



Koeberg Transient Interim Storage Facility

Visual Impact Assessment Independent Review

28th September 2016

VIA Independent Review prepared by **Square One Landscape Architects** Landscape Architects cc

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ABBREVIATIONS

DEA	Department of Environmental Affairs
DEA&DP	Department of Environmental Affairs and Development Planning
EIA	Environmental Impact Assessment
KNPS	Koeberg Nuclear Power Station
TISF	Transient Interim Storage Facility
VIA	Visual Impact Assessment

1. INTRODUCTION

Square One Landscape Architects (Square One) were appointed by SRK Consulting (Pty) Ltd (SRK) to complete an independent specialist review of the Visual Impact Assessment (VIA) that was conducted for the proposed Transient Interim Storage Facility (TISF) at Koeberg Nuclear Power Station (KNPS/ Koeberg) (the project).

The VIA was undertaken as part of the Environmental Impact Assessment (EIA) process associated with the project by SRK's in house visual specialist, Scott Masson. An independent specialist review of work undertaken by in house specialists was requested by the Department of Environmental Affairs (DEA). Square One was subsequently appointed to review the in house VIA completed by SRK. The intention is that the review of the VIA is used to inform the EIA Report.

1.1. Terms of Reference

The terms of reference for the completion of the VIA Review are as follows:

- Meet/ communicate with the VIA specialist to discuss the scope and purpose of the study and obtain relevant documents.
- Review the VIA and associated background information (Scoping Report and Comments and Responses Summary).
- Review relevant aspects of the VIA including the methodology, input data, findings, conclusions and recommendations of the VIA.
- Identify gaps in reporting and make recommendations to address the relevant concerns.
- Compile and submit a brief Review Report following the review of the VIA, as well as a follow up Report confirming whether relevant concerns have been adequately addressed (if required).

1.2. Methodology

- Provide a general description of findings and recommendations regarding the credibility and professional standard of the VIA, using the DEA&DP Guideline for Visual Specialists (the DEA&DP Guideline) (Oberholzer, 2005) as a reference. It should be noted that there is currently no DEA Guideline for visual specialists available. As the project is located in the Western Cape, reference to the DEA&DP Guideline is considered appropriate.

1.3. Assumptions and Limitations

The following assumptions and limitations apply to this VIA Review:

- The findings of this Report are based on the available information and the professional opinion of the authors of this Report. It is assumed that the project information provided to inform this Report is accurate and correct. Should additional information which may have significant impacts on the visual aspects become available, the findings of this Report may need to be amended.

1.4. Declaration of Independence

Square One were appointed as independent specialists to perform a peer review the VIA. Square One does not have any material interest in the outcome of this Report and our independence remains unaffected. The findings of this Report are in compliance with our professional integrity, standards and expertise.

2. FINDINGS

2.1. Project description:

The TISF is required for the storage of dry casks to accommodate used fuel from the Koeberg reactors to ensure the continued operation of KNPS. The TISF will be constructed on vacant land within the KNPS Security Protected Area (the area immediately surrounding the Koeberg reactor buildings). The TISF will house a number of used fuel dry storage systems fabricated from metal casks, concrete casks or concrete modules. Two viable site alternatives are assessed in the VIA (alternative 1 and alternative 2).

2.2. VIA Methodology

Initial comments and recommendations were provided on the VIA. These comments were then taken into consideration in the preparation of the final VIA. The initial comments are described in Section 2.2.1, while initial recommendations are described in Section 2.2.2.

2.2.1 Initial Comments

The DEA&DP Guideline classifies the development as a Category 4 development: 'light industry/medium scale infrastructure' and the receiving environment is classified as a 'disturbed or degraded site'. In terms of the DEA&DP Guideline, a minimal visual impact could be expected and a Level 2 VIA would be required. A Level 2 VIA should include the following:

- Identification of issues raised in scoping phase, and site visit;
- Description of the receiving environment and the proposed project;
- Establishment of view catchment area and receptors; and
- Brief indication of potential visual impacts, and possible mitigation measures.

The VIA Report complies with the criteria as outlined in the DEA&DP Guideline for a Level 2 VIA. The proposed project is described. The receiving environment as well as its visual character and quality is accurately described and depicted. A view catchment area is calculated and receptors are identified. An indication of the potential visual impacts and suggested mitigation is provided. The inclusion of photomontages is not required for a Level 2 VIA and this is not deemed necessary due to the location of the site within the KNPS Security Protected Area and the scale of the project compared to the scale of the existing infrastructure at KNPS, particularly the reactor buildings, which form the dominant visual profile of KNPS.

The VIA methodology includes the identification of viewpoints from which the site could potentially be visible within an approximate 7.5 km radius. It may have been beneficial to produce a viewshed map illustrating the visibility of the project from a broader area. However, due to the scale of the project compared to the scale of the surrounding infrastructure associated with KNPS, it is unlikely that the project would be visible from greater distances, as visual exposure reduces exponentially with distance. The generation of a larger viewshed area is therefore not deemed necessary.

It is possible that the project may be visible from coastal areas at greater distances at Melkbosstrand and Bloubergstrand, as KNPS is currently visible from these areas. However, it is largely the reactor buildings that are noticeable and visible from these areas and the surrounding infrastructure is not clearly perceivable at greater distances. Although this is not expressly described in the VIA, this is likely to be the case from potential viewpoints within the open ocean as well.

Photographs taken from the various viewpoints illustrate the vistas that would be experienced from various areas that could potentially be affected. The potential location of the proposed project within these viewpoints is not indicated in the photographs and it may therefore be difficult for stakeholders to determine where the proposed project could potentially appear in these images. An outline of the areas where alternative 1 and alternative 2 are located within each of the photographs

would be useful for the purpose of clarity, even if these alternatives would not be visible within the outlines identified from those particular viewpoints.

Although two alternatives are comparatively assessed, a preferred alternative from a visual perspective is not clearly identified in the impact assessment component of the VIA.

2.2.2 Initial Recommendations

Although it is not considered essential to support the findings of the VIA, it might be useful for the VIA to:

- elaborate on the visibility of the TISF from coastal areas at Melkbosstrand and Bloubergstrand, as KNPS is currently visible from these areas. It would not be necessary to include these areas as viewpoints in the Report, but they could be briefly qualitatively described, taking the reduced potential visibility of the TISF from these distances into consideration.
- An indication of where the project alternatives may occur within photographs taken from the various viewpoints may be useful for clarity purposes.
- It is recommended that preference for a particular alternative (should either be preferred) should be more clearly articulated in the impact assessment component of the VIA.

It should be noted that none of the recommendations mentioned above are considered essential to support the findings of the VIA.

3. CONCLUSION

The VIA complies with the DEA&DP Guideline's requirements for the completion of a Level 2 VIA, where minimal visual impacts would be expected. The findings of the VIA confirm that minimal visual intrusion is anticipated, as the proposed TISF would be largely screened by the surrounding topography and existing infrastructure and would become visually integrated with existing buildings at KNPS. Limited comments were made by stakeholders in the scoping phase of the project regarding potential visual impacts during the stakeholder engagement process and the project is not considered to cause significant visual intrusion or loss of sense of place.

The initial recommendations that were identified were incorporated into the final VIA as follows:

- The visibility of the TISF from the surrounding coastal areas is elaborated upon.
- An indication of where the project alternatives would be visible from within each of the photographs taken from various viewpoints is included.
- The identification of a preferred alternative is described.

In summary, minor recommendations were made during the independent specialist review process and all the recommendations are addressed in the final VIA. The visual impacts associated with the TISF are considered to be limited. The independent external review confirms that the methodology and findings of the VIA are reasonable and fair and comply with the requirements of 2014 EIA Regulations in terms of the National Environmental Management Act 107 of 1998 and the supporting DEA&DP Guidelines for Visual Specialists..

4. SIGNATURE



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LANDSCAPE ARCHITECT | ENVIRONMENTAL CONSULTANT
Square One Landscape Architects

5. REFERENCE

Oberholzer, B. 2005. Guideline for involving visual & aesthetic specialists in EIA processes: Edition 1. CSIR Report No ENV-S-C 2005 053 F. Republic of South Africa, Provincial Government of the Western Cape, Department of Environmental Affairs & Development Planning, Cape Town.

6. CONTRIBUTORS

Larissa Heyns PrLArch #20227 (SACLAP), MLArch (UCT), BSc ConsEcol (2005) is a professional Landscape Architect and Environmental Consultant with 6 years of experience. She graduated from UCT's Master of Landscape Architecture Programme with distinction in 2010. Following graduation, she worked as a Landscape Architect for a number of years on a range of projects. She became registered as a professional Landscape Architect in 2013 and subsequently worked as an Environmental Consultant on a number of large scale EIA projects within the Western and Northern Cape as well as Angola and Guinea. She is also registered with the Interim Certification Board for Environmental Practitioners, South Africa. Her expertise includes environmental planning and sensitivity analysis, landscape architectural design, VIA, EIAs, and Environmental Management Plans (EMPs).



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	12/12/20/ or 12/9/11/L
NEAS Reference Number:	DEA/EIA
Date Received:	

Application for integrated environmental authorisation and waste management licence in terms of the-

- (1) National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014; and
- (2) National Environmental Management Act: Waste Act, 2008 (Act No. 59 of 2008) and Government Notice 921, 2013

PROJECT TITLE

EIA for the Proposed Used Nuclear Fuel Transient Interim Storage Facility at Koeberg Nuclear Power Station

Specialist:	SQUARE ONE LANDSCAPE ARCHITECTS		
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4.2 The specialist appointed in terms of the Regulations_

I, LARISSA HEYNS, declare that --

General declaration:

I act as the independent specialist in this application;

I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;

I declare that there are no circumstances that may compromise my objectivity in performing such work;

I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;

I will comply with the Act, Regulations and all other applicable legislation;

I have no, and will not engage in, conflicting interests in the undertaking of the activity;

I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;

all the particulars furnished by me in this form are true and correct; and

I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Signature of the specialist:



Name of company (if applicable):

SQUARE ONE LANDSCAPE ARCHITECTS

Date:

08 SEPTEMBER 2016