



**Ms Mpho Nembilwi**  
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Date:  
*April 2020*

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Ref: *Kusile Power Station AEL (17/4/AEL/MP312/11/12)*

Dear Mr. Mahlangu

**KUSILE POWER STATION'S MONTHLY EMISSIONS REPORT FOR JAN 2020**

This serves as the monthly report required in terms of Section 7.6 in Kusile Power Station's Atmospheric Emission License: 17/4/AEL/MP311/12/01. The emissions are for the month of Jan 2020.

Hoping the above will meet your satisfaction.

Yours sincerely

Justice Bore  
**GENERAL MANAGER: KUSILE POWER STATION**

DATE: *30/4/20*

KUSILE POWER STATION'S MONTHLY EMISSIONS REPORT FOR JANUARY 2020

**1 Raw Materials and Products**

Raw Materials and Products	Raw Material Type	Units	Maximum Permitted Consumption Rate	Consumption Rate Jan-2020
	Coal	Tons	1 818 083	161 906
	Fuel Oil	Tons	5 533	941.11
	Limestone	Tons	72 917	15963

Production Rates	Product / By-Product Name	Units	Max. Production Capacity Permitted	Production Rate Jan-2020
	Energy	GWh	3321.216	269.78
	Ash	Tons	663 583	43 909.0
	Gypsum	Tons	129 250	8 939.0
	RE PM	kg/MWh	not specified	0.026
	RE SOx	kg/MWh	not specified	0.585

**2 Abatement Technology (%)**

Associated Unit/Stack	Technology Type	Efficiency Jan-2020	Technology Type	Efficiency Jan-2020
Unit 1	FFP	99.982%	FGD	91.799%
Unit 2	FFP		FGD	
Unit 3	FFP		FGD	
Unit 4	FFP		FGD	
Unit 5	FFP		FGD	
Unit 6	FFP		FGD	

Note: Both the FFP and FGD does not have bypass mode operation, hence plant 100% Utilised.

**4. Monitoring reliability (%)**

Associated Unit/Stack	PM	SO <sub>2</sub>	NO	CO <sub>2</sub>	O <sub>2</sub>
Unit 1	99.5	99.9	99.9		99.9
Unit 2					
Unit 3					
Unit 4					
Unit 5					
Unit 6					

**5. Emissions Performance**

**Table 1: Monthly tonnages for the month of Jan-2020**

Associated Unit/Stack	PM	SO <sub>x</sub>	NO <sub>x</sub>	CO <sub>2</sub>
Unit 1	7.0	158	979	
Unit 2	0.0	0	0	
Unit 3	0.0	0	0	
Unit 4	0.0	0	0	
Unit 5	0.0	0	0	
Unit 6	0.0	0	0	
<b>SUM</b>	<b>7.0</b>	<b>158</b>	<b>979</b>	

**Table 2: Operating days in compliance to PM AEL Limit - January 2020**

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm <sup>3</sup> )
Unit 1	28	0	0	0	0	6.6
Unit 2	0	0	0	0	0	
Unit 3	0	0	0	0	0	
Unit 4	0	0	0	0	0	
Unit 5	0	0	0	0	0	
Unit 6	0	0	0	0	0	
<b>SUM</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

**Table 3: Operating days in compliance to SO<sub>2</sub> AEL Limit - January 2020**

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SO <sub>2</sub> (mg/Nm <sup>3</sup> )
Unit 1	30	0	0	0	0	88.9
Unit 2	0	0	0	0	0	
Unit 3	0	0	0	0	0	
Unit 4	0	0	0	0	0	
Unit 5	0	0	0	0	0	
Unit 6	0	0	0	0	0	
<b>SUM</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	



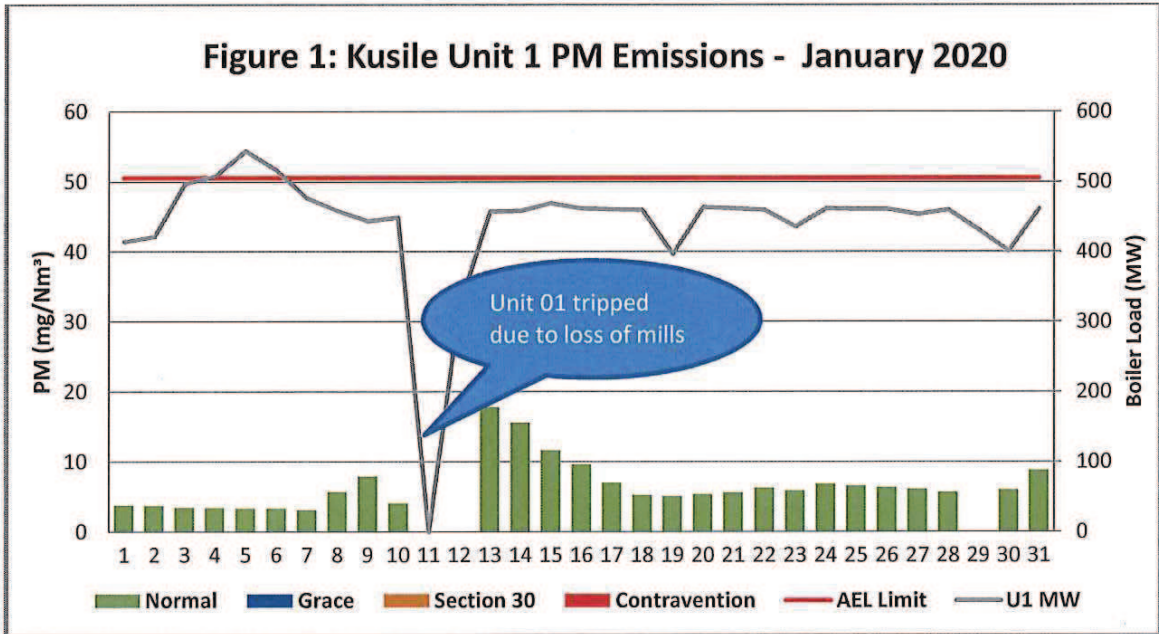
KUSILE POWER STATION'S MONTHLY EMISSIONS REPORT FOR JANUARY 2020

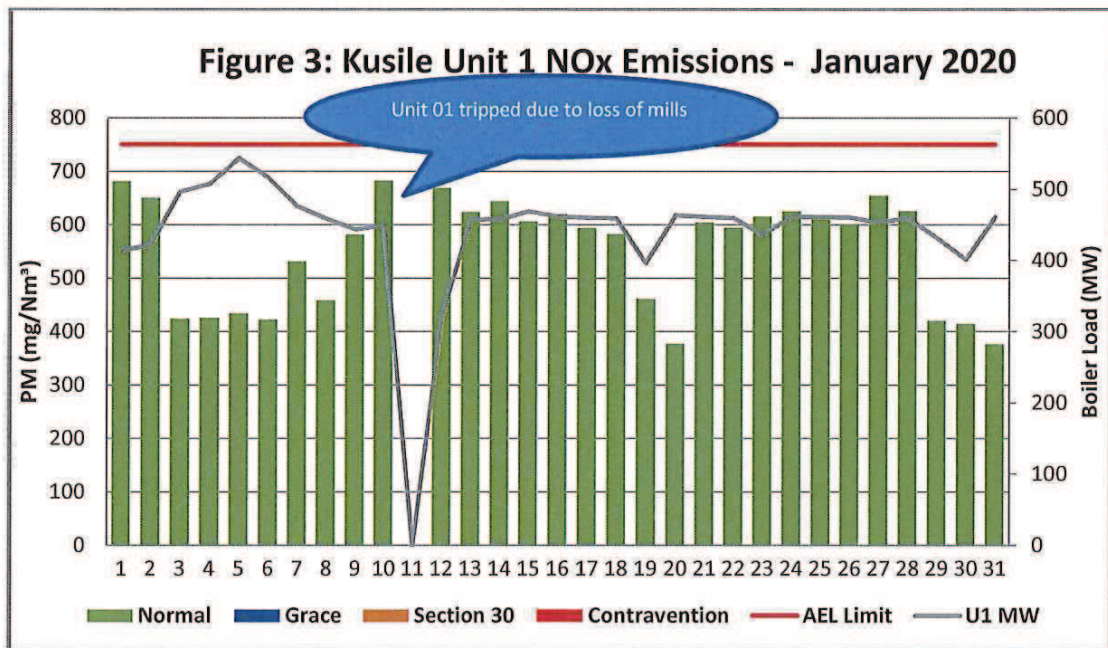
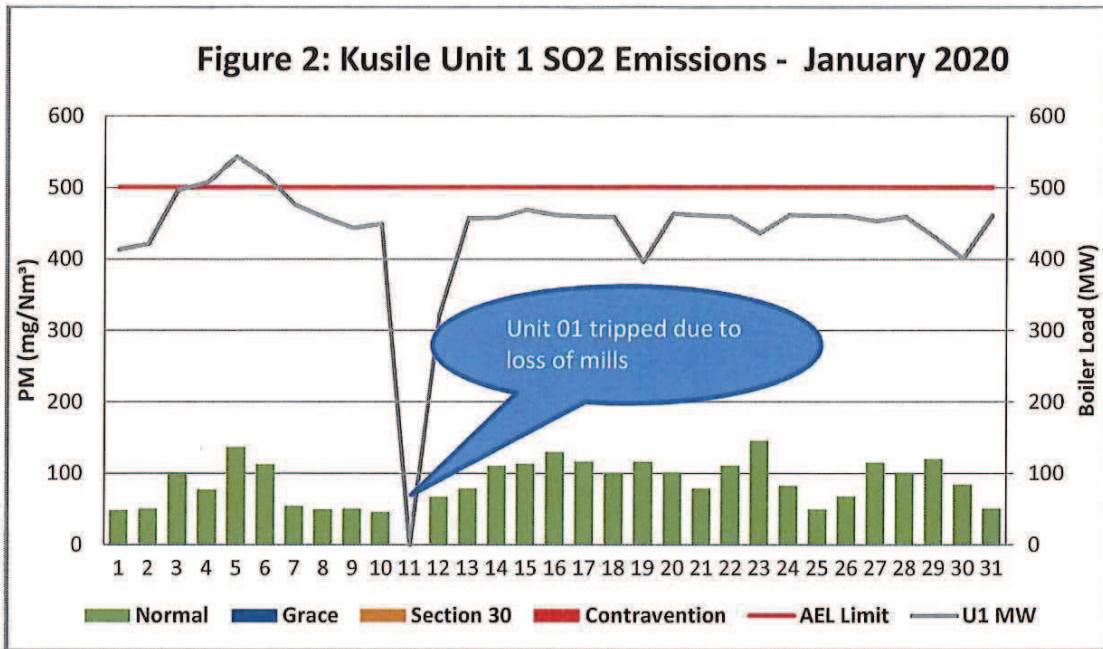
Table 4: Operating days in compliance to NOx AEL Limit - January 2020

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm <sup>3</sup> )
Unit 1	30	0	0	0	0	554.1
Unit 2	0	0	0	0	0	
Unit 3	0	0	0	0	0	
Unit 4	0	0	0	0	0	
Unit 5	0	0	0	0	0	
Unit 6	0	0	0	0	0	
<b>SUM</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

Table 5: Legend Description

Condition	Colour	Description
Normal	Green	Emissions below Emission Limit Value (ELV)
Grace	Blue	Emissions above the ELV during grace period
Section 30	Orange	Emissions above ELV during a NEMA S30 incident
Contravention	Red	Emissions above ELV but outside grace or S30 incident conditions







**6. Shut down and light up information**

**Table 6. PM Start-up information for the month of Jan-2020**

Unit No. 1	Event 1		Event 2		Event 3		Event 4	
Breaker Open (BO)	06:45 PM	2020/01/10	12:10 AM	2020/01/19	01:55 PM	2020/01/23	03:15 PM	2020/01/28
Draught Group (DG) Shut Down (SD)	12:10 AM	2020/01/11	01:50 AM	2020/01/19	02:00 PM	2020/01/23	04:40 PM	2020/01/28
BO to DG SD (duration)	00:05:25	DD:HH:MM	00:01:40	DD:HH:MM	23:14:00	DD:HH:MM	28:16:40	DD:HH:MM
Fires in time	12:45 PM	2020/01/12	12:30 PM	2020/01/19	02:40 PM	2020/01/23	10:45 PM	2020/01/28
Synch. to Grid (or BC)	06:10 PM	2020/01/12	03:10 PM	2020/01/19	06:35 PM	2020/01/23	05:40 PM	2020/01/30
Fires in to BC (duration)	00:05:25	DD:HH:MM	00:02:40	DD:HH:MM	00:03:55	DD:HH:MM	01:18:55	DD:HH:MM
Emissions below limit from BC (end date)	not > limit	not > limit	not > limit	not > limit	not > limit	not > limit	not > limit	not > limit
Emissions below limit from BC (duration)	n/a	DD:HH:MM	n/a	DD:HH:MM	n/a	DD:HH:MM	n/a	DD:HH:MM

**Table 6. Emergency generation per unit for the month of Jan - 2020**

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Emergency Generation hours declared by national Control						
Emergency Hours declared including hours after stand down						
Hours over the Limit during Emergency Generation						

**8. Complaints**

No complaints received during the month of Jan- 2020