DEPARTMENT OF MINERAL RESOURCES AND ENERGY

NO. 2909 **21 December 2022**

MINE HEALTH AND SAFETY ACT, 1996 (ACT NO 29 OF 1996)

REGULATIONS RELATING TO FORMS

I SAMSON GWEDE MANTASHE, the Minister of Mineral Resources and Energy, hereby amend chapter 21 reporting forms in terms of regulation 9.2(7) of the regulations after consultation with the Mine Health and Safety Council, in terms of section 98 (1) (x) of the Mine Health and Safety Act, 1996 (Act No. 29 of 1996), as set out in the in the schedule below.

MR. S.G. MANTASHE, MP
MINISTER OF MINERAL RESOURCES AND ENERGY
DATE: 24/10/22

SCHEDULE

REGULATIONS AMENDMENTS

CHAPTER 21

FORMS

Amendment of Chapter 21 of the regulations

Chapter 21 of the regulations is hereby amended by: -

1. The substitution of form 21.9 (2) (a) with the following forms:

i. Airborne Pollutants -Particulate Personal Quarterly Report Form 21.9(2)(a)(i) in terms of regulation 9.2.(7) - Single Pollutant HEG Category A and C

MAIN COMMODITY CODE:		DMR MINE CODE:	
SAMPLE AREA:		SUB MINE CODE:	
ACTIVITY AREA CODE:		REPORTING PERIOD:	
HEG RECLASSIFICATION BAND: (based on previous annual 90th percentile results)		Name and SANAS accreditation number of analytical laboratory used:	

	Q1	Q2	Q3	Q4	ANNUAL RESULTS: ANNUAL 90TH PERCENTILE BASED ON THE 4 QUARTERS MEASUREMENTS RESULTS
NUMBER OF SAMPLES PLANNED FOR THE CURRENT SAMPLING CYCLE:					
Number of samples taken					
Quarterly HEG classification based on 90th percentile measurement results					

HEG			Pollutant code	Sample Concentration per Occupation (TWA - 8hr) mg/m3 [Sample Concentration = Sample mass (mg)/Sample Volume (m3) 1. If Sampling time = exposure duration or < exposure duration TWA 8h= Sampling Concentration * actual exposure duration 480 (min) 2. If Sampling time > exposure duration TWA 8h= Sampling Concentration* actual sampling time 480(min)	Pollutant analytical mass (mg)	Pollutant Concentration per Occupation (TWA - 8hr) mg/m3 [Pollutant Concentration = Pollutant mass (mg)/Sample Volume (m3) 1. If Sampling time = exposure duration or < exposure duration Pollutant TWA 8h= Pollutant Concentration * actual exposure duration 480 (min) 2. If Sampling time > exposure duration Pollutant TWA 8h= Pollutant Concentration* actual sampling time 480 (min)	Mean pollutants concentration dose allocated to medical records (Tick appropriate block)			90th percentile HEG classification	OEL (Tick appropriate block)	
Occupations codes in HEG	Occupations in HEG	Number of persons per occupation						mg/m³				mg/m³	
								f/ml				f/ml	
								ppm				ppm	
				(A)		(B)	(C)	(D)			(E)	(F)	
TOTAL													

COMMENTS ON:	
Reasons for over-exposures	
Corrective measures that will be implemented to prevent / mitigate over-exposures	

ii. Airborne Pollutants -Particulate Personal Quarterly Report Form 21.9(2)(a)(ii) in terms of regulation 9.2.(7) - Single Pollutant HEG Category B

MAIN COMMODITY CODE:								DMR MINE CODE:			
SAMPLE AREA:								SUB MINE CODE:			
ACTIVITY AREA CODE:								REPORTING PERIOD:			
HEG RECLASSIFICATION BAND: (based on previous annual 90th percentile results)								Name and SANAS accreditation number of analytical laboratory used:			

	Q1	Q2	BI - ANNUAL RESULTS (Q2-PERCENTILE RESULTS OF Q1 AND Q2	Q3	Q4	ANNUAL RESULTS (ANNUAL 90TH PERCENTILE BASED ON THE 4 QUARTERS MEASUREMENTS RESULTS)
NUMBER OF SAMPLES PLANNED FOR THE CURRENT SAMPLING CYCLE:						
Number of samples taken						
Quarterly HEG classification based on 90th percentile measurement results						

HEG			Pollutant code	Sample Concentration per Occupation (TWA - 8hr) mg/m3 [Sample Concentration = Sample mass (mg)/Sample Volume (m3) 1. If Sampling time = exposure duration or < exposure duration TWA 8h= Sampling Concentration * actual exposure duration 480 (min) 2. If Sampling time > exposure duration TWA 8h= Sampling Concentration* actual sampling time 480(min)	Pollutant analytical mass (mg)	Pollutant Concentration per Occupation (TWA - 8hr) mg/m3 [Pollutant Concentration = Pollutant mass (mg)/Sample Volume (m3) 1. If Sampling time = exposure duration or < exposure duration Pollutant TWA 8h= Pollutant Concentration * actual exposure duration 480 (min) 2. If Sampling time > exposure duration Pollutant TWA 8h= Pollutant Concentration* actual sampling time 480 (min)	Mean pollutants concentration dose allocated to medical records (Tick appropriate block)		90th Percentile HEG classification	OEL (Tick appropriate block)	
Occupations codes in HEG	Occupations in HEG	Number of persons per occupation					mg/m³			mg/m³	
							f/ml			f/ml	
							ppm			ppm	
				(A)	(B)	(C)	(D)		(E)	(F)	
TOTAL											

COMMENTS ON:	
Reasons for over-exposures	
Corrective measures that will be implemented to prevent / mitigate over-exposures	

iii. Airborne Pollutants -Particulate Personal Quarterly Report Form 21.9(2)(a)(iii) in terms of regulation 9.2.(7) - Additive effects HEG Category A and C

MAIN COMMODITY CODE:												**DMR MINE CODE:**					
SAMPLE AREA:												**SUB MINE CODE:**					
ACTIVITY AREA CODE:												**REPORTING PERIOD:**					
HEG RECLASSIFICATION BAND: (based on previous annual 90th percentile results)												**Name and SANAS accreditation number of analytical laboratory used:**					
Number of samples planned for the current sampling cycle:			**Q1**	**Q2**	**Q3**	**Q4**	**ANNUAL RESULTS (ANNUAL 90TH PERCENTILE BASED ON THE 4 QUARTERS MEASUREMENTS RESULTS)**										
Number of samples taken																	
Quarterly HEG classification based on 90th percentile measurement results or AQI (HEG classification must be based on 90th percentile of each pollutant or AQI, whichever is the greatest)																	
HEG			**Pollutant code**	**Sample Concentration per Occupation (TWA - 8hr) mg/m3 [Sample Concentration = Sample mass (mg)/Sample Volume (m3)** **1. If Sampling time = exposure duration or < exposure duration TWA 8h= Sampling Concentration * actual exposure duration** **480 (min)** **2. If Sampling time > exposure duration TWA 8h= Sampling Concentration* actual sampling time** **480(min)**	**Pollutant analytical mass (mg)**	**Pollutant Concentration per Occupation (TWA - 8hr) mg/m3 [Pollutant Concentration = Pollutant mass (mg)/Sample Volume (m3)** **1. If Sampling time = exposure duration or < exposure duration Pollutant TWA 8h= Pollutant Concentration * actual exposure duration** **480 (min)** **2. If Sampling time > exposure duration Pollutant TWA 8h= Pollutant Concentration* actual sampling time** **480 (min)**	**Mean pollutants concentration dose allocated to medical records**		**90th percentile HEG classification**	**OEL**		**Pollutant index**	**AQI**
								(Tick appropriate block)			**(Tick appropriate block)**			
Occupations codes in HEG	**Occupations in HEG**	**Number of persons per occupation**						**mg/m³**			**mg/m³**			
								f/ml			**f/ml**			
								ppm			**ppm**			
				(A)			**(B)**	**(C)**	**(D)**	**(E)**	**(F)**			
TOTAL														
COMMENTS ON:														
Reasons for over-exposures														
Corrective measures that will be implemented to prevent / mitigate over-exposures														

iv. Airborne Pollutants -Particulate Personal Quarterly Report Form 21.9(2)(a)(iv) in terms of regulation 9.2.(7) - Additive effects HEG Category B

MAIN COMMODITY CODE:			**DMR MINE CODE:**	
SAMPLE AREA:			**SUB MINE CODE:**	
ACTIVITY AREA CODE:			**REPORTING PERIOD:**	
HEG RECLASSIFICATION BAND: (based on previous annual 90th percentile results)			**Name and SANAS accreditation number of analytical laboratory used:**	

NUMBER OF SAMPLES PLANNED FOR THE CURRENT SAMPLING CYCLE:	Q1	Q2	BI - ANNUAL RESULTS (Q2-PERCENTILE RESULTS OF Q1 AND Q2	Q3	Q4	ANNUAL RESULTS (ANNUAL 90TH PERCENTILE BASED ON THE 4 QUARTERS MEASUREMENTS RESULTS)
Number of samples taken						
Quarterly HEG classification based on 90th percentile measurement results or AQI (HEG classification must be based on 90th percentile of each pollutant or AQI, whichever is the greatest)						

HEG			Pollutant code	Sample Concentration per Occupation (TWA - 8hr) mg/m3 [Sample Concentration = Sample mass (mg)/Sample Volume (m3) 1. If Sampling time = exposure duration or < exposure duration TWA 8h= Sampling Concentration * actual exposure duration / 480 (min) 2. If Sampling time > exposure duration TWA 8h= Sampling Concentration* actual sampling time / 480(min)	Pollutant analytical mass (mg)	Pollutant Concentration per Occupation (TWA - 8hr) mg/m3 [Pollutant Concentration = Pollutant mass (mg)/Sample Volume (m3) 1. If Sampling time = exposure duration or < exposure duration Pollutant TWA 8h= Pollutant Concentration * actual exposure duration / 480 (min) 2. If Sampling time > exposure duration Pollutant TWA 8h= Pollutant Concentration* actual sampling time / 480 (min)	Mean pollutants concentration dose allocated to medical records (Tick appropriate block)		90th percentile HEG classification	OEL (Tick appropriate block)		Pollutant index	AQI
Occupations codes in HEG	Occupations in HEG	Number of persons per occupation					mg/m³			mg/m³			
							f/ml			f/ml			
							ppm			ppm			
				(A)		(B)	(C)	(D)	(E)	(F)			
TOTAL													

COMMENTS ON:	
Reasons for over-exposures	
Corrective measures that will be implemented to prevent / mitigate over-exposures	

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2. The substitution of form 21.9 (2) (b) with the following forms:

i. Airborne Particulates Gases and Vapours Personal Quarterly Report Form 21.9(2)(b)(i) in terms of regulation 9.2.(7) - Single Pollutant HEG Category A and C.

Main Commodity Code:							**DMRE Mine Code:**				
Sample Area:							**Sub Mine Code:**				
Activity Area Code:							**Reporting Period:**				
HEG reclassification Band (Based on previous annual 90th Percentile results)											
	Q1	**Q2**	**Q3**	**Q4**	**Annual Results: Annual 90th percentile based on the 4 quarters measurements results**						
Number of samples planned for the current sampling cycle											
Number of samples taken											
Quarterly HEG classification (Based on 90th percentile measurement results)											
HEG			**Pollutant Code**	**Pollutant Concentration per Occupation in (Tick appropriate box)**		**Pollutant analytical %**	**Mean Pollutant Concentration Dose Allocated to Medical Record Mean Pollutant Concentration Dose = Average TWA Pollutant Concentration (average of all results calculated in A)**	**Range of Pollutant Concentration**		**90th Percentile HEG Classification =PERCENTILE [(A),0.9]**	**OEL (Tick appropriate box)**	
Occupations Codes in HEG	**Occupation Name in a HEG**	**Number of Persons per Occupation**		**ppm**				**Min**	**Max**		**mg/m³**	
				mg/m³							**ppm**	
				TWA - 8hr								
				STEL								
				CL								
				(A)		**(B)**	**(C)**			**(D)**		
TOTAL												
COMMENTS ON: REASON/S FOR OVEREXPOSURES												
CORRECTIVE MEASURES THAT WILL BE IMPLEMENTED TO PREVENT/MITIGATE OVEREXPOSURES.												

ii. Airborne Particulates Gasses and Vapours Personal Quarterly Report Form 21.9(2)(b)(ii) in terms of regulation 9.2.(7) - Single Pollutant HEG Category B.

Main Commodity Code:										DMRE Mine Code:					
Sample Area:										Sub Mine Code:					
Activity Area Code:										Reporting Period:					
HEG reclassification Band (Based on previous annual 90th Percentile results)															
	Q1	Q2	Bi - Annual Results (Q2- percentile results of Q1 and Q2)	Q3	Q4	Annual Results: Annual 90th percentile based on the 4 quarters measurements results									
Number of samples planned for the current sampling cycle															
Number of samples taken															
Quarterly HEG classification (Based on 90th percentile measurement results)															
HEG			Pollutant Code	Pollutant Concentration per Occupation in		Pollutant analytical %	Mean Pollutant Concentration Dose Allocated to Medical Record Mean Pollutant Concentration Dose = Average TWA Pollutant Concentration (average of all results calculated in A)	Range of Pollutant Concentration		90th Percentile HEG Classification =PERCENTILE [(A),0.9]	OEL				
Occupations Codes in HEG	Occupation Name in a HEG	Number of Persons per Occupation		(Tick appropriate box)							(Tick appropriate box)				
				ppm							mg/m3				
				mg/m3											
				TWA - 8hr											
				STEL											
				CL				Min	Max		ppm				
					(A)	(B)	(C)			(D)					
TOTAL															
COMMENTS ON: REASON/S FOR OVEREXPOSURES															
CORRECTIVE MEASURES THAT WILL BE IMPLEMENTED TO PREVENT/MITIGATE OVEREXPOSURES.															

iii. Airborne Particulates Gasses and Vapours Personal Quarterly Report Form 21.9(2)(b)(iii) in terms of regulation 9.2.(7) - Additive effects HEG Category A and C

Main Commodity Code:							**DMRE Mine Code:**						
Sample Area:							**Sub Mine Code:**						
Activity Area Code:							**Reporting Period:**						
HEG reclassification Band (Based on previous annual 90th Percentile results)													
	Q1	**Q2**	**Q3**	**Q4**	**Annual Results: Annual 90th percentile based on the 4 quarters measurements results**								
Number of samples planned for the current sampling cycle													
Number of samples taken													
Quarterly HEG classification (Based on 90th percentile measurement results)													
HEG													
Occupations Codes in HEG	**Occupation Name in a HEG**	**Number of Persons per Occupation**	**Pollutant Code**	**Pollutant Concentration per (Tick appropriate box)** **ppm** **mg/m³** **TWA - 8hr** **STEL** **CL**	**Pollutant analytical %**	**Mean Pollutant Concentration Dose Allocated to Medical Record** **Mean Pollutant Concentration Dose = Average TWA Pollutant Concentration (average of all results calculated in A)**	**Range of Pollutant Concentration**		**90th Percentile HEG Classification =PERCENTILE [(A),0.9]**	**OEL (Tick mg/m³ / ppm)**		**Pollutant Index =90th Percentile HEG for the quarter Classification /OEL**	**AQI = Sum of Pollutant Index**
							Min	**Max**					
				(A)	**(B)**	**(C)**			**(D)**			**(E)**	**(F)**
TOTAL													
COMMENTS ON: REASON/S FOR OVEREXPOSURES													
CORRECTIVE MEASURES THAT WILL BE IMPLEMENTED TO PREVENT/MITIGATE OVEREXPOSURES.													

iv. Airborne Particulates Gasses and Vapours Personal Quarterly Report Form 21.9(2)(b)(iv) in terms of regulation 9.2.(7) - Additive effects HEG Category B

Main Commodity Code:											DMRE Mine Code:			
Sample Area:											Sub Mine Code:			
Activity Area Code:											Reporting Period:			
HEG reclassification Band (Based on														
		Q1	Q2	Bi - Annual Results (Q2- percentile results of Q1 and Q2)		Q3	Q4	Annual Results: Annual 90th percentile based on the 4 quarters measurements results						
Number of samples planned for the														
Number of samples taken														
Quarterly HEG classification (Based on														
HEG				Pollutant (Tick appropriate box)		Pollutant analytical %		Range of Pollutant Concentration				OEL (Tick			
Occupations Codes in HEG	Occupation Name in a HEG	Number of Persons per Occupation	Pollutant Code	ppm			Mean Pollutant Concentration Dose Allocated to Medical Record Mean Pollutant Concentration Dose = Average TWA Pollutant Concentration (average of all results calculated in A)			90th Percentile HEG Classification =PERCENTILE [(A),0.9]	mg/m³		Pollutant Index =90th Percentile HEG for the quarter Classification /OEL	AQI = Sum of Pollutant Index
				mg/m³										
				TWA - 8hr										
				STEL										
				CL				Min	Max		ppm			
				(A)		(B)	(C)			(D)			(E)	(F)
TOTAL														
COMMENTS ON: REASON/S FOR OVEREXPOSURES														
CORRECTIVE MEASURES THAT WILL BE IMPLEMENTED TO PREVENT/MITIGATE OVEREXPOSURES.														

3. The substitution of the form 21.9 (2) (c) with the following form:

Heat stress exposure: Quarterly Report Form 21.9(2)(c) in terms of regulation 9.2.(7)

Main Commodity Code:						DMR Mine Code	
Sampling/Measurement Area:	Surface ☐			Underground ☐		Sub Mine Code	
Activity Area:	Activity area name			Activity area code		Reporting Period	
	Q1	Q2	Q3	Q4		Start:	End:
Heat Environmental classification (based on 90th percentile of the most significant parameter)							

Thermal: Heat Environment								
Occupations Codes	Occupations Description	Number of Persons per Occupation	Parameter	Number of measurements taken per parameter	Mean dose allocated to medical records (for each parameter)	90th percentile of each parameter (for heat environment classification)	OEL/Standard (for each parameter)	Significant Parameter used for classification (tick relevant parameter)
			Wet bulb (WB) °C					
			Dry bulb (DB) °C					
			Globe (GT) °C					
			WBGT Index					
COMMENTS ON:								
Reasons for over-exposures								
Corrective measures that will be implemented to prevent / mitigate overexposure								

4. The substitution of the form 21.9 (2) (d) with the following form:

Cold Stress Exposure Quarterly Report Form 21.9(2)(d) in terms of regulation 9.2.(7)

Main Commodity Code:						DMR Mine Code	
Sampling/Measurement Area:	Surface ☐			Underground ☐		Sub Mine Code	
Activity Area Code:	Activity area name			Activity area code		Reporting Period	
						Start	End
	Q1	Q2	Q3	Q4			
Cold Environmental classification (based on 10th percentile of the most significant parameter)							

Thermal: Cold Environment							
Occupations Codes	Occupations Description	Number of Persons per Occupation	Cold stress Parameter	Number of measurements taken	Mean dose allocated to medical records	10th percentile cold environment classification	OEL
			Wind chill equivalent chill temperature °C				
COMMENTS ON:							
Reasons for over-exposures							
Corrective measures that will be implemented to prevent / mitigate overexposure.							

5. The substitution of the form 21.9 (2) (e) with the following form:

Personal Noise Exposure- Quarterly Report Form 21.9(2)(e) in term of regulation 9.2.(7)

MINE NAME:						
QUARTERLY NOISE EXPOSURE REPORT FORM 21.9(2)(e) in terms of regulation 9.2.(7)						
MAIN COMMODITY CODE:					**DMRE MINE CODE:**	
SAMPLE AREA:					**SUB MINE CODE:**	
ACTIVITY AREA CODE:					**REPORTING PERIOD:** (e.g. January to March)	
HEG DESCRIPTION:						
HEG CLASSIFICATION BAND: (based on 90th percentile statistical analysis of the previous annual results)						
ANNUAL 90th PERCENTILE RESULT FOR THE HEG: (based on all individual measurements obtained from all quarters during the previous measurement cycle)						

NUMBER OF EXPOSED EMPLOYEES: (where there are new employees, number of exposed employees reported should be progressive)	**Q1**	**Q2**	**Q3**	**Q4**	**ANNUAL RESULTS**
NUMBER OF SAMPLES PLANNED FOR THE CURRENT SAMPLING CYCLE:					
NUMBER OF SAMPLES TAKEN:					
QUARTERLY HEG CLASSIFICATION: (based in the Log average)					

OCCUPATION CODE IN HEG	**OCCUPATION DESCRIPTION IN A HEG**	**NUMBER OF PERSONS PER OCCUPATION**	**Each recorded sound pressure level measured ($L_{Aeq,\ 8h}$) within the HEG linked to the occupation code**	
			Logarithmic average sound pressure level of the HEG. results to be allocated to medical record	
Reasons for individual result/s exceeding the annual HEG Classification				
Corrective actions that will be implemented to mitigate the individual result/s exceeding the annual HEG Classification				

6. The substitution of the form 21.9 (2) (f) with the following form:

Operational – Report Form 21.9(2)(f)

			Pages/Report
Report Exposure Level	Airborne Pollutants		
	Thermal Stress		
	Noise		

Sampling Period	

DMRE Mine Code		DMRE Sub Mine Code	

Mine			
Address		Control Group	
		Commodities	
Area Code			

Section 4.1 Details

Employer Name		Production	
Telephone			
Email		Process	
Fax			

Section 12.1 Details

Full Time	Part Time	MEC Certificate No.	Intermediate MEC Certificate No.	SAIOH Registration

Name		Cell Phone	
Telephone		Email	

Airborne Pollutants		Total no. of employees at Risk per pollutant	No. of Persons per category			Gases & Vapours		Total no. of employees at Risk per pollutant	No. of employees per category			Noise	No. of employees per category			Thermal Stress	No. of employees per category		
Substance	Code		A	B	C	Substance	Code		A	B	C		A	B	C		A	B	C

Labour	Permanent	Contractors	Total Labour

Name and Surname			Name and Surname		
Employee Section 4.1 Appointee	Signature	Date	Employee Section 4.1 Appointee	Signature	Date

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