

HENDRINA POWER STATION MONTHLY EMISSIONS REPORT
 Atmospheric Emission License 17/4/AEL/MP313/11/16



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1 RAW MATERIALS AND PRODUCTS

Raw Materials and Products	Raw Material Type	Units	Max. Permitted Consumption Rate	Consumption Rate Jun-2021
	Coal	Tons	820 000	304 719.0
	Fuel Oil	Tons	3 200	789.86

Production Rates	Product / By-Product Name	Units	Max. Production Capacity Permitted	Production Rate Jun-2021
	Energy	GWh	1440	467.97
	Ash	Tons	290 000	71 914
	RE PM	kg/MWh	not specified	0.224

2 ENERGY SOURCE CHARACTERISTICS

Coal Characteristics	Units	Stipulated Range	Monthly Average Content
Sulphur Content	%	0.6 to < 1	1.02
Ash Content	%	31 to < 35	23.60

3 EMISSION LIMITS (mg/Nm³)

Associated Unit/Stack	PM	SOx	NOx
North	75	3200	1200
South	75	3200	1200

4 ABATEMENT TECHNOLOGY (%)

Associated Unit/Stack	Technology Type	Efficiency Jun-2021
Unit 1	Fabric Filter Plant (FFP)	Unit Off-line
Unit 2	Fabric Filter Plant (FFP)	99.972%
Unit 3	Fabric Filter Plant (FFP)	Unit Off-line
Unit 4	Fabric Filter Plant (FFP)	99.537%
Unit 5	Fabric Filter Plant (FFP)	100.000%
Unit 6	Fabric Filter Plant (FFP)	100.000%
Unit 7	Fabric Filter Plant (FFP)	100.000%
Unit 8	Fabric Filter Plant (FFP)	Unit Off-line
Unit 9	Fabric Filter Plant (FFP)	Unit Off-line
Unit 10	Fabric Filter Plant (FFP)	100.000%

Note: Abatement plant does not have bypass mode operation, hence plant 100% Utilised.

5 MONITOR RELIABILITY (%)

Associated Unit/Stack	PM	SO ₂	NO	O ₂	CO ₂
North	95.8	47.8	90.3	55.3	82.9
South	100.0	100.0	100.0	100.0	94.9

6 EMISSION PERFORMANCE

Table 6.1: Monthly tonnages for the month of June-2021

Associated Unit/Stack	PM (tons)	SOx (tons)	NOx (tons)	CO ₂ (tons)
North	11.3	706.6	317.3	108 586.9

South	93.5	4 385.4	2 369.9	395 033.7
SUM	104.8	5 092.0	2 687.2	503 620.7

Table 6.2: Operating days in compliance to PM AEL Limit - June 2021

Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average PM (mg/Nm ³)
North	30	0	0	0	0	20.4
South	31	0	0	0	0	35.5
SUM	61	0	0	0	0	





Table 6.3: Operating days in compliance to SOx AEL Limit - June 2021

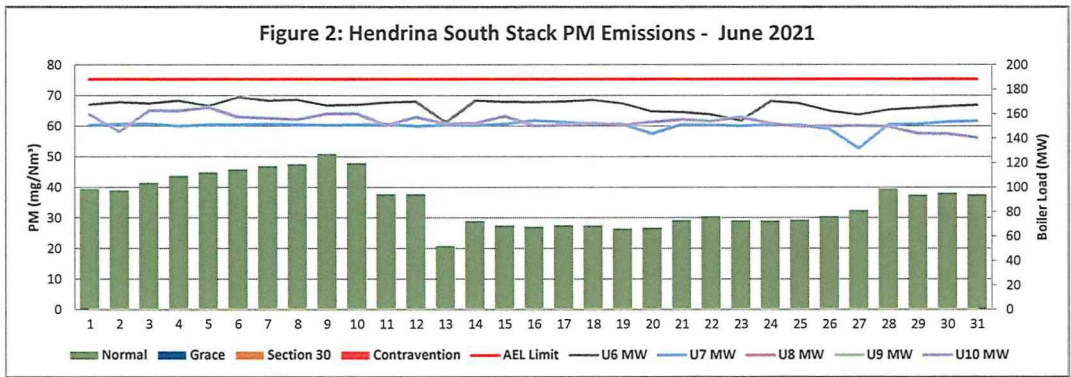
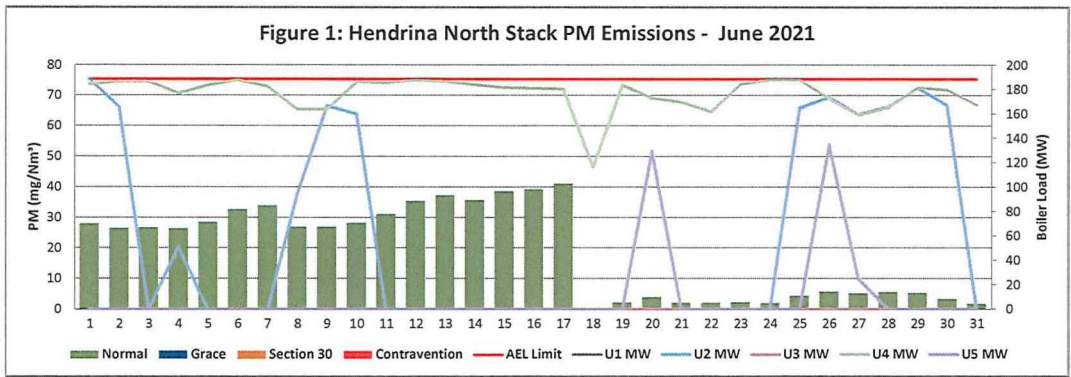
Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average SOx (mg/Nm ³)
North	31	0	0	0	0	1 077.9
South	31	0	0	0	0	1 652.8
SUM	62	0	0	0	0	

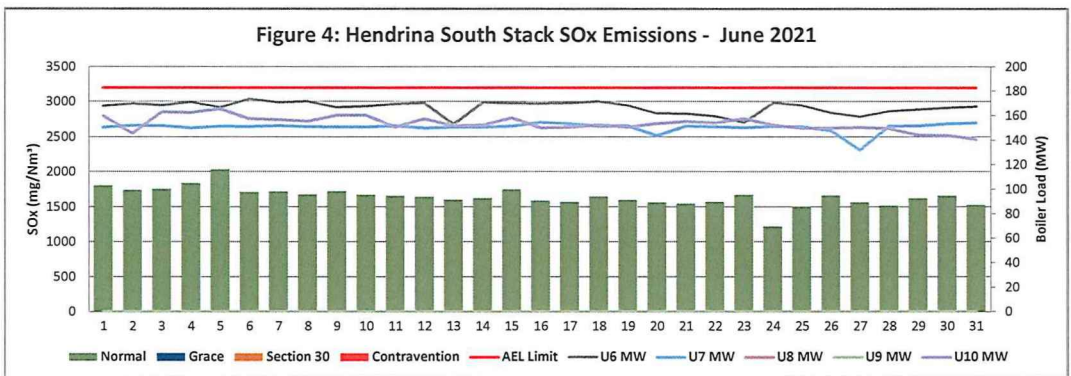
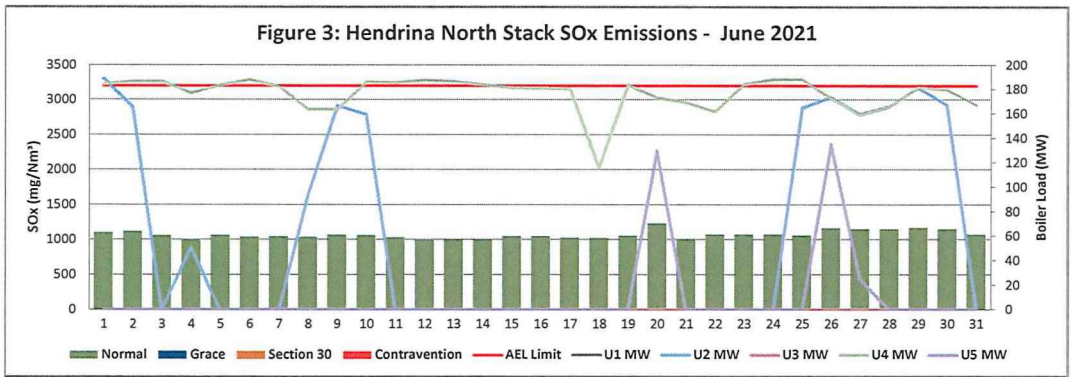
Table 6.4: Operating days in compliance to NOx AEL Limit - June 2021

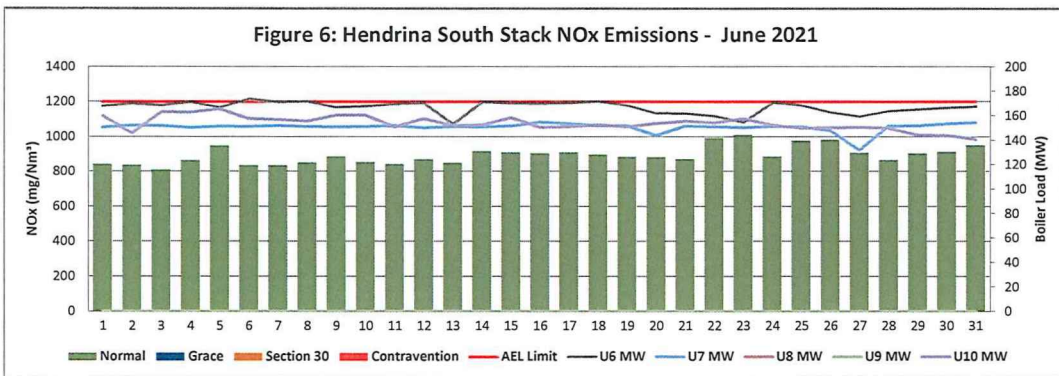
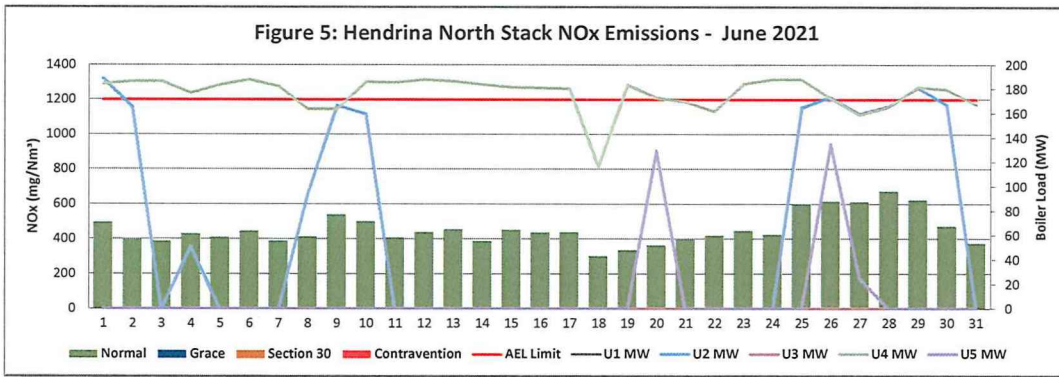
Associated Unit/Stack	Normal	Grace	Section 30	Contravention	Total Exceedance	Average NOx (mg/Nm ³)
North	31	0	0	0	0	459.1
South	31	0	0	0	0	893.1
SUM	62	0	0	0	0	

Table 6.5: Legend Description

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







7 SHUT DOWN AND LIGHT UP INFORMATION

Table 7.1 PM Start-up information for the month of June-2021

North Stack	<i>Event 1</i>		<i>Event 2</i>		<i>Event 3</i>		<i>Event 4</i>	
Unit No.	<i>Unit 2</i>		<i>no event</i>		<i>no event</i>		<i>no event</i>	
Breaker Open (BO)	<i>02:45 AM</i>	<i>2021/06/02</i>						
Draught Group (DG) Shut Down (SD)	<i>08:35 AM</i>	<i>2021/06/02</i>						
BO to DG SD (duration)	<i>00:05:50</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Fires in time	<i>12:00 AM</i>	<i>2021/06/24</i>						
Synch. to Grid (or BC)	<i>03:40 AM</i>	<i>2021/06/25</i>						
Fires in to BC (duration)	<i>01:03:40</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Emissions below limit from BC (end date)	<i>not > limit</i>	<i>not > limit</i>						
Emissions below limit from BC (duration)	<i>n/a</i>	DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM

North Stack ...Continued	<i>Event 1</i>		<i>Event 2</i>		<i>Event 3</i>		<i>Event 4</i>	
Unit No.	<i>no event</i>		<i>no event</i>		<i>no event</i>		<i>no event</i>	
Breaker Open (BO)								
Draught Group (DG) Shut Down (SD)								
BO to DG SD (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Fires in time								
Synch. to Grid (or BC)								
Fires in to BC (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Emissions below limit from BC (end date)								
Emissions below limit from BC (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM

South Stack	Event 1		Event 2		Event 3		Event 4	
Unit No.	no event		no event		no event		no event	
Breaker Open (BO)		#REF!						
Draught Group (DG) Shut Down (SD)		#REF!						
BO to DG SD (duration)	n/a	DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Fires in time								
Synch. to Grid (or BC)								
Fires in to BC (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Emissions below limit from BC (end date)								
Emissions below limit from BC (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM

South Stack ...Continued	Event 1		Event 2		Event 3		Event 4	
Unit No.	no event		no event		no event		no event	
Breaker Open (BO)								
Draught Group (DG) Shut Down (SD)								
BO to DG SD (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Fires in time								
Synch. to Grid (or BC)								
Fires in to BC (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM
Emissions below limit from BC (end date)								
Emissions below limit from BC (duration)		DD:HH:MM		DD:HH:MM		DD:HH:MM		DD:HH:MM

7.2: Point Source emissions released during start-up (fires-in) and Shut-down (SD) for the month of June-2021 in mg/Nm³

8 EMERGENCY GENERATION



There was no emergency generation

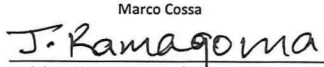
9 COMPLAINTS REGISTER

There was no complaints registered

10 S30 INCIDENT OR LEGAL CONTRAVENTION REGISTER

There was no Section 30 report


 14/07/2021
 Compiled: Environmental Officer Date
 B. Madupe

 20/07/2021
 Authorized by: GM Date
 L. Ndube

Checked by: System Engineer Date
 Marco Cossa

 19/07/21
 Validated by Manager: Boiler or Environment Date
 R. Nelwamondo J. Ramagoma

Compiled by: Boiler Engineering Department
 For: Nkangala District Municipality
 Copies: Eskom Environmental Management
 Group Technology Engineering
 Hendrina Power Station:

FFP SE/ Environmental Officer
 Air Quality Officer
 D Herbst
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 R Rampiar
 E. Patel
 Engineering Manager
 Operating Manager
 Maintenance Manager
 Unit Production Manager
 Boiler Engineering Manager
 System Engineer: Boiler Engineering
 Environmental Officer
 C & I Engineering Manager
 Production Manager
 Environmental Manager
 PSM