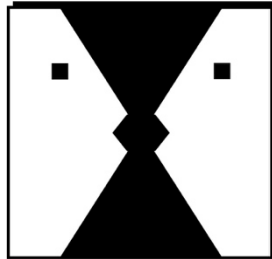


Nuclear 1, Social Impact Assessment Review



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Prepared for: Gibb

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Purpose of document

The purpose of this document is to provide an independent review of the Nuclear 1 SIA. The consultancy will assess the report in order to establish whether the criteria specified by Gibb have been adequately addressed in the report.

Terms of reference for this independent review has been specified as follows:

The Scope of Work was to determine if the SIA complies with the following:

1. Assess the document/ report in terms of its fulfilment of the Terms of Reference set;
2. Consider whether the report is entirely objective;
3. Consider whether the report is technically, scientifically and professionally credible;
4. Consider whether the method and the study approach is defensible;
5. Identify whether there are any information gaps, omissions or errors;
6. Consider whether the recommendations presented are sensible and present the best options;
7. Consider whether there are alternative viewpoints around issues presented in the report and if these are clearly stated;
8. Consider whether the style of the report is written so as to make it accessible to non-specialists, technical jargon is explained and impacts are described using comparative analogies where necessary; and
9. Report on whether normal standards of professional practice and competence have been met.



Information received by the reviewer.

Gibb provided the reviewer with an electronic copy of the SIA document and social impact assessment tables.

Review Methodology

The checklist used for the review appears in the DEAT Integrated Environmental Management Information Series: Review in EIA (Guideline 13). The review checklist included in the guideline has been compiled by the Southern African Institute for Environmental Assessment in 2002 but can be used for review purposes. A review using this guideline appears in Appendix B.

Another relevant requirement is the exact requirements for the report that appear in the regulation R385 of 2006. The required contents of specialist reports are described in section 33(2). Since these are legally binding requirements all reports must comply with it. The requirements were used in the form of questionnaires and appear in Appendix A.

The result of the review is summarized in the next section.

Review Findings

1. Fulfilment of the Terms of Reference

The general terms of reference for the SIA include:

General terms of reference	Comment
Identify, assess and evaluate the possible impacts of Nuclear-1 during the construction and operation phase of the proposed project	Done



Identify and assess any cumulative impacts arising from the proposed project	Could be more explicit
Determine the significance of assessed impacts according to the methodology provided by ARCUS GIBB and provide a revised significance rating of assessed impacts after the implementation of mitigation measures	Done
Undertake field surveys as appropriate to the requirements of the particular specialist study	Done
Identify areas where integration of studies with other specialists would ensure a better assessment and co-ordinate with other specialists in this regard	Done

The specific terms of reference include the following:

General terms of reference	Comment
Identification and assessment of family, community and gender impacts;	Could be more explicit – especially family and gender impacts
Identification of social trends (historic and current) and drivers in the affected area	Satisfactory
Identification of main transient population nodes (spatial representation);	Done
Identification of special population groups, i.e. that portion of the population that could be difficult to shelter or vacate. This includes data obtained from places such as hospitals, schools, institutions for mentally or physically challenged, old age homes and prisons	Satisfactory
Identification of social initiatives and opportunities	Could be more explicit



Identification of individuals, communities, organisations and institutions which are likely to be affected by the project/plan/policy, with specific emphasis on vulnerable individuals, communities, organisations and institutions	Done in some cases, but could be expanded on
Review of census figures, based on rejection of 2001 census as being inadequately handled, and unprecedented growth of the population over the past five years	This is problematic. The report is outdated and should be updated with the 2011 census data and relevant municipal documents and projections. It is not acceptable to use outdated data if more recent data is available.
Identification and assessment of large scale social impacts, uncontrolled influx of unemployed and unskilled job-seekers; the likelihood of their remaining in informal settlements; the pressures arising on health, education, housing, police and other services; and responsibility for mitigation	Done
Identification of potential corporate strategies to be undertaken in the areas affected by the development of the nuclear power station	Done, but could be expanded on and informed by more recent learnings from a large-scale construction project such as Medupi. The social environment changed significantly in the six years since the report was produced
Identification of institutional arrangements and structures	Could be expanded on and more specific – included in an impact management plan
Identification of cultural impacts, beliefs and value systems	Could receive more attention

In general, the study fulfil the terms of reference. Some aspects as pointed out in the tables above should receive more attention, but none of it is fatal flaws.

2. Objectivity

It is my view that the report is objective. It will benefit from the inclusion of a stakeholder analysis that shows who all the stakeholders is, and what their views are (for/against/neutral). Although the aim of the report is to assess the social impacts of a proposed nuclear power station, including some of the current energy debates (pro/against nuclear) will contextualise



the findings and some of the quotes later in the report, and also assist with convincing the reader that all angles were investigated.

3. Technical, scientific and professional credibility of the report

The report is technically, scientifically and professionally credible, however, the statistical data and a number of the documents used are outdated, some by more than a decade. This affects the technical, scientific and professional credibility of the report. The social environment is dynamic and changes constantly, and this report is older than six years. Significant social changes have occurred in South Africa during this time, and it is very likely that the affected communities have also changed. In order to ensure credibility additional consultation should take place to warrant that the findings are still relevant. It would not be necessary to repeat the entire consultation process, but a small selection of stakeholders in each potentially affected community could be interviewed to establish whether the communities have changed, and what the feelings in relation to the project is.

4. Method and the study approach

The method and study approach is defensible. General social science methods have been used, and an internationally accepted approach is followed. It would enhance the study and meet possible funder requirements if the IFC standards were explicitly included and referred to when describing the method and approach.

5. Information gaps, omissions or errors

The report as is, is outdated and it would be a risk to the project to put it as is in the public domain. It would also not meet the requirements of potential funders. Apart from that, it needs to refer to the Guidelines for Integrating HIV and Gender Related Issues in Environmental Assessment in Eastern and Southern Africa, produced by the United Nations Development Programme. This is a new requirement for all large-scale EIA's in South Africa. The social impact assessment section of the report is fairly generic – this is not a fatal flaw, but a stakeholder analysis identifying who the potentially affected people in each geographic area are, and their stance towards the proposed project would benefit the report. Discussing the current energy situation, including aspects such as load shedding and renewable energy will contextualise the report better. Another consideration is that social impacts commence as soon as rumours



about a project start. It is therefore important to include preconstruction impacts in the report. A social management plan for construction and operation should be included with specific tasks, people responsible for executing the tasks, timeframes and if possible budgets.

6. Recommendations

The recommendations are sensible, and each site is discussed briefly in the last section of the report, with important aspects to consider. There is no specific recommendation regarding the best site from a social perspective. The report could benefit from a comparative analysis between the three sites and a specific recommendation.

7. Consideration of alternative viewpoints

There are alternative viewpoints, but it is not as clearly stated as it could be. A stakeholder analysis will assist with presenting this more clearly. Different groups in society perceive social impacts in different ways. The same impact may be experienced as positive by one group, negative by another and as neutral by yet another group. This duality does not come out clearly in the report. It is considered, but it can be more explicit.

8. Style of the report

The report is easy to read and well-written. Non-specialists should not have problems understanding the report. The impacts are described clearly and there should be no ambiguities amongst the readers.

9. Standards of professional practice and competence

The report meets the requirements of professional practice and competence in the SIA field. The main criticism is the outdated data, but it is acknowledge that the practitioner might not have had the chance to update the report. New international SIA guidelines have been published in 2015, and this may assist the author with updating the study to current best practice standards.



Appendix A: Requirements for Specialist reports

Specialist reports and reports on specialised processes

33. (2) A specialist report or a report on a specialised process prepared in terms of these Regulations must contain –

Requirement	Compliance Yes/No	Comments
(a) details of -		
(i) the person who prepared the report; and	Yes	
(ii) the expertise of that person to carry out the specialist study or specialised process;	Yes	
(b) a declaration that the person is independent in a form as may be specified by the competent authority;	Yes	
(c) an indication of the scope of, and the purpose for which, the report was prepared;	Yes	
(d) a description of the methodology adopted in preparing the report or carrying out the specialised process;	Yes	
(e) a description of any assumptions made and any uncertainties or gaps in knowledge;	Yes	
(f) a description of the findings and potential implications of such findings on the impact of the proposed activity, including identified alternatives, on the environment;	Yes	
(g) recommendations in respect of any mitigation measures that should be considered by the	Yes	



Requirement	Compliance Yes/No	Comments
applicant and the competent authority;		
(h) a description of any consultation process that was undertaken during the course of carrying out the study;	Yes	
(i) a summary and copies of any comments that were received during any consultation process; and	No	
(j) any other information requested by the competent authority.	Unclear	Not sure if authorities requested any other information.



Appendix B: SAIEA Checklist (adapted to SIA)

Complete (C): all information required for decision-making is available. No additional information is required even though more information might exist.

Acceptable (A): the information presented is incomplete, but the omissions do not prevent the decision-making process from proceeding

Inadequate (I): the information presented contains major omissions. Additional information is necessary before the decision-making process can proceed.

Summary appraisal of the SIA report	Relevant Yes/No	Judgement C/A/I	Comments
1. Methodology utilised in compiling the SIA report	Y	C	
2. Description of the project	Y	C	
3. Assessment of alternatives to the project	Y	A	Need to recommend preferred site
4. Description of the environment	Y	A	Acceptable
5. Description of impacts	Y	A	Could be more detailed and site-specific in some areas
6. Consideration of measures to mitigate impacts	Y	A	Would benefit from social impact management plan
7. General approach	Y	C	



The overall report is graded as follows: (tick one box)	
Excellent: The EIA report contains everything required for decision-making on the project. There are no gaps.	
Good: The EIA report contains most of the information required as far as it is relevant in the particular circumstances of the project; any gaps are relatively minor.	X
Satisfactory: The information presented is not complete; there are significant omissions but in the context of the proposed project, these are not so great as to prevent a decision being made on whether the project should be allowed to proceed.	
Inadequate: Some of the information has been provided, but there are major omissions; in the context of the proposed project these must be addressed before a decision on whether the project should be allowed to proceed can be taken.	
Poor: The information required has not been provided or is far from complete and, in the context of the proposed project, the omissions must be addressed before a decision on whether the project should be allowed to proceed can be taken.	

In my opinion :	Yes	Don't know	No
Did the SIA process include genuine public participation?	X		
Were the consultants unduly influenced by the proponent or the Authorities?			X
Did the SIA report focus on the 5 most important issues?	X		
Is the SIA report of acceptable quality?	X		
Will the SIA report help to make a more informed decision about the project?	X		



This review form provides a structure that helps the reviewer to assess the SIA's various components in a scientific way while maintaining a perspective of the "bigger picture" in order to advise the client on whether the SIA report makes sense as a whole and if the process was conducive for planning.

This review form is divided into the following sections:

1. Methodology utilised in compiling the SIA report
2. Description of the project
3. Assessment of alternatives to the project
4. Description of the social environment
5. Description of impacts
6. Consideration of measures to mitigate impacts
7. General approach

Review methodology:

1. For each question, the reviewer considered whether the information is relevant to the project. If not, the question is ignored and the reviewer proceeded to the following question.
2. If the information is relevant, that section of the SIA report has been read to establish whether the information provided is:

Complete (C): all information required for decision-making is available. No additional information is required even though more information might exist.

Acceptable (A): the information presented is incomplete, but the omissions do not prevent the decision-making process from proceeding

Inadequate (I): the information presented contains major omissions. Additional information is necessary before the decision-making process can proceed.



Description	Relevant Yes/No	Judgement C/A/I	Comments
1. METHODOLOGY			
1.1 Does the report clearly explain the methodology used and how these helped to reach the conclusions of the study?	Y	C	
1.2 Does the report indicate what data are inadequate or absent?	Y	I	It refers to inadequate census data, but this is now outdated
1.3 Did the SIA process include genuine stakeholder consultation	Y	C	
1.4 If so, were the general public and/or affected communities included in the consultation?	Y	C	
1.5 Have the views of stakeholders been meaningfully incorporated into the findings of the SIA?	Y	A	Could be enhanced by stakeholder analysis
2. DESCRIPTION OF THE PROJECT			
2.1 Have the impacts of workers and visitors entering the project site during construction and operation been assessed?	Y	A	Need to include more about visitors
2.2 Have the means of transporting materials, products, workers and visitors to and from the site during construction and operation, been explained?	Y	A	
3. ALTERNATIVES			



Description	Relevant Yes/No	Judgement C/A/I	Comments
3.1 Were alternatives to the project (including the “no-project” alternative) considered in the SIA?	Y	A	Could be discussed in more detail
3.2 If alternatives were considered, are the reasons for selecting the proposed project adequately described?	N	I	The scoping process and site selection process is not discussed in the report – it is therefore unclear as to how the site was selected, and whether the social environment was considered during site selection.
4. DESCRIPTION OF THE ENVIRONMENT			
4.1 Have the areas expected to be significantly affected by the various aspects of the project been indicated with the aid of suitable maps?	Y	C	
4.2 Have the land uses on the project site(s) and in the surrounding areas been described and their use and non-use values adequately assessed?	Y	C	
4.3 Have the social components of the environment likely to be affected by the project been identified and described sufficiently for the prediction of impacts?	Y	C	
4.5 Has the SIA adequately consulted the latest literature and/or unpublished reports and/or data relevant to the study?	Y	I	At the time of writing it did, but it is currently outdated and will benefit from current data



Description	Relevant Yes/No	Judgement C/A/I	Comments
4.6 Have local, regional and national plans and policies been reviewed in order to place the project into context?	Y	C	
5. DESCRIPTION OF IMPACTS			
Impact Identification			
5.1 Have direct and indirect/ secondary impacts of pre-construction, construction, operation and, where relevant, after use or decommissioning of the project been clearly explained (including both positive and negative effects)?	Y	A	The report would benefit from a discussion of pre-construction impacts. A diagram with impact-pathways and secondary impacts will also enhance the report and the understanding of the reader
5.2 Is the investigation of each type of impact appropriate to its importance for the decision, avoiding unnecessary information and concentrating mainly on the 5 key issues?	Y	C	
5.3 Are cumulative impacts considered?	Y	A	Could receive more prominence
5.4 Has consideration been given to impacts which might arise from non-standard operating conditions, (i.e. equipment failure or unusual environmental conditions such as flooding), accidents and emergencies? (i.e. risk assessment)	Y	A	
Magnitude and significance of			



Description	Relevant Yes/No	Judgement C/A/I	Comments
Impacts			
5.5 Has the timescale over which the effects will occur been predicted such that it is clear whether impacts are short, medium or long term?	Y	C	
5.7 Does the SIA give a clear indication of which impacts may be significant and which may not?	Y	A	
5.8 Have the magnitude, location and duration of the impact been discussed in the context of the value, sensitivity and rarity of the resource or environment?	Y	A	
6. MITIGATION			
Description of mitigation measures			
6.1 Has the mitigation of negative impacts been considered and, where feasible, have specific measures been proposed to address each impact?	Y	A	
6.2 Is it clear to what extent the mitigation methods are likely to be effective?	Y	A	
6.3 Has the SIA report clearly explained what the costs of mitigation are likely to be, and compared these to the benefits (including the costs of non-mitigation)?	N	I	Was not required in the terms of reference.



Description	Relevant Yes/No	Judgement C/A/I	Comments
6.4 Have details of how the mitigation will be implemented and function over the time span for which they are necessary, been presented?	Y	A	Need more detail to influence EMP.
Monitoring Proposals			
6.5 Has the SIA proposed practical monitoring arrangements to check the social impacts resulting from the implementation of the project and their conformity with the predictions made?	N	I	Was not in the terms of reference.
7. GENERAL APPROACH			
Organisation of the information			
7.1 Is the information logically arranged in sections?	Y	C	
7.2 Is the location of the information identified in an index or table of contents?	Y	C	
7.3 When information from external sources has been introduced, has a full reference to the source been included?	Y	C	
Presentation of the information			
7.4 Has information and analysis been offered to support all conclusions drawn?	Y	A	



Description	Relevant Yes/No	Judgement C/A/I	Comments
7.5 Has information and analysis been presented so as to be comprehensible to the non-specialist, using maps, tables and graphical material as appropriate?	Y	C	
7.6 Has superfluous information (i.e. information not needed for the decision) been avoided?	Y	C	
7.7 Have prominence and emphasis been given to severe adverse impacts, to substantial social benefits, and to controversial issues?	Y	A	Could be done in more detail
7.8 Is the information objective?	Y	C	