

APPEAL AGAINST THE ENVIRONMENTAL AUTHORISATION FOR THE CONSTRUCTION OF THE PROPOSED KUSILE RAILWAY LINE FROM THE KUSILE POWER STATION TO THE EXISTING PRETORIA-WITBANK RAILWAY LINE, MPUMALANGA PROVINCE

APPEAL DECISION

Ref: 12/12/20/1488

**MINISTRY
WATER AND ENVIRONMENTAL AFFAIRS
REPUBLIC OF SOUTH AFRICA**



1. INTRODUCTION

1.1 On 23 April 2010, the Chief Director: Environmental Impact Management of the Department of Environmental Affairs (the Department), acting under delegated authority, granted Eskom Holdings Limited (the applicant) an environmental authorisation (EA) for the construction of the Kusile railway line from the Kusile Power Station, Mpumalanga Province to the existing Pretoria – Witbank railway Line, Gauteng Province, in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), read with the Environmental Impact Assessment Regulations, 2006 (EIA Regulations).

1.2 The decision was subsequently appealed against and the appellant has requested that the original decision be set aside.

2. BACKGROUND

2.1 The applicant intends to construct the Kusile railway line from the Kusile Power Station, Mpumalanga Province to the existing Pretoria – Witbank railway line, Gauteng Province.

- 2.2. I am informed that the need and desirability for the railway line is directly related to the necessity to transport sorbent (lime) material to the Kusile Power Station.
- 2.3 The applicant has furthermore indicated that the major benefit for the railway line will be to transport the sorbent material that will be used for scrubbing the flue gases to remove the sulphur dioxide and thus bringing the Kusile Power Station in line with the international emission standards.
- 2.4 The EA was granted to the applicant on 23 April 2010 by the Department. The appellant lodged an appeal in terms of section 43(1) of NEMA against the Department's decision.
- 3. **APPEAL**
- 3.1 Three alternative routes were identified for the railway line and the appeal was triggered by the fact that route 1 was authorised.
- 3.2 The grounds for appeal can be broadly categorized as follows:
- 3.2.1 The Environmental Impact Report (EIR) does not reflect all the anticipated environmental impacts of the proposed railway line. Therefore the EIR in its current state is incomplete and severely lacking.
- 3.2.2 The geological map used in the planning of the proposed railway line is incorrect in that it indicates that the shale stone belonging to the Silvertown formation in the area is the dominant feature, whilst the resistant sandstone belonging to the Wilge River formation is in fact the dominant feature.
- 3.2.3 The noise impact emitted from the blasting of rocks during the pre-construction and construction of the railway line is inadequately addressed in the EIR.

- 4.1.1 The information contained in the project file (ref. no. 12/12/20/1488);
 - 4.1.2 The appeal submitted by the appellant;
 - 4.1.3 The response of the applicant to the grounds of appeal;
- 4.1 In reaching my decision on the appeal against the proposed railway line, I have taken the following into consideration:
- 4. DECISION**
- 3.2.4 The chemical impact resulting from the preferred chemical breakdown over the blasting of rocks is inadequately addressed in the EIR.
 - 3.2.5 The approved waste management plan for the project should adequately mitigate all the potential environmental impact arising from the nitrogen and the phosphorous sources from the explosives on the surface and the groundwater.
 - 3.2.6 The quality of the groundwater on site will be severely compromised, taking into account the potential impacts arising from the blasting of rocks, the use of chemicals and cutting.
 - 3.2.7 The EIA process must be reconducted to assess the noise and the groundwater impacts which are not covered in the EIR.
 - 3.2.8 The interested and affected parties (I&APs) were not kept abreast on the changes affected by the environmental impact practitioner (EAP) on the design for the portion of the railway line that goes over the R104 road. The initial design presented to the I&APs illustrated that the railway line will go beneath R104 but the final design illustrates that the railway line will go over the R104 road.
 - 3.2.9 The EIA process was inadequate in that the final design for the railway line was not presented to the I&APs to comment on the potential impacts on the receiving environment, during the pre-construction and construction phases of the project.

In view of the information before me, I am satisfied that all the anticipated impacts that may arise during the construction of the line have been adequately addressed in the EIR. I also take note of the requirement in the environmental authorisation that certain additional sensitive environmental issues need to be attended to in the environmental management plan (EMP). In light of the fact that the EMP has to still be submitted to the Department for approval, I am confident that the implementation of the EMP will provide for the satisfactory mitigation of all impacts identified during the environmental impact assessment process. Therefore I do not regard this ground for appeal as substantive.

4.2.2.1 The final Environmental Impact Report (EIR) does not reflect all the anticipated environmental impacts by the proposed railway line. Therefore the EIR in its current state is incomplete and severely lacking (Paragraph 3.2.1 above)

4.2.2 I shall briefly discuss the major grounds for appeal below:

4.2.1 I am satisfied that the need and desirability for the railway line has been adequately proven. The line is necessary to transport the sorbent material that will be used for the scrubbing of flue gases to remove sulphur dioxide and thus bring the Kusile Power Station in line with the international emission standards.

4.2 The reasons for my decision, *inter alia*, are as follows:

- 4.1.4 The answering statements submitted by the appellant to the applicant's response;
- 4.1.5 The comments of the Department on the grounds of appeal; the applicant's response and the answering statements submitted by the appellant;
- 4.1.6 The need for and benefit of the railway line.

4.2.2.5 The approved waste management plan for the project should adequately mitigate for all potential environmental impact arising from the nitrogen and the phosphorous

I have been informed that at the time of the compilation of the EIR, the chemicals to be used for the breakdown of rocks, have not yet been identified. However, I am satisfied that the FEIR has adequately addressed the anticipated impacts that may arise from the general use of chemicals. Furthermore, the final EMP to be submitted to the Department for approval, will further deal with any potential environmental impacts including the use of chemicals. Therefore, I do not regard this ground of appeal as substantive.

4.2.2.4 The chemical impact resulting from the preferred chemical breakdown over blasting of rocks, is not addressed in the FEIR. (paragraph 3.2.4 above)

The noise impact during the pre-construction and construction phases was not assessed because the proposed chemical breakdown of the rocks was the preferred method over the blasting. Therefore, I do not regard this ground of appeal as substantive.

(paragraph 3.2.3 above)

4.2.2.3 The noise impact emitted from the blasting of rocks during the pre-construction and construction phases of the railway line is inadequately addressed in the FEIR.

In view of the investigations and report before me, which was compiled by Mr. Jan Arket of Africa Exposed Engineering Geologists, the dominant rock feature in the region is sand - stone, tillite and shale. The authorised route corridor therefore falls in the area dominated by shale geology. This ground for appeal is dismissed.

4.2.2.2 The geological map used in the planning of the proposed railway line is incorrect because it refers to the shale stone belonging to the Silverton formation in the area, as the dominant feature, whilst the resistant sandstone belonging to the Wilige River formation, is in fact the dominant feature. (paragraph 3.2.2 above)

As stated in 4.2.2.1 above, I am satisfied that all the anticipated impacts, including noise and groundwater impacts, have been adequately assessed during the EIA process and that the appropriate mitigation measures will be included in the EMP, to be submitted to

which are not covered in the EIR. (paragraph 3.2.7 above)

4.2.2.7 The EIA process must be reconducted to assess noise and groundwater impacts.

As indicated in paragraph 4.2.2.5 above, I am satisfied that the indicated impact on the groundwater will mainly arise from the potential spillages and leakages of hydrocarbons from the heavy duty vehicles or machines. The contamination will arise from the pit latrine infiltration during the pre-construction and construction phases. The specialist, who conducted the groundwater impacts, concluded that these impacts are rated moderate and they can be successfully mitigated. This ground of appeal can therefore be dismissed.

during the excavation of the cutting. (paragraph 3.2.6 above)

4.2.2.6 The quality of groundwater on site will be severely compromised taking into account the potential impacts arising from the blasting of rocks and the use of chemicals

I am satisfied that the effective management of all the potential waste sources, which may result from either the blasting or chemical activities, will be achieved through the efficient implementation of the required waste management plan. I am further satisfied that the EMP to be submitted to the Department for consideration and approval, will adequately provide and define the mitigation measures to be undertaken by the applicant, which will include testing and monitoring of the level of contamination of the nitrogen and the phosphorous sources on the surface and groundwater at regular intervals. I believe that this ground of appeal will be adequately dealt with in the approved waste management plan.

above)

sources from the explosives on the surface and the groundwater. (paragraph 3.2.5

I take note that, at this stage, a final design for the railway line cannot be presented to the I&APs. The design of this kind of a project can only be determined after the railway line route has been finalized. Thus further assessment will have to be undertaken by the applicant once the authorised corridor has been approved and geotechnical studies have been conducted. This will include the final walkabout in the authorised corridor to peg the railway line route in order to allow for any possible deviations within the 500 metre corridor and to avoid any potential impacts on the environmentally sensitive areas. However, I am satisfied that these concerns will be addressed in the Environmental Management Plan

project.(paragraph 3.2.9 above)

The EIA process was inadequate in that the final design for the railway line was not presented to the I&APs to comment on the potential impacts on the receiving environment during the pre-construction and construction phases of the

4.2.2.9

I am informed that the change in design of the portion that goes over the railway line was presented and explained by the EAP to the I&APs at a public meeting arranged in accordance with the public participation process. Furthermore the EIR, circulated among the I&APs, captures that initially it was the intention of the applicant that the railway line should go under the R104 and the N4. However, subsequent investigations conducted showed that the R104 area is saturated and it was thus recommended that the railway line be re-designed to go over the R104. Therefore, I cannot accept this objection by the appellant as a valid ground for appeal.

above)

The I&APs were not kept abreast on the changes effected by the EAP on the design for the portion of the railway line that goes over the R104 road. The initial design presented to the I&APs illustrated that the railway line will go beneath R104 road but the final design illustrates that the railway line will go over the R104 (paragraph 3.2.8

4.2.2.8

the Department for approval. Therefore, I do not regard this ground for appeal as substantive.

that has to be presented to the Department for approval. I have further noted that the applicant has made a commitment in the appeal response report in that they would continuously involve the I&APs after the EIA process with regard to the finalization of the railway designs. Therefore, in light of the aforementioned, the environmental authorisation (EA) should be amended to add a condition directing the applicant to continuously involve the I&APs in the finalization of the railway designs.

4.3 Having considered the above information, I have concluded that the Chief Director: Environmental Impact Management adequately considered all the major anticipated environmental impacts of the proposed project and that the decision to authorise the development was correct. In addition, the implementation of the mitigation measures proposed in the environmental impact report and the compliance with the conditions contained in the EA, will ensure that the impact of the proposed railway line is mitigated to acceptable levels. Therefore, in terms of section 43(6) of NEMA I have decided to:

4.3.1 Dismiss the appeal against the EA granted by the Chief Director: Environmental Impact Management of the Department; and

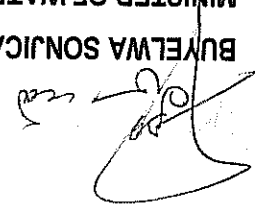
4.3.2 Confirm the EA issued by the Chief Director: Environmental Impact Management of the Department on 23 April 2010, for the construction of the proposed railway line, except to the extent as indicated in paragraph 4.3.3 below.

4.3.3 In order to continuously involve the I&APs after the EIA process with regard to the finalization of the railway designs, I direct that the environmental authorisation of 23 April 2010 to be amended by the insertion of the following paragraph after paragraph 1.6 under the heading "Scope of Authorisation":

"1.6 A. The applicant must ensure that the I&APs are continuously involved in the finalization of the railway designs for the railway line."

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- 5. The reasons set out above are not exhaustive and should not be construed as such. I reserve the right to provide comprehensive reasons for my decision should this become necessary.



BUYELWA SONJICA, MP

MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

DATE: 24.10.2010