

Ref.: J27035A

15 April 2011



Cape Town

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Dear Interested and Affected Party

AVAILABILITY OF THE REVISED DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED CONVENTIONAL NUCLEAR POWER STATION (NUCLEAR-1) AND ASSOCIATED INFRASTRUCTURE FOR PUBLIC COMMENT (DEA Reference: 12/12/20/944)

Please find enclosed the Revised Draft Environmental Impact Assessment Report (EIR) for the proposed Eskom Nuclear Power Station and associated infrastructure (i.e. Nuclear-1) for review and comment.

As you are aware, the proposed project and Environmental Impact Assessment (EIA) was announced in May 2007 and consultation of Interested and Affected Parties (I&APs) has continued throughout the EIA.

Upon the acceptance of the Scoping Report and approval of the Revised Plan of Study for EIA in January 2010, a Draft EIR was placed in the public domain for comment. Upon receipt of comments from I&APs, a number of specialist reports and the Draft EIR were revised, as was requested by the public, and the Revised Draft EIR produced.

Key changes between the original and the revised Reports are detailed in Table 1 overleaf and summarised as follows:

- **Main Report:** Area (i.e. footprint) affected by the proposed nuclear station, updating of the EIA and public consultation process description, amendment of legal assessment and impact assessment
- **Air Quality Impact Assessment:** consideration of the Koeberg Nuclear Power Station monitoring data
- **Wetlands Impact Assessment:** addition of groundwater monitoring and modelling results for Thyspunt
- **Dune geomorphology:** addition of addendum to the report on debris flows within the dunes at Thyspunt
- **Heritage Impact Assessment:** cultural landscape issues at Thyspunt
- **Marine Impact Assessment:** change in the cooling water outflow alternatives at Thyspunt and additional information on potential impacts on the chokka industry



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A list of divisional directors is available from the company secretary.



- **Oceanography Impact Assessment:** change in the cooling water outflow alternatives at Thyspunt
- **Visual Impact Assessment:** addition of photomontage of view from Rebelsrus towards Thyspunt
- **Nuclear Waste Impact Assessment**
- **Transportation Impact Assessment:** addition of alternative heavy vehicle route around Humansdorp and type and numbers of vehicles accessing the Thyspunt site via the various road alternatives
- **Environmental Management Plan:** restructuring and revision of the Plan
- **Minutes of Public and Key Focus Group Meetings:** inclusion of the final minutes of public and key focus group meetings held since the original Draft EIR was released into the public domain for comment to the release of the Revised Draft EIR
- **Stakeholder Database:** inclusion of the up to date Stakeholder Database (as of 01 March 2011)
- **Issues and Response Report:** addition of comments received from I&APs on the Draft EIR
- **Authority Comment:** inclusion of comment received from the Provincial Departments received during the EIA Process

Furthermore, on request from I&APs, the Executive Summaries of the Main Report, as well as all the specialist studies have been translated from English into Afrikaans and Xhosa, and are included in the Revised Draft EIR.

All registered I&APs have been notified via letters (copies of which and Afrikaans and Xhosa translations being able on the EIA website: www.eskom.co.za/eia under the "Nuclear 1-Generation" link) of the Report's availability at public venues during the 45-day Comment Period (09 May to 23 June 2011) and of the planned Public Meetings (23 May to 02 June 2011). The availability of the Revised Draft EIR and the Public Meetings have been extensively advertised in the national, regional and local press.

The EIA Team appreciates your comments on the Revised Draft EIR.

Yours sincerely
For Arcus GIBB (Pty) Ltd



Jaana-Maria Ball
EIA Manager

Enclosed:

- Revised Draft EIR (Volumes 1 - 2: Main Report and Volumes 3 – 24: Appendices).

Table 1:

Chapter	Section	Issue	Change(s)
Throughout the Revised Draft EIR and specialist reports	n.a.	Cumulative impacts of the Pebble Bed Modular Reactor Demonstration Power Plant (PBMR DPP).	The abandonment of the plans for the PBMR DPP at Koeberg. The Revised Draft EIR therefore contains no mention of these plans.
Chapter 1	1.1	Base load electricity generation	Addition of an explanation of base load generation – what is regarded as base load and what is not. This includes an explanation of the role of other technologies, such as mid-merit and peaking power stations.
Chapter 3	3	Project description	Clarification of aspects of the construction and operation of the proposed power station. The hectares required for the power station have been increased to between 200 ha and 280 ha.
Chapter 4	4.1	Need and desirability	Clarification of projected increase in electricity demand over the next several decades.
Chapter 5	5.2.5	Alternatives	A discussion on the consideration of Coega as an alternative site in the Nuclear-1 EIA process
	5.3.2	Wind power as alternative to nuclear power	A brief discussion on the implications of wind power as an alternative to nuclear generation. It must be emphasized in this regard that the DEA's approval of the Plan of Study for EIA does not require the investigation of wind power and an alternative to nuclear power. However, given the number of comments related to alternative energy that have been received, a short comparison is made of the impacts and surface areas required for wind power as an alternative to nuclear power;
	5.3.3	Costs of different power generation alternatives	Comparative costs of wind power and nuclear power are also provided, based on a recent international study and a study undertaken for the Integrated Resource Plan 2.

Chapter	Section	Issue	Change(s)
	5.12	Spoil disposal alternatives	Addition of information on the different spoil disposal alternatives considered at all three sites.
	5.13.3 (d)	Access road alternatives to the Thyspunt site	An explanation of the evolution of the access of access road alternatives to the Thyspunt site.
Chapter 6	6.3.16	Cacacu District Municipality	Inclusion of information for Cacacu District Municipality, within which the Thyspunt site is located.
	6.3.16 (d) and (e)	Overberg District and Overstrand Local Municipalities	Inclusion of information for Overberg District and Overstrand Local Municipalities within which the Bantamsklip site is located.
	6.4.1	2010 EIA regulations	A brief explanation of the difference between the 2006 and 2010 EIA regulations in terms of the National Environmental Management Act and the transitional provisions in terms of which the Nuclear-1 EIA process continues under the requirements of the 2006 EIA regulations. A brief analysis is also provided of the differences and similarities between the applicable listed activities (both Basic Assessment and Scoping and EIA) under the 2006 and 2010 EIA regulations.
	6.4.2	National Environmental Management: Air Quality Act	Complete revision of the explanatory section dealing with this Act.
	6.4.9	National Environmental Management: Integrated Coastal Management Act	Expansion of the explanatory section dealing with the provisions of the Act as they apply to the "Coastal Protected Zone" and the implications for the three alternative sites for Nuclear-1.
	6.4.10	Marine Living Resources Act	Complete revision of the explanatory section dealing with this Act.
	6.4.11	National Environmental Management: Waste Act	Explanation of the coming into effect of the Act and the requirements with respect to the listing of waste management activities.

Chapter	Section	Issue	Change(s)
	6.4.12	National Radioactive Waste Disposal Institute Act	An explanation of the objects and intended functioning of the National Radioactive Waste Disposal Institute Act and the institute to be brought into being by the Act.
	6.4.19	National Energy Act	Addition of a discussion on the objects and functioning of the Act and how this impacts on energy planning and pricing.
	6.4.20	National Energy Regulator Act	Addition of a brief discussion on the objects and functioning of the Act.
	6.4.22	National Nuclear Regulator Act	Addition of a brief discussion on nuclear occupational exposure limits applicable to workers at nuclear installations and to workers responsible for transport of nuclear waste. A brief flowchart to indicate the process to be followed for licensing of a nuclear installation has also been added.
	6.4.29	Occupational health and Safety Act	A detailed explanation of the objects and purpose of the Act, as well as its requirements for the assessment of risk from Major Hazardous Installations.
	6.5.3	Provincial Park Board (Eastern Cape)	Addition of a short discussion on the objects of the Eastern Cape Parks Board
	6.5.4	Nature and Environmental Conservation Ordinance	Addition of a short discussion on the objects of the Eastern Cape Nature and Environmental Conservation Ordinance.
	6.5.5	Eastern Cape Land Development Objectives Regulations	Addition of a short discussion on the objects of the Eastern Cape Land Development Objectives Regulations.
Chapter 7	7.5 – 7.6	2010 public release of the Draft EIR	Updating of the Chapter to reflect the public participation that has been conducted for the Draft EIR released for public comments in 2010, including press advertising, public meetings, key stakeholder meetings and focus group meetings, venues where the hardcopy report was provided for comment and authority consultation during the comment period for the Draft EIR. There is also a short discussion on the steps to be taken to ensure comment on the Revised Draft EIR.

Chapter	Section	Issue	Change(s)
	7.8.1	Impact assessment criteria	Revision of the criteria used to assess the significance of environmental impacts. These criteria have been revised in line with comments on the Draft EIR made by independent peer reviewers, whose comments are included in Appendix I of the Revised Draft EIR.
Chapter 8	Throughout	Report structure	Chapter restructured, all graphics have been placed in separate sections.
Chapter 9	Sections 9.7 and 9.12 of the revised Draft EIR	Confidence in the success of proposed wetland mitigation related to groundwater drawdown during construction, particularly at Thyspunt	The completion of the groundwater monitoring study undertaken from January 2010 to December 2010 at Thyspunt, the results of which confirm that the Langefonteinlei at Thyspunt is perched above the groundwater table in its southern and western extents. This means that mitigation against groundwater drawdown resulting from dewatering of the excavation during construction will be effective to mitigate the impact upon the Langefonteinlei.
Freshwater Ecology Assessment and Geohydrological Assessment	Appendices E12 and E7 of the Revised Draft EIR		
Chapter 9	Throughout	Impact assessment	Change in impact assessment tables to reflect the amendment of the assessments undertaken by specialists.
Chapter 9	Section 9.9 and of the revised Draft EIR	Claims of debris flows and flood risk at the Thyspunt site	The completion of an assessment of debris flows, liquefaction and flooding of the R330 at the Thyspunt site. This confirmed that there is no significant risk of debris flow damage to the Nuclear-1 site or to the access roads, minimal risk from the liquefaction of sands (or quicksands) and that the culverts underneath the R330 are sufficient to handle most flooding events although it is recommended that the wind walls of the culverts are repaired.
Chapter 9	Section 9.26 of the revised Draft EIR	Nuclear waste management	Completion of a waste specialist assessment covering general, hazardous and radioactive wastes. The assessment concluded that there is sufficient capacity for the disposal of all types of waste generated by Nuclear-1 at any of the sites.
Nuclear Waste specialist report	Appendix E29 of the Revised Draft EIR		

Chapter	Section	Issue	Change(s)
Chapter 9	Section 9.24 of the Revised Draft EIR	Impacts of ultra heavy transport upon Humansdorp	Identification of an alternative access route around Humansdorp for ultra heavy construction vehicles accessing the Thyspunt site. These vehicles will therefore not need to travel through the centre of Humansdorp.
Transportation Assessment	Appendix E25 of the Revised Draft EIR		
Chapter 9	Section 9.24 of the Revised Draft EIR	Potential impacts on heritage resources at Thyspunt	Confirmation by the Heritage Impact Assessment that Thyspunt is regarded as a cultural landscape as defined by the UNESCO World Heritage Convention. Whilst archaeological impacts could be mitigated, impacts on cultural heritage cannot. It is therefore concluded that from a heritage point of view, Thyspunt is the least preferred site. Nevertheless, it could be developed with strict conditions relating to excavation and curation of the heritage.
Heritage Assessment	Impact Appendix E20 of the Revised Draft EIR		
Chapter 9	Section 9.17 of the Revised Draft EIR	Marine cooling water options	Consideration of two marine cooling water disposal options at Thyspunt: a nearshore (5m deep) alternative and an offshore alternative. The assessment concluded the use of a nearshore alternative would not result in a substantially greater impact on chokka squid than an offshore cooling water alternative.
Marine Assessment	Biology Appendix E15 of the Revised Draft EIR		Consideration of two marine cooling water disposal options at Bantamsklip: a nearshore alternative and an offshore alternative. The assessment concluded the use of a nearshore alternative would result in a substantially greater thermal plums and impact on marine organisms than an offshore alternative. The offshore alternative is, therefore, preferred.
		Marine radiation emissions	Consideration of the impacts related to the marine release of radiation emissions, based on the pre-construction, construction and operational monitoring that has been ongoing at Koeberg Nuclear Power Station since the late 1970s.
		Marine monitoring requirements	Additional of general monitoring requirements for all sites and monitoring requirements specific to Thyspunt.

Chapter	Section	Issue	Change(s)
Chapter 9	Section 9.16 of the Revised Draft EIR	The impacts of marine disposal of construction spoil on surf breaks in the Thyspunt area	Undertaking an assessment of the disposal of spoil on surf breaks at Thyspunt. The assessment concluded that should the recommended deep marine disposal site be used, minimal impacts will occur. Whilst increased sediment at Seal Point may affect the manner in which the wave breaks, no increased sediment thickness at St Francis Bay, Bruce's Beauties and Jeffery's Bay would occur. The surf conditions at these locations will therefore not be affected.
Oceanographic Assessment	Appendix E16 of the Revised Draft EIR		
Environmental Management Programme	Appendix F of the Revised Draft EIR	Structure and content of the EMP	The structure of the EMP has been completely revised to make it more effective. Workshops have been held with Environmental Control Officers on current Eskom power station construction sites to ensure that the measures specified in the EMP are implementable and enforceable.