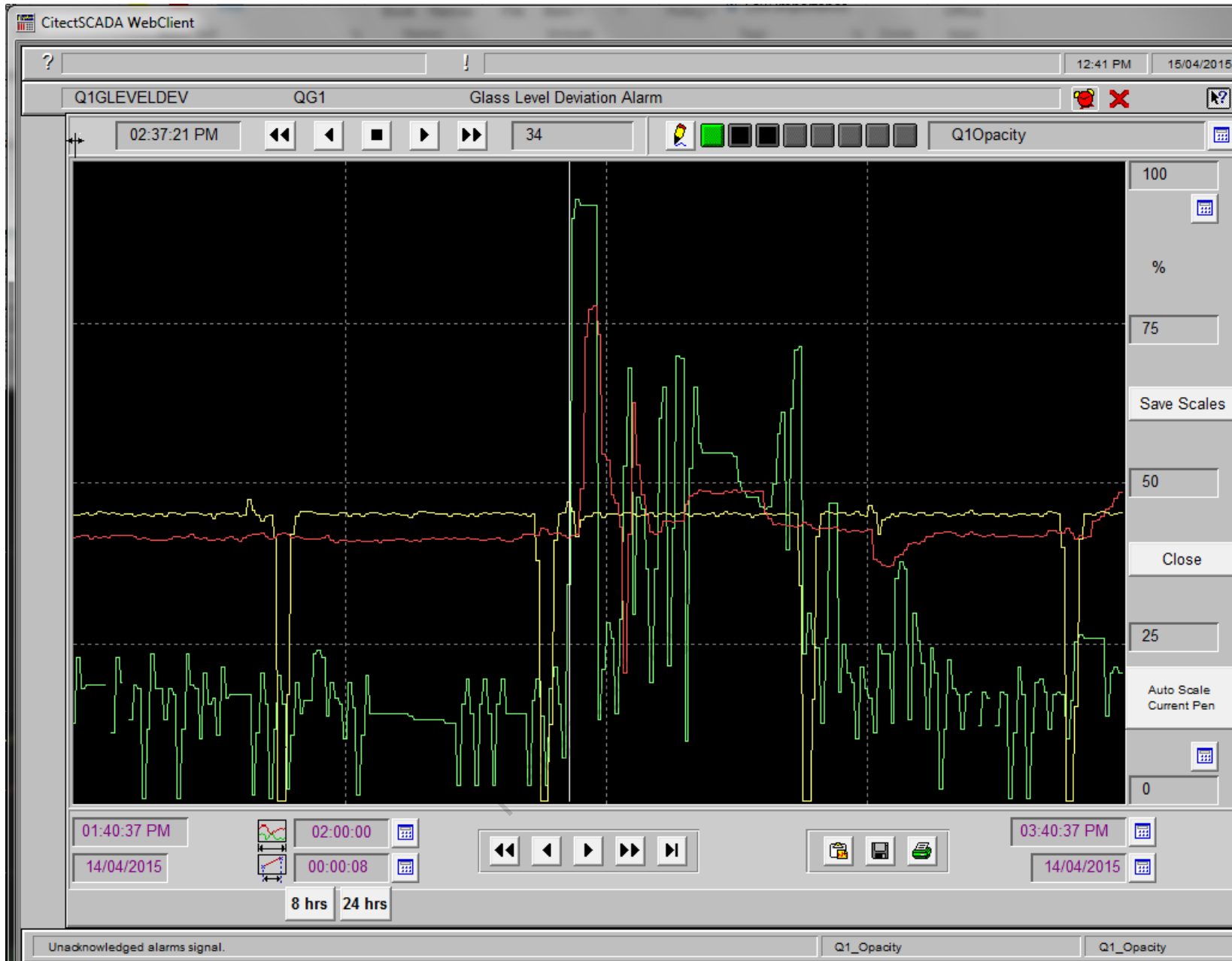
Second event was more extended (below), and started at 14:37 and was at an elevated level (generally above 45 % opacity) until 15:08. This happened upon closing up regenerators post-work. Unclear why exactly this one happened, however I believe that the sulphates and brick-dust within the regenerators was disturbed during raking which took a while to clear.

I spoke with Raf about this, and he hadn't experience this before, however this is a lot more brick material coming down now, compared to 12 months ago.

As a preventative measure we will get the regenerators raking consistently every month to prevent large build-up of material.

I'll also make sure I give the NPL full instruction on risks prior to starting the job for the first time.

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Thanks,

Luke Monks
Batch & Furnace Manager

137 Montague Road
South Brisbane, QLD 4101

Office: 07 3335 8073

Mobile: 0414 614 614 (6) Personal information

Company Website: www.o-i.com

Luke.Monks@ap.o-i.com

From: Jason Achatz
Sent: Wednesday, 15 April 2015 10:07 AM
To: Luke Monks
Cc: Greg McGraw
Subject: Opacity Spike 14/04/2015

From: MCKENZIE Ben [<mailto:Ben.Mckenzie@ehp.qld.gov.au>]

Sent: Tuesday, 21 April 2015 11:38 AM

To: Jason Achatz

Cc: NORDSTRAND Kylie

Subject: Opacity level spikes - 14 April 2015

Hi Jason

Thanks for your time on the phone earlier.

As discussed, the department is seeking more information on the reported opacity levels spikes.

From our discussion I understand that the spikes related to cleaning of the furnace regenerators, conducted by contractors. I also understand that during the cleaning process the contractors inadvertently opened 2 portholes instead of the usual 1, which ultimately resulted in the opacity level spikes.

It would be appreciated if you could provide any further details on the incident and corrective actions to be employed to reduce potential reoccurrences. It would also be helpful if you could provide clarification on the linkage between opacity levels and the release limit conditions attached to your environmental authority EPPR00244713 (formerly SR71).

Regards
Ben

Ben McKenzie

Senior Environmental Officer - South Queensland Compliance - Brisbane/Moreton
Environmental Services & Regulation

Department of Environment and Heritage Protection

Level 8, 400 George St, BRISBANE QLD 4000

Email: ben.mckenzie@ehp.qld.gov.au

Website: www.ehp.qld.gov.au

Phone: (07) 3330 6329



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