Schedule 6 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the PPC Regulations.

Part A

Permit Number	**ZP3331LP**
Name of operator	**BHP Billiton Petroleum Ltd**
Location of Installation	**Talacre** **Holywell** **Flintshire** **CH8 9RD**
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	**31/05/2013 12:00 hrs**
Reference or description of the location of the event	**Pinhole Leak of Lean Solvent on the Tail Gas Unit.**
Description of where any release into the environment took place	**Release is via TOX stack (Emission point reference – A1)**
Substances(s) potentially released	**Sulphur Dioxide (SO_2)**
Best estimate of the quantity or rate of release of substances	**Approximate emission levels SO_2 – 1000 to 1250 mg/nm^3. Approximately 27 kg/hr of SO2 via TOX Stack.**
Measures taken, or intended to be taken, to stop any emission	**Plant to be re-started with TGU bypassed only after consultation with NRW for a temporary period of time whilst repairs are completed.** **Undertake a repair of the leak on the Solvent Regenerator Reboiler & monitor Sulphur Recovery Unit process parameters. Repair of the leak is to be completed as quickly as possible to allow the return of the Tail Gas Unit back to service.**
Description of the failure or accident.	**During a site inspection on the morning of Thursday 30th May, a *lean solvent leak was observed from the Tail Gas Unit (TGU) Solvent Regenerator Reboiler. The plant was then placed in recycle mode and Sales gas export stopped. The TGU was taken offline for inspection. The *Lean solvent is 38% amine:water. The leak was contained locally without entering the drains system.**

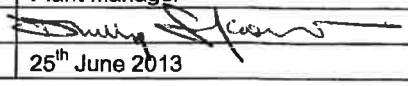
(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	**A1 – Thermal Oxidizer**
Parameter(s)	**Sulphur Dioxide (SO2)**
Limit	**190 mg/nm3**
Measured value and uncertainty	**1000 to 1250 mg/nm3 (Estimation)**
Date and time of monitoring	**Continuous from 31/05/2013 1200 hrs**
Measures taken, or intended to be taken, to stop the emission	**Plant to be re-started with TGU bypassed only after consultation with NRW (hence increased TOX SO2 emissions in excess of their permitted ELV) for a temporary period of time whilst repairs are completed.** **Undertake a repair of the leak on the Solvent Regenerator Reboiler & monitor Sulphur Recovery Unit process parameters. Repair of leak to be completed as quickly as possible to allow the return of the Tail Gas Unit back to service.**

Time periods for notification following detection of a breach of a limit	
Parameter	**Notification period**
SO_2 from gas export restart.	From 31/05/2013 12:00 hrs
-	-

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	-
Substances(s) detected	-
Concentrations of substances detected	-
Date of monitoring/sampling	-

Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	Upon inspection two pin holes leaks were found on the Solvent Regenerator Reboiler shell. Gas Production was restarted on the 31/05/2013 1200 after receiving approval from the NRW. The reboiler was repaired and put back online on the 07/06/2013. Emissions returned to specification at 07/06/2013 2353.
Measures taken, or intended to be taken, to prevent a recurrence of the incident	A temporary repair was undertaken to repair the leak on the Solvent Regenerator Reboiler. The reboiler shell was also inspected to determine if any other pinholes were detected. No additional areas were identified. A permanent repair on the reboiler will be undertaken during the upcoming plant turnaround unless there is any reason to doubt the continuing integrity of the temporary repair prior to that scheduled turnaround.
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	During the period the TGU Wet Section was offline gas flow was maintained at a steady rate and the SRU was optimised. The H_2S concentration in the Inlet Gas was limited to reduce any increase in the emissions levels from the TOX stack.
The dates of any unauthorised emissions from the installation in the preceding 24 months.	04/08/2012 – Filter Blockages during Restart.

Name*	Dhillip Sankoomar
Post	Plant Manager
Signature	
Date	25th June 2013

* authorised to sign on behalf of BHP Billiton Petroleum Ltd.

bhpbilliton
resourcing the future

United Kingdom Production Unit
Point of Ayr Terminal
Station Road
Talacre
CH8 9RD

25th June 2013

POINT OF AYR GAS TERMINAL
REPORT To Supplement Part B Notification to NATURAL RESOURCES WALES
TGU REBOILER REPAIR 31ST MAY 2013 to 7th JUNE 2013

1.0 *SUMMARY OF NON-COMPLIANCE*

During a site inspection on the morning of Thursday 30th May, a Lean Solvent (38% MDEA/62%Water) leak was observed from the Tail Gas Unit (TGU) Solvent Regenerator Reboiler of the TGU wet section. To avoid exceeding a PPC permit SO_2 emission limit gas production was stopped. The plant was then placed in recycle mode and the (TGU) taken offline for inspection. The leak was contained locally without entering the drains system.

After receiving subsequent NRW approval for operating the plant above the PPC Permit SO_2 ELV , gas production was restarted at 1200 hrs on 31/05/13. There was a full production stop at 1917 hrs that day, which resulted in a plant restart at 0128 hrs on 01/06/13, after which gas export ramped up and stabilized at 0530 hrs.

Once gas flow was restarted and the plant stabilized, SO_2 emissions reduced to within the predicted emissions range when the TGU wet section is offline, and stabilized at circa 1000 hrs on 01/06/13. The average SO_2 emission (hourly average) was estimated at 924 mg/nm^3, peaking at 1120 mg/nm^3 during the period the TGU wet section remained offline (refer to Attachment 1).

The temporary repair of the TGU Reboiler was completed at 1500 hrs on 05/06/13 and the cold circulation on the reboiler was restarted on the night of 06/06/13, after the recommended curing time and a successful pressure test on the reboiler was completed. As a precautionary safety measure the TGU wet section was restarted in cold circulation mode until all potential hot surfaces were insulated or protected before heat was added to the unit. This was completed at 2000 hrs on 07/06/13 and the TGU wet section was placed into hot circulation afterwards. The TGU wet section was fully online by 2249 hrs on 07/06/13. The hourly average SO_2 emissions returned below the permitted PPC Permit SO_2 ELV of 190 mg/nm^3 at 2353 hrs on 07/06/13.

During the time the TGU Wet Section was offline, the NO_x emissions remained with the permitted PPC ELV of 120 mg/nm^3 (refer to Attachment 1).

2.0 ***TGU REBOILER REPAIR***

Upon further inspection of the Reboiler after removal of lagging, it was found that there were two pinholes on the shell of the reboiler above the lean amine outlet nozzle, (refer to Attachment 2). A temporary repair was subsequently undertaken using the company Belzona Technosol Limited. The repair undertaken used a cold plate bonding technique. Steel plates of size 150mm x 150mm were bonded in position using a high temperature repair system designed for rebuilding metals damaged by corrosion, Belzona 1511 (Super HT-Metal). Once the plates were bonded in position a high temperature protective coating, Belzona 1391 (Ceramic HT Metal) was applied over the area (refer to Attachment 3).

A permanent repair will be undertaken during the upcoming plant turnaround scheduled for September 2013 unless there is any reason to doubt the continuing integrity of the temporary repair prior to that scheduled turnaround. The exchanger will be removed from site and sent to a machine shop for repairs. It is anticipated that a plate will be welded on to the reboiler shell. The exchanger will then be post-weld heat treated, inspected and pressure tested prior to return to site. The full repair procedure is still being developed and will be forwarded once completed.

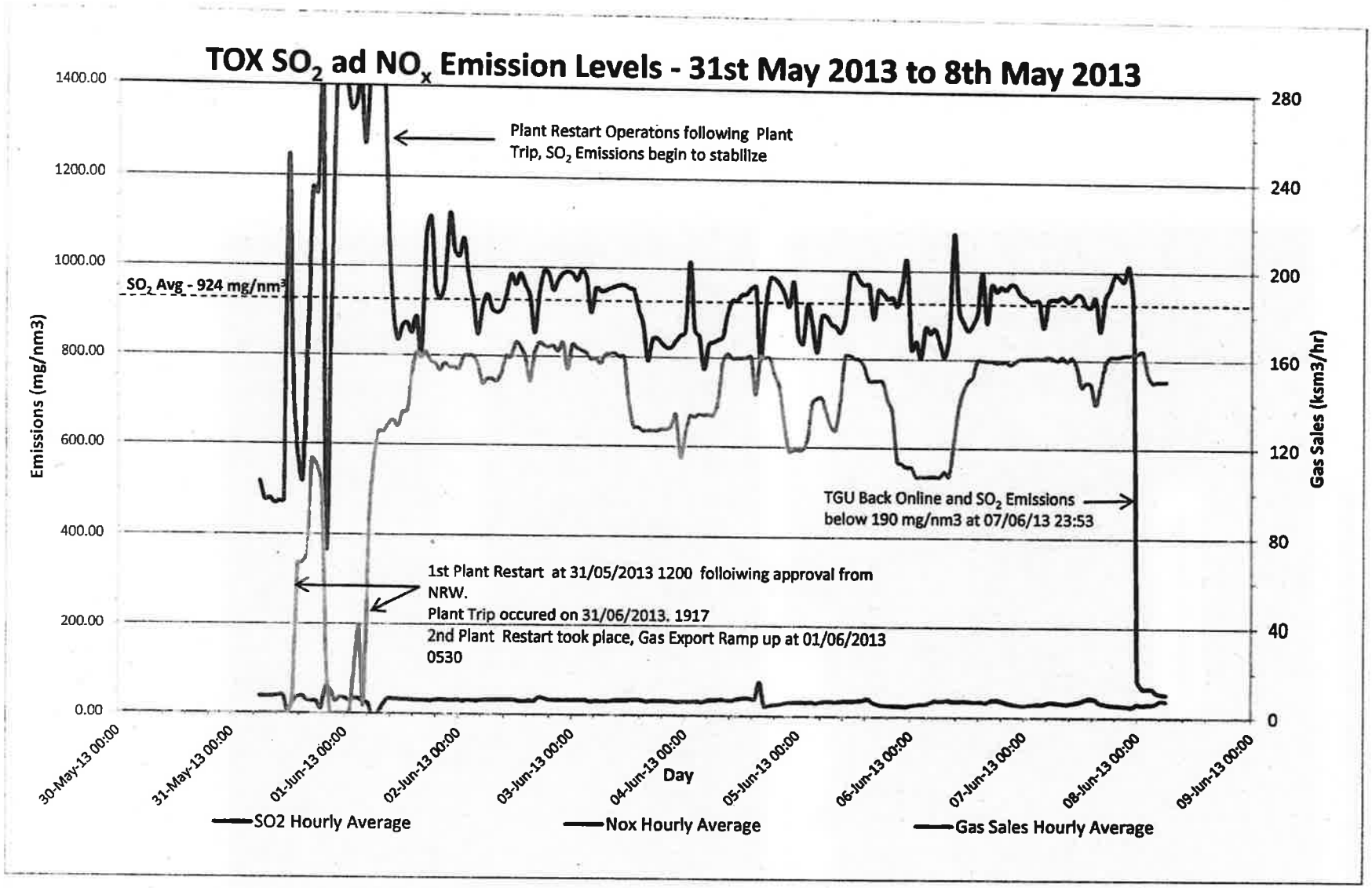
Prepared By:

DHILLIP SANKOOMAR
PLANT MANAGER

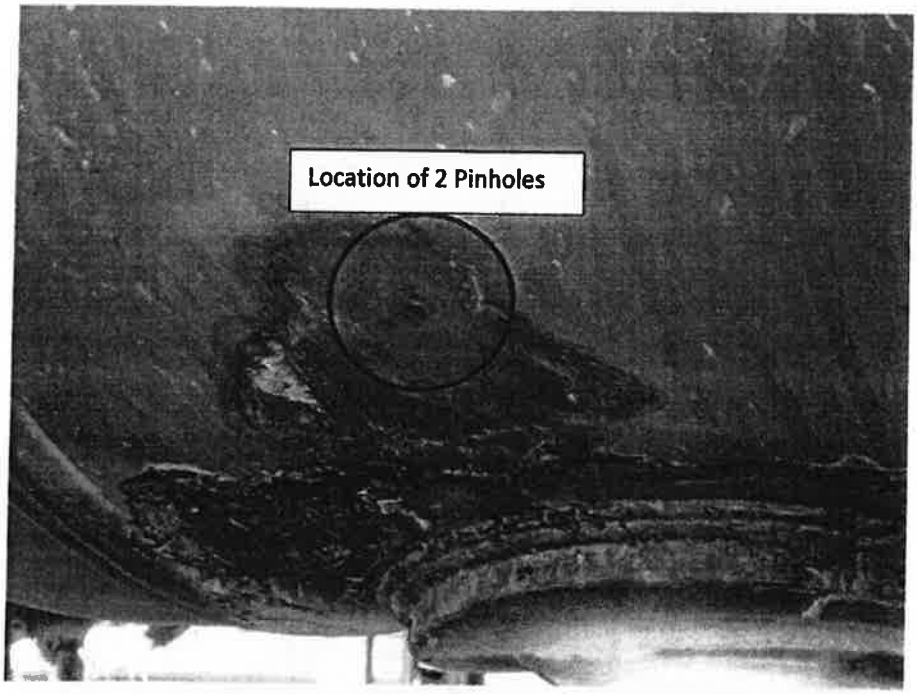
cc:

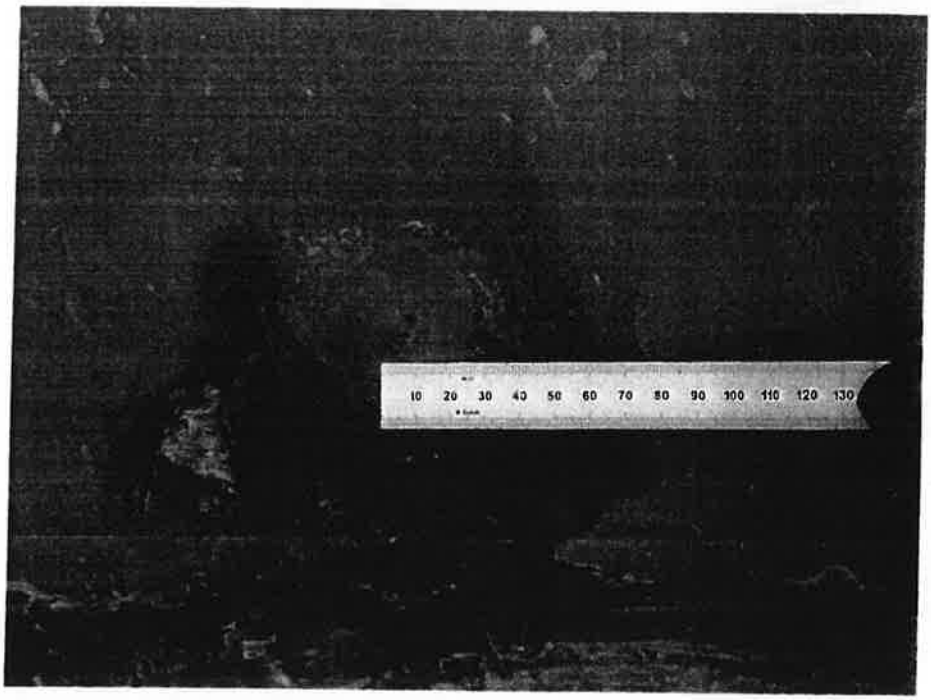
Roger Perkins – UKPU HSE Manager
Gio Adams – UKPU Field Manager
Catherine Jones – Environmental Supervisor
Oliver Sheldrake – Integrity Engineer
Beth Voice – Natural Resources Wales

Attachment 1 – Trend of SO2 and NO_x Emission Levels from 31st May 2013 to 8th May 2013

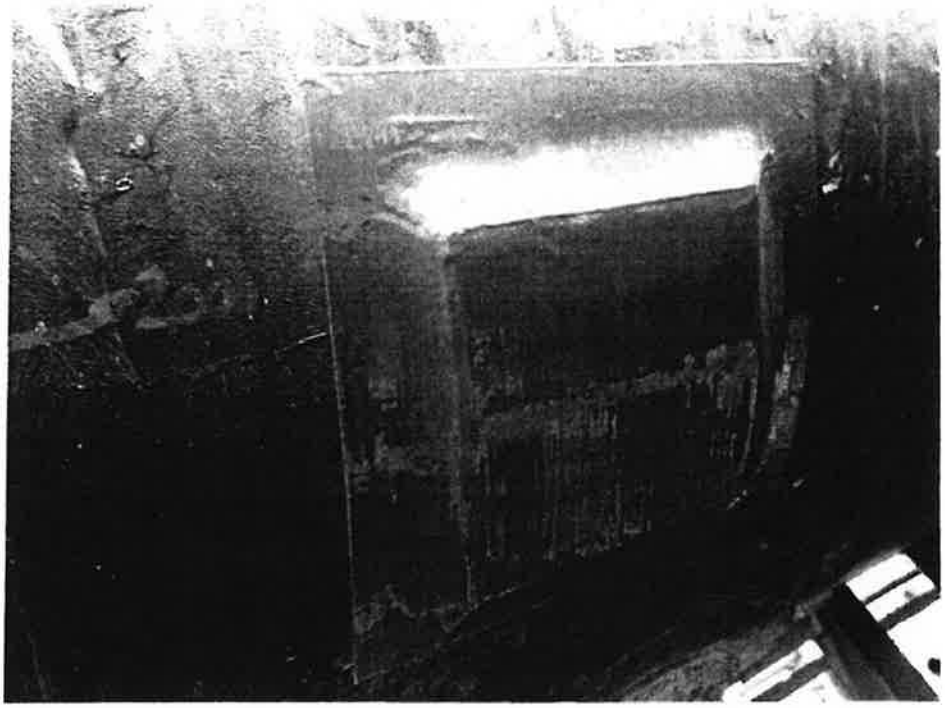


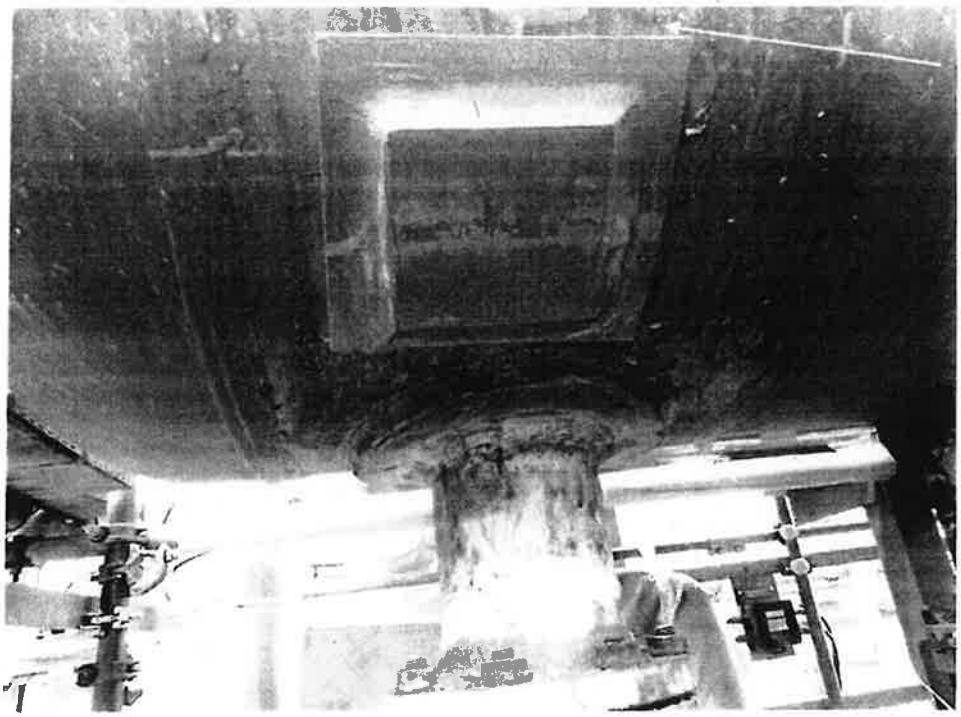
Attachment 2 – Photograph of Pin Holes prior to Repair





Attachment 3 – Photograph of Belzona Repair to the TGU Solvent Regenerator Reboiler





Bradford, Julie

From: Sankoomar, Dhillip [Dhillip.Sankoomar@bhpbilliton.com]
Sent: 15 February 2013 13:35
To: North-wales-ppc
Cc: Jones, Catherine; Williams, Lisa L; Adams, Giovanni G
Subject: RE: POA Terminal - Notification of TOX Analyser Failure 120022013
Attachments: Schedule 6 Part A & B POA 12022013 TOX SO2 analyser failure.pdf

Dear Sir/Madam,

Please find attached the completed Part B of Schedule 6 of the PPC Permit after repair was completed on the Thermal Oxidizer (TOX) Analyser.

Any questions or concerns, please feel free to contact me via e-mail or on the numbers listed below.

Kind Regards,

Dhillip Sankoomar
Plant Manager
BHP Billiton Petroleum
United Kingdom Production Unit
Point of Ayr Terminal
Station Road
Talacre, Holywell
Flintshire, CH8 9RD
office: +44 (0) 1745 881205
cell: +44 (0) 7824 846428


Please consider the environment before printing this email.

From: Sankoomar, Dhillip
Sent: 13 February 2013 15:54
To: 'notif.ppcnwales@environment-agency.gov.uk'
Cc: Jones, Catherine; Williams, Lisa L; Sankoomar, Dhillip; Adams, Giovanni G
Subject: POA Terminal - Notification of TOX Analyser Failure 120022013

<< File: Schedule 6 Part A POA 12022013 TOX SO2 analyser failure.pdf >>

Dear Sir/Madam,

As per our PPC Permit ZP3331LM, I will like to inform you of a failure of our Thermal Oxidizer Analyser which continuously monitors emissions of SO2 and NOx gases. As a matter of importance we are actively trying to repair the analyser and return to

service as soon as possible. Plant conditions are steady and will be continuously monitored to ensure that there are no excursions while this analyser remains offline.

I have filled out and attached Part A of Schedule 6 of the PPC Permit.

I will complete Part B as soon as possible and return to your office as soon as repair is completed.

Any questions or concerns, please feel free to contact me via e-mail or on the numbers listed below.

Kind Regards,

Dhillip Sankoomar

Plant Manager
BHP Billiton Petroleum
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