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reference SSD14/2/6/1/4/1/34_diesel tanks_Koeberg
date 27 March 2017

Doug Jeffery Environmental Consultants
P.O. Box 44
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7625

Attention: Adel Groenewald
By email: adel@dougjeff.co.za

Dear Adel

Draft Basic Assessment Report for the Proposed Expansion of the Diesel Storage Facilities at the Koeberg Nuclear Power Station, Farm Duynefontein 1552, Melkbosstrand

CapeNature would like to thank you for the opportunity to comment on the proposed development and would like to make the following comments. Please note that our comments only pertain to the biodiversity related impacts and not to the overall desirability of the proposed development.

The application is for increased diesel storage facilities required for operations at the nuclear power station for emergency situations. Two alternative locations are provided for the one additional tank, with the other additional tank located at the portable emergency equipment site.

The three alternative locations are located on transformed footprints according to the information contained within the draft basic assessment report. CapeNature is satisfied that no further specialist studies are required regarding terrestrial ecology and that the facilities will not have a significant impact in this regard.

In terms of surface water features, the Ekhaya site alternative is located to the south of stormwater attenuation ponds, with a natural wetland located a bit further to the east. The transport garage site alternative is not located adjacent to any freshwater features. There is a wetland located to the south east of the portable emergency equipment site. Ideally the buffer between the wetlands and the proposed facilities should be indicated

CapeNature agrees that none of the proposed site alternative locations will impact on surface or groundwater features provided the design and implementation of the facility adheres to international best practice. It is noted that information has been provided regarding the proposed technology and a specialist risk assessment which should be assessed by those with the relevant expertise.

The property is classified as Protected Area according to the Biodiversity Network (BioNet) for the City of Cape Town and the Western Cape Biodiversity Spatial Plan. It should be noted that the entire property (Cape Farm 34) forms part of the Koeberg Nature Reserve.

With regards to the Koeberg Nature Reserve, it should be noted that the private nature reserve proclaimed under the Western Cape Nature and Environmental Conservation Ordinance, 1974 (Ordinance 19 of 1974), has been made compliant with the provisions of the National Environmental Management: Protected Areas Act (NEM:PAA – Act 57 of 2003). A stewardship agreement was signed between Eskom and CapeNature in March 2015 and a protected area management plan (PAMP) has been compiled in terms of NEM:PAA (termed the Management Plan for the Koeberg Nature Reserve). This PAMP has approved by the MEC for Local Government, Environmental Affairs and Development Planning.

All development or changes from a natural condition within a protected area should be controlled by the approved PAMP in terms of NEM:PAA. None of the proposed alternative locations are within the Conservation Zone of the nature reserve. The Ekhaya site is within the Developed Zone – Noxious Industrial and the transport garage site and portable emergency equipment sites are both within the Developed Zone – Facilities. Therefore, all of the alternative sites are compliant with the PAMP. Any alternative locations within the Conservation Zone would be non-compliant. Any development that does not comply with the approved PAMP would be in contravention of NEM:PAA.

In conclusion, CapeNature does not object to the proposed developed provided the Environmental Management Plan and industry best practice is implemented.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Rhett Smart', with a horizontal line underneath.

Rhett Smart
For: Manager (Scientific Services)



TDA
CAPE TOWN

The City of Cape Town's Transport
and Urban Development Authority

Morné Theron

Senior Environmental Professional
Environmental & Heritage Management Branch
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27 March 2017

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Worcester
6862

Attention: Ms. Adél Groeneweld

[via email: adel@dougjeff.co.za]

Dear Ms Groeneweld

FARM DUYNFONTEIN NO 1552, MELKBOSSTRAND: DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED EXPANSION OF DIESEL STORAGE FACILITIES AT KNPS

DEA&DP Reference: 14/12/16/3/3/1/1736

The abovementioned Draft Basic Assessment Report (DBAR), received 22 February 2017, refers.

Below please find the consolidated comment of the City of Cape Town on the above mentioned report:

1. City of Cape Town: Planning & Building Development Management Branch

The site was rezoned by Council in 2009, whilst a further rezoning to commercial and general industrial to permit offices and industrial building was approved in 2011.

The respective zones were converted to the integrated City of Cape Town Zoning Scheme in 2013. These relate to the buildings and use of the portion of the land unit (as reflected on the sketch plan submitted) with the rezoning application (Project No. 20007 510 proposed zoning plan Fig. 6 dated 26/05/2007) that is limited to a nuclear power station facility and related infrastructure that includes:

- (a) Noxious Industrial building (the existing Koeberg Nuclear Power Station building footprint as a Conditional Use).
- (b) Offices (above Ground Floor) and as a Conditional Use for Administrative, Commercial and Professional Offices (on Ground Floor level) to regularise the existing ACP1 and Transportation Depot, Disaster Management Centre, Administrative Offices and Environmental Survey Laboratory, Koeberg Conference Centre and Estates Managers and Conservation Offices.
- (c) Industrial buildings (to regularise the existing Bulk Storage Building, Weather Station and Koeberg Test Station) and as a Conditional use for the following:
 1. Place of Instruction (existing Training Centre, Edusec Centre and Fire Training Centre);
 2. For buildings in excess of 11m in height to regularise the existing Storage building.
- (d) Public Utilities (as a Conditional use for the Electricity Substations for the City of Cape Town and Eskom).

In terms of the Site Development Plan's approved for the various precincts, Alternative 1 is zoned Risk Industry (RI) and Alternative 2 is zoned General Business (GB 1). The Bulk stores is zoned General Industry (GI 1).

It should be noted that notwithstanding that the storage of fuel tanks (i.e. diesel) is regarded as "related infrastructure", Item 124 of the City of Cape Town Development Management Scheme (i.e. the Zoning Scheme Regulations) is applicable, namely:

124 Hazardous substance

(1) Any use or ancillary activity that involves the storage or keeping of hazardous substances that may result in an installation being declared a major hazardous installation in terms of occupational health and safety law is not permitted, unless a risk management and prevention plan has been submitted by the owner, and the City has given approval thereto.

2. City of Cape Town: Fire & Safety Management Branch

Further to the caution pertaining to Hazardous substances raised by the Planning & Building Development Management Branch above the Fire & Safety Management Branch indicated that the two diesel tanks is not considered a major hazardous installation (MHI) in isolation. The two tanks should merely be included to the Koeberg Nuclear Power Station's existing MHI protocol.

The preferred alternatives are therefore in order.

3. City of Cape Town: Environmental Health: Air Quality Management Branch

3.1 The proposed storage tanks are portable and their volume below the threshold for licencing in terms of the NEM: AQA GN 893 and therefore an Atmospheric Emissions Licencing and monitoring is not required.

3.2 It is however recommended that when the placement of each of the storage units is planned, particular attention is paid to the termination point of each of the vent pipes, the prevailing wind direction and the proximity of openable windows or other working areas, to prevent an odour nuisance from being caused.

4. City of Cape Town: Environmental and Heritage Management Branch

This branch has the following comment on the application:

Draft BAR

4.1 Section A, item 11 (page 18) states that comment from Heritage Western Cape (HWC) is pending. A copy of the NID submitted to HWC and the HWC response must be include in the final BAR. Further comment will be provided upon receipt of the said information. It is cautioned that the entire subject site is located in an area of high archaeological sensitivity according to the City of Cape Town: Environmental Management Framework as contained in the approved Blaauwberg District Plan.

4.2 Section A, item 11 (page 18): Appendix the EA, dd 26 Feb 2016 (Ref: 12/12/20/997), that is being referred to in the final BAR for ease of reference.

4.3 The Appendixes numbers pertaining to the Layout Plan and the Sensitivity Maps does not correspond with the appendixes numbers stated in Section A, item 6 *Layout* and item 7 *Sensitivity Maps* respectively. Please correct.

EMPr

4.4 Clause 2.6.1: Working hours and days must be clearly stipulated in the EMPr. It is suggested that working hours be 07h00 to 17h00 Mondays to Saturdays. It must be stipulated that no work is to occur on Sundays and public holidays.

- 4.5 Clause 2.4.1: It is to be specified in the EMPr that a minimum of one toilet is to be provided on site for every 15 contract personnel in the case of chemical toilets and 1 for every 30 staff in the case of flush toilets.
- 4.6 Clause 2.6.5 a: It must be stated in the EMPr that stockpiles may not exceed 2m in height.
- 4.7 Clause 2.8: It must be noted in the EMPr that no potable water may be used as a dust mitigation measure.
- 4.8 Clause 2.14.2: It must be stated in the EMPr that contractors may be fined up to R10 000 per month for commencing construction activities without an ECO on site.
- 4.9 The proof of appointment of an independent Environmental Control Officer (ECO) to monitor compliance with the EMPr must be submitted to the City of Cape Town Environmental and Heritage Management Branch prior to the submission of the Building Plans. This requirement must be included in the EMPr.
- 4.10 Clause 2.2.1: It is suggested that the ECO conduct site visits at least twice per month.
- 4.11 It is requested that the EMPr include a clause indicating that the ECO audit reports be submitted to the City of Cape Town Environmental and Heritage Management Branch for consideration.

Notwithstanding the above corrections, the EAPs recommendations, and in particular the preferred alternative 1, contained in Section E (page 45) is supported from a technical comment perspective.

In conclusion, it must be ensured that the above comments are adequately addressed prior to the application being submitted to the DEA&DP for environmental authorisation.

Yours faithfully



Pat Titmuss

Regional Manager: Environmental & Heritage Management – Northern Region



environmental affairs

Department:
Environmental Affairs
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DEA Reference: 14/12/16/3/3/1/1736

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PER E-MAIL / MAIL

Dear Ms Groenewald

COMMENTS ON THE DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED EXPANSION OF THE DIESEL STORAGE FACILITIES AT THE KOEBERG NUCLEAR POWER STATION, MELKBOSSTRAND WITHIN THE WESTERN CAPE PROVINCE.

The application form and the draft basic assessment report (DBAR) received by the Department 22 February 2017 and the acknowledgement of receipt thereof dated 24 February 2017 refers.

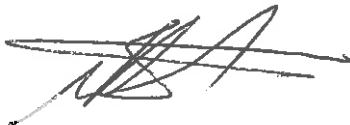
This Department has the following comments on the abovementioned application:

- i. Please ensure that all relevant listed activities are applied for, are specific and that it can be linked to the development activity or infrastructure as described in the project description.
- ii. If the activities applied for in the application form differ from those mentioned in the final BAR, an amended application form must be submitted. Please note that the Department's application form template has been amended and can be downloaded from the following link <https://www.environment.gov.za/documents/forms>.
- iii. The Environmental Assessment Practitioner (EAP) must ensure that an adequate motivation on the applicability of each listed activity that triggers the proposed development is provided. The applicability of each activity against the actual threshold for the proposed development must be verified.
- iv. Please ensure that all issues raised and comments received during the circulation of the BAR from registered I&APs and organs of state which have jurisdiction in respect of the proposed activity are adequately addressed in the final BAR. Proof of correspondence with the various stakeholders must be included in the final BAR. Should you be unable to obtain comments, proof of the attempts that were made to obtain comments must be submitted to the Department. The Public Participation Process must be conducted in terms of Regulation 39, 40, 41, 42, 43 & 44 of the EIA Regulations 2014.
- v. Please ensure that all issues raised and comments received during the circulation of the draft BAR from registered I&APs and organs of state which have jurisdiction in respect of the proposed activity are adequately addressed in the final BAR. Proof of correspondence with the various stakeholders must be included in the final BAR. Should you be unable to obtain comments, proof of the attempts that were made to obtain comments must be submitted to the Department.

- vi. Please provide a description of all identified alternatives for the proposed activity that are feasible and reasonable, including the advantages and disadvantages that the proposed activity or alternatives will have on the environment and on the community that may be affected by the activity as per Appendix 1 (2) (e) and 3 (1) (h) (i) of GN R.982 of 2014. Alternatively, you should submit written proof of an investigation and motivation if no reasonable or feasible alternatives exist in terms of Appendix 1.
- vii. The final BAR must provide an assessment of the impacts and mitigation measures for each of the listed activities applied for.
- viii. Cumulative impacts of similar type of developments in the area must form part of the studies that must be assessed as part of the final BAR process.
- ix. The final BAR must provide the technical details for the proposed facility in a table format as well as their description and/or dimensions.
- x. In terms of Appendix 1 of the EIA Regulations, 2014, the report must include an undertaking under oath or affirmation by the EAP in relation to:
 - the correctness of the information provided in the reports;
 - the inclusion of comments and inputs from stakeholders and I&APs;
 - the inclusion of inputs and recommendations from the specialist reports where relevant;
 - any information provided by the EAP to interested and affected parties; and
 - responses by the EAP to comments or inputs made by interested or affected parties.
- xi. In terms of Appendix 1 (3) (1) (a) of the EIA Regulations 2014, the details of—
 - (i) *the EAP who prepared the report; and*
 - (ii) *the expertise of the EAP to carry out BAR; must be submitted.*
- xii. You are further reminded that the final BAR to be submitted to this Department must comply with all the requirements in terms of the scope of assessment and content of BAR in accordance with Appendix 1 of the EIA Regulations, 2014.
- xiii. Further note that in terms of Regulation 45 of the EIA Regulations 2014, this application will lapse if the applicant fails to meet any of the timeframes prescribed in terms of the these Regulations, unless an extension has been granted in terms of Regulation 3(7). Please submit a CD together with the final BAR.

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.

Yours sincerely



Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs
Signed by: Mr. Wayne Hector
Designation: Deputy Director: Strategic Infrastructure Developments
Date: 27/03/17

cc:	Velaphi Ntuli	Eskom Holdings SOC Ltd.	Tel: 021 550 4655	Email: Ntuli@eskom.co.za
	Pat Titmuss	City of Cape Town	Tel: 021 444 0597	Email: Pat.Titmuss@capetown.gov.za



REFERENCES:

16/3/3/6/4/1/1/A1/16/3043/17 (Development Management)
19/2/5/3/A1/16/WL0019/17 (Waste Management)
19/4/4/A1/14/Koeberg NPS – Diesel Storage Facilities (Air Quality Management)
Koeberg Nuclear Power Station 2015/19 (Pollution and Chemicals Management)

DATE: 2017 -03- 27

The Board of Directors
Doug Jeffery Environmental Consultants (Pty) Ltd
P.O. Box 44

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For attention: Ms Adél Groenewald

Tel: (021) 875 5252
E-mail: Adel@dougjeff.co.za

Dear Madam

COMMENT ON THE DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED INSTALLATION OF ADDITIONAL ABOVEGROUND MOBILE DIESEL STORAGE TANKS AND ASSOCIATED INFRASTRUCTURE AT THE KOEBERG NUCLEAR POWER STATION, FARM DUYNEFONTEIN NO. 1552, MELKBOSSTRAND

1. The Draft Basic Assessment Report ("BAR") dated February 2017 that was received by the Department on 22 February 2017, refers. The following consolidated comment from various Directorates within the Department is hereby offered.
2. Directorate: Development Management (Region 1) – Melanese Schippers (Melanese.Schippers@westerncape.gov.za; Tel: (021) 483 8349):
 - 2.1 It is noted that wetlands are located adjacent to the preferred site (Ekhaya site and PEE site); however, the distance of the wetlands in relation to the proposed site has not been specified. Please note that should the preferred site be located within 500m of the wetlands, a water use licence may be required from the Department of Water and Sanitation ("DWS"). As such, DWS must be consulted on the applicability of the National Water Act, 1998 (Act No. 36 of 1998) and their requirements must be included in the Final BAR to be submitted to the competent authority.

- 2.2 This Directorate believes that impacts associated with the proposed development have not been assessed in terms of the methodology proposed. It is noted that potential soil – and groundwater contamination and potential surface water impacts during the construction phase, have been identified of negligible significance after mitigation. Furthermore, the loss of vegetation during the construction phase for the preferred site has been identified in the Draft BAR as being of very low negative significance after mitigation. An assessment that addresses the above must be included in the Final BAR to be submitted to the competent authority.
- 2.3 Proof of the public participation conducted must be included in the Final BAR to be submitted to the competent authority. Please note that the proof must include, *inter alia*, the following:
- 2.3.1 Copies of the newspaper advertisements (“newspaper clippings”), indicating the name of the newspapers and date of publication;
- 2.3.2 Photographs showing the notice displayed on site and a copy of the text displayed on the notice; and
- 2.3.3 With regards to the written notices provided, the following must be included in the Final BAR:
- (i) if registered or regular mail was sent, a list of the registered or regular mail sent, as obtained from the post office;
 - (ii) if a facsimile was sent, a copy of the facsimile report;
 - (iii) if an electronic mail was sent, a copy of the electronic mail sent and delivery reports; and
 - (iv) if a “mail drop” was done, a signed register of “mail drops”.
- 2.4 Section A7, page 12 of the Draft BAR indicates that a sensitivity map is included in Appendix A3. Please be advised that Appendix A2 of the Draft BAR depicts the sensitivity map. This error must be corrected in the Final BAR to be submitted to the competent authority.
3. Directorate: Waste Management – Etienne Roux (Etienne.Roux@westerncape.gov.za; Tel: (021) 483 8378):
- 3.1 The Environmental Management Programme (“EMPr”) dated February 2017 must be amended to include/address the following comments/recommendations:
- 3.1.1 The applicant is reminded of the requirement to comply with the “Duty of care” as defined in section 28 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (“NEMA”) by ensuring that the proposed diesel storage tanks do not cause significant pollution or degradation of the environment.
- 3.1.2 Storage tanks and pipe lines must have early leak detection systems.
- 3.1.3 Stock reconciliation must be done regularly to identify leaks.
- 3.1.4 Materials spilled during transfers from tank to storage and decanted to vehicles should be regarded as hazardous waste. Spills must be contained using commercially available absorbent material. The fuel soaked absorbent material must be treated as hazardous waste.
- 3.1.5 The procedure for the control of incidents and emergency situations identified in terms of section 30 and section 30A of the NEMA, respectively, must be included in the EMPr. Any event resulting in the spillage or leakage of product into a watercourse (e.g. that of hazardous substances used during the construction and/or operational phase) must be reported within the relevant timeframes to all

relevant authorities, including this Department's Directorate: Pollution and Chemicals Management. Containment, clean-up and remediation of the affected area must commence immediately and all necessary documentation must be completed and submitted to the relevant authorities within the prescribed timeframes.

- 3.1.6 Confirmation must be obtained from the Municipality/service provider that there is sufficient disposal capacity to accommodate additional waste generated by the proposed development.
 - 3.1.7 All hazardous waste must be stored in a demarcated area and disposed of using professional waste disposal contractors. All documents relating to volumes and types of waste stored must be kept on site for inspection.
 - 3.1.8 The applicant must obtain and file disposal certificates from service providers that will dispose of the general and hazardous waste, as evidence that the waste has been disposed of at an appropriate, licenced waste disposal facility.
 - 3.1.9 A complaints register must be kept on site specifying the date, time and nature of complaints and how the complaint was resolved/addressed.
4. Directorate: Air Quality Management – Peter Harmse (Peter.Harmse@westerncape.gov.za; Tel: (021) 483 8343):
- 4.1 All installations must be fitted with vapour recovery units. This will enable vapours and hydrocarbons emitted during loading operations to be returned to the loading tank where it will be stored.
 - 4.2 It is recommended that a fence-line passive ambient air monitoring regime be adopted to quantify atmospheric concentrations of volatile organic compounds (“VOCs”), benzene and any other pollutants indicative of such an operation. Monitoring will provide a true picture of levels of emissions over a short period, e.g. during loading.
 - 4.3 A leak detection and repair (“LDAR”) programme must be implemented. Amongst others, such LDAR programme should include the following:
 - 4.3.1 A list of all equipment containing liquid and gas/vapour products that have the potential to leak VOCs and volatile hazardous air pollutants within process units;
 - 4.3.2 Procedures for identifying leaking equipment units;
 - 4.3.3 Procedures for repairing and monitoring of leaking equipment; and
 - 4.3.4 A process for evaluating new and replacement equipment to promote the consideration of installing equipment that will minimise leaks or chronic leakers.
 - 4.4 Section 2.6.3 of the EMPr must be amended to indicate that noise generation must comply with the Western Cape Noise Control Regulations (Provincial Notice 200/2013) of 20 June 2013. The installation of noise attenuation technology on all equipment with the potential to produce noise, is recommended.

5. Directorate: Pollution and Chemicals Management – Monique Natus
(Monique.Natus@westerncape.gov.za; Tel: (021) 483 8320):

5.1 This Directorate's main concerns relate to the handling and storage of hazardous substances. It is noted that pollution prevention and mitigation measures have been included in the EMPr to address these concerns. As such, this Directorate has no further comments on the Draft BAR.

6. Please direct all enquiries to the officials indicated in this correspondence should you require any clarity on any of the issues/comments provided.

7. The Department reserves the right to revise initial comments and request further information based on new information received.

Yours faithfully



pp HEAD OF DEPARTMENT

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING