



ENVIRONMENTAL IMPACT ASSESSMENT OF THE USED FUEL TRANSIENT INTERIM STORAGE FACILITY AT KOEBERG NUCLEAR POWER STATION

Socio-Economic Specialist Study Review

September 2016



Celebrate Development Diversity

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Version:

28 September 2016

Project leader:

Angelique de Bruyn

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Position: Senior Economist

Qualifications: BPhil in Sustainable Development Planning and Management, BAHons in Public and Development Management, BA in Development and Environment

Experience: 8 years

Brief profile: Angelique De Bruyn joined Urban-Econ in 2008. She qualified at the University of Stellenbosch with a BA degree in Development and Environment, and majored in Public and Development Management and Geography. She also has a BA Honours degree in Public and Development Management majoring in project management, public and development management, public policy analysis and sustainable development. In 2010 she completed her BPhil degree in Sustainable Development Planning and Management at the University of Stellenbosch's Sustainable Institute in the fields of sustainable development; ecological design for community building; applied economics; biodiversity and sustainable agriculture; renewable energy systems; governance; development planning and environmental analysis; corporate citizenship; and sustainable cities. She has been extensively trained in-house at Urban-Econ and has successfully completed a number of development projects focusing on economic impact analysis, economic development potential, property market analysis, feasibility studies, socio-economic analysis, and economic development within the REIPP within the renewable energy sector.

Signed Declaration of Independence

I, Angelique de Bruyn, declare that:

- 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.
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of section 24F of the Act.

Signed:



Date: 28 September 2016

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1: Introduction

Urban-Econ Development Economists was appointed by SRK to undertake an independent peer review of the Socio-Economic baseline and impact assessment sections of the Environmental Impact Assessment (EIA) Report, which were compiled by SRK's in-house socio-economic specialist, for a Used Fuel Transient Interim Storage Facility at Koeberg Nuclear Power Station, in Cape Town in the Western Cape Province.

Eskom proposes to construct a Transient Interim Storage Facility (TISF) for the temporary storage of dry casks at Koeberg Nuclear Power Station (KNPS). At KNPS, the majority of used fuel assemblies from the nuclear reactors are stored under water in spent fuel pools (SFPs) for cooling. These SFPs are nearing capacity – KNPS Reactor Unit 1 and Reactor Unit 2 will have filled their SFPs by March 2018 and September 2018, respectively. Due to the uncertainty regarding the development of a Central Interim Storage Facility (CISF), only likely to be in operation by 2025, it has become imperative for Eskom to investigate interim options for the storage of used fuel on KNPS site. Additional storage capacity will be required to accommodate any further used fuel generated at KNPS. Key residential areas (suburbs) that fall within the study area include:

- Within 5 km of KNPS: Melkbosstrand, Kleine Zout River Small Holdings and portions of the Atlantis and Milnerton non-urban areas
- Within 5 – 10 km of KNPS: Portions of the Atlantis and Milnerton non-urban areas
- Within 10 – 15 km of KNPS: Morning Star Small Holdings, Sunningdale, Atlantis and Philadelphia
- Within 15 – 20 km of KNPS: Parklands, Vissershok, Bloubergstrand, Table View, Doornbach, Du Noon, Mamre and Milnerton

2: Terms of Reference

The following steps were taken to do this study:

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

The Terms of Reference (TOR) for the independent peer review exercise are defined as follows:

- Does the work as reported meet the requirements of the 2014 EIA regulations requirements?
- Is the work of the requisite quality as per current industry standards, and are the interpretations and ratings supported by the data presented?

- Are the TOR and key issues to be addressed adequate and do they cover all relevant aspects to be addressed in the full EIA assessment?

3: Methodology

The approach followed in the review comprised of the following steps:

- A review of the 2014 EIA regulations requirements (RSA NEMA Act No.107 of 1998 EIA Regulations 2014), specifically with respect to the social and economic components of analysis.
- An assessment of the Socio-Economic baseline and impact assessment sections of the Environmental Impact Assessment (EIA) Report, which were compiled by SRK's in-house socio-economic specialist (*Environmental Impact Assessment of the Used Fuel Transient Interim Storage Facility at Koeberg Nuclear Power Station Draft EIA Report July 2016*), with reference to the RSA 2014 EIA regulations requirements and the compliance thereof; and a review of the ratings applied to the potential social and economic impacts.
- A review of the Scoping Report titled *Environmental Impact Assessment of the Used Fuel Transient Interim Storage Facility at Koeberg Nuclear Power Station Scoping Report July 2016* in order to understand the context of the project.
- A review of the methodology by the specialist, its alignment with the TOR and soundness; and confirmation of the potential issues identified within the full EIA.

The following are required for socio-economic components of EIA reports according to the RSA NEMA Act No.107 of 1998 EIA Regulations 2014:

- Motivate the need and desirability of the proposed development within the context of the preferred location from an economic and social perspective.
- Describe the local environment and development context from a social and economic perspective within which the project is proposed to assist and identify issues and concerns.
- Confirm the preferred location and site with an impact and risk assessment process inclusive of cumulative impacts and ranking thereof focusing on economic and social aspects of the environment.
- Provide an explanation of how these issues will be addressed, managed and monitored.

4: Findings

Did the study comply with the first requirement of the RSA NEMA Act No.107 of 1998 EIA Regulations 2014 requirements? "Motivate the need and desirability of the proposed development within the context of the preferred location from an economic and social perspective."

- A social and economic overview is provided, as well as the expected impacts however, the need and desirability needs to be emphasised in greater detail. The description of the "no-go alternative" does mention the need and desirability of the proposed project but this needs to be highlighted, together with the fact that "the TISF will also ensure the continued operation

of the KNPS, a significant electricity producer in the Western Cape” (as highlighted on page 95 of the Scoping Report¹).

Did the study comply with the second requirement of the RSA NEMA Act No.107 of 1998 EIA Regulations 2014 requirements? “Describe the local environment and development context from a social and economic perspective within which the project is proposed to assist and identify issues and concerns.”

- The study does provide an analysis of the demographic profile and how the social context will potentially impact on the development and visa-versa.
- The study does provide historical data so as to understand how the social environment is changing.
- The study does provide details of the immediate social profile, thus accurately understanding the direct implications the proposed development may have on the immediate study area.

Did the study comply with the third requirement of the RSA NEMA Act No.107 of 1998 EIA Regulations 2014 requirements? “Confirm the preferred location and site with an impact and risk assessment process inclusive of cumulative impacts and ranking thereof focusing on economic and social aspects of the environment.”

- The social and economic issues (risks/impacts) are all addressed and rated, but not according to each site alternative, only the preferred alternative. If the impacts do not vary for each site alternative it should be mentioned.
- The study does highlight the risks and impacts based on the construction phase as well as the operation phase.

Did the study comply with the fourth requirement of the RSA NEMA Act No.107 of 1998 EIA Regulations 2014 requirements? “Provide an explanation of how these issues will be addressed, managed and monitored.”

- The management and mitigation of potential issues as a consequence of the proposed development are effectively provided.

5: Conclusion & Recommendations

The specialist did adhere to the TOR and made use of a sound methodology when estimating the potential socio-economic impacts. To conclude, the specialist write-up of the report adhered to the major requirements of the RSA NEMA Act No.107 of 1998 EIA Regulations 2014.

Consequently, a revised draft of the Socio-Economic baseline and impact assessment sections of the Environmental Impact Assessment (EIA) Report, which were compiled by SRK’s in-house socio-

¹ *Environmental Impact Assessment of the Used Fuel Transient Interim Storage Facility at Koeberg Nuclear Power Station Scoping Report July 2016*

economic specialist, for a Used Fuel Transient Interim Storage Facility at Koeberg Nuclear Power Station was submitted to Urban-Econ (dated 29 September 2016) and all the recommendations have been addressed by the SRK specialist.



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:	Urban-Econ Development Economists Pty Ltd		
Contact person:	Angelique De Bruyn		
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Professional affiliation(s) (if any)	N/A		

Project Consultant:	SRK Consulting (South Africa) (Pty) Ltd		
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E-mail:	sjones@srk.co.za		

4.2 The specialist appointed in terms of the Regulations_

I, Angelique De Bruyn, 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:

Urban-Econ Development Economists Pty Ltd

Name of company (if applicable):

28 September 2016

Date: