



## ENTRY REPORT



Visit Number: **V00048403405L**  
 Entry Date and Time : **14/09/2012 11:00 AM**      Departure Date and Time: **14/09/2012 02:30 PM**

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### PLACE ENTERED

**ALCOA OF AUSTRALIA LIMITED**  
 ABN: **93004879298**      ACN: **004879298**

**ALCOA POWER STATION**  
**205 COALMINE ROAD**  
**ANGLESEA 3230**  
 Phone Number: **52634200**

Trading Name: **ALCOA WORLD ALUMINA AUSTRALIA**

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### OTHER PERSONS ATTENDING WITH INSPECTOR

Other Persons: **Chris Rolland Mine manager,**

### THIS REPORT GIVEN TO

Name: **Kylie Anne Clayton**      Persons Position: **Employer Representative**

Service Method: **Left for a person**

Name of person copy given to: **Lee Slaven**      Persons Position: **Health and Safety Representative**

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### Purpose for entry:

I entered this place to follow up on matters dealt with at a previous visit.

Under section 98 of the Occupational Health and Safety Act 2004 and section 13 of the Dangerous Goods Act 1985, I entered your place.

### OBSERVATIONS AND ACTIONS OF THE INSPECTOR

#### 1. Reported Incident Follow-up

I attended the site at the above address to make enquiries into a reported incident that occurred at this workplace on the 26/2/12. The incident involved fire on excavator . WorkSafe Victoria was notified of this incident.

Inspector Kevin Hayes made some initial enquiries on the 21/5/12. On that visit he was advised that the Employer had commenced an investigation and that a report would be forwarded to WorkSafe there after. Kevin Hayes was sent a preliminary report via email. I have return today to review the Employers investigations findings and to commence some initial enquiries.

I met with Kylie Clayton, Lee Slaven and Chris Rolland.

I undertook a brief visit to the open cut operations and returned to the maintenance

workshop to review the damaged E1 plant.

The workplace has provided a copy of the incident investigation and I was advised the following:

#### **DETAILS OF INCIDENT:**

I noted that through reports and discussions that had fire had occurred on the 26/2/12 at 16.30 hours.

The fire had occurred on the 120 tonne (E1) Komatsu PC1250-8 Excavator fitted with 7 cubic metre bucket.

The plant was located in the open cut area and had last being used to extract coal up to 11.00 hours.

The plant was not being used when the fire was observed. The fire was contained after being noted that smoke was coming from the open cut . The fire response occurred by attending employees.

An earlier fire had been put out on the plant at 9.45 hours via the on board fire suppression system.

The plant during the second fire was completely destroyed beyond repair. The Upper section above the turntable turret was badly damaged both structurally and within.

#### **CONTRIBUTING FACTORS:**

A Fire appears to have originated by the shorting of large 24 volt main battery Hi current supply cable originating from the upper LH side LOTO ( Lock Out Tag out) box fitted by the Employer previously .

The cable was insulated and fitted with armour cable to its origin back to the battery over the front RH side of the plant.

This cable was routed next to Hydraulic hoses within the chassis that are part of the hydraulic return supply to the oil supply tank. It appears from photos and the my observations that both the energised cable and the hoses were damaged by continual friction between the two. This may have caused electrical arcing and transfer between the two metallic outer sheaths as result of vibration and hose movement.

The battery cable/LOTO box is always live even when plant is turned off.

I understand that plastic cable ties were used to separate the two units from other hydraulic parts.

Whilst there may be other possible causes of ignition that are possible, such as material build of coal dust, lighting strikes and hot surfaces, this friction and arcing effect and action appears as to be most likely source of the fire and I concur with investigation report in that respect.

#### **2. CONTROLS:**

I noted the Employer has undertaken substantial review of Excavator plant in consultation with employees.

I observed that there is now a new system to route hoses/cables and this has been installed on the on the partly refurbished E1 currently in the workshop.

An fully enclosed metal cable duct tray has been installed between the battery and LOTO box via the front of the unit. This re-route avoids most of the internal mounted hydraulic hose system.

The E2 currently being used in the open cut has a different hose/cable routing system that suspends the electrics below it between battery and Loto Box. I have been advised that this will be reviewed when the plant excavators are changed for work duties.

I discussed the use of redundant suppression systems when an earlier fire had occur and the chance of another fire before Wormald contractors repair it. I understand that the manual system is still available to use in case of fire.

I also discussed why the earlier fire was not completely extinguished.

The usual belief that fire is put out is somewhat based on eye observation, experience and odours.

I discussed the advantages of using thermal imaging instruments including Video recording for both preventive maintenance and the post fire response. It was agreed by the employer to consider this given the foreseeability of another event involving different circumstances and that this system would be advantageous to utilise.

I also noted that during the rebuild of E1 that new platforms have been installed on the excavator to prevent fall from height during access and maintenance. I also noted dipstick access has been replaced by sight glass installations which prevent unsafe access to observe fluid levels.

I also discussed the potential other sources of fire risk such as internal corners and the engine belly plate and these areas are not easily cleaned by water hose application.

3. Inspect, examine and make enquiries

In accordance with Section 99 (a) and (b) of the Occupational Health and Safety Act 2004, I inspected, examined and made enquiries. This includes documents detailed in this Entry Report or as follows:

Induction level 1 for day visitors and contractors  
 E12002485 Fire on Excavator E1 investigation report.  
 OHS Board

In accordance with Section 124 of the Occupational health and Safety Act 2004, you are hereby notified that copies of

Induction level 1 for day visitors and contractors  
 E12002485 Fire on Excavator E1 investigation report.

as requested have been made and that under section 99(d) those copies were seized.

4. Taking of Photographs,

You are hereby notified that under Section 99(f) of the Occupational Health and Safety Act 2004, during an inspection at the above address, photographs were taken. The photographs will be available for inspection at the WorkSafe office located at 8c 333 Gillies street, Wendouree by appointment on 0353384444.

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**INSPECTOR INFORMATION**

Name of Inspector: **Christopher Harry Walschots**  
 Telephone Number of Inspector: **5338 4444**  
 Facsimile Number of Inspector: **5338 4499**  
 Email address of Inspector: **Christopher\_Walschots@worksafe.vic.gov.au**

Inspector's Signature: .....

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### **INTERNAL REVIEW OF CERTAIN INSPECTOR DECISIONS**

If you want to apply for internal review of a decision made by an inspector during this visit, you must lodge the approved application form with the Internal Review Unit within 14 days of the date the decision came to your notice. WorkSafe Victoria (WorkSafe) must conduct the internal review within legislated time frame of either 7 or 14 days depending on the category of reviewable decision. If WorkSafe does not notify you of the internal review decision within the required time, WorkSafe is taken to have made a decision to affirm the reviewable decision. Not all decisions can be internally reviewed and in order to seek internal review of a decision you must be an eligible person.

Application forms for internal review, a list of reviewable decisions and a list of eligible persons are available upon request from a WorkSafe Inspector, WorkSafe Advisory Service on 1800 136089 or they can be downloaded from the website [worksafe.vic.gov.au](http://worksafe.vic.gov.au)

All applications are to be in approved form and must be received by WorkSafe's Internal Review Unit, Ground Floor, 222 Exhibition Street, Melbourne 3000 in order to be considered.

If you lodge an application for internal review and you do not receive a decision within the required time frame or you receive an Internal Review decision that you are not happy with, you can then apply to Victorian Civil and Administrative Tribunal for external review within 14 days of the date the Internal Review decision or non-decision first came to your attention. Applicants seeking external review must be an eligible person.

You can contact the Internal Review Unit on telephone (03) 8663 5450, fax (03) 8663 5451 or by email at [internalreviewunit@worksafe.vic.gov.au](mailto:internalreviewunit@worksafe.vic.gov.au)

### **OFFENCE**

The following Acts, including any regulations made under them carry varying offences such as failure to meet duties and obligations, non compliance with a notice or direction issued or made by an inspector and hindering or obstructing an inspector in the exercise of their powers:

- \* Occupational Health and Safety Act 2004
- \* Dangerous Goods Act 1985
- \* Equipment (Public Safety) Act 1994

For specific details about offences and subsequent penalties refer to the specific Act or regulation.

### **FEEDBACK**

If you want to contact WorkSafe in relation to this entry by our Inspector other than for Internal Review purposes (see above), please use the following guide:

- \* to clarify any matter that is covered by the Entry Report and any associated Notices or Directions contact the issuing Inspector, whose name and contact details appear above in the Inspector Information section in this Entry Report.
- \* to make comment about any aspect of how this inspection was conducted, contact the inspector's senior management on telephone 9641 1759, fax 9641 1201 or by writing to GPO Box 4306, Melbourne 3001
- \* to provide feedback in relation to WorkSafe activities or the legislation we administer, contact our General Manager, Operations, Health and Safety, WorkSafe Victoria, GPO Box 4306 Melbourne Victoria 3001, by fax 9641 1711 or e-mail to [generalmanageroperations@worksafe.vic.gov.au](mailto:generalmanageroperations@worksafe.vic.gov.au)

### **PRIVACY COLLECTION STATEMENT**

WorkSafe collects, uses, discloses and stores information in accordance with the Occupational Health and Safety Act 2004, other legislation administered by WorkSafe and all applicable privacy laws. This includes information collected by WorkSafe inspectors or authorised officers. Note that non-compliance with privacy laws is permissible to the extent that those laws conflict with other legislative provisions allowing or requiring the collection of information. Note also that privacy laws do not apply to the collection of information by WorkSafe to the extent that it is exercising its law enforcement functions and non-compliance with privacy legislation is deemed necessary to fulfil those functions.

WorkSafe's Privacy Policy is on our website at [worksafe.vic.gov.au](http://worksafe.vic.gov.au)

**FURTHER INFORMATION**

WorkSafe has a range of publications to explain your legal responsibilities and help you make your premises/site safer. To inquire about these publications, telephone (03) 9641 1333 or 1800 136089, or visit [worksafe.vic.gov.au](http://worksafe.vic.gov.au)

**WORKHEALTH CHECKS**

WorkHealth is a WorkSafe initiative that provides free health checks in the workplace. Health professionals conduct the convenient, easy and confidential checks. Each check takes around 15 minutes and participants receive immediate feedback and advice based on their results. Applications can be lodged on line by going to the WorkHealth website [workhealth.vic.gov.au](http://workhealth.vic.gov.au) or by calling the WorkHealth hotline on (03) 9641 1444 or 1800 136 089 (toll free).