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20 March 2011

Attention: W. October, Program Manager, Acting: Director Community Services Overberg
Conservation Association

Dear Sir/ Madam

**ESKOM ENVIRONMENTAL IMPACT ASSESSMENT (EIA:12/12/20/944) FOR A PROPOSED
NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE: COMMENTS ON THE
DRAFT ENVIRONMENTAL IMPACT REPORT**

Your correspondence to Ms. Bongzi Shinga of ACER entitled "Eskom – Environmental Impact Assessment (EIA: 12/12/20/944) for a proposed Nuclear Power Station and associated infrastructure Ref. No: NUCLEAR1 17E" refers.

Arcus GIBB (Pty) Ltd (GIBB) acknowledges receipt of the above-mentioned letter. We thank you for your valuable comments and your participation in the Eskom Nuclear Power Station (Nuclear-1) Environmental Impact Assessment (EIA) process to date. Your questions and comments concerning the Nuclear-1 have been noted.

Responses to your comments / questions are as follows:

Your comment (1)

The Overberg's greatest assets are its people and natural environmental beauty and resources. Bounded by oceans and mountains and situated in the smallest of the world's six floral kingdoms, the Overberg boasts a rich diversity of fauna and flora that is unique for such a small area. Culturally diverse with a rich history and built environment, the Overberg houses the southernmost District Municipality on the African continent while the region contributes to the Agricultural, Tourism and Fishing Industries of the Western Cape Province. It is this unique environment that supports the communities of the Overberg.

With the consideration of the proposed development it must be stated that there is no one route as proposed, including the development of the Nuclear facility at Bantamsklip, that will not have a significant impact on the Overberg, its character its landscapes and its people.

The proposed routes cut through extensive portions of critical endangered and sensitive eco systems and veld types.

The Council recognises the national need to invest in electricity generating facilities to address the current and future electricity demand, but also guard against proposal that might have a negative impact on the natural environment or its communities

It is therefore imperative to evaluate the proposed development against the following set of Environmental, Technical, Economic, Social and Cultural-historic criteria to ensure long term sustainability. This Council will appreciate feedback and answers on the following:

Response (1)

Your comments are noted. You refer to sensitive routes, we assume that you are referring to the Transmission lines which are part of a separate EIA process. You are correct that the routes are extensive, the impact the routes would have on the environment will be assessed during the next phase of the Bantamsklip Transmission line EIA.

Your comment (2)

1 ENVIRONMENTAL CRITERIA

What influence will the proposed development have on the environmental integrity of the region concerned through threats to habitat types, water catchments, water courses, lakes, flood-plains or excessive utilization of natural resources such as water and soil?

Response (2)

The Draft Environmental Impact Report is compiled in terms of the environmental regulations and the National Environmental Management Act (NEMA) and is therefore a site specific and project specific assessment of the impacts of the construction, operation and decommissioning of a Nuclear Power Station at the alternative sites. The Impact Assessment, although considering cumulative impacts, is not a strategic assessment of the impacts of the Nuclear Power Station on the region.

Your comment (3)

Does the proposed development jeopardize the visual integrity of the region concerned through disruption of natural features, or skylines?

Response 3

The Visual Impact Assessment (Appendix E19) reports that the large scale of the Nuclear Power Station, both vertically and horizontally, together with the tall chimney stack, will be visually dominant in views along and towards the Bantamsklip coastline. The Nuclear Power Station will be visible from within the 15 km radius. This is a result of the coastal orientation changing beyond the 20 km radial zone. This situation eliminates views of the site. The hills parallel to the coast obscure views to the site beyond 10 km to the north and east.

The Nuclear Power Site will be a dominating form on the coastline and will degrade the wild and natural appeal that the coastline and the interior currently have as well as the sense of place of the

coastal and inland setting will be degraded. The Visual Impact Assessment specialist has commented that the transmission line will most likely add to the existing visual complexity of the Nuclear Power Station as it traverses the coastal terrace and crosses the R43 at right angles to the road. This feature adds to the extent of the expected visual impact at the local level in a highly scenic area.

The following are general mitigation measures to reduce the visual impact of the nuclear power station are recommended:

- Select colours for the nuclear power station that allow for a visual scale reduction i.e. horizontal band and colour to fit general colour of the setting.
- Position the nuclear power station further from the coastline to allow for a retained strip of natural coastline (minimum 100m) between the plant and the high water mark.
- Screen the lower portions of the structures by strategically positioned earth berms and tree and shrub planting.
- Design a rounded roof structure for the turbine halls and reactor buildings. This will reduce straight shadow lines on the structures.
- The use of guyed cross rope suspension towers will have less of a visual presence due to the lattice guyed tower legs.
- The colour of the tower components should be galvanised grey. This natural colour will allow the form to blend with the background at distances.
- Where the transmission line crosses a road, the crossing should be at right angles to the road to minimise the view along the line route.

Your comment (4)

- Will ecological processes essential to maintenance of water drainage patterns, groundwater equilibrium, micro-climate, food-attenuation, or land/sea interactions be disrupted?

Response 4

Expected impacts in terms of the Nuclear Power Station, as identified in a number of specialist studies (Appendix E), are discussed in Chapter 9 of the Draft Environmental Impact Report (EIR). There will be an impact on groundwater equilibrium when dewatering/groundwater control measures are implemented for excavation of the foundations of the NI. These control measures could include cut-off walls and pumping boreholes/wells. They will result in local drawdown of the water table in the short-term but equilibrium will be restored outside of the NI foundation area with time. Managed artificial recharge could be employed to assist in restoring the status quo, with pumped groundwater being fed back into the aquifer. However, the upper Sandveld Aquifer is poorly developed at the Bantamsklip site and disruption of groundwater equilibrium will be minimal.

A number of other potential impacts have been identified in terms of the ecology and biodiversity of the site. Recommendations in terms of these impacts have been made in Chapter 9 and 10 of the Draft EIR and have been included in the Environmental Management Plan (Appendix F).

Your comment (5)

Will the proposed development pose a negative influence on biodiversity, e.g. through:

- Disruption of terrestrial, estuarine, coastal or marine habitat types;
- Pollution, eutrophication or modification of pH of water bodies, groundwater or the sea.
- Curtailing of movement of indigenous terrestrial or aquatic fauna;
- Endangering of indigenous plant communities or species;
- Endangering of genetic integrity of any indigenous life-forms;
- Introduction of alien plant or animal species;
- Over-utilization of finite natural resources such as water.

Response 5

- Disruption of terrestrial, estuarine, coastal or marine habitat types

Terrestrial, coastal, estuary and marine habitat types will be disrupted as a result of the proposed nuclear power station and a number of specialist studies have been undertaken in order to investigate the nature of the anticipated impacts. The specialist studies have resulted in a number of recommendations which will act as mitigation measures in terms of the identified impacts. These recommendations have been included in Chapter 9 and 10 of the Draft EIR as well as the Environmental Management Plan (EMP) attached as Appendix F to the report.

- Pollution, eutrophication or modification of pH of water bodies, groundwater or the sea

In terms of the marine environment the disruption of habitats when associated with the construction of the cooling water intake and outfall system, will be focused within the construction phase and will be localised, of medium duration and medium significance. When associated with the discarding of spoil, disruption to the marine environment is significant and of high consequence. When mitigated by disposing spoil offshore (and by using only a medium pumping rate at Thyspunt), the impact is reduced to one of medium consequence and medium significance. In terms of the release of treated sewage effluent – the effluent will meet the standards set by the Department of Water Affairs (DWA) and, as such, no significant impact on the marine environment is expected. Pollution of the marine environment by the discharge of groundwater polluted by organic, bacterial or hydrocarbon compounds is unlikely to occur and will be spatially and temporally restricted, it is considered to be of low consequence and significance. Development of the proposed nuclear power station at Bantamsklip would not be associated with any impacts to wetland systems that are considered unmitigable or that would, once mitigated, result in a negative impact of higher than “low” significance level (Section 6.2.2 of the Wetland Assessment).

- Curtailing of movement of indigenous terrestrial or aquatic fauna

The Marine Assessment states that while the shy Indo-Pacific humpback dolphin is likely to leave the immediate area during construction of the cooling water intake system, the disposal of spoil is unlikely to affect this species, as these animals do not venture more than 1.5 km offshore and show no obvious preference for clear or turbid water. It further states that although sharks are visual predators, the disposal of spoil is not expected to significantly impact Great White Sharks.

While some fish species show site fidelity and localised populations may be displaced from their home ranges (but not killed) during the construction phase, these species all occur over a wide geographic area and the specific populations at the affected site are not of exceptional conservation value.

In terms of terrestrial Fauna, the Vertebrate Fauna Assessment recommends the provision of ecological corridors will help to ensure the continued presence of faunal species on site.

- Endangering of indigenous plant communities or species

A number of indigenous plant communities have been identified on site (Sections 4.2 and 5.2.1. of the Botany and Dune Ecology Assessments, respectively). Mitigation measures have, however, been included in the respective Reports and Environmental Management Plan (Appendix F) and include:

- Repositioning of the footprint to avoid any coastal limestones, although due to high maintenance requirements of being located within a mobile transverse dune, it is recommended that this system be avoided;
- Inlet and outlet pipes should be buried and, where excavated, the surface rehabilitated with indigenous species;
- Spoil should be dumped on areas which have been disturbed in the past. Such areas should be rehabilitated with indigenous species once the spoil is distributed elsewhere; and
- Search and rescue operations should relocate any rare and/ or useful plants to areas which will enjoy long-term protection. All disturbed areas should be rehabilitated with indigenous plants. An EMP, which will be required for the proposed conservation area (North of the road), needs to be developed to manage these areas and new objectives such as these.
- Endangering of genetic integrity of any indigenous life-forms

The genetic integrity of indigenous life forms will not be endangered (refer appendix E11 Floral Assessment, E24 Human Health Risk Assessment and E21 Agricultural Assessment of the Revised Draft EIR)

- Introduction of alien plant or animal species

The introduction of alien plant and animal species is strictly forbidden and will be controlled through the implementation of the Environmental Management Plan (Appendix F).

- Over-utilization of finite natural resources such as water

No over-utilization of finite natural resources will occur on site. Water to the site will be provided through a desalination plant.

Your comment (6)

- What positive influences on biodiversity, e.g. through:
 - Removal of alien vegetation;
 - Removal of plantations and rehabilitation of areas thus cleared;
 - Re-instatement of previous water courses and groundwater equilibrium;
 - Removal of fences and re-introduction of game and other wildlife;
 - Environmental restoration within realistic cost-and time frames; and
 - Re-instatement of previously disrupted biological communities?

Response 6

- Removal of alien vegetation

Alien vegetation will be removed as per the recommendations of the Environmental Management Plan (Appendix F).

- Removal of plantations and rehabilitation of areas thus cleared

Section 7.4.5 of the EMP (Appendix F) discusses Site Remediation, Rehabilitation and Re-vegetation

- Re-instatement of previous water courses and groundwater equilibrium;

Re-instatement of groundwater equilibrium will occur through natural processes with time and also by means of managed artificial recharge. The latter could involve reintroduction of pumped groundwater into the aquifer downstream of the NI foundations. However, the upper Sandveld Aquifer is poorly developed at the Bantamsklip site and disruption of groundwater equilibrium will be minimal.

- Removal of fences and re-introduction of game and other wildlife

The removal of fences and re-introduction of game will likely occur with the establishment of the nature reserve around the Nuclear Power Station.

- Environmental restoration within realistic cost-and time frames

The removal of all internal fences on the Eskom (Bantamsklip) property has been completed. The introduction of wild life will only be considered at the time when a nuclear plant is being build and the necessary permitted game fences are in place.

- Re-instatement of previously disrupted biological communities?

The re-instatement of previously disrupted biological communities may occur (and should be encouraged to by Eskom) during the operational phase of the Power Station with the establishment of the Nature Reserve.

Your comment (7)

- Will the proposed development create undesirable precedents which could lead to further developments inappropriate to the region concerned?

Response 7

Any future developments in terms of their need and desirability as well as any cumulative impacts they may have will have to be assessed on their own merit and in terms of separate authorisations and permit applications to the relevant authorities.

Your comment (8)

- Will the proposed development have an undesirable impact on regional sense of place through inappropriate location on skylines, rocky outcrops or other highly visible places?

Response 8

Please see response 3.d

Your comment (9)

1.1 Technical criteria

Can the proposed development be carried out in a manner, which will:

- Be aesthetically sensitive in terms of location or through its architectural design?

Response 9

Please see response 3.

Your comment (10)

- Avoid unacceptable environmental or visual impacts through the provision of services such as roads, electricity, telephone lines, water, or sewage disposal?

Response 10

Please see response 3. The Visual Impact Assessment further proposes mitigation measures in terms of masts, access roads, spoil dumps and lighting amongst others.

Your comment (11)

- Ensure effective but environmentally and aesthetically acceptable provision for fire-breaks and other fire protection services?

Response 11

Fire-breaks and fire protection services is discussed in the the EMP (Appendix F). These sections deal with Emergency Preparedness and Response and Fire Prevention and Response respectively.

Your comment (12)

- Limit building footprints with due consideration for the ecological and visual characteristics of the region concerned?

Response 12

The footprints of proposed buildings will fall within areas deemed as suitable by the appointed individual specialists, collectively, and indicated on sensitivity maps contained within Chapter 9 in the Draft EIR. An area that has the least environmental sensitivities has been identified for each alternative site, based on an overlay of specialist sensitivity maps. The Draft EIR has recommended that placement of infrastructure (including access roads and other associated infrastructure) be optimised through a walk-down assessment that includes the relevant biophysical specialists after authorisation has been received.

Your comment (13)

- Allow staffing requirement and provision of staff accommodation to be kept within limits compatible with the region where the development is to take place?

Response 13

The scope of the current application for the nuclear power station does not include the staff accommodation development. Information about these requirements is, however, provided in the Draft EIR for information purposes. Any building of accommodation will take into consideration the local architecture and sense of place in the region.

An employee village will be established within or as close as possible to existing towns in the vicinity of the power station site to cater for the greater part of the expected 7 000 to 8 000 workers who will be active on site during the peak of construction, a period of approximately 3 years. The 1 400 operational staff will either buy existing properties in these areas, build new accommodation or rent.

Exact numbers of construction staff cannot be confirmed at this stage and will be dependent on the appointed vendor. Eskom has, however, followed a conservative approach in the consistent dataset and specified maximum number of construction and operational staff that they expect would need to be accommodated.

The potential impacts that the power station activities (e.g. transport, influx of people, housing of staff) will have on the areas surrounding the site have been assessed in the relevant specialist reports (e.g. the noise assessment, social impact assessment, transport assessment and air quality assessment).

Your comment (14)

- Ensure that security can be provided without disrupting visual by having to resort to unsightly measures such as installation of razor wire, bright lights etc.?

Response 14

The nuclear power plant will be declared as a National Key Point in terms of the National Key Point Act and will have to comply with the requirements of the Act. It is inevitable that the security measures at such an installation will include fencing, lighting and guard towers. The public will, however, have to come close to the plant to distinguish these and care will be taken to install lighting which meets security needs while not impacting significantly on the visual impact at night.

Your comment (15)

- Preclude unacceptable atmospheric pollution?

Response 15

Based on the predicted impacts of both non-radioactive and radionuclide air pollution, the assessment concludes that the site does not need to be discarded for the proposed nuclear power station.

The main pollutant of concern during construction would be airborne particulates. The likely sources of these air quality impacts would be fugitive dust emissions from general construction activities (clearance, excavation, scraping, road surfaces etc) and the potential for elevated ambient air quality levels caused by transportation emissions from the vehicles and equipment used by the workforce used in construction. Predicted impacts during the construction phase were shown to have a high significance if no or limited mitigation measures are applied. The impact would primarily be due to the generation of airborne particulates on unpaved haul roads. This impact can be reduced to a low significance with management plans and emission controls in place.

Potential sources of non-radioactive air emissions during the operational phase include:

- Carbon, sulphur and nitrogen oxides in the exhaust gases from engines of the backup electricity generators;
- Formaldehyde and carbon monoxide emitted by the insulation when installations go back into operation after servicing; and
- Ammonia discharged as the temperature rises in the steam generators during start-up.

The predicted impacts of non-radioactive emissions during the operational phase at Bantamsklip was shown to have a low significance. During normal operation, small quantities of radiological materials are released to the environment. This assessment only considered inhalation, cloud immersion and radiation from soil deposition pathways. Ignoring the ingestion pathway, the predicted effective dose

from these pathways indicates LOW *consequence*. However, since the emission is considered to be *definite*, the *significance* of the impact is rated medium.

Your comment (16)

- Preclude unacceptable noise levels?

Response 16

The Noise Impact Assessment (Appendix E23) reports that there would be no noise impact on land surrounding any of the three properties during construction and operation of Nuclear-1. No noise mitigation procedures would therefore be required. The Noise Impact Report does, however, state that the noise impact on the nearest residences along the R43 to the Bantamsklip site would be medium.

Your comment (17)

- Preclude generation of unacceptable odours?

Response 17

No unacceptable odours will be generated.

Your comment (18)

- Preclude the generation of human health risks

Response 18

The Air Quality Assessment and the Human Health Risk Assessment (Appendices E10 and E24 of the Draft EIR, respectively) have determined that the radioactivity released by the power station would be far below legal limits, and that there should be no material risks of health during normal operation of the power station. In this regard, the environmental monitoring conducted at the Koeberg Nuclear Power Station (Koeberg) is pertinent.

According to the NNR (2005 and 2006), various gaseous and liquid effluents are produced during the routine operation of a Nuclear Power Station. However, such substances are treated prior to it entering the environment through dedicated clean up systems. These clean up systems reduce the amount of radioactivity in such substances to well within the specified limits. The risk of public exposure from that portion of radiation released to the environment is controlled through the implementation of a radiological effluent management programme. This ensures that the risk that such effluent poses to the public is insignificant.

One of the key features of this programme, as implemented at the Koeberg Nuclear Power Station, is the control of the level of radioactivity in effluent discharges to within the Annual Authorised Discharge Quantities (AADQ). Besides these tests and clean up systems, radiological surveillance of the environment surrounding the power station is conducted, which ensures that strict control is placed over potential public exposure to radioactive releases.

According to the NNR (2005 and 2006), the public exposure to radiation as a result of Koeberg's operations has been less than 20 μSv per annum in general and less than 6 μSv per annum in 2005/6, which is far below the limit set by the NNR (www.nnr.co.za). The public radiation predicted for the proposed Nuclear-1 during normal operation is 0.1 mSv. In the event of an incident or accident, this would increase to 10 mSv.

Your comment (19)

- Ensure that situations such as fire or floods or any form of contamination can be handled effectively?

Response 19

Provision in terms of the above is made in the Environmental Management Plan (EMP) which is attached as Appendix F to the Draft EIR.

Your comment (20)

Economic criteria:

Is the proposed development:

- Financially viable and can guarantees be given that it will be constructed and operated in strict adherence to the Conditions of Approval?

Response 20

The plant construction and operation is subject to various requirements which are stipulated in the Environmental Management Plan. The plan is developed based on best practice and the recommendations provided by each specialist during the EIA process. This compliance is reviewed and controlled through various different processes which are stipulated in the EMP and usually in the Environmental Authorisation, these include a permanent, independent on site Environmental Control Officer, external audits and ongoing internal reviews. It is also through this process that contractors are required to implement the requirements. Each contractor on site has their own environmental management team to assist in complying to all the requirements.

In addition to the environmental aspects the operation of a nuclear installation is subject primarily to the National Nuclear Regulator requirements. As with the Koeberg Nuclear Power Station, the new plants will be run in strict adherence to these requirements. The NNR is entrusted with providing an oversight role of the power station operations, with the overall role to protect man and environment.

In order to obtain approval to progress with this project a full business case must be completed and approved by Eskom's shareholder and the Eskom Board. NERSA are also required to approve the project and ensure that it is financially viable.

Your comment (21)

- In a position to provide guarantees that in the event of its abandonment during construction, financial reserves will be available for rectification of environmental disruption caused by the construction so far?

Response 21

The plants being considered by Eskom will not be the First of a Kind. Eskom has taken a position that the vendor to be considered will propose a reference plant. A reference plant will need to be in operation before Eskom's plant goes operational. This is intended to extract lessons learnt for construction and commissioning. This significantly reduces, to the point of elimination that a plant considered for construction may be abandoned due to technical reasons. In line with the decommissioning commitment, Eskom has committed to rehabilitate the site upon the termination of the project

Your comment (22)

- Capable of contributing to local or regional economies in terms of taxation structures, promotion of tourism, or by any other means?

Response 22

Section 4.3 of the Tourism Assessment states that the Bantamsklip area is likely to experience an immediate and perceptible boost in tourism infrastructure and an increase in both the local resident population and business visitors. The resultant increase in bed-nights sold would have a stimulating effect on what is at present a relatively small albeit growing tourism market. In the long-term the wider effects of Nuclear-1 should also be positive. Although whale-watching might be restricted (unless permits are granted) in the zone adjoining the Nuclear-1 site that is approximately 10% of the total area, this appears to be mitigable by being moved to the larger area of the bay. Moreover, in that the natural resources and nature attractions of the site are currently inaccessible to tourists, the opening of the reserve areas that surround the proposed nuclear power station would result in an increased terrestrial asset to leverage wider tourism for the area as a whole. This would be important in the light of eco-tourism being identified in the local municipality's Integrated Development Plan (IDP) as one of the main economic and social development strategies for the future of the area.

The site in terms of the Economic Impact Assessment, is however the least preferred site, despite this the report further states that the differences are slight, and all the sites would have large positive economic impacts both on the local area and the province in which they are situated.

Your comment (23)

- In a position to provide sustainable employment, during both its development and operational phases?

Response 23

Certain positive impacts on employment (particularly for unskilled and semi-skilled workers) would only occur during construction. However, due to the continued presence of 1 400 operational personnel(which is not limited to skilled staff) and their families in the area, positive economic impacts would continue to be felt during the operational phase, albeit at a lower level of significance than during construction.

Your comment (24)

- Designed in a manner which will be in keeping with available infrastructure such as roads-,or railway and harbour facilities?

Response 24

Yes, Eskom has confirmed that the design and placement of the Nuclear Power Station will take the above into consideration.

Your comment (25)

- Designed in a manner which will ensure that negative impacts upon the rights or capital values of existing neighbouring properties will not occur?

Response 25

It is not anticipated that the construction of a nuclear power station will impact the value of neighbouring properties negatively.

Your comment (26)

- Planned in such a manner that its economic viability will not be at the expense of long-term ecological sustainability and that environmental safeguards will be maintained in the operational phase subsequent to construction?

Response 26

The entire site will be operated in an ecological sustainable manner ensuring that the extended property which is not utilised for the footprint of the plant is protected.

Your comment (27)

- Designed in a manner which will ensure that existing services such as road infrastructure, water suppliers, waste and sewage disposal will not be overloaded?

Response 27

GIBB's current scope of work includes only the EIA application for the power station and associated infrastructure. Eskom and GIBB are aware of more than 30 different environmental and other authorisations that would have to be obtained prior to construction.

The concern raised regarding local infrastructure is however very relevant. Eskom will be required to engage with the local authorities prior to construction to determine and document responsibilities for this. As indicated in the Draft EIR, the vendor for Nuclear-1 has not yet been selected. Detailed information about waste management facilities will only be available after appointment of the vendor, as the design of the power station may affect the design of the waste management facilities.

In view of the fact that National Environmental Management Waste Act requires detailed design information of waste management facilities, the application will be submitted with this limited information and amended as more detailed information comes available in the future. Also Koeberg Nature Reserve is managed in line with an approved Environmental Management Plan, the same will be applied for Nuclear-1.

Your comment (28)

Social criteria:

Potential social and environmental impacts of developments usually go hand in hand, irrespective of whether they are residential, industrial or of any other nature. It must therefore be asked whether the proposed development:

- Be detrimental to the interests of communities dependent upon the natural resources occurring in the region concerned?

Response 28

The impact of the Nature Power Station on the livelihoods of communities is discussed in the Social Impact Assessment (Appendix E). Positive impacts of the development relate to for instance protection offered to the Abalone species occurring at Bantamsklip due to the implementation of the exclusion zone. This will prevent over exploitation of the species and will protect the resource for future generations. At the same time, however, although access to the site is restricted, controlled access in terms of fishing for instance or whale watching and shark cage diving will still be given to communities and businesses that depend on these natural resources in terms of their financial survival.

Your comment (29)

- Are located in a manner which will ensure that neighbouring communities will not be exposed to hazards such as atmospheric pollution / radioactive contamination, noise dust or fire?

Response 29

Please see responses 14 to 18.

Your comment (30)

- Could generate traffic, which can be dangerous or disruptive in residential areas?

Response 30

The construction and operation of the Nuclear Power Station will generate traffic in and around the Bantamsklip site. Increased vehicular movement during the construction phase may influence daily living and movement patterns of community members in the surrounding communities.

Mitigation measures are aimed at optimising vehicular movement during the construction phase to minimize traffic congestion problems in the area, which in turn influences daily living and movement patterns of community members in the surrounding communities who make use of these roads

Your comment (31)

- If located inappropriately in terms of considerations such as those above, could they be re-located, or is mitigation of undesirable effects possible?

Response 31

The impacts on the biophysical and physical environment in terms of the above considerations has been identified and assessed by a number of specialist studies attached to Appendix E of the Draft EIR and incorporated in the Draft EIR in Chapters 9 and 10. A number of mitigation measures have also been suggested and included in a draft Environmental Management Plan (Appendix F) in order to mitigate the impact of the proposed Nuclear Power Station on the Environment.

It is, however, important to remember that in terms of the current application that an assessment of three sites was undertaken. The comparative assessment of the three alternative sites by GIBB was based on the following:

- Results of the specialist studies: specialists have indicated the relative significance of potential impacts with mitigation at each of the three alternative sites;
- An integration workshop, involving all specialists, on 24 and 25 November 2009, where potential impacts and ranking of the alternative sites was discussed;
- Costs; and
- Transmission integration requirements.

Although there are obvious differences between the significance of the potential impacts of the three alternative sites, all specialists agreed that there are no fatal flaws at any of the sites (provided appropriate mitigation is implemented). The specialist further collectively agreed that all three alternative sites are suitable for development of a nuclear power station in time, given sufficient mitigation of impacts.

In terms of the above Thyspunt has a considerably lower seismic risk profile, as well as being more favourably located in terms of Eskom's requirements for integration with the transmission system. The Thyspunt site is therefore recommended for authorisation in the Draft EIR although measures have been recommended to mitigate the impact of the Nuclear Power Station on Bantamsklip.

Therefore, although it is acknowledged that Thyspunt would experience environmental impacts of high significance, the conservation of the remainder of the site through access control and responsible long-term conservation management are significant positive impacts associated with this site. This benefit is clearly indicated in a number of biophysical specialist reports and the specialist reports clearly indicated that Thyspunt could be regarded as a preferred site only if such offset conservation is applied. In this manner the Nuclear Power Station is located more appropriately.

Your comment (32)

Cultural –historic criteria:

As the cultural-historic heritage of any region is of immense value to its sense of place, the pride of local communities, promotion of tourism and the unfolding of its economic potential, can the proposed development:

- Ensure that features of cultural-historic importance such as old building and/or landscapes (rural and urban), pre-historic human habitats or dwelling places, rock paintings, shell middens, wrecks of ships (above and below water) or paleontological artefacts, will be protected rather than destroyed?

Response 32

A Heritage Impact Assessment (Appendix E20) has been undertaken by Dr. Tim Hart of the University of Cape Town. The assessment concluded that by Western Cape standards the preservation and volume of archaeological sites at Bantamsklip is exceptional and that extensive mitigation will be required.

The natural heritage landscapes of the site are excellent and make a contribution to sense of place in the region. Together with the archaeological material they represent a largely intact precolonial cultural landscape. Given the mass and bulk of the proposed activity, un-mitigatable cultural landscape impacts are expected.

Your comment (33)

- Preclude unauthorized removal of artefacts from sites of cultural-historic importance?

Response 33

The unauthorised removal of artefacts from the site is not permissible and will be controlled by the Environmental management Plan (Appendix F).

Your comment (34)

- Contribute to research and educational initiatives aimed at ensuring that the importance of our cultural-historic heritage is not overlooked?

Response 34

Yes this is relevant to the protection of the extended property. Eskom does carry out research and as part of Corporate Social Investment focuses on education and health.

Your comment (35)

- Fit in the cultural-historic ambience of the region in which it is to be located in terms of its architectural design and the finishes to be used?

Response 35

Please see response 32.

Your comment (36)

- Help to enhance the cultural-historic integrity of the region over long term?

Response 37

Please see response 32.

Your comment (38)

This Council appreciate the opportunity to comment on the development proposal and look forward to your feedback on the abovementioned criteria.

Response 38

Your comments are noted.

Should you have any queries with respect to the above please do not hesitate to contact Arcus GIBB.

Yours faithfully
For Arcus GIBB (Pty) Ltd



Jaana-Maria Ball
Nuclear-1 EIA Manager

