	SUBMISSION DOCUMENT	Unique Identifier	221-222
		Document Type	OCSDTE
		Revision	0
		Review Date	July 2015
		Office of the Company Secretary Department	

EXECUTIVE SUMMARY

SUBMISSION TO BOARD AUDIT AND RISK COMMITTEE ON 10 FEBRUARY 2014

1. TITLE OF THE SUBMISSION

Environmental performance and compliance update - December 2013.

2. RESOLUTION REQUIRED

This submission is for information purposes only.

This submission covers:

- (i) Environmental key performance indicators
- (ii) Environmental legal contraventions and compliance issues
- (iii) Air Emission Licence and specifically the Kriel emission compliance matter

3. SUMMARY OF FACTS

3.1 Salient Facts

3.1.1 Environmental key performance indicators – December 2013 Year to Date

Water: The year-to-date (YTD) performance is better than the target of 1.39/kWh sent out (SO) at 1.34 l/kWh sent out. The year-end projection for water use is 1.35l/kWh – better than target.


Emissions: The emissions YTD performance is better than target of 0.36 kg/MWhSO at 0.32 kg/MWhSO. The year-end projection for emissions is 0.34 kg/MWhSO - better than target.

3.1.2 Environmental legal contraventions and compliance issues

(i) Legal contraventions

Year-to-date 26 legal contraventions have been incurred against a performance of 30 at the same time last year. The projection for year end is 43 which is fewer than last year where 48 legal contraventions had been incurred by the end of the 2012/13 financial year. A special focus to ensure that legal contraventions are declared timeously to avoid late reporting at year-end has been made this year.

The number of legal contraventions per division is described in Table 1.

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The nature of contraventions this year is broadly similar to previous year with a slight increase in the percentage of air emission issues compared to historical trends.


42 % (11) of the legal contraventions thus far this year are related to air emissions, three (3) of these relate directly to the new Atmospheric Emission Licences issued to Matla, Duvha and Kriel. 31% (8) of the contraventions are associated with water releases (water and ash water) from Generation stations. 15 % (4) of the contraventions are related to non-compliance to environmental authorisations at Group Capital, Sustainability and Distribution.

(ii) Legal contraventions in terms of the Operational Health Dashboard (OHD)

Two (2) environmental legal contraventions in terms of the Operational Health Dashboard (OHD) have been recorded year-to-date against Distribution and Group Capital Divisions respectively for non-compliance to conditions of environmental authorisations. However, the Group Capital incident will go back to the classification committee for review and may be removed. The projection to year end is two (2) OHD. Two (2) environmental legal contraventions in terms of the Operational Health Dashboard were recorded at the end of the 2012/13 financial year and the target for this year was zero (0).

Table 1. Environmental legal contraventions – YTD December 2013

	OHD Target 2014	OHD YTD Dec 2013	OHD Financial Year end (2013)	L.C. YTD Dec 2013	L.C. Financial Year end (2013)
Eskom total	0	2	2 ⁽²⁾	26	48 ⁽¹⁾
Generation	0	0	1	18	33
Transmission	0	0	0	0	2
Distribution	0	1	0	4	4
Finance and Group Capital	0	1	0	2	5
Technology and Commercial (Eskom Enterprises)	0	0	0	1	2
Technology and Commercial (Primary Energy)	0	0	0	0	1
Customer Service	0	0	0	0	0
Sustainability(RT&D)	0	0	1	1	1
Human Resources	0	0	0	0	0
Enterprise Development	0	0	0	0	0
⁽¹⁾ The year-end number for 2012/13 has increased from 47 to 48 due a legal contravention incurred by Group Capital that was classified after the finalisation of the integrated report. ⁽²⁾ The year-end number for 2012/13 has increased from 1 to 2 due an OHD incurred by Sustainability (RT&D) that was classified after the finalisation of the integrated report.					

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(iii) **Additional compliance developments**

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(c) An allocation of funds that will address 57% of the total environmental requirements in respect of minimum emission standards, as well as funds for critical and "must-do" projects to ensure environmental compliance as per the capital portfolio allocation, was approved by Board in November 2013. There is however a risk that the proposal, which involves a 57% allocation for environmental compliance requirements, may not be approved by the authorities and full compliance will be required at a cost of R200bn and a major impact on plant availability.

(d) Long awaited senior level meetings with the Departments of Public Enterprise, Environment Affairs, and Water Affairs around environmental compliance took place in November and December with a follow up meeting to be held January / February 2014. These meetings are aimed at improving relationships and understanding to develop a better relationship with the authorities around compliance.

3.1.3 Kriel's emissions: update on non-compliance with emission licence and risk of production loss

- (i) Eskom's Board had resolved that, should more lenient operating conditions not be received by the authorities by 31 December 2013, Kriel should be de-loaded or shut down to achieve compliance. However, in order to allow the authorities time to respond to the variation request and the Ministers response, Board resolved, in a round robin decision on 31 December 2013, that Kriel will only be de-loaded or shut down on 31 March 2014, should the necessary permissions not be received by then.
- (ii) Kriel continues to operate in non-compliance with its new Atmospheric Emission Licence since the new licence was issued in June 2012. Kriel has reduced emissions when compared to the last financial year but in terms of its license is unable to consistently achieve the particulate emission limits. The new licence has no provision for grace period or exemption, as was included in the old emission licence. Eskom's appeal of the new licence was unsuccessful. On advice from Senior Counsel, Eskom requested a variation of

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the emission licence in November 2013 to include a more lenient emission limit and a grace period. The grace period is required to accommodate operational variability and for routine on-line maintenance and breakdowns.

- (iii) Eskom was informed in December 2013 that the local government could not make a decision before the end of January 2014. The three tiers of government met on the 8th January and visited Kriel power station on the 10th January 2014. On the 16th January 2014 additional information was requested by the authorities. Eskom is hopeful that a response will still be received by end-January 2014.

(iv)

- (v) Kriel is putting in place a number of measures to improve the emissions performance and ensure duty of care. These include:

- The issuing of a daily report on emissions performance and plant status, in order to ensure focus on the emissions plant;
- Load losses are taken if there is a fly ash backlog in the dust handling plant or ash plant;
- The fabric filter plant retrofit, which will ensure that the particulate emission limit can be consistently achieved, is on track for 2017/18-2023.

3.1.4 All power stations: Risk of non-compliance with emission licences

- (i) In terms of the Air Quality Act, all power stations will receive new Atmospheric Emission Licences by 31 March 2014. There will be no provision for exemption in the new licences. Stations which operate under exemption for prolonged periods of time at the moment are thus at risk of operating illegally when they receive the new licences if they are not de-loaded or shut-down. Year-to-date power stations operated 33% of the time under exemption.
- (ii) Eskom is requesting that substantial grace periods be included in the new emission licences to enable stations to continue operating in the event of plant breakdown. However, at this stage we have had no indication from the authorities as to whether the requested grace period will be included.
- (iii) If no significant grace period is included in the new licences, the risk of non-compliance and potential loss of production required to ensure compliance is reflected in table 2 below.
- (iv) The stations with the highest risk are Kendal, Lethabo and Tutuka with an increasing risk at Komati. The level of risk can be reduced through various interventions such as improving the efficiency of dust handling plants and ashing and operational control. However, in some cases, for example Kendal Unit 2 long overdue outages will need to be prioritised.


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Table 2. Possible Air Emission Licence non-compliance at power stations

Risk of non-compliance	Power station	MW load loss required to comply	Frequency of load loss
Continuous risk of non-compliance	Kriel	1500-2100 MW	All the time
	Kendal	200-1200 MW	70%
	Lethabo	700-2000 MW	All the time
	Grootvlei	400-600 MW (2 or 3 units to be shut down)	All the time
	Tutuka	300-1200 MW	80%
Sporadic risk of non-compliance	Komati	100-500 MW	40% and increasing risk until ash dam resolved
	Duvha	300-900 MW (units 4-6)	20%; mainly during rainy season
	Matimba	0-600 MW in event of plant breakdown or maintenance during summer	5%; highest risk in summer
	Matla	600-1200 MW when poor coal or plant breakdown	20%; coal dependent
Low risk of non-compliance	Majuba	Low risk of load losses at fabric filter plant stations. Risk 50-100 MW during on-load rebags.	25% at Majuba and Camden and Duvha Units 1-3 – Included in PCLF
	Arnot		
	Hendrina		
	Camden		

3.2 Key assumptions

Eskom continues to be committed to zero harm to the environment and compliance to legislation is regarded as a minimum standard.

3.3 Financial implications


None

3.4 Human Resource implications

None

3.5 Risks (including Environment, Legal or Contractual risks)

- Non-compliance to the National Environmental Management Act, conditions of environmental approvals, the National Water Act, new emissions standards, current emission license limits, the National Environmental Waste Management Act leading to criminal prosecution, stopping production, clean-up costs and pollution of the environment.
- Unable to construct new or operate existing plant – Environmental permits not in place.
- Plant shut down or prosecution.

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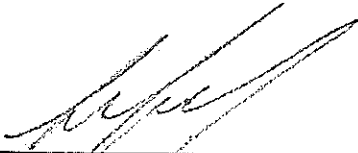
3.6 Verification by independent party (if applicable)

Not applicable

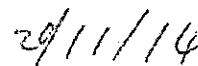
4. OTHER APPROVALS REQUIRED

Not applicable

SIGNED:



DR STEVE LENNON
GROUP EXECUTIVE: SUSTAINABILITY
 Who hereby represents that the above
 information is correct.



DATE

Submission prepared by: Atella Eis and Deidre Herbst
 Eskom Environmental Manager
 Contact Number: 011 800 3501 / 083 660 1147



SUBMISSION CHECKLIST

Unique Identifier	221-221
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CHECKLIST 1

TITLE OF SUBMISSION:
ENVIRONMENTAL PERFORMANCE AND COMPLIANCE UPDATE – DECEMBER 2013.

Please note:

The headings should **NOT** be deleted if it is not applicable to the project, the sequence of the headings should not be changed.

Tick the applicable box (✓).

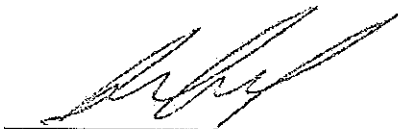
	N/A	Yes	No
1. INTERNAL PROCESS			
1.1 BUSINESS PLAN Has the project/issue been included in the business plan? <i>(If no, information/explanation to be highlighted in documentation/presentation/attachment.)</i>		✓	
1.2 BUDGET If financial approval is required, is the project/matter within the approved budget? <i>(If no, information/explanation to be highlighted in documentation/presentation/attachment.)</i>	✓		
1.3 HUMAN RESOURCE IMPLICATIONS Does the project have any HR implications? <i>(If yes, information/explanation to be highlighted in documentation/presentation/attachment.)</i>	✓		
1.4 FINANCIAL EVALUATION - Has the project/issue undergone a financial evaluation? <i>(If yes, by whom)</i> - Has the evaluation been verified? - By whom (internally or independent)?	✓		
1.5 LEGAL/CONTRACTUAL ISSUES - Are there legal implications? - Has Corporate legal department input been obtained? - If so, is the approval sought consistent with the legal input?		✓ ✓ ✓	
1.6 TAX IMPLICATIONS - Are there tax implications? - Has Corporate tax department input been obtained? - If so, is the approval sought consistent with the tax input?	✓		
1.7 CAPITAL PROJECTS If the project is of a capital nature the checklist 2 (attached) for the evaluation of capital projects should be completed as well.	✓		



SUBMISSION CHECKLIST

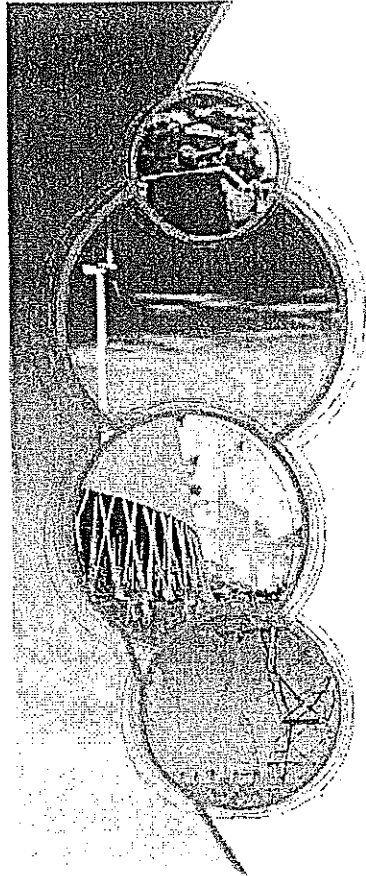
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		N/A	Yes	No
1.8 TECHNICAL EVALUATION				
- Has the project/issue undergone a technical evaluation? (If yes, by whom)		✓		
- Has the evaluation been verified?				
- By whom (internally or independent)?				
1.9 BLACK ECONOMIC EMPOWERMENT IMPLICATIONS				
Does the project have any BEE implications?		✓		
1.10 EMPLOYMENT EQUITY				
Was due consideration given to employment equity in terms of the following:				
- Project team			✓	
- Drafting of submission documentation			✓	
- Individual(s) presenting to EXCO			✓	
2. ADDITIONAL APPROVALS				
2.1 NERSA				
- Is NERSA approval/consultation required?				
- If approval or consultation is required, provide details and also highlight the time lines, deadlines, etc.		✓		
2.2 PUBLIC FINANCE MANAGEMENT ACT (PFMA)				
- Is any PFMA approval required?		✓		
2.3 ARE THERE ANY OTHER APPROVALS REQUIRED? IN PARTICULAR				
- Reserve Bank				
- Competition Commission				
- National Treasury		✓		

SIGNATURE:  **DATE:** 24/11/14

GROUP EXECUTIVE SUSTAINABILITY
Who hereby confirms that all of the above requirements have been complied with.

PRINT NAME: _____




Eskom's Environmental Management Performance

“Reducing the environmental footprint and Living Zero Harm as a value in Eskom”

Environmental performance and compliance update – December 2013

Date: 10 February 2014

Dr. Steve Lennon

Powering your world 

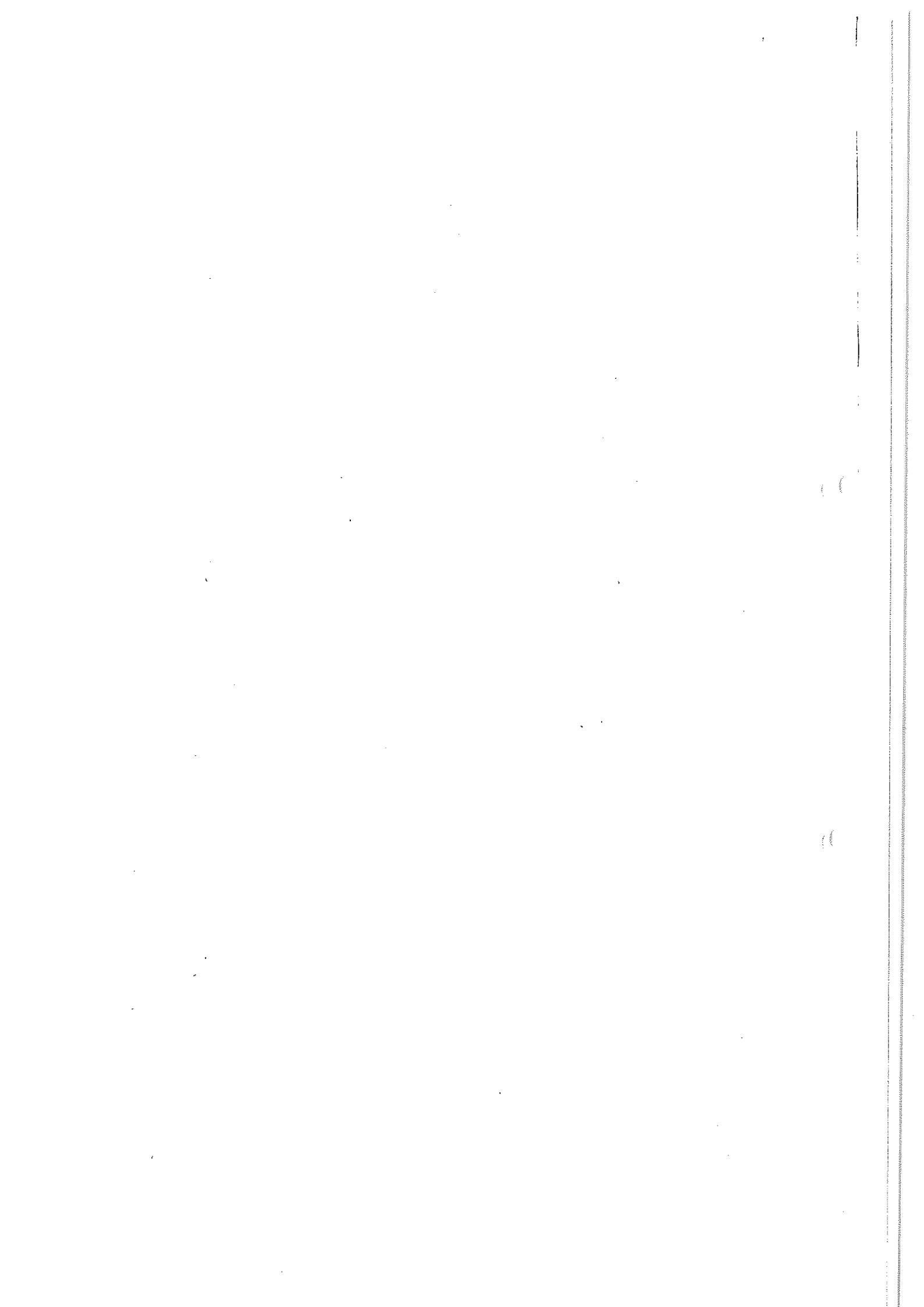
Resolution required

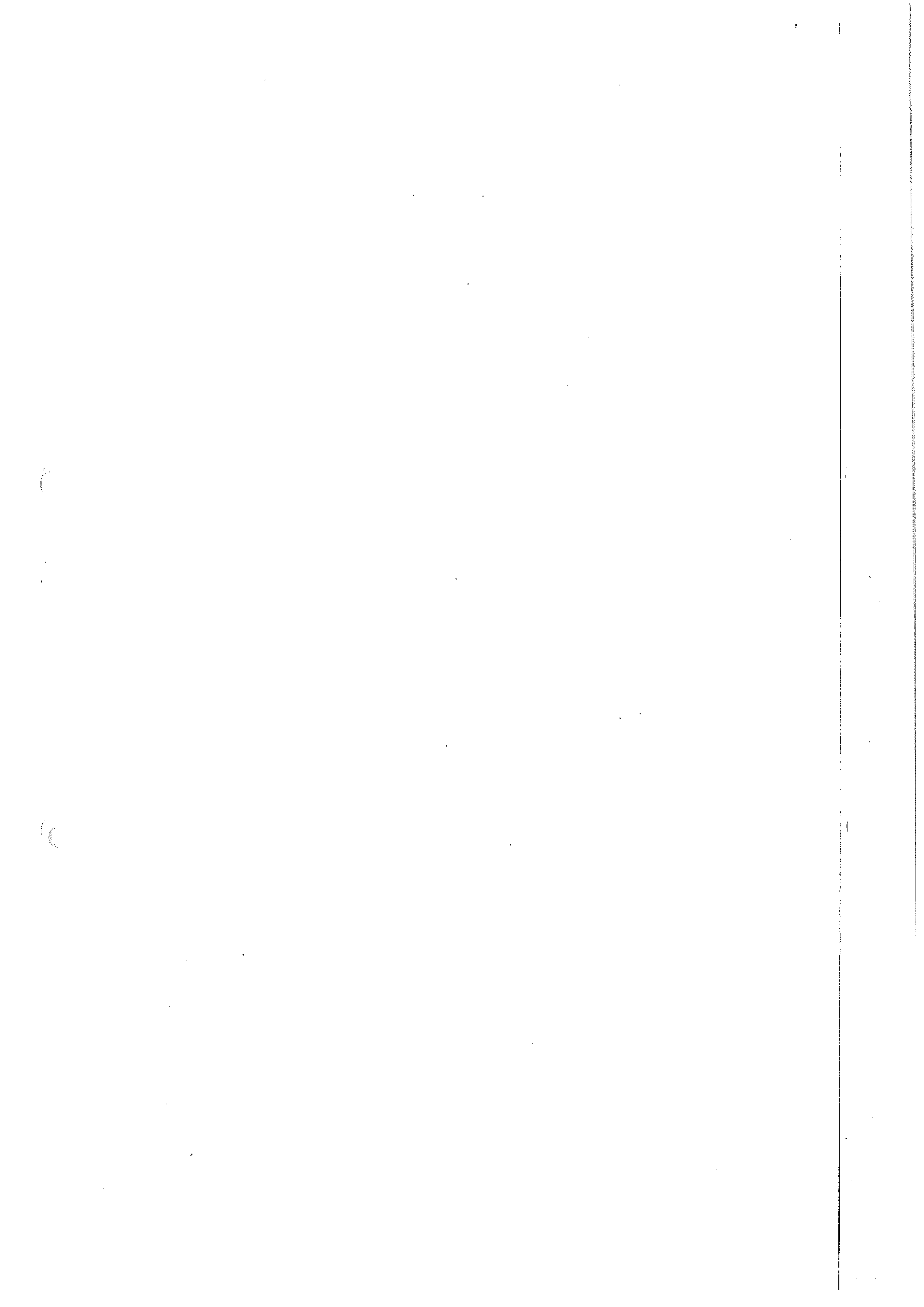


Resolution required:

- (i) None. Submission is for information only.







Additional compliance developments (1/2)



- Notice of intention to issue a compliance notice for the Ingula pumped storage scheme issued on 19 December 2013.
 - The initial review of the notice indicates that there are areas where Eskom has been in non-compliance.
 - A response to the authorities on the matter is being prepared in consultation with external legal support.
- Group Capital received an administrative fine of R1M in November 2013 related to rectification application for unauthorised activities associated with the Komati Power Station Return to Service.
 - This related to construction activities which occurred in 2008.
 - Komati is awaiting an additional fine in response to a second rectification application related to waste activities.

19
2013

Additional compliance developments (2/2)



- Board approval in November 2013 for allocation of funds (as per the capital portfolio allocation) that will address 57% of the total environmental requirements in respect of minimum emission standards, as well as funds for critical and 'must-do' projects to ensure environmental compliance.
 - There is a risk that the 57% allocation for environmental compliance requirements may not be approved by the authorities and full compliance will be required at a cost of R200bn and a major impact on plant availability.
- Long awaited senior level meetings with Department's of Public Enterprises, Environmental and Water Affairs (DPE, DEA and DWA) around environmental compliance took place in December 2013 with a follow up meeting to be held in January/February 2014.

19
2013

Update: Kriel's non-compliance with emission licence and risk of production loss



- Kriel has been frequently operating in non-compliance with its new Atmospheric Emission Licence since the new licence was issued in June 2012.
 - Eskom has requested variation of the emission licence to include a more lenient emission limit and a grace period.
 - A response is hoped for by end January 2014.
 - In order to allow the authorities time to respond to the variation request, Board resolved in a round robin decision on 31 December 2013 that Kriel will only be de-loaded or shut down on 31 March 2014, should the necessary permissions not be received from the authorities by then
 - Kriel is putting in place a number of measures to improve the emissions performance and ensure duty of care, including daily report on emissions performance and plant status and taking a load loss taken if there is a fly ash backlog
 - An investigation into the design capability of Kriel's electrostatic precipitator has shown that Kriel can comply with the emission limit, provided the coal is of good enough quality, and provided all parts of the emission control plant are optimised. Both of these issues present frequent challenges, given Kriel's coal supply and age of the plant.

9



Risk of non-compliance with emission limits



- All power stations will receive new Atmospheric Emission Licences by 31 March 2014.
- No provision for exemption is made in the new licences - stations that currently operate under exemption for prolonged periods of time are thus at risk of operating illegally if they are not de-loaded or shut-down.
- Eskom is requesting that substantial grace periods be included in the new emission licences, to enable stations to continue operating in the event of plant breakdown - at this stage no indication from the authorities as to whether the requested grace period will be included.

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Potential loss of production for compliance with new AELs




Risk	Power station	MW load loss required to comply/ time to compliance	Frequency
Continuous risk of non-compliance	Kriel	1500-2100 MW	All the time
	Kendal	200-1200 MW	70%
	Lethabo	700 – 2000 MW	All the time
	Grootvlei	400 - 600 MW – 2/3 units to be shut down	All the time
	Tutuka	300-1200 MW	80%
	Matla	600-1200 MW when poor coal or breakdown	20%, coal dependent
Sporadic risk of non-compliance	Duvha	300-900 MW (Units 4-6)	20%; mainly during rainy season
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	Komati	100-500 MW	40% and increasing risk until ash dam resolved
Low risk of non-compliance	Majuba		
	Arnot	Low risk of load losses at fabric filter plants. Risk 50-100 MW during on-load rebags	25% at Majuba and Camden and Duvha U1-3 – included in PCLF
	Hendrina		
	Camden		

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Thank you

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		Revision	0
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		Office of the Company Secretary	

**EXTRACT FROM THE FINAL MINUTES OF THE AUDIT AND RISK COMMITTEE MEETING
NO. 09/2013-14 HELD ON 10 FEBRUARY 2014 FROM 09H30 IN HUVO NKULU
BOARDROOM ATMEGAWATT PARK**

8

10.3 Combined Assurance Quarterly Reports as at 31 December 2013

10.3.1 Compliance Management

10.3.1.1 Compliance Category Header

Resolved that:

1. the Compliance status within each of the following areas reported on is noted:
 - 1.1 Quarterly Submissions:
 - 1.1.1 PFMA Consolidated Report;
 - 1.1.2 Statutory Reporting Obligations;
 - 1.2 Compliance Status Reports:
 - 1.2.1 PFMA;
 - 1.2.2 Environmental Management (update); and
 - 1.2.3 Group Customer Services.

10.3.1.2 Self-Assessment Reports

Resolved that:

1. the Environmental performance and compliance update - December 2013 is noted.

CERTIFIED AS A TRUE EXTRACT



S Daniels
GROUP COMPANY SECRETARY

Date: 21/9/2016

