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#### **GOVERNMENT NOTICE**

#### Minerals and Energy, Department of

Government Notice

#### GOVERNMENT NOTICE

#### **DEPARTMENT OF MINERALS AND ENERGY**

No. R. 134

9 February 2001

#### REGULATIONS UNDER THE MINE HEALTH AND SAFETY ACT, 1996 (ACT No. 29 OF 1996)

In terms of section 98 (1) (t) of the Mine Health and Safety Act, 1996 (Act No. 29 of 1996), I, Phumzile Mlambo-Ngcuka, Minister of Minerals and Energy, hereby make the Regulation in the Schedule.

P. MLAMBO-NGCUKA

Minister of Minerals and Energy

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### SCHEDULE

#### **CHAPTER 23**

#### ACCIDENTS AND DANGEROUS OCCURENCES

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#### ACCIDENTS TO BE REPORTED

- 23.1 The *employer* must report to the *Principal Inspector of Mines* in the manner prescribed in this chapter any accident at the *mine* that results in:
  - (a) the death of any employee;
  - (b) an injury, to any employee, likely to be fatal;
  - (c) unconsciousness, incapacitation from heatstroke or heat exhaustion, oxygen deficiency, the inhalation of fumes or poisonous gas, or electric shock or electric burn accidents of or by any *employee* and which is not reportable in terms of paragraph (d).

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- (d) an injury which either incapacitates the injured *employee* from performing that *employee's* normal or a similar occupation for a period totaling 14 days or more, or which causes the injured *employee* to suffer the loss of a joint, or a part of a joint, or sustain a permanent disability,
- (e) an injury, other than injuries referred to in paragraph (d), which incapacitates the injured *employee* from performing that *employee* 's normal or a similar occupation on the next calendar day.
- 23.2 (1) An accident referred to in paragraph (a), (b) or (c) of regulation 23.1 must be reported immediately by the quickest means available and must be

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confirmed without delay on Forms SAMRASS 1 and 2 prescribed in Chapter 21.

- 23.2 (2) An accident referred to in paragraph (d) of regulation 23.1 must, after the accident becomes reportable, be reported within three days on Forms SAMRASS 1 and 2 prescribed in Chapter 21.
- 23.2 (3) The Form SAMRASS 9 must be submitted on a monthly basis for all persons not having returned to work at the time of submitting SAMRASS 2 on a monthly basis.
- 23.2 (4) An accident referred to in paragraph (e) of regulation 23.1 must be reported without delay on a monthly basis, on Form SAMRASS 4 prescribed in Chapter 21
- 23.3 (1) Where the death of an *employee*, referred to in regulation 23.1(a) is related to a rockburst or fall of ground, the duly completed Form SAMRASS 3, prescribed in Chapter 21, for such rockburst or fall of ground must be forwarded by the *employer* to the *Principal Inspector of Mines* within 14 days of such death.
- When an injury results in the death of the injured *employee* after the report in terms of regulation 23.1 (b), (c), (d) or (e) has been given or when a slight injury, which was not reportable, results in the death of the injured *employee*, or when general sepsis or tetanus develops as a result of an injury, the *employer* must immediately report it to the *Principal Inspector of Mines* and without delay submit amended Form SAMRASS 1 prescribed in Chapter 21.
- 23.3. (3) Where the injury of a person referred to in regulation 23 (1) or a dangerous occurrence referred to in regulation 23.4 (o), is related to the use of explosives, in addition to Form SAMRASS 1, the duly completed Form

SAMRASS 5, prescribed in Chapter 21, must be forwarded by the *employer* to the *Principal Inspector of Mines* within 14 days of such occurrence.

- Where the injury of a person referred to in regulation 23 (1) or a dangerous occurrence referred to in regulation 23.4 (f) is related to fires, in addition to Form SAMRASS 1, the duly completed Form SAMRASS 6, prescribed in Chapter 21, must be forwarded by the *employer* to the *Principal Inspector of Mines* within 14 days of such occurrence.
- 23.3 (5) Where the injury of a person referred to in regulation 23 (1) or a dangerous occurrence referred to in regulation 23.4 (b) is related to a subsidence in a coal mine, in addition to Form SAMRASS 1, the duly completed Form SAMRASS 7, prescribed in Chapter 21, must be forwarded by the *employer* to the *Principal Inspector of Mines* within 14 days of such occurrence.
- 23.3 (6) Where the injury of a person referred to in regulation 23 (1) is related to heat stroke or heat exhaustion, in addition to Form SAMRASS 1, the duly completed Form SAMRASS 8, prescribed in Chapter 21, must be forwarded by the *employer* to the *Principal Inspector of Mines* within 14 days of such occurrence.

#### DANGEROUS OCCURRENCES TO BE REPORTED

23.4 The employer must report to the Principal Inspector of Mines in the manner prescribed in this Chapter any of the following dangerous occurrences at the mine-

#### (a) ROCKBURSTS AND FALLS OF GROUND

An extensive rockburst or fall of ground causing the following damage underground -

 (i) At least 10 linear metres of working face has been severely damaged and choked and will require re-establishment and re-supporting, or be abandoned;

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- (ii) At least 25m² of working area has been severely damaged and choked rendering support units ineffectual and will have to be re-established and re-supported or be abandoned;
- (iii) At least 10 linear metres of gully has been restricted with rock clearly recently displaced from the hanging wall and gully sidewalls;
- (iv) At least 10 linear metres continuous or 30 linear metres cumulative of access ways of tunnel or travelling way has been severely damaged and will require rehabilitation or be abandoned;
- (v) At least 10 m<sup>2</sup> of roof or 5m<sup>3</sup> of rock has been displaced from the roof of the mining cavity or excavation;
- (vi) At least 10m³ of rock has been freshly displaced from pillars or tunnel sidewalls.

#### (b) CAVING

Any unplanned or uncontrolled caving, side wall or slope failure or subsidence in the ground or workings, causing damage to the surface, which may pose a significant risk to the safety of persons at a *mine*.

#### (c) FLOW OF BROKEN ROCK

Any unplanned or uncontrolled flow of broken rock, mud or slimes in the workings of a *mine* which may pose a significant risk to the safety of persons at a *mine*.

#### (d) BREAKDOWN OF MAIN VENTILATION FAN

Breakdown of any main ventilation fan.

#### (e) POWER FAILURE

Any power failure occurring in the underground workings of a mine, which poses a significant risk to the health, or safety of persons at a mine.

#### (f) FIRES AND EXPLOSIONS

Any ignition or explosion of gas or dust, or any fire related to mining activities or any indication or recrudescence of fire or spontaneous combustion at or in a mine.

#### (g) FLAMMABLE GAS

The presence of flammable gas exceeding one comma four parts per hundred by volume in the general atmosphere at a *mine*, or any portion of a *mine*:

- (i) if such flammable gas is detected for the first time; or
- (ii) the first time such flammable gas is again detected after not having been detected therein for a continuous period of three months.

#### (h) WINDING PLANTS

- (i) Running out of control of winding-engine, winding drum or conveyance;
- (ii) Fracture or failure of any essential part of the winding-engine, fracture or failure of any safety device used in connection with the winding equipment;
- (iii) Fracture, failure or serious distortion of winding rope, fracture, failure or serious distortion of any connection between the winding rope and the drum or between the winding rope and the conveyance and any other load suspended Form or attached to such rope; fracture, failure or failure or

- serious distortion of any connection between conveyances or between a conveyance and any suspended or attached load, fracture of guide rope or its connections, fracture of balance or tail rope or its connections;
- Fracture or failure of winding or balance sheave; fracture or failure of any (iv) essential part of the headgear or other sheave support;
- Jamming or accidental overturning of conveyance; conveyance or its load (v) fouling shaft equipment; jamming of crosshead;
- Derailing of conveyance; (vi)
- Conveyance, bridle, frame or crosshead accidentally leaving guides; (vii)
- Fracture or failure of the braking system or of any critical parts thereof; (viii)
- Failure to activate when required of any safety catches and/or arresting (ix) devices or activation of any safety catches and/or arresting devices when not required;
- Failure to activate when required of any overwinding prevention device or (x) activation of such device when not required;
- Any overwind or over-run of the conveyance to an extent which may have (xi) endangered persons or may have caused damage to the winding equipment;
- (xii) Failure of depth indicator.

#### (i) LIFTS AND ELEVATORS

Fracture or failure of any essential part of the driving or operating (i) machinery, fracture or failure of any safety device used in connection with lifts or elevators.

- (ii) Fracture or distortion of the lift or elevator rope, fracture or failure of attachments of such rope.
- (iii) Fracture or failure of any sheave or of the shaft or shaft bearing of such sheave.
- (iv) Jamming of car or counterpoise.

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- (v) Fracture or failure of braking system or of any critical parts thereof.
  - (vi) Failure to activate when required of any safety catches and/or arresting devices or activation of any safety catches and/or arresting devices when not required.

#### (j) OBJECTS FALLING DOWN SHAFTS

Any object falling down the shaft or any other incident which necessitates the inspection of the shaft.

#### (k) EMERGENCY OR RESCUE PROCEDURES

- Any failure of breathing apparatus whilst deployed.
- (ii) The use of emergency escape apparatus, procedures or rescue mechanisms, or the rescue from entrapment, associated with mining or related activities, of any *employee*.

#### (I) SELF PROPELLED MOBILE MACHINERY

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Any self-propelled mobile machine running out of control which may pose significant risk to the safety of persons at a *mine*.

#### (m) BOILERS AND PRESSURE VESSELS

Fracture or failure of any part of a boiler or safety device of a boiler or pressure vessel which may have endangered persons.

#### (n) CHAIRLIFTS

- (i) Fracture or failure of any part or safety device of a chairlift installation which may have endangered persons or may have caused damage to such chairlift installation.
- (ii) Fracture or failure of any essential part of the driving machinery.
- (iii) Fracture failure or serious distortion of any rope or chain forming part of a chairlift installation.

#### (o) EXPLOSIVES

- (i) Any unauthorised or accidental ignition or detonation of explosives.
- (ii) Any exposure of persons to blasting fumes which is not reportable in terms of regulation 23.1.
- (iii) Any detonation of explosives which may pose a significant risk to the safety of persons.
- 23.5 A dangerous occurrence referred to in regulation 23.4 must be reported immediately by the quickest means available and must be confirmed without delay on Form SAMRASS 1 prescribed in Chapter 21.
- 23.6 Every *employer* must ensure that a system is in place whereby the *employer* is informed, as soon as is practicable after its occurrence, of any accident or dangerous occurrence, which is reportable in terms of this Chapter.

- 23.7 (i) Every *employer* must keep and maintain a record in which the particulars of all accidents and dangerous occurrences, which are required to be reported in terms of this Chapter, must be recorded without delay.
  - (iii) The record contemplated in Regulation 23.7(i) in respect of all accidents or dangerous occurrences must be kept and maintained for two years from the time that the accident or dangerous occurrence becomes reportable.

#### SCHEDULE CHAPTER 10

#### PLACE OF AN ACCIDENT TO BE LEFT UNDISTURBED

- 10.1(1) When an accident causes the immediate death of any employee, the place where the accident occurred must not, without the consent of the Principal Inspector of Mines, be disturbed or altered before such place has been inspected by an Inspector or any other person authorised under section 49(4) by the Chief Inspector of Mines.
- 10.1(2) Regulation 10.1(1) does not apply if:
  - (a) such disturbance or alteration is unavoidable to prevent further accidents, to remove fatalities and injured employees or to rescue employees from danger; or
  - (b) the discontinuance of work at such place would seriously impede the working of the *mine*.
- 10.1(3) Despite regulation 10.1 (1), work may be resumed at the place where the accident occurred if such *inspector* or other person authorised by the *Chief Inspector of Mines* fails to inspect the place within three days after notice of the accident has been given.

#### RIGHT TO ATTEND INSPECTION IN LOCO

Any employee having a material interest in an accident referred to in paragraph 10.1(1) as well as that employee's representative may attend any inspection in loco conducted by an inspector but such attendance is at their own risk. In case such employee is, by reason of death or the severity of his/her injuries, unable to appoint any representative to attend the inspection in loco, the relatives, or in their absence the fellow employees, of such employee may appoint such representative

#### SCHEDULE

#### **CHAPTER 21**

**DME 132** 

(SAMRASS 1)



#### **DEPARTMENT: MINERALS AND ENERGY**

#### **ACCIDENT AND DANGEROUS OCCURRENCE REPORT**

This form must be completed for reportable accidents in terms of regulations 23.1(a) (b) (c) and (d) and Dangerous Occurrences in terms of regulation 23.4. Sections E and F, need not be completed in the event of a Dangerous Occurrence. Attach forms SAMRASS 2, 3, 5, 6, 7, and 8, where applicable.

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SECTION A: EMPLOYER DETAILS	¥!							
1. NAME OF MINE				***************************************	16	<u> </u>		
2. DME MINE CODE				10.23				01100000000 Z
3. MAIN COMMODITY			1.00					
SECTION B: ACCIDENT OR DANGEROUS OCCURRENCE DI	ETAILS			*	XXX		300	
Mine Accident or Dangerous     YEAR	ACC /DO	O REF I	OV			SHAF	Γ	
Occurrence Number Y Y Y Y N	I N	N	N.		S		s	
2. Number of persons killed								
Number of persons totally disabled								
Number of persons injured								1
5. Date of accident or dangerous occurrence (use YYYY/MM/D	OD format)	Y	Y	Υ .\	M		D	D.
6. Time of accident or dangerous occurrence	Ü		7.		H	Н	M	M
7. Location of accident or dangerous occurrence								
8. Name of working place						-		
Depth below surface (in metres)								
10. Section								
11. Description of accident or dangerous occurrence in words								18
				••••••		• • • • • • • • • • • • • • • • • • • •	•••••	•••
								•••
12. Accident classification code								
13. Dangerous Occurrence classification code								
14. Did accident or dangerous occurrence occur during normal w	vorking hou	rs or ov	ertime	?	Norm	nal	O/T	Time
15. Did accident or dangerous occurrence happen at normal wor	rkplace?		-17		Υ	***************************************	1	N
16. Average number of persons at work during the previous month	SURF OPS	U\G	0	CAST	SUR	FMIN	MAI	RINE

NAME	IDENTITY NU	JMBER/PAS	SPORT	NUMB	ER	CE	RTIF	CAT	E No	<b>).</b>		OC	CL	JPA	TIO	N
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2" LEVEL SUPERVISOR								П				=77=	-00		AUA	
3 <sup>60</sup> LEVEL SUPERVISOR			7 2 2 3					11						-	_	
4 <sup>th</sup> LEVEL SUPERVISOR						0 0		11								
Name of Manage		Designa	tion	1.1	1 '	Sign	ature		Π			Da	ate			
		. ,	7 2.	-(*)				-	Y	Y	Y	Y	M	М	D	C
SECTION D: FOR US	E BY THE DEP	ARTMENT (	OF MINE	RALS	AND E	NERG	Y		11		_	145				1
1. Regional accident	or dangerous of	occurrence n	umber		- to p	, es 5 y			Y	Υ	Y	Y	R	N	N	N
2. Date report	* E-4- 1 * * * * * * * * * * * * * * * * * *	y H/3-							Y	Y	Y	Y	М	M	D	C
3. Type of accident or	dangerous occ	currence		1 1	- F 10		-		Ш		Ш	- 1	_1			
Accident or danger			<del>-  -</del>	r i	1 - 18 -	1 15	I D	ate	Y	Υ	Y	Y	M	M	D	T
5. Inquiry type		- regions. 2)	- 12 1000 000	L.L.		1									Т	L.
6. Probable cause of	accident or dan	derous occu	rrence			- 1		П					T	Т	+	V,
						) (		. ]				_	Yes	+	No	7.
7. Contravention in in		on .		es, of 1		4						1	100	-		_
<ol><li>If yes, act/regulation</li></ol>	n contravened		p # 0		Ø 4			a								
<ol><li>Administrative fine</li></ol>	recommended?		4.1		ig.	5 - 7200 Ej							Yes	•	No	
10. Date evaluation for	m completed			-	W S	ii se		Y	Y	Y	Y	M	1	М	D	D
INSPECTORA	TE DETAILS		IE (IN BL FERS)	OCK			DATI			S	GN	AT	UR	E	. 77	(S)
<ol><li>Inspector of mines</li></ol>				restor							04) A	91	į.		81	- 54
12. Senior inspector of	mines (mining)		, to t	* * * * * * * * * * * * * * * * * * *	7.a.t		est in				W Table	77	1	8		e
13. Senior inspector of equipment)		. et Van											9			
14. Are criminal procee			Construction of the Constr			11 10						1 ,	Yes	. T	No	

(SAMRASS 2)



#### **DEPARTMENT: MINERALS AND ENERGY**

#### INJURY REPORT FORM

This form must be completed for reportable accidents in terms of regulations 23.1(a) (b) (c) and (d). Sections E and F, need not be completed in the event of a Dangerous Occurrence. Attach forms SAMRASS 2, 3, 5, 6, 7, and 8, where applicable.

e tress	Name of mine					-			508—17	765		N 61			
-	Mine Accident or Dangerous	YEA	AR	-	AC	CC /D	O RE	FNC	)				SHA	FT	
	Occurrence Number	YY	YY	N		V	N	. ,,,,	N	_	12	S	0117	<u> </u>	S
	Date of accident or dangerous or	currence (us	se YYYY	//MM/	DD fo	orma	t)	Y	Y	Y	Υ	T	A	M	DD
	Regional accident or dangerous	occurrence	number					TY	LA,	Y	Υ	R	N	N	NI
	CTION E: EMPLOYEE'S DETAILS TE: THIS SECTION NEED NOT BE COM	PLETED FOR	A DANGE	ROUS	occu	IRRE	NCE	ACCI	DENT	r					
	Surname											<b>9</b> 6			
2.	Full first names	201		1002=30457			·		SICHSVI -S		raes oc	3484000	982-276-1		20.000000000000000000000000000000000000
3.	Industry number	\$1			200										
4.	Pf/company number	*			33								T		
5.	Identity/passport number	0.000 PM													
6.	Date of birth (use YYYY/MM/DD	format)					Y 	Υ	Υ	Y		M	M	D	TD
7.	Country of origin	122-217	of allowing products and			in . In a	-	800	00				200.00		
8.	Population group	6	1000000 10000				)1	20.00	02			03		04	
9.	Was the injured a permanent emp	oloyee ("E"),	a contra	actor (	"C") c	or a c	asu	ıal ("	T")?		E		С		Т
10.	Name of contracting company (if	applicable)			5 8	5		3880							20.000
11.	Male or female	9	10-5-		55%						1	A		F	
12.	Normal occupation at time of acc	dent		185	-000	2000		等 第 2018						***	
13.	Total experience in current occup	ation		11	14154				77.	7	1	Y		M	М
14.	Was injured carrying out normal of	luties at time	of acci	dent?		46	3.84.0	0.00	8.00	-0.36.95			<del></del>	Y	N

<ol> <li>Date first employed with current employer (use YYYY/MM/DD format)</li> </ol>	Y	Y	Y	Y	М	M	D	D
16. Date last shift worked (use YYYY/MM/DD format)	Y	Y	Y	Y	M	М	D	D
17. Date resumed work (use YYYY/MM/DD format)	Y	Y	Y	Y	М	М	D	D
18. If fatal, date of death (use YYYY/MM/DD format)	Y	Y	Y	Y	М	М	D	D
THIS SECTION NEED NOT BE COMPLETED FOR A DANGEROUS OCCU	7111121102			•				96 <u>.</u>
Task: (person injured or killed while performing)								
2. Activity: (injured or killed while)	The transfer of the same of th		10 54.0					
2. Activity: (injured or killed while)			1111					
2. Activity: (injured or killed while)	E.							
Activity: (injured or killed while)     Nature of injury	ıry (l)				       		T	

(SAMRASS 3)



# DEPARTMENT: MINERALS AND ENERGY ROCKBURST AND FALL OF GROUND ACCIDENT

A. DETAILS OF MINE		N C PRODU	9		7552				100 e	20,0225		6.5	15.000
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MINE'S ACCIDENT NUMBER	+			Y		50000	٧		Y		Y	Shaf	t no.
ACTIVITY								3	3.0				
DATE OF ACCIDENT		= -			Y	Y	1	M	м	1	D	D	
CAUSE OF ACCIDENT													1
DEPTH BELOW SURFACE (m)									SARIONATION				* 1
MINING METHOD									¥.		63		
B. DETAILS OF ACCIDENT	10 10 10 N				70H 0		4		9 3 (3		- 4200		"s
B.1. LOCATION			2 2	2				28750	57 E	4.5			
DESCRIPTION OF WORKING PLACE	10	8						9.6	1 +			18:	
DISTANCE FROM FACE (m)	a.								*	1			
DISTANCE FROM PANEL BOTTOM STRIKE GULLY (r	n)	f - , .	10	. 0				$oldsymbol{\perp}$	6	•			
DIMENSIONS OF STOPE	STRIKE SPAN (m)			IPSPAI m)	N .			STO (m	OPING )				
DIMENSIONS OF OTHER EXCAVATIONS	HEIGHT (m)		_ w	/IDTH (	m			LE	NGTH	(m)			
DISTANCE FROM REEF (m)							39	8	12	= #			
B.2. SITE DESCRIPTION			-		80.00				-	-	3.00	¥	
QUALITY OF EXCAVATION:													
						-							
B.3. TEMPORARY SUPPORT	+ + + + + + + + + + + + + + + + + + +			14		18							
B.3.1. ACCORDING TO CODE OF PRACTICE	# 10 (BW 1985) 12	- 10 - 10 - 10				75	a <sup>T</sup>						
TYPE OF SUPPORT						With the second				P	201 M		
SIZE OF SUPPORT (m)						Τ		ĥ.		П			
SPACING OF SUPPORT (m)				N SECONO		1				Ħ	士		

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ROWS OF SUPPORT		
DISTANCE FROM FACE (m)		
B.3.2. OBSERVED AFTER ACCIDENT		
TYPE OF SUPPORT	,	
SIZE OF SUPPORT (m)		
SPACING OF SUPPORT (m)		
ROWS OF SUPPORT		g *aa
DISTANCE FROM FACE (m)  B.4. PERMANENT SUPPORT		
B.4.1. ACCORDING TO CODE OF PRACTICE		
TYPE OF SUPPORT		
SIZE OF SUPPORT (m)		
SPACING OF SUPPORT (m)		
DISTANCE FROM FACE (m)		
B.4.2. OBSERVED AFTER ACCIDENT	- P R.	# %
TYPE OF SUPPORT		
SIZE OF SUPPORT (m)		
SPACING OF SUPPORT (m)		
DISTANCE FROM FACE (m) B.5. REGIONAL SUPPORT		
B.5.1. ACCORDING TO CODE OF PRACTICE		
TYPE OF SUPPORT	7 8 7 8	
SIZE OF SUPPORT (m)		
SPACING OF SUPPORT (m)		
B.5.2. OBSERVED AFTER ACCIDENT		
TYPE OF SUPPORT		
SIZE OF SUPPORT (m)		
SPACING OF SUPPORT (m)		
COMMENTS ON SUPPORT:		
COMMENTS ON EFFECTIVE USE:		

B.7. GEOLOGICAL DETAILS  REEF BEING MINED  CODE:  DESCRIPTION:  ROCK TYP COD U.C.S. STRENGTH  MIMEDIATE HANGING WALL  IMMEDIATE HANGING WALL  MIMEDIATE FOOTWALL  MIMEDIATE FOOTWALL  SHORTEST DISTANCE FROM SCENE TO DISTURBENCE (m)  COMMENT ON DISTANCE:  MEASURED OR ESTIMATED FIELD STRESS STATE  MEASURED OR ESTIMATED FIELD STRESS STATE  INDUCED FRACTURES  B.8. FALL OF GROUND  DIMENSIONS OF FALL  BOUNDARIES OF FALL  BOUNDARIES OF FALL  B.9. ROCK BURST  TOTAL SIZE OF AFFECTED AREA (m²)  B.9.1 EXTENT OF DAMAGE  HANGING WALL DAMAGE (m²)  SIDEWALL DAMAGE (m²)  SIDEWAL DAMAGE (m²)	MATERIA PARE			SECURITION IN CONTRACT	
B.7. GEOLOGICAL DETAILS  REEF BEING MINED  CODE:  DESCRIPTION:  ROCKTYP COD U.C.S. STRENGTH  MMEDIATE HANGING WALL  IMMEDIATE HANGING WALL  IMMEDIATE FOOTWALL  IMMEDI	INSTRUMENT	CODE	WAI	RNING SIG	NAL
B.7. GEOLOGICAL DETAILS  REEF BEING MINED  CODE:  DESCRIPTION:  ROCKTYF COD U.C.S. STRENGTH  IMMEDIATE ROTWALL  IMMEDIATE ROTWALL  REEFFORE  RELEVANT GEOLOGICAL STRUCTURE  SHORTEST DISTANCE FROM SCENE TO DISTURBENCE (m)  COMMENT ON DISTANCE:  MEASURED OR ESTIMATED FIELD STRESS STATE  INDUCED FRACTURES  B.8. FALL OF GROUND  DIMENSIONS OF FALL  BOUNDARIES OF FALL  B				YE	NC
B.7. GEOLOGICAL DETAILS  REEF BEING MINED  CODE:  DESCRIPTION:  ROCK TYP COD U.S. STRENGTH  ROCK TYP COD U.S. STRE				4	NC
B.7. GEOLOGICAL DETAILS  REEF BRING MINED  CODE:  DESCRIPTION:  ROCK TYP COD U.S.S. STRENGTH  MMEDIATE HANGING WALL  IMMEDIATE FOOTWALL  IMMEDIATE FOOTWALL  REEFFORE  RELEVANT GEOLOGICAL STRUCTURE  SHORTEST DISTANCE FROM SCENE TO DISTURBENCE (m)  COMMENT ON DISTANCE:  MEASURED OR ESTIMATED FIELD STRESS STATE  INDUCED FRACTURES  B.8. FALL OF GROUND  DIMENSIONS OF FALL  BOUNDARIES OF FALL  B.9. ROCKBURST  TOTAL SIZE OF AFFECTED AREA (m²)  B.9.1 EXTENT OF DAMAGE  HANGING WALL DAMAGE (m²)  ROCK SUPPORT UNITS DAMAGED  SUSPECTED BURSTING MECHANISM  SUSPECTED BURSTING MECHANISM  SUSPECTED MECHANISM BASED ON  DISTANCE BETWEEN HYPOCENTRE AND ROCKBURST DAMAGE (m)  B.10. GENERAL MINE LAYOUT  CODE CONTRIBUTIONS  MINE LAYOUT  CODE CONTRIBUTIONS  NESS NO  YES NO  ***  **  **  **  **  **  **  **  **					NC NC
B.7. GEOLOGICAL DETAILS  REEF BEING MINED  CODE:  DESCRIPTION:  ROCK TYP COD U.C.S. STRENGTH  IMPA CODE U.C.S. STRENGTH  IMPA COD					NC
REEF BEING MINED  CODE:  DESCRIPTION:  ROCKTYP COD U.G.S. STRENGTH  ROCKTYP COD U.G.S. STRENGTH  ROCKTYP COD U.G.S. STRENGTH  May Control Cont				YE	NC
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B.8. FALL OF GROUND  DIMENSIONS OF FALL  BOUNDARIES OF FALL  B.9. ROCKBURST  TOTAL SIZE OF AFFECTED AREA (m²)  B.9.1 EXTENT OF DAMAGE  HANGING WALL DAMAGE (m²)  FOOTWALL DAMAGE (m²)  SIDEWALL DAMAGE (m²)  SIDEWALL DAMAGE (m²)  SUSPECTED BURSTING MECHANISM  SUSPECTED BURSTING MECHANISM  SUSPECTED BURSTING MECHANISM  B.10. GENERAL MINE LAYOUT   MINE LAYOUT  CODE  CONTRIBUTION  YES NO  YES NO  YES NO  YES NO  YES NO	MEASURED OR ESTIMATED FIELD STRESS STATE	**			+
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FOOTWALL DAMAGE (m²)  SIDEWALL DAMAGE (m²)  ROOF SUPPORT UNITS DAMAGED  SUSPECTED BURSTING MECHANISM  SUSPECTED MECHANISM BASED ON  DISTANCE BETWEEN HYPOCENTRE AND ROCKBURST DAMAGE (m)  B.10. GENERAL MINE LAYOUT  MINE LAYOUT  CODE CONTRIBUTED ON THE NOTE ON	B.9.1 EXTENT OF DAMAGE	# T	<del>1</del>		T
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ROOF SUPPORT UNITS DAMAGED  SUSPECTED BURSTING MECHANISM  SUSPECTED MECHANISM BASED ON  DISTANCE BETWEEN HYPOCENTRE AND ROCKBURST DAMAGE (m)  B.10. GENERAL MINE LAYOUT  CODE CONTRIBUTED ON THE NOTE OF THE NOTE	FOOTWALL DAMAGE (m²)				-
SUSPECTED BURSTING MECHANISM  SUSPECTED MECHANISM BASED ON  DISTANCE BETWEEN HYPOCENTRE AND ROCKBURST DAMAGE (m)  B.10. GENERAL MINE LAYOUT  CODE CONTRIBUTION  YES NO  YES NO  YES NO  YES NO  YES NO	SIDEWALL DAMAGE (m²)				
SUSPECTED MECHANISM BASED ON  DISTANCE BETWEEN HYPOCENTRE AND ROCKBURST DAMAGE (m)  B.10. GENERAL MINE LAYOUT  CODE CONTRIBUTION  YES NO  YES NO  YES NO  YES NO  YES NO	ROOF SUPPORT UNITS DAMAGED				
SUSPECTED MECHANISM BASED ON  DISTANCE BETWEEN HYPOCENTRE AND ROCKBURST DAMAGE (m)  B.10. GENERAL MINE LAYOUT  CODE CONTRIBUTION  YES NO  YES NO  YES NO  YES NO  YES NO			17		
DISTANCE BETWEEN HYPOCENTRE AND ROCKBURST DAMAGE (m)  B.10. GENERAL MINE LAYOUT  MINE LAYOUT  CODE CONTRIBUTED OF THE STREET OF	The state of the s	-7 5	5.6		
B.10. GENERAL MINE LAYOUT  MINE LAYOUT  CODE CONTRIBUTE  YES NO  YES NO  YES NO  YES NO  YES NO  YES NO	and the second s				6.0
YES NO   Y	B.10. GENERAL MINE LAYOUT	<b>4</b> ,	S. 4. +1		-
YES NO	MINE LAYOUT	* : , : , : , : , : , : ;	CODE	CON	TRIBUT
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YES NO YES NO				YES	NO
YES NO		*** * * * * * * * * * * * * * * * * *		WWW. 22	NO
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				VEC	NO

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ENER	GY RADIATED: P-WAVE (J	)					* 5					RAL								
SOUR	RCE RADIUS (m)		10						_ %			FRE				ē.				
STATI	C STRESS DROP (MPa)	· + + -		av s	7	., 1		1 -	2						+1:	Мра)	80	. *	Ш	
PEAK	ACCELERATION (g)			, 55	1	74.	S	2				LOC		cm/s	ec)	11.1	6		丄	
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D.	SEISMIC HISTORY	N 300m RADIUS		<u> </u>	L_			<u></u>	1	4(%_8 12	Ц.	لـــا	لـــا	_						<u> </u>
WITHI	N 300m RADIUS OF SENE (	OF THE ACCIDENT	P /8	r ji	T	4 -		1	W.	1 1000	100	N	IAGN	HTUE	Œ	Fan,	e <sup>ter</sup>	5 P	\$ 0	10
	HISTORY	DETIAL		17 1		< 0	V			0 - 1				1-2	-3			> 2	T	TOTA
	1. NUMBER OF SEISMIC EVE	ents .		П	T	П		П	П		П	$\Pi$	П	П			T	П		·
	2. ENERGY RELEASED: P-W	AVE (J)				H					П		П	П			1		1	SOTT TRANSPORT
1 Day	3. S-W	/AVE (J)	1	П	T		П					П	П					П		
before	4. SEISMIC MOMENT RELEA	SED (Nm)	- 1				П	1					П	11			Γ		$\exists$	
Accident	5. STATIC STRESS DROP (M	pa)		1					$\Pi$		П	П	П	П	П			П		10%
17	6. MAX. ENERGY INDEX (E-o	bs/E-expec)								11/1				T						- 1
4	1. NUMBER OS SEISMIC EVE	NTS	J					1 in .						$\prod$					$\Box$	10
	2. ENERGY RELEASED: P-W	AVE (J)										Ш								
1 Week	3. S-W	AVE (J)								$\coprod$	Ш									
before	4. SEISMIC MOMENT RELEAS	SED (Nm)						$\prod$		П				П					T.	
Accident	5. STATIC STRESS DROP (MI	Pa)			П	+		П	П	П	П	П	$\prod$	П	П		П	П		
	6. MAX. ENERGY INDEX (E-ob	os/E-expec)		+				П	П			П		П	П			П	T	
	1. NUMBER OS SEISMIC EVE	NTS								П	П	$\prod$	П	П	П	T			T	
	2. ENERGY RELEASED: P-W	AVE (J)			П		П	П	П					П						
6 Month	3. S-W/	AVE (J)	Т		П			П	П	П	П	П	П	П	П		П			
before	4. SEISMIC MOMENT RELEAS	SED (Nm)	П		П			П				T		П	П				1	
Accident	5. STATIC STRESS DROP (MF	²a)	yr 1		П	1	3.7	1	П			11		$\prod$	П	6	П		T	
	6. MAX. ENERGY INDEX (E-ob	os/E-expec)			П				П			П	П	П	П		П		T	
D.1.	BEFORE ACCIDENT		-т				8						Т	*						
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DESIGN	SIGNATION MANAGER'S SIGN				RE					9.5.	D	ATE		1			-			

(SAMRASS 4)



### DEPARTMENT: MINERALS AND ENERGY

1	This form must be completed for reportable accidents in terms of regulation 23.1(e)	
	1-13 DAY INJURIES	
Ž	NAME OF MINE:	
	MONTH:	

DATE OF ACCIDENT OR DANGEROUS OCCURENCE	NAME OF INJURED	IDENTITY NUMBER	PASSPORT NUMBER	Industry Number	DATE OFF WORK	RETURNED TO WORK	DAYS ABSENT	ACCIDENT OR DANGEROUS OCCURRENCE CLASSIFICATION	LOCATION	NATURE OF INJURY	ACTIVITY	BODY
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2 6												
								7				

(SAMRASS 5)



#### **DEPARTMENT: MINERALS AND ENERGY**

### **EXPLOSIVES**

Complete a form for each accident involving explosives and attach this to form SAMRASS 1

<u>  DANG</u>	REROUS OCCURENCE NO
MINE NAME	
MINE'S ACCIDENT OR DANGEROUS OCCURRENCE NUMBER	Y Y Y N N N haft no.
TYPE OF EXPLOSIVES	
SUPPLIER OF EXPLOSIVES	
RELATIVE ENERGY	
DETONATION	
TYPE OF DETONATOR	
SUPPLIER OF DETONATOR	
TYPE OF FUSE	
SUPPLIER OF FUSE	
PRIMER CARTRIDGE	
LENGTH OF CARTRIDGE (mm)	
DIAMETER OF CARTRIDGE (mm)	
DIAMETER OF SHOTHOLE	
METHOD USED TO DETECT MISFIRES	
EXPERIENCE OF MINER	Y Y M M
CAUSE OF EXPLOSION	

(SAMRASS 6)



#### **DEPARTMENT: MINERALS AND ENERGY**

## FIRE

REGIONAL ACCIDENT OR	Y	Υ	Y	Υ	R	N	N.	N	· N	1.
DANGEROUS OCCURRENCE NO		- 1			- 61		3.4	- 41		

MINE NAME		
MINE'S ACCIDENT OR DANGEROUS OCCURENCE NUMBER		aft no.
DATE FIRE DETECTED	YYYYMMM	
TIME FIRE DETECTED	HH	M
BY WHOM DETECTED		
OCCUPATION OF PERSON		
WHAT BURNT?		3
NUMBER OF PROTO TEAMS CALLED OUT	the state of the s	55.7
NUMBER OF PROTOTEAMS SENT UNDERGROUND		- 4. J. A.
SEALED OFF	•	•
TIME TAKEN	р р : н н :	M M
INDIRECT COST		
DIRECT COST		
LOSS IN PRODUCTION (Time)		
REPORTABLE CASUALTIES	KILLED DISABLED INJURED	1
DID CODE OF PRACTICE CATER FOR PREVENTION OF FIRE?		YES NO
WAS THERE ANY NEGLIGENCE?		YES MO
WERE PERSONS ENDANGERED?		YES NO
WERE SELF RESCUERS USED?		YES NO
IS PROSECUTION ENVISAGED?		Y28 NO
IOM SIGNATURE:	DATE:	





#### **DEPARTMENT: MINERALS AND ENERGY**

## SUBSIDENCES (COAL MINES)

MINE NAME				w's	E	214	12	-	i w		-					
MINE'S ACCIDENT OR DANGEROUS OCCURENCE NUMBER				Ų.			Y	Y.	Y	Y	N	N	N	Shelt	No	
DATE DETECTED			1.1-	1 P.					Y	Y	1	М	M	1	D	T
MINING METHOD	- 7,			9										T		
MAXIMUM DEPTH OF SUBSIDENCE (m)		y						1.5								
VENTILATION PLAN GRID REFERENCE	10 Est		5	- 1												
INFLUENCE ON UNDERGROUND WORKINGS					0.5											
					1 3	12.00		**								
MINING PARAMETERS:	PLA	NNED MIN	NING PAR	AMETERS	<u>:</u>		72	AC	TUAL	MIN!	NG F	ARA	METE	RS:		
ROAD WIDTH:								10	122							
MINING HEIGHT (m)			- 12			- 1		fin 19		15		51				
PILLAR CENTRES(m)		7.4		1.					-1-					0		
PILLAR SIZE(m)	- 1		N.	ë u	1			10		2207		-				1000
BARRIER PILLAR(m)		- 1	w	= Va	- 9				-				2	1 1		110000
SAFETY FACTOR							N. N.		St.						tit	
PANEL WIDTH(m)		- 5														
PANEL ROADS	2 1	, ,			0.2			2 5	165							
% OVERMINED	10	545						. 6 16								
GEOLOGY	, -	Sira														
	-11-11-11-11-1												1		1	
	* .				esercanimos E	100000000	33			1/	gW.					
			+ . i.,	-17		200 m			6 66	18	i i		+			
SEAM		1 1 2			1964	7 (4)		3,						Aleman		-
NFLUENCE ON STRUCTURES	# 10 *		10.			September 1									The Annual Control	-
ACTION TO BE TAKEN												ĵ,			**********	
				100	3							10				
	-			9 K					352	8						

(SAMRASS 8)



# DEPARTMENT: MINERALS AND ENERGY HEAT STROKE / HEAT EXHAUTION QUESTIONNAIRE

Complete a form for each person suffering from heat stroke / Heat exhaution and attach this form to form SANRASS 1

A. PERSONAL DETAILS				- 1				
NAME OF MINE			-	3 14				
MINE'S ACCIDENT OR DANGEROUS OCCURENCE NUMBER	ar er		Á.			Y Y	YNN	shaft no
SURNAME		1 4	FIRS	T NAM	ΛE			
OCCUPATION		**	LENG	тно	FTIN	ME WORKED IN AREA	H H : N	IM: S
B. EXPERIENCE (OTHER MINES)	,) , . e -							
MINE	F	PERIC	D WC	RKE	)	ОС	CUPATION	
- Carlotte	v	] <sub>v</sub>	17	м	м			
	y	Y	1	М	м			
	γ	Ý	1	м	м		1.000	To Wasa.
	Y	Y	1.	м	м			
C. HEAT STRESS ACCLIMATIZATION					3.			· I de l
METHOD OF ACCLIMATIZATION ON MINE		3.	V ÷	£ 5.				With the second
WAS ACCLIMATIZATION PERIOD EVADED IN ANY WAY?				Ž.	100			YES NO
	-	- Anc			,	ACCLIMATIZATION DET	TAILS	47 d 2 d 1 d
DETAILS REGARDING DATES, TEMPERATURE AND		TIN	/E TA	KEN		TEN	MPERATURE	
MASS RESPONSES DURING THE ACCLIMATIZATION	н	н	::	м	u			.,,
PROCEDURE, TO BE OBTAINED FROM THE ACCLIMATI-	н	н	:	м	M	1.7	1. 1.	
ZATION CENTRE	н	н	;	м	м			9,7
	н	н	1	м				
D. SYMPTOMS, ETC	4			* .				
		5 10 200		6/2 5000				100000

	1. (4.)									74.0				-			83				10.00
LENGT	H OF T		ORKEI	BEFO	ORE CO	OLLAPS	SE .								1		н	н	:	М	м
APPEA	RANCE	NOR	MAL			2000			В	Çî g.				- 4.7		× -			-	YES	NO
SIGN O	F FATI	GUE					# %	1									YES	NO			
DRINKI	DRINKING WATER AVAILABLE								-	7							<u> </u>			YES	NO
											N. co	*			<sup>11</sup> '8		e *v. :	1			_
WATER	DRUN	IK			8	6	222-37			- 6			14 0100120		5 <u>.</u>				3	YES	NO
SIGN O	F COLI	LAPSE						;		/ i -ti	$\mathcal{Z}_{k-1}^{L_{i+1}}$ ,	+			7						
SWEAT	ING		121,	277 Au.	17.4	* * \$ ·	13.5		* e, 3	, i - ,	53.7			3.2 ******** *	1	1,			ii.	YES	NO
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- SATU	RDAY, REATM		INDAY)	V	****						- 1-			لنــــــ		<u> 31 </u>	-				
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		. *	DATE TA	AKEN			1 1 m		TI	ME TA	KEN			\$ 3		TEA	(PERAT	URE			
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#### **DEPARTMENT: MINERALS AND ENERGY**

This form must be completed for reportable accidents in terms of regulation 23.2(3)

NAME OF MONTH:	AINE:			DME MINE CODE		•
DATE OF ACCIDENT	NAME OF INJURED	IDENTITY NUMBER	Passport Number	INDUSTRY NUMBER	DATE OFF WORK	DATE RETURNED TO WORK
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		2.00				
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			<del> </del>			

This form is to be completed monthly and forwarded to the regional office of the Inspectorate in respect of all injured persons who returned to work during that month.

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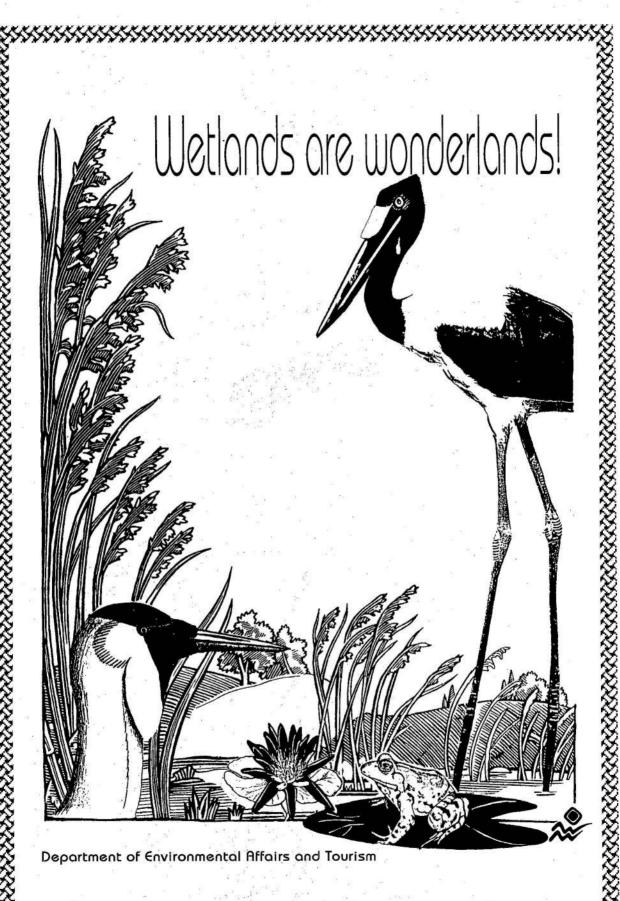
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