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Our Ref: J27035 / J31314
Your Ref: Email 12 June 2011

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Dear Mr Eastoe

RESPONSE TO MR GUY EASTOE – INTERESTED AND AFFECTED PARTY

RE: ESKOM EIA CONCERNS FOR THE PROPOSED NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE (DEA Ref. No: 12/12/20/944)

I have many concerns about the “Proposed Nuclear Power Station and Associated Infrastructure, DEA Ref. No.: 12/12/20/944”.

Comment 1:

The new Draft EIA ignores the salient input from Prof Fred Ellery; an expert in this field, stating that “there is no evidence of debris flows at the site or those conditions exists for debris flow” does not constitute a response.

Response 1:

Thank you for your comment. The Revised Draft EIR Version 1 has not ignored the comment from Professor Fred Ellery or any other comments received as part of the Public Participation Process. Input and comment from Professor Ellery has been addressed in IRR 41 Appendix D8 of the Revised Draft EIR Version 1 and a report compiled by Dr. Werner Illenberer entitled Addendum to Dune Geomorphology Impact Assessment: debris flows in the Sand River and potential for flood damage to the R330 attached as Appendix E30 of the Revised Draft EIR Version 1. We refer you to these documents for reference. Professor Ellery and other technical experts attended a Technical Key Focus Group Meeting held on 29 July 2011 with the aim of discussing issues around the potential impact of the proposed Nuclear Power Station (Nuclear-1) on the dune geomorphology, geohydrology and debris flows at the Thyspunt site. The minutes of this meeting will be included in the Revised Draft EIR Version 2.

Comment 2:

The report ignores the study made by Dr Johan Binneman, a leading archaeologist. The report does not deal with the subject of archaeology of the site in spite of the matter being repeatedly raised in comments on the first Draft EIA. The site happens to be of major archaeological importance, covering time spans of millennia. The site is of major importance in terms of the cultural heritage of the Khoisan people. The South African Heritage Resources Agency (SAHRA) has refused to approve the relevant Heritage Impact Scoping Report. Last year the minister of Arts and Culture stated that the NPS would not be built at Thyspunt for this very reason. The ESKOM consultants have ignored this matter by stating that an application has been made to SAHRA for a permit to perform test excavations.

Response 2:

The archaeology of the site is dealt with in detail by the Heritage Assessment and Heritage Mitigation Reports as well as Chapter 9 of the Revised Draft EIR. It is recognised that Dr. Binneman is an expert on the Thyspunt area by both Mr. Hart, the heritage specialist for the EIA and Dr. Halkett from the UCT Archaeological Contracts Office who both know Dr. Binneman and his work. They have referenced his research material in their specialist report. Dr. Binneman, previously of the Albany Museum, spent an evening with the Heritage Impact Assessment (HIA) team during their fieldwork at the Thyspunt site, at the invitation of the HIA team and shared information with the team.

Mr. Hart, GIBB and Eskom had a key focus group meeting with the Gamtkwa Khoisan Council. Minutes of this meeting were included in the Revised Draft EIR Version 1. The Council members raised the issue of the archaeology and the cultural landscape, which was not addressed in the previous version of the heritage report. GIBB has also had a meeting with the South African Heritage Resources Agency (SAHRA) regarding the potential of this site to be considered for an UNESCO site, as well as discussing the findings of the Revised EIR Version 1 and the permit application for the excavations in the central portion of the site. The excavation permit was granted by the SAHRA and the finding of these test excavations (which will be released with the next revision of the EIR) is that the recommended location of the power station (within the vegetated dunes) has a much lower concentration of heritage sites than initially suspected, that large scale excavation of heritage sites would not be required and that heritage excavations could be completed with existing resources.

Comment 3:

The report ignores the huge impact on the squid industry, and covers it in a minimal way by saying that there will be a minor impact, in spite of the fact that experts appointed by the South African Squid Management Association (SASMIA) have stated the contrary. Pumping 6 million cubic meters of sand into South Africa's prime squid breeding ground will have a huge effect and will in all likelihood spell the end of the St Francis squid industry and the harbour as a going concern, with all related jobs.

The report concedes that the surf break at Cape St Francis may be adversely affected by the above spoil pumped into the sea at the building site. If this is accepted, then it must also be accepted that the ocean floor will be covered by un-natural (ex-land based) sand which therefore MUST affect the squid, and the surfing, therefore the reduction in tourism. No tourist wants to spend time close to a nuclear power station anyway.

Response 3:

The Marine Impact Assessment undertaken by Dr. T. Robinson and Prof. C. Griffiths (Appendix E15 of the Revised Draft EIR Version 1) concluded that temporal and spatial limitations of the impacts associated with the disposal of spoil on chokka squid at Thyspunt will have limited impact on the overall squid stock, when taken within the context of the extensive area over which this species spawns. Dr. T. Robinson and Prof. C. Griffiths have had subsequent follow-up meetings with the Department of Agriculture, Forestry and Fisheries (attended by the SASMIA, GIBB and Eskom as observers). Preliminary discussions by the Squid Working Group indicated that the impact ratings of the Revised Draft EIR Version 1 were unlikely to change. We further refer the author to IRR 136 compiled by Dr K Prochazka of the Department of Agriculture, Forestry and Fisheries and Dr Hans Verheye of the Department of Environmental Affairs further elaborating on comments received from the Scientific Squid Working Group.

Lastly the coastline along Thyspunt consists of both rocky and sandy shores. The optimal site for soil disposal was determined to be 5 km off the coast, which will have minimal impact on sedimentation and wave break activity at the nearby surf breaks used by the surfing community. The tourism assessment for Nuclear-1 acknowledged that the highest potential negative impact on tourism could occur at the Thyspunt site. The impact on tourism has been quantified in bed nights and the negative or positive impacts of the proposed power station have been predicted during construction and operation. However it has been the experience at other power stations such as the Medupi Power Station that local business-based tourism can increase substantially as a result of the influx of Eskom employees and contractors.

Comment 4:

The report does not deal with the fact that the R330 (Humansdorp – Cape St Francis road) will be used as the main transport road to the site during the 8 odd years of construction. During peak traffic times a heavy vehicle will pass any given point every 24 seconds. There will also be times when extra heavy vehicles will stop all normal traffic on this road for many hours.

Response 4:

Transportation matters are dealt with in particular in the Transportation Assessment (Appendix E25 of the Revised Draft EIR Version 1) and Chapter 9 of the Revised Draft EIR Version 1. As such the Transport specialist study has been revised. This report will be made available for public comment and review as part of the Revised Draft EIR Version 2.

The R330 is now proposed to be used for light vehicle traffic and abnormal load transport, and sections will require upgrading for this purpose. It should be noted that there is relatively few of these loads and the transportation will be spaced over a period of three years. It is also proposed that the vehicle will travel at night when traffic is at its least so that there would be minimal disruption on the traffic moving through the town.

The Oyster Bay Road is now proposed to be upgraded to a surfaced road to be used during the construction and operations phases for staff access, light vehicle traffic, heavy vehicle traffic and as an emergency evacuation route for areas such as Oyster Bay. DR1762, which links the R330 and Oyster Bay Road is now proposed to be surfaced to provide improved east-west connectivity.

Comment 5:

The report incorrectly states that agriculture will be positively affected by the NPS project, how can this be true.

Response 5:

The Revised Draft EIR Version 1 reflects the findings of the Agriculture Impact Assessment (Appendix E21 of the Revised Draft EIR Version 1) which states that Thyspunt will experience a short term negative impact on agriculture in terms of dust during the construction phase. However, there is potential for a positive impact on production by increasing the size of the local market for fresh produce as a result of the influx of population (Nuclear-1 employees and their families as well as construction workers) to the area. The specialist did review his findings and the above was the extent of his response.

Comment 6:

Little attention is paid to the fact that the project will employ some 8000 people during construction, and the effects of this influx. Also little attention is paid to what happens to the workforce after completion of the project.

Response 6:

The Social Impact Assessment (Appendix E 18 of the Revised Draft EIR Version 1) assessed the impact of the influx of job seekers of the areas surrounding Thyspunt. The Social Impact Assessment reports that provision for future residential development has been made in the Kouga Spatial Development Plan (2009), in and around Sea Vista, Cape St. Francis, Oyster Bay and Humansdorp. Unsuccessful job seekers from outside the area could explore possibilities in neighbouring towns such as Humansdorp and Jeffreys Bay. Accommodation opportunities near the proposed Nuclear Power Station are limited and expansion of the existing informal settlements is not a feasible or desirable option.

The following mitigation measures are therefore proposed:

- A proactive, broad-based information campaign (including site notices) to clarify the number of job opportunities that will be available. The objective is to dispel rumours and unrealistic expectations and thereby seek to curtail the inflow/settlement of job seekers
- Proactive engagement by the appointed contractor(s) with local authorities/ SAPS/ CPFs to ensure that job seekers do not settle in the vicinity of Staff Villages or the construction site.
- Following a transparent public participation process with role-players and interested and affected parties;
- Make use of local labour and local suppliers of material for the construction as far as possible;
- Monitor the situation after the occupation of the Staff Village and housing projects, and involve the relevant role-players in such process.

Comment 7:

Arcus Gibb states that they have found a route for their heavy vehicles to by-pass Humansdorp during the construction phase. The “new” route uses Saffery Road, which runs through a residential area and is already used extensively by traffic avoiding the Humansdorp main road, en route to SFB and CSF.

Response 7:

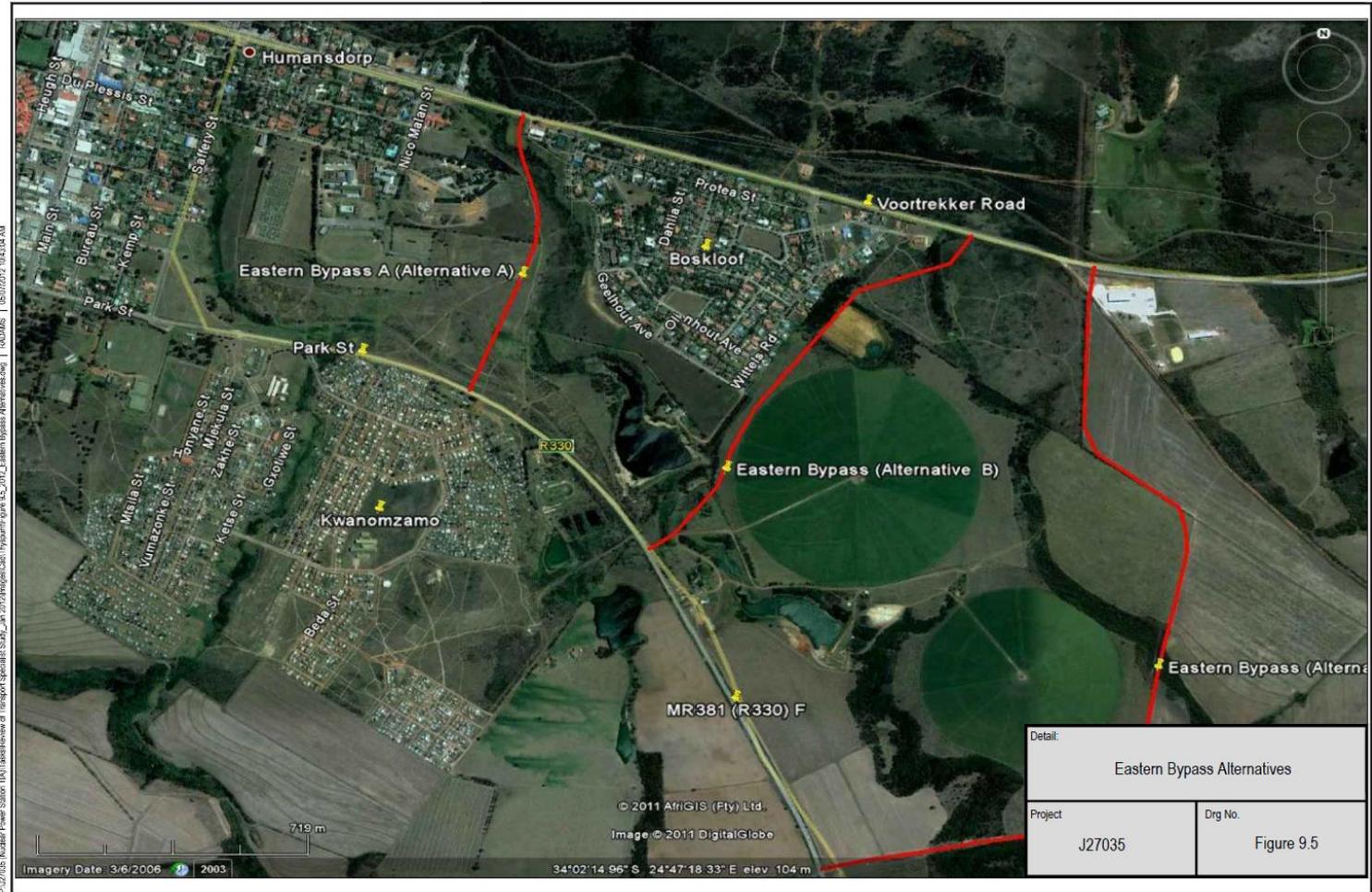
Your comments are noted. Similar concerns from the public around Humansdorp area up to St Francis have been raised and acknowledged regarding the use of Saffery Road. As such the Transport Specialist study was revised to consider other alternative routes (see figure below). The revised report recommends that the main street through Humansdorp and Saffrey Street be bypassed. New transport roads for abnormal load vehicles were therefore considered and three alternate bypasses were investigated, as shown in the figure attached. All three alternatives are proposed new roads that run along existing land boundaries between farmland.

Alternative A directly links between Voortrekker Road (MR389) and Park Street (MR381) and is 850m in length. The beginning of Alternative A crosses the Boskloof Valley and the rest of the route will be constructed on Municipality land.

Alternative B is connects between Voortrekker Road (MR389) and Park Street (MR381) along the east of the Boskloof area, and crosses privately owned farmlands and is 1.3km in length. The topography of Alternative B is considered acceptable, except for the section of the route where it crosses the Boskloof Stream at a deep vertical alignment. Additional cost will be required for the construction of a bridge to cross the stream at an acceptable grade.

Alternative C is located the furthest east from Humansdorp and is the longest of all three alternatives (2.7 km). This route also crosses privately owned farmlands. Similar to Alternative B, Alternative C crosses two relatively deep valleys, which will require additional cost for the construction of bridge structures to achieve acceptable grade crossings.

Alternative A is therefore considered as the most viable option as it is the shortest and most economical route to construct, and it has a good alignment for the transportation of abnormal loads. Once the route is constructed, it will also alleviate the traffic congestion in Humansdorp.



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Comment 8:

The technology to be used has not been finalised, so many conclusions drawn in the report are therefore premature.

Response 8:

As indicated in the Revised Draft EIR Version 1, the assessment of the impacts of the proposed power station is based on a Consistent Dataset (Appendix C of the Revised Draft EIR Version 1), which represents a worst case scenario of potential inputs and outputs from a Generation III nuclear power station operating under normal conditions. This dataset has been based on the commercially available nuclear power station designs currently on the market.

It may be appropriate to explain the envelope of criteria in colloquial terms, as has been done in public meetings during the Nuclear-1 EIA process. If the envelope of criteria is compared to the specifications for buying a vehicle, this envelope may contain requirements with respect to top speed, fuel efficiency, type of tyres and wheels, fuel tank size, CO₂ emission limits, cruise control, numbers and positions of airbags and a number of other safety systems such as ABS and EBD. The only thing that isn't specified is the brand of vehicle. Providing such a list of criteria would ensure that only a luxury vehicle with certain characteristics could qualify, but that a base model (entry-level vehicle) would not qualify. Similarly, if a vendor proposes a power station design that fails to comply with the criteria established in the Consistent Dataset, that design would not qualify for consideration.

Comment 9:

The main report states that the predominant wind is "West-Northwest to Northwest". This is incorrect and makes a huge difference to disaster management planning. The correct predominant wind direction is South West, which places Cape St. Francis and St. Francis Bay right in the path of any possible nuclear contamination in case of a disaster. (Arcus Gibb's/Eskom's above claimed wind direction has the opposite effect. They have stuck to this incorrect wind direction in spite of the Thyspunt Alliance repeatedly pointing out the mistake).

Response 9:

Wind roses for Thyspunt site and St. Francis (Air Quality Assessment – Appendix E10 of the Revised Draft EIR Version 1) show the dominant direction to be west to north-west with more of a north-westerly wind in winter.

Comment 10:

Arcus Gibb will get huge contracts from this construction if it goes ahead, and should not be doing the EIA. How can they be objective?

Response 10:

GIBB has been appointed as independent Environmental Impact Assessment Practitioners in terms of the National Environmental Management Act. Furthermore no contracts in terms of Nuclear-1 have been appointed. These are very serious accusations and are incorrect. Please provide the basis to such accusations when making them.

Yours faithfully
for GIBB (Pty) Ltd

A handwritten signature in black ink, consisting of a large, stylized 'S' shape with a small dot above it.

The Nuclear-1 EIA Team