

Mine Name	Mine ID	Operator	Activity Type	Activity Date
Peak Downs	MI01190	BM Alliance Coal Operations Pty Ltd	Postal Mine Record Entry	13/04/2021

Mine Record Entry

Mine Record Entry Detail

Today Tuesday 13 April 2021, a meeting was conducted at the Resources Safety and Health office in Mackay, Level 5 44 Nelson St.

The meeting purpose to discuss Structural failures of buildings during severe weather events.

Attending the meeting were [sch4p4(6) Personal informat] (BMA Head of Engineering), [sch4p4(6) Per] [sch4p4(6) Pers] (BMA Manager Asset Engineering), [sch4p4(6) Personal info] (Managing Director SIE) Anthony Logan (Senior Inspector of Mines), Mick Scully (Inspector of Mines).

The meeting context covered.

- Applicable Australian Standards and building codes
- The failure of a steel framed shed
- The structural integrity of demountable structures such as Igloos. It was noted that such structures should not be considered as places of safety during severe weather events.
- The maintenance and inspection of all existing structures to identify deterioration and plan remedial actions.
- [sch4p4(6) Pers] provided an overview of the design review of the failed Igloo structures.
- [sch4p4(6) Personal] provided an overview of asset structural audits currently being conducted at all BMA Sites

Advice was provided on several matters by Inspectors to assist the SSE in meeting the objectives of the Act and subordinate legislation. IoM Scully requested a copy of the "SIE "design review.

Michael Scully
Inspector of Mines

Anthony Logan
Inspector of Mines

Mine Name	Mine ID	Operator	Activity Type	Activity Date
Peak Downs	MI01190	BM Alliance Coal Operations Pty Ltd	Investigation	18/11/2020

Mine Record Entry

Site Safety & Health Reps Consulted: sch4p4(6) Personal in

Executive Summary

Mine Record Entry Detail

Wednesday 18 November I Michael (Mick) Scully Inspector of Mines attended Peak Downs Mine for the purpose of inspecting damage to Igloos and other structures caused by a severe weather event on the afternoon of Friday 13 November. On arrival I participated in the site drug and alcohol screening programme and was escorted to a meeting room.

Opening Meeting:

Present at the opening meeting were sch4p4(6) Person (SSE) sch4p4(6) Person (Production Manager) and sch4p4(6) Person (SSHR).

sch4p4(6) Person provided me with an over view of the incident:

- It is believed that the event may have been a microburst *{A small-scale, very localized column of sinking air caused by a small and intense downdraft within a thunderstorm}*
- At the time of the incident the mine was in Orange weather TARP for lighting.
- Coal Mine Workers had assembled in their respective places of safety.
 - NB: The Thiess Igloo at the time was considered to be a place of safety.
 - NB1: sch4p4(6) has communicated to CMW's that Igloos are no longer recognised as a place of safety and has instructed supervisors to ensure that CMW's know where the recognised places of safety are located.
- It is unclear what wind speeds were involved in the incident, the highest reliable reading was 86KPH. It is clear that winds were well in excess of this.
 - Evidenced by damage to Trees, Igloos, buildings, steel flag poles and a power pole.
 - Weather Zone (service provider) is currently attempting to reconstruct the weather event.

sch4p4(6) informed me that:

- That a risk assessment will be undertaken before damaged structures are removed.
 - The aforementioned Risk Assessment will be reviewed and signed off by a structural engineer before approval.
 - NB: the JJ Richards shed has already been removed.
- The Igloos have been engineered and designed to the Australian Standard and records support this.

sch4p4(6) provided me with an outline of the proposed investigation scope:

- identification of the severe weather event

- escalation of the event
- site response to any escalation (communication, withdrawal as per SHMS etc)
- impact on key damaged site structures (Thiess Workshop, National Mine Service Workshop, Waste Shed, Substation structure)
- post event response

To support the ICAM we will reconstruct, with advice of weather/storm experts, the nature of the storm. This will allow us to:

- characterise how the storm developed
- the nature and speed of the winds

In parallel with the ICAM a review (for each failed structure) to determine mechanism of failure, considering

- appropriateness of design for expected wind loadings
- construction conformance to design

We proceeded to the Thiess workshop and were joined by sch4p4(6) Personal inform (Project Manager) sch4p4(6) Personal in (Operations Manager) and sch4p4(6) Personal in (Maintenance Superintendent). We reviewed the failed “main” Igloo see figure 1.



Figure 1

I note that the smaller Igloo adjacent to the main Igloo appeared to have little if any damage see figure 2.



Figure 2

We inspected the tyre bay Igloo which had lost its cover see figure 3,



Figure 3

I note that the footings that hold the containers to the ground appeared to be substantial and undisturbed see figure 4.



Figure 4

We proceeded to The National Mine service igloo, it appears to have structural damage and cover damage see figure 5.



Figure 5

I note that the footings holding the containers appear to be very substantial see figure 6



Figure 6

We returned to the main administration building and I had a brief meeting with sch4p4(6) Person and sch4p4(6) Person SSHRs, after which I left site

Michael Scully
Inspector of Mines

Incident Notification

(Mines Inspectorate)

Mine Name Peak Downs
Operator Name BM Alliance Coal Operations Pty Ltd
Mine Type Coal Mine - Surface
Mine Region Central Region
Mine Office Mackay Office
Mine File No 1,718

NOTIFICATION DETAILS

Notifier's Name sch4p4(6) Pers
Notifier's Position/Title Manager Production Overburden
Notifier's Contact Number sch4p4(6) Person
Notification Received on 13/11/2020 at 06:27 PM
Notification Received By Keith Brennan
Entered By Keith Brennan on 13/11/2020

INCIDENT DETAILS

Incident Date & Time 13/11/2020 06:26 PM
Location (Section/area) 2 South Thiess and National Mining Workshops and CHPP Electrical Enclosure

Equipment Involved Severe Weather Event and Infrastructure

Concise Description Severe Weather Event. Storm event resulted in collapse of Igloo Workshops at Thiess and National Mining Services. Roof off CHPP Electrical Enclosure, JJ Richards work area unroofed. Power isolated to all locations, compressed air isolated. Reminded caller, Igloo structure have stored energy in roofing steel works. Read Other details.

Other details Production Suspended. Structural Engineers attending site. WRAC to be completed for recovery. Photos attached in 1A show extent of damage to workshops. SSE sch4p4(6) Pe made contact 9:03pm advising suspect further

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RTI Act 2009

damage will advise 14/11/2020.

Incident Classification

Other

Other Inspectorates to be notified

INJURIES

Injuries - Person(s) Involved 0

FATALITIES

Fatalities - Person(s) Involved 0

RESPONSE

Actions Taken By Mine / Operator

Instructions or advice given to Mine / Operation

INCIDENT CATEGORY

Event Type

High Potential Incident

Incident Category

An event or series of events that causes or has the potential to cause a significant adverse effect on the safety and health of a person (An event not prescribed in Regulation Schedule 1 or 2)

Oral Report confirmed by notice within 48 hours

15/11/2020

13/11/2020 8:58:00 PM

Notify an Inspector as soon as practicable

13/11/2020

13/11/2020 6:27:00 PM

INCIDENT FOLLOW-UP

Officer allocated to investigate and/or follow-up reports

Keith Brennan

Oral confirmatory report received

Written report received

External DB Accident ID (LTAD)

146677

IR Summary Title

At approximately 05:00pm on the 13th of November 2020 a severe weather event passed through the mine involving high wind gusts, hail and rain of significant strength around the 2 South area. The event resulted in the structural failure of the 2 South Thiess workshop collapsing the structure. Damage was also observed on the Thiess Tyre workshop that lost the roof sheeting. The National Mining workshop was also affected, sustaining structural damage to the roof. Upon further inspection damage was observed at stub line 52 where two poles were laid over obstructing the Air Brake Switch. The powerline was isolated, wires cut off and stubline was deenergised. The roof was lost from the CHPP Motor Control Unit exposing the electrical room to the elements. The JJ Richards shed was also blown over resulting in structural failure of the entire shed. In addition superficial damage was observed at the Prestrip Trucks shop. Fencing, signage and trees were blown over near the MIA and around 2 South. Persons were in a safe location during the event and no injuries were sustained. Post event emergency was initiated, OCE

inspected the areas and scenes were secured. Personnel were evacuated from the location. Inspections were postponed until daylight. It was later determined that ESA employee was taking cover underneath the body of a CAT 797 when the Thiess workshop collapsed. The other fitters were taking cover in the container style office adjacent to the workshop.

Incident Date

13/11/2020

Processed Date

24/02/2021 03:37:48 PM

(MIR Web Site submission processed)

Mine Name

Peak Downs

Incident Type

High potential no lost time

Injured Person(s)

Organisational

Deficient assessment criteria in place to determine whether a structure is a designated "safe zone" during a severe weather event. Inadequate design criteria in place for igloo structures on BMA sites. Deficiencies were found in the processes related to the design, execution, MoC, and sign-off of structures onsite that are not owned by BMA.

Task / Environmental Conditions

Igloo structures have gradually increased in size over the years. This has potentially led to absent, deficient, or redundant load paths. Structures not designed and/or constructed to Australian Standards which is a nominated (basic) design windspeed of 45m/s/162km/h (being V500 for Region A4). JJ Richards structure did not have any design documentation available, or an MoC signed off. Thiess Igloo Structure was RPEQ certified even though the subsequent modelling identified the design was not compliant to Australian standards. Weather expert concluded that the severe weather event at PDM showed characteristics of a microburst which are highly localized downdrafts within thunderstorms, that quickly increase and then decrease. This means that observed wind gusts at nearby locations can be substantially different and more often than not, microbursts go undetected because of the low density of weather stations away from major population centers in Australia. Weatherzone data supports this as it shows the storm intensified substantially in a small area when passing over PDM. Igloos have been classified as workshops and therefore are considered safe zones to continue working in during severe weather events. The loss of the roof cover on the Thiess Igloo structure increased the wind loads applied to the structure. There is no clear requirement for a BMA Engineering project to be initiated for structures built pursuant to a Production contract. (BMA engineering projects involve a robust review of design and construction requirements against BMA standards).

Individual / Team Actions

Thiess personnel remained in the Thiess Igloo Structure as this was believed to be a safe zone. Note: personnel believed the other two structures were designated safe zones also.

Absent / Failed Defences

Thiess Igloo Structure: Independent engineering report identified that either a roof bracing member(s) or connection failed, or a truss arch buckled, or both. These items exhibit theoretical failure loads at wind speeds of approximately 16 and 30 m/s which is below the Australian standard. NMS Igloo Structure: Independent engineering report concluded that the primary structural members were code compliant for the design wind loads, however the structural support systems were found to be deficient. The ICAM Team have concerns around the assumptions used and are obtaining a further engineering review to verify this conclusion. JJ Richards Shed: Independent engineering report identified that the columns were found to have a utilization of approximately 70% to 110%. Similarly, rafters were found to have utilization ratios in the range 30% to 210%.

Preventative Action

a) Review windspeed data within the region, and previously provided external reports, to risk assess and evaluate whether existing controls (Australian Standards, BMA Design Criteria) are effective. b) Update the BMA engineering standard to include requirements for all new igloo/dome/large span shade style structures, including the requirement for: - Specific design limits (i.e. height, span, location, design life) that are supported by structural modelling data. - Blueprint information. - The level of modelling, engineering due diligence and sign off. - The wind loading limits c) Update operational engineering standards and relevant documentation across BMA sites to reflect the design limits that have been developed for new igloo/dome/large span shade style structures. a) Develop an engineering assessment criteria (that incorporates data from the Igloo structure engineering assessments conducted for the PDM structures involved in the Nov 2020 severe weather event) which can be used to visually assess all igloo/dome/large span shade style structures. b) Complete a more detailed engineering review of the NMS igloo structure with SIE and incorporate findings into criteria. c) Assess all igloo/dome/large span shade style structures across all BMA operational sites against the set criteria to identify if controls need to be introduced to eliminate or restrict the use of these structures.

DETAILS OF PERSONS ADVISED

EMAILED

Emailed To

Comment

Emailed Date

Emailed Time

neville.atkinson
Paul.Brown2
Creswick.Bulger
Graham.Callinan
Laurie.Crisp
wolfgang.djukic
Shaun.Dobson
Patrick.Hurley
theo.kahl
Matthew.Kennedy
Anthony.Logan
LYDON Mark
NAPPER Greg
NEWMAN Peter
Geoff.Nugent
kevin.poynter
ROYES Mark
Michael.Scully
andrew.smith
Stephen.Smith2
Steven.Stook
paul.sullivan
Noel.Towers

13/11/2020

09:30 PM

ORALLY (if any)

Notified

Comment

Date

Time

Published on RSHQ Disclosure Log
RTI Act 2009

PDM FRM Notice of Confirmation to the Mines Inspector and Industry Safety & Health Representative of High Potential Incident or Serious Accident

**NOTICE OF CONFIRMATION
TO THE MINES INSPECTORATE OF A COAL MINE
HIGH POTENTIAL INCIDENT, SERIOUS ACCIDENT OR DISEASE**

MINE PEAK DOWNS MINE	DATE 13/11/2020
This notice* is made by or on behalf of the SSE primarily** pursuant to section 198(4) or (5) of the CMSHA to confirm the initial oral report to an inspector and an ISHR. It is also used to report prescribed diseases pursuant to section 198(6) of the CMSHA.	
NOTE: * Notice required within 48 hours or 24 hours in the case of a fatality: ** Also serves to report "Non-Reportable Incidents"	

SECTION 1 INITIAL ORAL REPORT		
Made By <input type="text" value="sch4p4(6) Person a"/>	Company Position Superintendent Production	Phone <input type="text" value="sch4p4(6) Pers"/>
Made To Keith Brennan	Time 18:26	Date 13/11/2020
Made To <input type="text" value="sch4p4(6) Person a"/>	Time 20:05	Date 13/11/2020
Made To <input type="text" value="sch4p4(6) Personal information"/>	Time 17:55	Date 13/11/2020

SECTION 2 SERIOUS ACCIDENT	
Is this a SERIOUS ACCIDENT:	NO
NOTE 1	Act s16: A SERIOUS ACCIDENT is one that causes (a) death or (b) a person to be admitted to hospital as an in-patient for treatment of the injury. Also by definition it is a HPI
NOTE 2	While not included in the definition of SERIOUS ACCIDENT, Act s198 (2) (iii) requires immediate notification of an accident "that causes a person to suffer an injury, causing or likely to cause, a permanent injury to a person's safety or health". (This is also a HPI as defined by Act s.17)
NOTE 3	Schedule 9 of the Regulation defines SERIOUS BODILY INJURY as an "injury endangering, or likely to endanger, life or causing, or likely to cause, a permanent injury to health" of a person.

SECTION 3 PRESCRIBED HPI TYPE BEING REPORTED	
SCHEDULE 1C Act 198(2b)	10o A structural failure of equipment that endangers the safety and health of a person. Sh2 Part 1(7) & 2(10)
SCHEDULE 2 Part 1 Act 200(1)	Choose an item. Must not interfere with site without inspectorate permission
SCHEDULE 2 Part 2 Act 201(1c)	Choose an item. Investigation Report to an inspector within 1 month.
NOTE 1	Some HPI types in Schedule 1C also qualify as types in Schedule 2, Part 1 and/or Part 2. See details on reverse of this form

SECTION 4 NON PRESCRIBED HPI OR NON REPORTABLE INCIDENT NRI	
NON PRESCRIBED HPI <input type="checkbox"/>	Where a "match" cannot be made to the Schedule 1C but the event is a HPI as defined by CMSHA section 17
NON REPORTABLE INCIDENT (NRI) <input type="checkbox"/>	Where the incident is significant and has a safety "message" to share with industry
NOTE	Act s17 HPI "an event, or a series of events, that causes or has the potential to cause a significant adverse effect on the safety or health of a person"

SECTION 5 REPORTABLE DISEASE SCHEDULE 1								
Chronic obstructive pulmonary disease	<input type="checkbox"/>	Coal workers' pneumoconiosis	<input type="checkbox"/>	Legionellosis	<input type="checkbox"/>	Silicosis	<input type="checkbox"/>	Other
NOTE 1	To be reportable, the disease must have been contracted by a current or former coal mine worker who was exposed to dust/agent and has had the diagnosis confirmed by a nominated medical adviser or another doctor							
NOTE 2	Tick relevant box above (no further disease information is required on this form)							

SECTION 6 DETAILS OF THE EVENT							
NOTE Information provided in this section includes the "Primary Information" required by s.198(3) of the Act							
CONCISE DESCRIPTION OF THE NATURE OF THE EVENT (put all other information in the "Other information/details" field below)							
At approximately 05:00pm on the 13 th of November 2020 a severe weather event passed through the mine involving high wind gusts and rain of significant strength around the 2 South area. The event resulted in the structural failure of the 2 South Thiess workshop collapsing the structure. The National Mining workshop was also affected sustaining structural damage to the roof. Persons were in a safe location during the event and no injuries were sustained. Emergency was initiated, OCE inspected the area and scene was secured. Personnel were evacuated form the location.							
DATE 13/11/2020	TIME ~17:00	LOCATION 2South Thiess and National Mining Workshops					
EQUIPMENT INVOLVED				DAMAGE Structural Damage to Infrastructure			
ENVIRONMENTAL CONDITIONS		Light <input checked="" type="checkbox"/>	Dark <input type="checkbox"/>	Sunny <input type="checkbox"/>	Wet <input checked="" type="checkbox"/>	Dry <input type="checkbox"/>	Windy <input checked="" type="checkbox"/>

PDM FRM Notice of Confirmation to the Mines Inspector and Industry Safety & Health Representative of High Potential Incident or Serious Accident

PERSONS INVOLVED	Number 0	Employee <input type="checkbox"/>	Contractor <input checked="" type="checkbox"/>	Labour Hire <input type="checkbox"/>	Visitor <input type="checkbox"/>
NAME(S) OF DECEASED			TYPE DEATH	NATURAL <input type="checkbox"/>	ACCIDENT <input type="checkbox"/>
NAME(S) OF PERSONS INJURED			INJURIES	EMPLOYER (Contractor where applicable)	
			NIL	NA	
NAMES OF ANYONE WHO SAW THE INCIDENT OR WERE PRESENT AT THE TIME AND IF NO WITNESSES, NAME OF PERSON FINDING THE INCIDENT			NAME	EMPLOYER (Contractor where applicable)	
OTHER INFORMATION/DETAIL					



Thiess Workshop



National Mining Workshop

Published on RSHQ Disclosure Log
RTI Act 2009

Date : 25/02/2021 8:46:55 AM
From : "ROSSBERG Keeleigh"
To : "BRENNAN Keith" Keith.Brennan@rshq.qld.gov.au
Subject : FW: Completed Mining incident report No. 146677 (30 - High potential no lost time [nmsf: 35])

Fyi.

From: MIRAdministration@dnrme.qld.gov.au <MIRAdministration@dnrme.qld.gov.au>
Sent: Wednesday, 24 February 2021 3:37 PM
To: MIRAdministration@dnrme.qld.gov.au; MIR-Mackay; sch4p4(6) Person@bhp.com
Subject: Completed Mining incident report No. 146677 (30 - High potential no lost time [nmsf: 35])

Type of incident

Incident report number: 146677

Recipients: sch4p4(6) Person@bhp.com and MIRAdministration@dnrme.qld.gov.au

1 Incident type: 30 - High potential no lost time [nmsf: 35]

2 Summary/title of incident

At approximately 05:00pm on the 13th of November 2020 a severe weather event passed through the mine involving high wind gusts, hail and rain of significant strength around the 2 South area. The event resulted in the structural failure of the 2 South Thiess workshop collapsing the structure. Damage was also observed on the Thiess Tyre workshop that lost the roof sheeting. The National Mining workshop was also affected, sustaining structural damage to the roof. Upon further inspection damage was observed at stub line 52 where two poles were laid over obstructing the Air Brake Switch. The powerline was isolated, wires cut off and stubline was deenergised. The roof was lost from the CHPP Motor Control Unit exposing the electrical room to the elements. The JJ Richards shed was also blown over resulting in structural failure of the entire shed. In addition superficial damage was observed at the Prestrip Trucks shop. Fencing, signage and trees were blown over near the MA and around 2 South. Persons were in a safe location during the event and no injuries were sustained. Post event emergency was initiated, OCE inspected the areas and scenes were secured. Personnel were evacuated from the location. Inspections were postponed until daylight. It was later determined that ESA employee was taking cover underneath the body of a CAT 797 when the Thiess workshop collapsed. The other fitters were taking cover in the container style office adjacent to the workshop.

Incident Classification:

Code: 119 - Incidents
NOC (not otherwise
classified) [nmsf: 3819]

Breakdown:

Code: Environmental
agencies [nmsf: 2842]

Sub-Breakdown:

Code: Outdoor
environment [nmsf:
2881]

Breakdown Class:

Code: Buildings and
other structures [nmsf:
3140]

Detailed Classification:

Code: Other and not
specified buildings and
structures [nmsf: 3701]

Compensation ID: 999999

Mechanism:

Code: Heat, electricity
and other environmental
factors [nmsf: 2789]

Sub-Mechanism:

Code: Exposure to other
and unspecified
environmental factors
[nmsf: 2821]

3 Previously notified: Yes

Date: 13/11/2020

Mine details

4 Mine/quarry name Peak Downs

Code: M01190
Old
Code:

5 Mine type: coalSurface

6 Company contact: sch4p4(6) Person@bhp.com

Phone: sch4p4(6) Person@bhp.com

7 Where in the mine did the incident occur? 2South Thiess and National Mining Workshops

Code: 222 - Main
workshop [nmsf: 28]

Surface or underground? surface

Incident details

8 **Date of incident:** 13/11/2020

9 **Time of incident:** 17 00 (24 hr clock)

10 **Time shift started:** 00 00
Shift duration: 00 00
No. of complete shifts/day worked prior to accident: 00
No. of days in shift cycle: 00
No. of days rostered off prior to starting current shift cycle: 00
Total hrs worked in 24 hr period prior to accident, inc travel time: 00
Travel Time: 00 00
Rostered Travel Time: 00 00
Roster Pattern: 00

11 **Date of first full working day lost:**

12 **Primary equipment/tool involved in incident:** NA

Code: 981 - No equipment involved [nmsf: 3962]

13 **Describe exactly how did the incident occur:**

At approximately 05:00pm on the 13th of November 2020 a severe weather event passed through the mine involving high wind gusts, hail and rain of significant strength around the 2 South area. The event resulted in the structural failure of the 2 South Thiess workshop collapsing the structure. Damage was also observed on the Thiess Tyre workshop that lost the roof sheeting. The National Mining workshop was also affected, sustaining structural damage to the roof. Upon further inspection damage was observed at stub line 52 where two poles were laid over obstructing the Air Brake Switch. The powerline was isolated, wires cut off and stubline was deenergised. The roof was lost from the CHPP Motor Control Unit exposing the electrical room to the elements. The JJ Richards shed was also blown over resulting in structural failure of the entire shed. In addition superficial damage was observed at the Prestrip Trucks shop. Fencing, signage and trees were blown over near the MA and around 2 South. Persons were in a safe location during the event and no injuries were sustained. Post event emergency was initiated, OCE inspected the areas and scenes were secured. Personnel were evacuated from the location. Inspections were postponed until daylight. It was later determined that ESA employee was taking cover underneath the body of a CAT 797 when the Thiess workshop collapsed. The other fitters were taking cover in the container style office adjacent to the workshop.

14 **What hazards have been identified from this incident:**

Severe Weather

Code: 109 - Falling/flying material/objects

Injured person details

15-21 Questions 15 through 22 not required for 'High potential no lost time' incidents

23 **Description of personal damage:**

Is this a permanent incapacity?

Incident causes

24 **What happened leading up to the injury/incident/disease?**

Organisational

Deficient assessment criteria in place to determine whether a structure is a designated "safe zone" during a severe weather event. Inadequate design criteria in place for igloo structures on BMA sites. Deficiencies were found in the processes related to the design, execution, MoC, and sign-off of structures onsite that are not owned by BMA.

Codes 109 - Procedures
102 - Design

Task/environment conditions

Igloo structures have gradually increased in size over the years. This has potentially led to absent, deficient, or redundant load paths. Structures not designed and/or constructed to Australian Standards which is a nominated (basic) design windspeed of 45m/s/162km/h (being V500 for Region A4). JJ Richards structure did not have any design documentation available, or an MoC signed off. Thiess Igloo Structure was RPEQ certified even though the subsequent modelling identified the design was not compliant to Australian standards. Weather expert concluded that the severe weather event at PDM showed characteristics of a microburst which are highly localized downdrafts within thunderstorms, that quickly increase and then decrease. This means that observed wind gusts at nearby locations can be substantially different and more often than not, microbursts go undetected because of the low density of weather stations away from major population centers in Australia. Weatherzone data supports this as it shows the storm intensified substantially in a small area when passing over PDM Igloos have been classified as workshops and therefore are considered safe zones to continue working in during severe weather events. The loss of the roof cover on the Thiess Igloo structure increased the wind loads applied to the structure. There is no clear requirement for a BMA Engineering project to be initiated for structures built pursuant to a Production contract. (BMA engineering projects involve a robust review of design and construction requirements against BMA standards).

Codes 304 - Equipment design/construction
315 - Wind/turbulence

Individual/team actions

Codes 202 - Awareness

Thiess personnel remained in the Thiess Igloo Structure as this was believed to be a safe zone. Note: personnel believed the other two structures were designated safe zones also.

Absent or failed defences

Codes 405 - Inappropriate/inadequate safety features
401 - Design defects

Thiess Igloo Structure: Independent engineering report identified that either a roof bracing member(s) or connection failed, or a truss arch buckled, or both. These items exhibit theoretical failure loads at wind speeds of approximately 16 and 30 m/s which is below the Australian standard. NMS Igloo Structure: Independent engineering report concluded that the primary structural members were code compliant for the design wind loads, however the structural support systems were found to be deficient. The ICAM Team have concerns around the assumptions used and are obtaining a further engineering review to verify this conclusion. JJ Richards Shed: Independent engineering report identified that the columns were found to have a utilization of approximately 70% to 110%. Similarly, rafters were found to have utilization ratios in the range 30% to 210%.

Preventative action

25 Give details of any control measures/actions being considered and/or implemented to prevent recurrences

a) Review windspeed data within the region, and previously provided external reports, to risk assess and evaluate whether existing controls (Australian Standards, BMA Design Criteria) are effective. b) Update the BMA engineering standard to include requirements for all new igloo/dome/large span shade style structures, including the requirement for: - Specific design limits (i.e. height, span, location, design life) that are supported by structural modelling data. - Blueprint information. - The level of modelling, engineering due diligence and sign off. - The wind loading limits c) Update operational engineering standards and relevant documentation across BMA sites to reflect the design limits that have been developed for new igloo/dome/large span shade style structures. a) Develop an engineering assessment criteria (that incorporates data from the Igloo structure engineering assessments conducted for the PDM structures involved in the Nov2020 severe weather event) which can be used to visually assess all igloo/dome/large span shade style structures. b) Complete a more detailed engineering review of the NMS igloo structure with SIE and incorporate findings into criteria. c) Assess all igloo/dome/large span shade style structures across all BMA operational sites against the set criteria to identify if controls need to be introduced to eliminate or restrict the use of these structures.

Date: 24/02/2021

Your full name: sch4p4(6) Persc

Position: Site Systems

Email: sch4p4(6) Persc@bhp.com

Office use

Inspector/inspection officer: _____

Signed: _____

Entered by: _____

User IP address: 172.18.4.56

User agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.182 Safari/537.36 Edg/88.0.705.74

Email address: sch4p4(6) Person@bhp.com

Submitted Date/Time: 24/02/2021 14:06:57

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Date : 14/12/2020 12:10:49 PM

From : "SCULLY Michael"

To : sch4p4(6) Personal information @bhp.com

Cc : sch4p4(6) Personal information bhp.com

Subject : RE: Severe Weather ICAM

Attachment : image002.png;image003.png;

sch4p4(6)

As per our conversation I am happy to support postponing your report on the severe weather event until 5 February 2021. I believe that it is in the best interest of the industry to take a little extra time and come up with a quality report.



Regards

Mick Scully Inspector of Mines at Resources Safety & Health Queensland.

Mobile: sch4p4(6) Personal information

Email: Michael.scully@rshq.qld.gov.au

Address: Level 5, 44 Nelson Street, Mackay, Queensland, 4740

Note: To contact the Weekend Duty Officer, Please phone 1300882096

From: sch4p4(6) Personal information @bhp.com>

Sent: Monday, 14 December 2020 11:13 AM

To: SCULLY Michael

Cc: sch4p4(6) Personal information

Subject: Severe Weather ICAM

Mick

To our brief conversation this morning.

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Regards

sch4p4(6)

From: sch4p4(6) Personal information

Sent: Friday, 20 November 2020 4:40 PM

To: SCULLY Michael <Michael.Scully@rshq.qld.gov.au>

Cc: sch4p4(6) Personal information @bhp.com>

Subject: RE: Inspection

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- construction conformance to design
- etc

regards

[redacted]

From: SCULLY Michael <Michael.Scully@rshq.qld.gov.au>
Sent: Monday, 16 November 2020 12:12 PM
To: [redacted] Personal information <[\[redacted\]@bhp.com](mailto:[redacted]@bhp.com)>
Subject: Inspection

[redacted]

As per our conversation this morning I will visit Peak Downs on Wednesday 18th November, I expect to arrive at around 9:00am.



Regards

Mick Scully *Inspector of Mines at Resources Safety & Health Queensland.*

Mobile: [redacted]

Email: Michael.scully@rshq.qld.gov.au

Address: Level 5, 44 Nelson Street, Mackay, Queensland, 4740

Note: *To contact the Weekend Duty Officer, Please phone 1300882096*

***** Disclaimer *****

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Date : 14/12/2020 11:12:33 AM

From : [redacted] Personal information <[redacted]@bhp.com>

To : "SCULLY Michael" Michael.Scully@rshq.qld.gov.au

Cc : [redacted] Personal information <[redacted]@bhp.com>

Subject : Severe Weather ICAM

Attachment : image001.png;

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Published on RSHQ Disclosure Log
RTI Act 2009

Date : 27/11/2020 1:17:55 PM
From : "SCULLY Michael"
To : "SCULLY Michael" Michael.Scully@rshq.qld.gov.au
Subject : Tyre bay igloo
Attachment : IMG_1031.jpg;IMG_1033.jpg;IMG_1032.jpg;







Sent from my iPhone

Date : 27/11/2020 1:17:06 PM

From : "LOGAN Anthony"

To : "SCULLY Michael" Michael.Scully@rshq.qld.gov.au, [sch4p4(6) Personal information] @bhpbilliton.com)"

[sch4p4(6) Personal information]@bhpbilliton.com

Cc : "KAHL Theo" Theo.Kahl@rshq.qld.gov.au, [sch4p4(6) Personal information]

[sch4p4(6) Personal information]@BHPBilliton.com

Subject : RE: STRUCTURAL DESIGN ACTIONS

Attachment : image003.png;image004.png;image005.jpg;

You may also wish to refer to the WA Resources Safety – Mines Safety Bulletin No 140; issued 27 March 2017.

Anthony Logan

Senior Inspector of Mines (Mechanical)

Resources Safety & Health Queensland

E anthony.logan@rshq.qld.gov.au

P 07 3199 8013

M [sch4p4(6) Personal information]

A Level 19, 275 George Street, Brisbane QLD 400 | PO Box 15216 City East, QLD, 4002

W www.rshq.qld.gov.au



Resources Safety & Health
Queensland

ZERO SERIOUS HARM

From: SCULLY Michael <Michael.Scully@rshq.qld.gov.au>

Sent: Friday, 27 November 2020 1:12 PM

To [sch4p4(6) Personal information]@bhpbilliton.com)

Cc: KAHL Theo; LOGAN Anthony; [sch4p4(6) Personal information]

Subject: FW: STRUCTURAL DESIGN ACTIONS

[sch4p4(6) Personal information]

This may be of some assistance



Regards

Mick Scully Inspector of Mines at Resources Safety & Health Queensland.

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Email: Michael.scully@rshq.qld.gov.au

Address: Level 5, 44 Nelson Street, Mackay, Queensland, 4740

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From: KAHL Theo <Theo.Kahl@rshq.qld.gov.au>

Sent: Friday, 27 November 2020 12:58 PM

To: SCULLY Michael

Subject: STRUCTURAL DESIGN ACTIONS

Mick

Thanks for your query.

The AS/NZS 1170 series 'Structural design actions' provide information about design considerations:

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- Part 1 Permanent, imposed & other
- Part 2 Wind
- Part 3 Snow & ice
- Part 4 Earthquakes (Aus)
- Part 5 Earthquakes (NZ)

The attached safety bulletin has further references at the bottom that may also be useful.

I hope that helps. Let me know if you need anything else.

Best regards



Theo Kahl
Inspector of Mines
M: [sch4p4(6) Per]
A : 25 Yeppoon Rd, Parkhurst | PO Box 3221, Red Hill, 4701
W: www.rshq.qld.gov.au

Published on RSHQ Disclosure Log
RTI Act 2009

Date : 27/11/2020 1:16:59 PM
From : "SCULLY Michael"
To : "SCULLY Michael" Michael.Scully@rshq.qld.gov.au
Subject : Big igloo
Attachment : IMG_1098.jpg;IMG_1050.JPG;IMG_1030.jpg;IMG_1028.jpg;IMG_1018.JPG;











Sent from my iPhone

Date : 27/11/2020 1:15:23 PM
From : "SCULLY Michael"
To : "SCULLY Michael" Michael.Scully@rshq.qld.gov.au
Subject : Nms igloo
Attachment : IMG_1108.jpg;IMG_1107.jpg;IMG_1106.jpg;IMG_1105.jpg;IMG_1104.jpg;











Sent from my iPhone

Date : 27/11/2020 1:12:10 PM

From : "SCULLY Michael"

To : sch4p4(6) Personal information bhpbilliton.com sch4p4(6) Personal information bhpbilliton.com

Cc : "KAHL Theo" Theo.Kahl@rshq.qld.gov.au, "LOGAN Anthony" Anthony.Logan@rshq.qld.gov.au, sch4p4(6) Personal information @BHPBilliton.com

Subject : FW: STRUCTURAL DESIGN ACTIONS

Attachment : Safety bulletin 177 Anchoring of temporary building structures_JK.pdf;image001.png;image002.jpg;

sch4p4(6) f

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Anchoring of temporary building structures

Mines safety bulletin no. 177 | 21 December 2018

What happened?

Reported mine site incidents, where anchoring of temporary and other building structures has been insufficient to withstand strong winds, include the following:

1. An igloo structure was destroyed when the shipping container duckbill earth anchors pulled from the ground during high winds (see figures 2 and 3).
2. An igloo structure was destroyed when the anchor chains broke (see figures 4 and 5).
3. In 2007 at a Western Australian mine, two people were killed when the tie-downs for the dongas they were in failed during a cyclone.
4. A product coal radial stacker broke its anchoring chains during a storm, resulting in the stacker moving and impacting a concrete bollard.

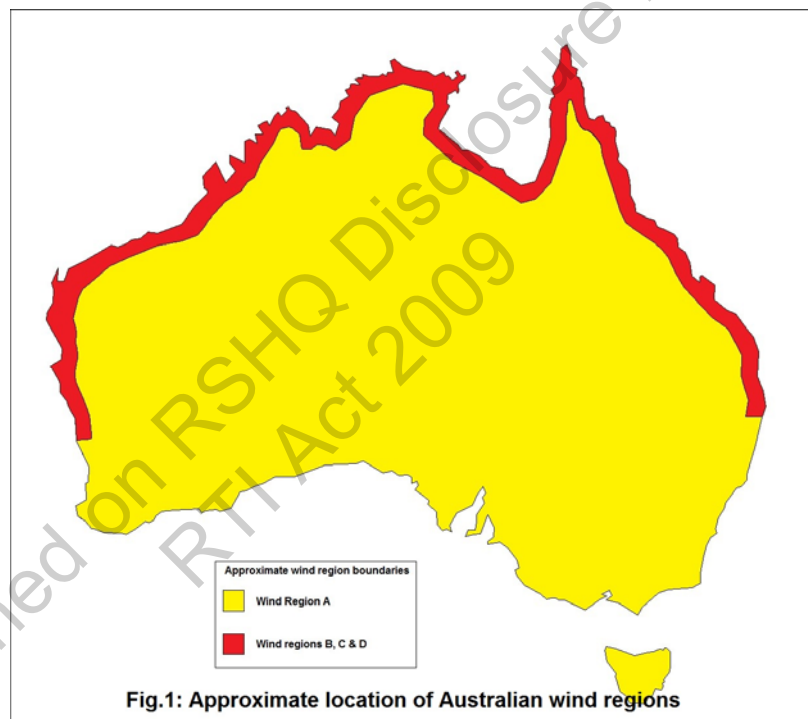
Comments

In Australia, structural designs for wind resistance are often based on the wind region maps provided in AS/NZS 1170 Part 2 Structural design actions – Wind actions.

Figure 1 shows the approximate boundaries for these regions.

The map indicates that most of inland Australia lies within Region A, an area of lower expected wind velocities.

For at least some of these incidents, anchoring designs were made in accordance with the standard and for the region they were in.



Incidents 1, 2, and 4 occurred within Region A where structural requirements were lower. According to the coroner's report, incident 3 occurred in Region C, but near the boundary with Region A (note that the version of AS/NZS 1170.2 current at that time did not include a Region B in this area).

The above shows that stronger than expected winds can and do occur within Region A. Structures designed for this region may fail under the actual wind conditions. High wind speeds in Region A originate from storm cells, cyclones, tornadoes or other weather systems. Climate change may play a role too.

Recommendations

- Assess the risks associated with winds that are higher than predicted for the region containing the mine.
- Tie-downs and anchors should be designed by a suitably qualified and competent person, who should consider all relevant conditions the structure may be subject to.
- Measures should be in place to ensure the actual installation conforms to the design.

Authorised by Chief Inspector of Mines | Luca Rocchi

Further information contact: Theo Kahl, Inspector of Mines, +61 7 4936 0127

Place alert on noticeboards and ensure relevant people in your organisation receive a copy.

See more safety alerts and bulletins at <http://dnrme.qld.gov.au/>

And the hazard database at <https://www.business.qld.gov.au/industry/mining/safety-health/mining-safety-health/mining-hazards/hazards>

© State of Queensland, Department of Natural Resources, Mines and Energy, 2018.

Version 1, 21 December 2018

Follow our updates on



- Tie-downs made from steel rope are typically four times stronger than chains of the same cross-sectional area. Lifting chains may have higher strength than general purpose chains.
- Duckbill earth anchors should be appropriately rated and installed to the correct depth for the compaction and soil type. Holding capacity of different soils can vary substantially and may also change with moisture content e.g. after rain events.
- Anchors and tie-down materials should be chosen for their corrosion resistance to their environment, especially if it is soil or a corrosive atmosphere.
- Typically, increases in cost or effort to provide anchoring systems to better withstand wind velocities higher than predicted by the wind region map, are negligible.
- More comprehensive references than this safety bulletin need to be considered, and include:
 - [Foundations and Tie-Downs for Portable Buildings; NSW Government; 22 July 2015](#)
 - AS/NZS 1170 Part 2; Structural design actions – Wind actions
 - [Temporary Structures Standard; Australian Building Codes Board \(ABCB\)](#)
 - Queensland Department of Natural Resources, Mines and Energy weather-related [Safety bulletins](#), (e.g. #175, #169, #157, #137, #126, #114 and #102)
 - Coroner's Report: [Inquest into the deaths of Debra Till \(1103/07\) and Craig Allan Raabe \(211/07\); Ref 45/14; Western Australia.](#)



Fig.2: Igloo damaged when duckbills pulled from ground by high wind



Fig.3: Duckbill - note corroded anchoring rope



Fig.4: Igloo destroyed due to failed anchoring chains



Fig.5: Failed anchoring chain

Date : 23/11/2020 12:27:57 PM

From : sch4p4(6) Personal information@gmail.com

To : "SCULLY Michael" Michael.Scully@rshq.qld.gov.au

Subject : Re: Weatherzone

Attachment : IMG_6696.jpg;

'Apparently' this was German Creek - Capcoal on the same day? Are you aware of this one as well?

sch4p4(6)

SSHR - PDM

sch4p4(6) Personal information



On Mon, 23 Nov 2020 at 6:42 am, sch4p4(6) Personal information@gmail.com wrote:

Extra Info:

From University of QLD. Paper on Microbursts. They have done all the vectoring analysis. I believe there may be a relationship between terminal velocity and wind speeds from microbursts - 195km/h about 56m/s. Some modelling shows why certain areas under a microburst are more affected than others.

<https://espace.library.uq.edu.au/view/UQ:8945/ES-downburst.pdf>

Several other papers on wind modelling:

<https://www.researchgate.net/scientific-contributions/MT-Chay-215201>

Department of Civil Engineering, University of Queensland, St Lucia Queensland 4072, Australia ^ Department of Mathematics, University of Queensland, St Lucia Queensland 4072, Australia *Corresponding Author: email sch4p4@uq.edu.au fax+61 7 3365 4599

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Peak Downs Mine

sch4p4(6) Per

Weatherzone

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SSHR

Peak Downs Mine

[sch4p4\(6\) Pe](#)

Weatherzone

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Attachment : Mining-Dashboard-Weather-Portal2.webm;

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Published on RSHQ Disclosure Log
RTI Act 2009

Date : 18/11/2020 9:29:42 AM

From : [sch4p4(6) Personal information] bhp.com

To : "SCULLY Michael" Michael.Scully@rshq.qld.gov.au

Subject : FW: Safety Alert

Attachment : Severe Weather (005).pdf;image2ce2a4.GIF;

From: [sch4p4(6) Pers]@cfmeuqld.asn.au>

Sent: Tuesday, 17 November 2020 3:31 PM

Subject: Safety Alert

All please attached a safety alert for your attention.

Yours in Safety

[sch4p4]

[sch4p4(6) F]
Industry Safety and Health
Representative
CFMEU - Mining & Energy Division Qld
District

P: [sch4p4(6) Pers]

M:

F: 07 4922 7105

E: [sch4p]@cfmeuqld.asn.au

W: www.cfmeuqld.asn.au

Office Location:

Level 5/156 Bolsover Street,
Rockhampton QLD 4700

Postal Address:

PO Box 2093 Wandal QLD 4700



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**Construction, Forestry,
Mining & Energy Union**
Mining and Energy Division
Queensland District Branch
ABN 73 089 711 903

Brisbane

P.O. Box 508, Spring Hill Qld 4004
Level 2, 61 Bowen Street, Spring Hill 4000
P 07 3839 8588 F 07 3839 8404

INDUSTRY SAFETY AND HEALTH REPRESENTATIVES

SAFETY ALERT

Severe Weather.

16th November 2020

Due to recent events and the time of year it is imperative to remind mines of the hazards severe weather can cause

Site Seniors Executives must ensure that Coal Mine Workers are not exposed to unacceptable level of risk posed by a severe weather event.

In consultation with affected Coal Mine Workers the SSE needs to;

- Audit all portable and non-permanent structures to ensure they are designed and build to the required standards to ensure that the structures can endure any possible weather event.
- Every effort must be taken to ensure that any structure that cannot endure any possible weather is rectified to ensure they can withstand any possible weather event.
- Any structure that cannot endure any possible weather event must not be used as a designated place of safety.
- Exclusion zones need to be established for all structures that present as or could possibly create a hazard in a weather event.
- All Coal Mine workers need to be trained in designated places of safety
- All designated places of safety need to signed posted.

Blackwater

45 Arthur Street
Blackwater Qld 4717

P 07 4982 5131
F 07 4982 6325

Dysart

Shop 24B Garden Plaza
Shannon Crescent
Dysart Qld 4745

P 07 4958 2318
F 07 4950 0065

Mackay

33 Milton Street
Mackay Qld 4740

P 07 4957 2644
F 07 4951 3241

Moranbah

Cnr Mills Avenue &
Bacon Street
Moranbah Qld 4744

P 07 4941 7004
F 07 4941 5269

Rockhampton

Level 5/156 Bolsover Street
Rockhampton Qld 4700

P 07 4922 7100
F 07 4922 7105

- SSE needs to implement/review the trigger action response plan to ensure that all persons have adequate time to evacuate to a designated place of safety.
- The site senior executive (SSE) is required by law to conduct a risk assessment to identify potential emergency situations caused by severe weather.
- Ensure system for accounting for all persons at the mine are in place, and the system providers redundancies if the electronic systems fail.
- Ensure the mines has system that captures all persons location at anyone time.
- Review the emergency response systems to ensure that the SHMS is adequate and effective in managing emergencies associated with weather events, including redundancies for loss of power, e.g. how can any injured persons be treated on site.

**SAFETY IS NOT
FREE**

STAND UP. SPEAK OUT. COME HOME.

sch4p4(6) Per

Industry Safety and Health Representative

C.F.M.E.U Mining and Energy Division

Phone: 0749 227 100

Mobile: sch4p4(6) Personal

Fax: 0749 227 105

sch4p4@cfmeuqld.asn.au

Date : 16/11/2020 10:12:06 AM

From : [redacted]@bhp.com

To : [redacted]@bhp.com, [redacted]@bhp.com, "BRENNAN Keith"

Keith.Brennan@rshq.qld.gov.au, [redacted]@cfmeuqld.asn.au

Cc : [redacted]@bhp.com, [redacted]@bhp.com, [redacted]

[redacted]@bhp.com, "DL-COL-BMA-PDM-Mine Record Administration" DL-MEC-BMA-PDM-

MineRecordAdministration@bhp.com, [redacted]@bhp.com, [redacted]@thiess.com.au,

[redacted]@thiess.com.au, [redacted]@thiess.com.au, [redacted]

[redacted]@nationalmining.com.au

Subject : 1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine_v3

Attachment : 1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine_v3.pdf;image001.png;

Good morning Keith,

Please find attached the updated 1A form for the severe weather HPI that occurred on Friday the 13th of November resulting in damage to infrastructure at Peak Downs Mine.

Regards,

[redacted]

Prestrip Contracts Superintendent
Peak Downs Mine

BHP Billiton Mitsubishi Alliance

Peak Downs Mine, Moranbah QLD, 4744, Australia

Mobile: [redacted]

Email: [redacted]@bhp.com



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Published on RTI Act 2009 Disclosure Log

PDM FRM Notice of Confirmation to the Mines Inspector and Industry Safety & Health Representative of High Potential Incident or Serious Accident

**NOTICE OF CONFIRMATION
TO THE MINES INSPECTORATE OF A COAL MINE
HIGH POTENTIAL INCIDENT, SERIOUS ACCIDENT OR DISEASE**

MINE PEAK DOWNS MINE	DATE 13/11/2020
This notice* is made by or on behalf of the SSE primarily** pursuant to section 198(4) or (5) of the CSMHA to confirm the initial oral report to an inspector and an ISHR. It is also used to report prescribed diseases pursuant to section 198(6) of the CSMHA.	
NOTE: * Notice required within 48 hours or 24 hours in the case of a fatality: ** Also serves to report "Non-Reportable Incidents"	

SECTION 1 INITIAL ORAL REPORT		
Made By <input type="text" value="sch4p4(6) Person"/>	Company Position Superintendent Production	Phone <input type="text" value="sch4p4(6) Pers"/>
Made To Keith Brennan	Time 18:26	Date 13/11/2020
Made To <input type="text" value="sch4p4(6) Person"/>	Time 20:05	Date 13/11/2020
Made To <input type="text" value="sch4p4(6) Personal information"/>	Time 17:55	Date 13/11/2020

SECTION 2 SERIOUS ACCIDENT	
Is this a SERIOUS ACCIDENT:	NO
NOTE 1	Act s16: A SERIOUS ACCIDENT is one that causes (a) death or (b) a person to be admitted to hospital as an in-patient for treatment of the injury. Also by definition it is a HPI
NOTE 2	While not included in the definition of SERIOUS ACCIDENT, Act s198 (2) (iii) requires immediate notification of an accident "that causes a person to suffer an injury, causing or likely to cause, a permanent injury to a person's safety or health". (This is also a HPI as defined by Act s.17)
NOTE 3	Schedule 9 of the Regulation defines SERIOUS BODILY INJURY as an "injury endangering, or likely to endanger, life or causing, or likely to cause, a permanent injury to health" of a person.

SECTION 3 PRESCRIBED HPI TYPE BEING REPORTED	
SCHEDULE 1C Act 198(2b)	10o A structural failure of equipment that endangers the safety and health of a person. Sh2 Part 1(7) & 2(10)
SCHEDULE 2 Part 1 Act 200(1)	Choose an item. Must not interfere with site without inspectorate permission
SCHEDULE 2 Part 2 Act 201(1c)	Choose an item. Investigation Report to an inspector within 1 month.
NOTE 1	Some HPI types in Schedule 1C also qualify as types in Schedule 2, Part 1 and/or Part 2. See details on reverse of this form

SECTION 4 NON PRESCRIBED HPI OR NON REPORTABLE INCIDENT NRI	
NON PRESCRIBED HPI <input type="checkbox"/>	Where a "match" cannot be made to the Schedule 1C but the event is a HPI as defined by CSMHA section 17
NON REPORTABLE INCIDENT (NRI) <input type="checkbox"/>	Where the incident is significant and has a safety "message" to share with industry
NOTE	Act s17 HPI "an event, or a series of events, that causes or has the potential to cause a significant adverse effect on the safety or health of a person"

SECTION 5 REPORTABLE DISEASE SCHEDULE 1								
Chronic obstructive pulmonary disease	<input type="checkbox"/>	Coal workers' pneumoconiosis	<input type="checkbox"/>	Legionellosis	<input type="checkbox"/>	Silicosis	<input type="checkbox"/>	Other
NOTE 1	To be reportable, the disease must have been contracted by a current or former coal mine worker who was exposed to dust/agent and has had the diagnosis confirmed by a nominated medical adviser or another doctor							
NOTE 2	Tick relevant box above (no further disease information is required on this form)							

SECTION 6 DETAILS OF THE EVENT	
NOTE Information provided in this section includes the "Primary Information" required by s.198(3) of the Act	CONCISE DESCRIPTION OF THE NATURE OF THE EVENT (put all other information in the "Other information/details" field below)

PDM FRM Notice of Confirmation to the Mines Inspector and Industry Safety & Health Representative of High Potential Incident or Serious Accident

At approximately 05:00pm on the 13th of November 2020 a severe weather event passed through the mine involving high wind gusts, hail and rain of significant strength around the 2 South area. The event resulted in the structural failure of the 2 South Thiess workshop collapsing the structure. Damage was also observed on the Thiess Tyre workshop that lost the roof sheeting. The National Mining workshop was also affected, sustaining structural damage to the roof. Upon further inspection damage was observed at stub line 52 where two poles were laid over obstructing the Air Brake Switch. The powerline was isolated, wires cut off and stubline was deenergised. The roof was lost from the CHPP Motor Control Unit exposing the electrical room to the elements. The JJ Richards shed was also blown over resulting in structural failure of the entire shed. In addition superficial damage was observed at the Prestrip Trucks shop. Fencing, signage and trees were blown over near the MIA and around 2 South. Persons were in a safe location during the event and no injuries were sustained. Post event emergency was initiated, OCE inspected the areas and scenes were secured. Personnel were evacuated from the location. Inspections were postponed until daylight. It was later determined that ESA employee was taking cover underneath the body of a CAT 797 when the Thiess workshop collapsed. The other fitters were taking cover in the container style office adjacent to the workshop.

DATE 13/11/2020		TIME ~17:00		LOCATION 2South Thiess and National Mining Workshops			
EQUIPMENT INVOLVED			DAMAGE Structural Damage to Infrastructure				
ENVIRONMENTAL CONDITIONS		Light <input checked="" type="checkbox"/>	Dark <input type="checkbox"/>	Sunny <input type="checkbox"/>	Wet <input checked="" type="checkbox"/>	Dry <input type="checkbox"/>	Windy <input checked="" type="checkbox"/>
PERSONS INVOLVED		Number 0	Employee <input type="checkbox"/>	Contractor <input checked="" type="checkbox"/>	Labour Hire <input type="checkbox"/>	Visitor <input type="checkbox"/>	
NAME(S) OF DECEASED				TYPE DEATH		NATURAL <input type="checkbox"/>	ACCIDENT <input type="checkbox"/>
NAME(S) OF PERSONS INJURED			INJURIES		EMPLOYER (Contractor where applicable)		
			NIL		NA		
NAMES OF ANYONE WHO SAW THE INCIDENT OR WERE PRESENT AT THE TIME AND IF NO WITNESSES, NAME OF PERSON FINDING THE INCIDENT			NAME		EMPLOYER (Contractor where applicable)		
			sch4p4(6) P		ESA		
OTHER INFORMATION/DETAIL							







Thiess Workshop





National Mining Workshop

Published under RTI Access



JJ Richards Shed

Published under RTIA 2010

Date : 14/11/2020 2:09:33 PM

From : "BRENNAN Keith"

To : "DJUKIC Fritz" Fritz.Djukic@rshq.qld.gov.au

Cc : "NEWMAN Peter" Peter.Newman@rshq.qld.gov.au, "SMITH Stephen (Mining Inspector)" Stephen.Smith@rshq.qld.gov.au,

"BULGER Creswick" Creswick.Bulger@rshq.qld.gov.au, "LOGAN Anthony" Anthony.Logan@rshq.qld.gov.au

Subject : RE: 1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine_v2

Attachment : image001.png;

Fritz

Nothing is happening out there at the moment, maybe clean up but nothing with Igloos

Regards

Keith Brennan

Inspector of Coal Mines North Region
Resources Safety & Health Queensland

E Keith.Brennan@rshq.qld.gov.au

P 07 4999 8503

M [sch4p4\(6\) Pe](#)

A Level 5, 44 Nelson Street, Mackay QLD 4740 | PO Box 1801, Mackay QLD, 4002

W www.rshq.qld.gov.au



Resources Safety & Health
Queensland

ZERO SERIOUS HARM

From: DJUKIC Fritz <Fritz.Djukic@rshq.qld.gov.au>

Sent: Saturday, 14 November 2020 2:04 PM

To: BRENNAN Keith

Cc: NEWMAN Peter; SMITH Stephen (Mining Inspector); BULGER Creswick; LOGAN Anthony

Subject: Re: 1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine_v2

Hi Cres and Anthony,

Is it possible to divert Theo to Peak Down's next week. I am not sure of his commitments.

He may be best placed to follow up on this.

I don't believe we need to send him out this weekend. It's more to monitor/ keep updated mines investigation.

The problem with quarantining site is that there may be further storms expected today?

Thoughts

FRitz

Sent from my iPhone

On 14 Nov 2020, at 1:51 pm, BRENNAN Keith <Keith.Breman@rshq.qld.gov.au> wrote:

Gents

Additional photos in second 1A

Regards

Keith Brennan

Inspector of Coal Mines North Region
Resources Safety & Health Queensland

E Keith.Brennan@rshq.qld.gov.au

P 07 4999 8503

M [sch4p4\(6\) Pe](#)

A Level 5, 44 Nelson Street, Mackay QLD 4740 | PO Box 1801, Mackay QLD, 4002

From: [sch4p4(6) Personal information] <[redacted]@bhp.com>

Sent: Saturday, 14 November 2020 11:14 AM

To: [sch4p4(6) Personal information] BRENNAN Keith; [sch4p4(6) Personal information]

Cc: [sch4p4(6) Personal information] DL-COL-BMA-PDM-Mine Record Administration; [sch4p4(6) Personal information] [sch4p4(6) Personal information]

Subject: 1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine_v2

Good morning Keith,

Please find attached the updated 1A form for the severe weather HPI that occurred yesterday afternoon resulting in damage to infrastructure at Peak Downs Mine.

Regards,

[sch4p4(6) Personal information]

Manager Production Overburden - Acting

Peak Downs Mine

BHP Billiton Mitsubishi Alliance

Peak Downs Mine, Moranbah QLD, 4744, Australia

Mobile: [sch4p4(6) Personal information]

Email: [sch4p4(6) Personal information]

From: [sch4p4(6) Personal information]

Sent: Friday, 13 November 2020 8:57 PM

To: [sch4p4(6) Personal information] <[redacted]@bhp.com>; [sch4p4(6) Personal information] <[redacted]@bhp.com>; BRENNAN Keith <Keith.Brennan@dnrme.qld.gov.au>; [sch4p4(6) Personal information] <[redacted]@cfmeuqld.asn.au>

Cc: [sch4p4(6) Personal information] <[redacted]@bhp.com>; [sch4p4(6) Personal information] <[redacted]@bhp.com>; [sch4p4(6) Personal information] <[redacted]@bhp.com>; DL-COL-BMA-PDM-Mine Record Administration <DL-MEC-BMA-PDM-MineRecordAdministration@bhp.com>; [sch4p4(6) Personal information] <[redacted]@bhp.com>; [sch4p4(6) Personal information] <[redacted]@thiess.com.au>; [sch4p4(6) Personal information] <[redacted]@thiess.com.au>; [sch4p4(6) Personal information] <[redacted]@com.au>; [sch4p4(6) Personal information] <[redacted]@nationalmining.com.au>; [sch4p4(6) Personal information] <[redacted]@bhp.com>

Subject: 1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine

Good evening Keith,

Please find attached the 1A form for the HPI resulting from a severe wet weather event causing the structural failure of the Thiess workshop and structural damage to the National Mining workshop.

Regards,

[sch4p4(6) Personal information]

Manager Production Overburden - Acting

Peak Downs Mine

BHP Billiton Mitsubishi Alliance

Peak Downs Mine, Moranbah QLD, 4744, Australia

Mobile: [sch4p4(6) Personal information]

Email: [sch4p4(6) Personal information]

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<1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine_v2.pdf>

Date : 14/11/2020 11:13:38 AM

From : [redacted]@bhp.com

To : [redacted]@bhp.com, [redacted]@bhp.com, "BRENNAN Keith"

Keith.Brennan@rshq.qld.gov.au, [redacted]@cfmeuqld.asn.au

Cc : [redacted]@bhp.com, [redacted]@bhp.com, [redacted] Persona

[redacted]@bhp.com, "DL-COL-BMA-PDM-Mine Record Administration" DL-MEC-BMA-PDM-

MineRecordAdministration@bhp.com, [redacted]@bhp.com, [redacted]@thiess.com.au,

[redacted]@thiess.com.au, [redacted]@thiess.com.au, [redacted] Personal in

[redacted]@nationalmining.com.au, [redacted]@bhp.com

Subject : 1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine_v2

Attachment : 1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine_v2.pdf;image001.png;

Good morning Keith,

Please find attached the updated 1A form for the severe weather HPI that occurred yesterday afternoon resulting in damage to infrastructure at Peak Downs Mine.

Regards,

[redacted] Pers

Manager Production Overburden - Acting
Peak Downs Mine

BHP Billiton Mitsubishi Alliance

Peak Downs Mine, Moranbah QLD, 4744, Australia

Mobile: [redacted] Perso

Email: [redacted]@bhp.com



From: [redacted] Personal infor

Sent: Friday, 13 November 2020 8:57 PM

To: [redacted]@bhp.com>; [redacted]@bhp.com>; BRENNAN Keith <Keith.Brennan@dnrme.qld.gov.au>; [redacted]@cfmeuqld.asn.au' [redacted]@cfmeuqld.asn.au>

Cc: [redacted]@bhp.com>; [redacted]@bhp.com>; [redacted]@bhp.com>; DL-COL-BMA-PDM-Mine Record Administration <DL-MEC-BMA-PDM-MineRecordAdministration@bhp.com>; [redacted] Persona [redacted]@bhp.com>; [redacted]@thiess.com.au>; [redacted]@thiess.com.au>; [redacted] Person [redacted]@thiess.com.au>; [redacted]@nationalmining.com.au>; [redacted]@bhp.com>

Subject: 1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine

Good evening Keith,

Please find attached the 1A form for the HPI resulting from a severe wet weather event causing the structural failure of the Thiess workshop and structural damage to the National Mining workshop.

Regards,

[redacted] Per

Manager Production Overburden - Acting
Peak Downs Mine

BHP Billiton Mitsubishi Alliance

Peak Downs Mine, Moranbah QLD, 4744, Australia

Mobile: [redacted] Person

Email: [redacted]@bhp.com



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PDM FRM Notice of Confirmation to the Mines Inspector and Industry Safety & Health Representative of High Potential Incident or Serious Accident

**NOTICE OF CONFIRMATION
TO THE MINES INSPECTORATE OF A COAL MINE
HIGH POTENTIAL INCIDENT, SERIOUS ACCIDENT OR DISEASE**

MINE PEAK DOWNS MINE	DATE 13/11/2020
This notice* is made by or on behalf of the SSE primarily** pursuant to section 198(4) or (5) of the CSMHA to confirm the initial oral report to an inspector and an ISHR. It is also used to report prescribed diseases pursuant to section 198(6) of the CSMHA.	
NOTE: * Notice required within 48 hours or 24 hours in the case of a fatality: ** Also serves to report "Non-Reportable Incidents"	

SECTION 1 INITIAL ORAL REPORT		
Made By sch4p4(6) Perso	Company Position Superintendent Production	Phone sch4p4(6) Pers
Made To Keith Brennan	Time 18:26	Date 13/11/2020
Made To sch4p4(6) Person	Time 20:05	Date 13/11/2020
Made To sch4p4(6) Personal information	Time 17:55	Date 13/11/2020

SECTION 2 SERIOUS ACCIDENT	
Is this a SERIOUS ACCIDENT:	NO
NOTE 1	Act s16: A SERIOUS ACCIDENT is one that causes (a) death or (b) a person to be admitted to hospital as an in-patient for treatment of the injury. Also by definition it is a HPI
NOTE 2	While not included in the definition of SERIOUS ACCIDENT, Act s198 (2) (iii) requires immediate notification of an accident "that causes a person to suffer an injury, causing or likely to cause, a permanent injury to a person's safety or health". (This is also a HPI as defined by Act s.17)
NOTE 3	Schedule 9 of the Regulation defines SERIOUS BODILY INJURY as an "injury endangering, or likely to endanger, life or causing, or likely to cause, a permanent injury to health" of a person.

SECTION 3 PRESCRIBED HPI TYPE BEING REPORTED	
SCHEDULE 1C Act 198(2b)	10o A structural failure of equipment that endangers the safety and health of a person. Sh2 Part 1(7) & 2(10)
SCHEDULE 2 Part 1 Act 200(1)	Choose an item. Must not interfere with site without inspectorate permission
SCHEDULE 2 Part 2 Act 201(1c)	Choose an item. Investigation Report to an inspector within 1 month.
NOTE 1	Some HPI types in Schedule 1C also qualify as types in Schedule 2, Part 1 and/or Part 2. See details on reverse of this form

SECTION 4 NON PRESCRIBED HPI OR NON REPORTABLE INCIDENT NRI	
NON PRESCRIBED HPI <input type="checkbox"/>	Where a "match" cannot be made to the Schedule 1C but the event is a HPI as defined by CSMHA section 17
NON REPORTABLE INCIDENT (NRI) <input type="checkbox"/>	Where the incident is significant and has a safety "message" to share with industry
NOTE	Act s17 HPI "an event, or a series of events, that causes or has the potential to cause a significant adverse effect on the safety or health of a person"

SECTION 5 REPORTABLE DISEASE SCHEDULE 1								
Chronic obstructive pulmonary disease	<input type="checkbox"/>	Coal workers' pneumoconiosis	<input type="checkbox"/>	Legionellosis	<input type="checkbox"/>	Silicosis	<input type="checkbox"/>	Other
NOTE 1	To be reportable, the disease must have been contracted by a current or former coal mine worker who was exposed to dust/agent and has had the diagnosis confirmed by a nominated medical adviser or another doctor							
NOTE 2	Tick relevant box above (no further disease information is required on this form)							

SECTION 6 DETAILS OF THE EVENT	
NOTE	Information provided in this section includes the "Primary Information" required by s.198(3) of the Act
CONCISE DESCRIPTION OF THE NATURE OF THE EVENT (put all other information in the "Other information/details" field below)	
At approximately 05:00pm on the 13 th of November 2020 a severe weather event passed through the mine involving high wind gusts, hail and rain of significant strength around the 2 South area. The event resulted in the structural failure of the 2 South Thieess workshop collapsing the structure. Damage was also observed on the Thieess Tyre workshop that lost the roof sheeting. The National Mining workshop was also affected, sustaining structural damage to the roof. Upon further inspection damage was observed at stub line 52 where two poles were laid over obstructing the Air Brake Switch. The powerline was isolated, wires cut off and stubline was deenergised. The roof was lost from the CHPP Motor Control Unit exposing the electrical room to the elements. The JJ Richards shed was also blown over resulting in structural failure of the entire shed. In addition superficial damage was observed at the Prestrip Trucks shop. Fencing, signage and trees were blown over near the MIA and around 2 South. Persons were in a safe location during the event and no injuries were sustained. Post event emergency was initiated, OCE inspected the areas and scenes were secured. Personnel were evacuated from the location. Inspections were postponed until daylight.	
DATE 13/11/2020	TIME ~17:00 LOCATION 2South Thieess and National Mining Workshops

PDM FRM Notice of Confirmation to the Mines Inspector and Industry Safety & Health Representative of High Potential Incident or Serious Accident

EQUIPMENT INVOLVED			DAMAGE Structural Damage to Infrastructure				
ENVIRONMENTAL CONDITIONS		Light <input checked="" type="checkbox"/>	Dark <input type="checkbox"/>	Sunny <input type="checkbox"/>	Wet <input checked="" type="checkbox"/>	Dry <input type="checkbox"/>	Windy <input checked="" type="checkbox"/>
PERSONS INVOLVED		Number 0	Employee <input type="checkbox"/>	Contractor <input checked="" type="checkbox"/>	Labour Hire <input type="checkbox"/>	Visitor <input type="checkbox"/>	
NAME(S) OF DECEASED			TYPE DEATH		NATURAL <input type="checkbox"/>	ACCIDENT <input type="checkbox"/>	
NAME(S) OF PERSONS INJURED			INJURIES		EMPLOYER (Contractor where applicable)		
			NIL		NA		
NAMES OF ANYONE WHO SAW THE INCIDENT OR WERE PRESENT AT THE TIME AND IF NO WITNESSES, NAME OF PERSON FINDING THE INCIDENT			NAME		EMPLOYER (Contractor where applicable)		
OTHER INFORMATION/DETAIL							





Published & Released Under the RTI Act



Thiess Workshop





National Mining Workshop

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JJ Richards Shed

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Date : 13/11/2020 9:03:02 PM

From : [sch4p4(6) Personal information]@bhp.com

To : "BRENNAN Keith" Keith.Brennan@rshq.qld.gov.au

Cc : [sch4p4(6) Personal information]@bhp.com

Subject : Fwd: 1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine

Attachment : image001.png;1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine.pdf; Keith

I suspect we will need to amend this one as we further inspect the mine and identify further damage to other structures.

I will update you after the full inspection is completed tomorrow.

I have suspended production activity across most of the mine.

Thanks

[sch4p4(6) Personal information]

Begin forwarded message:

From: [sch4p4(6) Personal information]@bhp.com

Date: 13 November 2020 at 8:57:08 pm AEST

To: [sch4p4(6) Personal information]@bhp.com, [sch4p4(6) Personal information]@bhp.com, BRENNAN Keith

<Keith.Brennan@dnrme.qld.gov.au>, [sch4p4(6) Personal information]@cfmeuqld.asn.au

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[sch4p4(6) Personal information]@nationalmining.com.au, [sch4p4(6) Personal information]@bhp.com

Subject: 1A_Form_HPI_Severe Weather Event Causing Damage to Infrastructure_Peak Downs Mine

Good evening Keith,

Please find attached the 1A form for the HPI resulting from a severe wet weather event causing the structural failure of the Thiess workshop and structural damage to the National Mining workshop.

Regards,

[sch4p4(6) Personal information]

Manager Production Overburden - Acting
Peak Downs Mine

BHP Billiton Mitsubishi Alliance

Peak Downs Mine, Moranbah QLD, 4744, Australia

Mobile: [sch4p4(6) Personal information]

Email: [sch4p4(6) Personal information]@bhp.com

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PDM FRM Notice of Confirmation to the Mines Inspector and Industry Safety & Health Representative of High Potential Incident or Serious Accident

**NOTICE OF CONFIRMATION
TO THE MINES INSPECTORATE OF A COAL MINE
HIGH POTENTIAL INCIDENT, SERIOUS ACCIDENT OR DISEASE**

MINE PEAK DOWNS MINE	DATE 13/11/2020
This notice* is made by or on behalf of the SSE primarily** pursuant to section 198(4) or (5) of the CMSHA to confirm the initial oral report to an inspector and an ISHR. It is also used to report prescribed diseases pursuant to section 198(6) of the CMSHA.	
NOTE: * Notice required within 48 hours or 24 hours in the case of a fatality: ** Also serves to report "Non-Reportable Incidents"	

SECTION 1 INITIAL ORAL REPORT		
Made By sch4p4(6) Person	Company Position Superintendent Production	Phone sch4p4(6) Pers
Made To Keith Brennan	Time 18:26	Date 13/11/2020
Made To sch4p4(6) Person	Time 20:05	Date 13/11/2020
Made To sch4p4(6) Personal information	Time 17:55	Date 13/11/2020

SECTION 2 SERIOUS ACCIDENT	
Is this a SERIOUS ACCIDENT:	NO
NOTE 1	Act s16: A SERIOUS ACCIDENT is one that causes (a) death or (b) a person to be admitted to hospital as an in-patient for treatment of the injury. Also by definition it is a HPI
NOTE 2	While not included in the definition of SERIOUS ACCIDENT, Act s198 (2) (iii) requires immediate notification of an accident "that causes a person to suffer an injury, causing or likely to cause, a permanent injury to a person's safety or health". (This is also a HPI as defined by Act s.17)
NOTE 3	Schedule 9 of the Regulation defines SERIOUS BODILY INJURY as an "injury endangering, or likely to endanger, life or causing, or likely to cause, a permanent injury to health" of a person.

SECTION 3 PRESCRIBED HPI TYPE BEING REPORTED	
SCHEDULE 1C Act 198(2b)	10o A structural failure of equipment that endangers the safety and health of a person. Sh2 Part 1(7) & 2(10)
SCHEDULE 2 Part 1 Act 200(1)	Choose an item. Must not interfere with site without inspectorate permission
SCHEDULE 2 Part 2 Act 201(1c)	Choose an item. Investigation Report to an inspector within 1 month.
NOTE 1	Some HPI types in Schedule 1C also qualify as types in Schedule 2, Part 1 and/or Part 2. See details on reverse of this form

SECTION 4 NON PRESCRIBED HPI OR NON REPORTABLE INCIDENT NRI	
NON PRESCRIBED HPI <input type="checkbox"/>	Where a "match" cannot be made to the Schedule 1C but the event is a HPI as defined by CMSHA section 17
NON REPORTABLE INCIDENT (NRI) <input type="checkbox"/>	Where the incident is significant and has a safety "message" to share with industry
NOTE	Act s17 HPI "an event, or a series of events, that causes or has the potential to cause a significant adverse effect on the safety or health of a person"

SECTION 5 REPORTABLE DISEASE SCHEDULE 1								
Chronic obstructive pulmonary disease	<input type="checkbox"/>	Coal workers' pneumoconiosis	<input type="checkbox"/>	Legionellosis	<input type="checkbox"/>	Silicosis	<input type="checkbox"/>	Other
NOTE 1	To be reportable, the disease must have been contracted by a current or former coal mine worker who was exposed to dust/agent and has had the diagnosis confirmed by a nominated medical adviser or another doctor							
NOTE 2	Tick relevant box above (no further disease information is required on this form)							

SECTION 6 DETAILS OF THE EVENT							
NOTE Information provided in this section includes the "Primary Information" required by s.198(3) of the Act							
CONCISE DESCRIPTION OF THE NATURE OF THE EVENT (put all other information in the "Other information/details" field below)							
At approximately 05:00pm on the 13 th of November 2020 a severe weather event passed through the mine involving high wind gusts and rain of significant strength around the 2 South area. The event resulted in the structural failure of the 2 South Thieess workshop collapsing the structure. The National Mining workshop was also affected sustaining structural damage to the roof. Persons were in a safe location during the event and no injuries were sustained. Emergency was initiated, OCE inspected the area and scene was secured. Personnel were evacuated form the location.							
DATE 13/11/2020	TIME ~17:00	LOCATION 2South Thieess and National Mining Workshops					
EQUIPMENT INVOLVED				DAMAGE Structural Damage to Infrastructure			
ENVIRONMENTAL CONDITIONS		Light <input checked="" type="checkbox"/>	Dark <input type="checkbox"/>	Sunny <input type="checkbox"/>	Wet <input checked="" type="checkbox"/>	Dry <input type="checkbox"/>	Windy <input checked="" type="checkbox"/>

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PERSONS INVOLVED	Number 0	Employee <input type="checkbox"/>	Contractor <input checked="" type="checkbox"/>	Labour Hire <input type="checkbox"/>	Visitor <input type="checkbox"/>
NAME(S) OF DECEASED			TYPE DEATH	NATURAL <input type="checkbox"/>	ACCIDENT <input type="checkbox"/>
NAME(S) OF PERSONS INJURED	INJURIES		EMPLOYER (Contractor where applicable)		
	NIL		NA		
NAMES OF ANYONE WHO SAW THE INCIDENT OR WERE PRESENT AT THE TIME AND IF NO WITNESSES, NAME OF PERSON FINDING THE INCIDENT	NAME		EMPLOYER (Contractor where applicable)		
OTHER INFORMATION/DETAIL					



Thiess Workshop



National Mining Workshop

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