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Attention: George and Sandra Hardie

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Dear Sir and 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 ASSESSMENT REPORT

Your correspondence to Ms. Bongi Shinga of ACER (Africa) refers.

Arcus GIBB (GIBB) acknowledges receipt of the above-mentioned letter. We thank you for your valuable comments and your participation in the Eskom Nuclear Power Station 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)

We have attended the meetings pertaining to the proposed siting at Thyspunt of an Eskom nuclear power station referred to as 'Nuclear 1'. The earlier meetings appeared to be quite legitimate and above board and gave the impression that everything would be correctly carried out to establish the most suitable site in South Africa and ensure that no impact would occur on the environment surrounding that site. As the latter is now of prime importance worldwide we naively thought that the investigations being carried out would identify a site somewhere in SA which would have the least environmental impact and other factors such as economics would be of only secondary importance. How wrong could we have been?

The presentations and responses given to questions and objections at the meetings that have been organised in the St Francis area by the EIA consultant appointed by Eskom have left us in no doubt that Eskom intended to use the proposed Thyspunt site from the beginning. It is clear to us that all investigations carried out under the guise of a legitimate EIA process appear to have been manipulated to establish that end –

1. The additional power is needed in areas of Port Elizabeth/Coega/East London and it will cost at least R5billion to convey this from Thyspunt, not to mention the unsightly and environmentally unfriendly power lines that will affect 100klm between St Francis and PE – **the consultant brushed this off with the statement that the power lines were not part of the EIA; that the area around Coega had seismic problems and therefore was not considered and also that it was not one of the five sites that Eskom told them to investigate.**

In Japan nuclear power stations are built around volcanoes, surely SA can overcome minor problems in the Coega area with R5billion and locate the station where the power is needed? What about other sites between PE and EL which have not been investigated?

Response (1)

Your comments are noted. In terms of the site selection process, the basis of the site selection process, namely the Nuclear Site Investigation Programme (NSIP), was reviewed during the Scoping Process and the five alternative sites that the EIA commenced with were still found to be reasonable and feasible alternatives at the start of the EIA process. The specialists then undertook their studies and two of the sites were scoped out of the EIA process, for various reasons. This approach has also been approved by the Department of Environment Affairs (DEA) and the Final Scoping Report, in which certain of these sites were carried forward for further investigation in the EIA phase, and the Northern Cape site were not recommended for further investigation, was approved by the DEA.

The EIA's for Transmission lines are relevant to the overall decision making. The EIA for the plant is already very complex, trying to complete this with three very complex Transmission line EIA's would have been unmanageable. Eskom therefore initiated the Transmission EIA's so that any significant aspects could be considered in this EIA. The decision on the Bantamsklip site was partially influenced by the Transmission line EIA. The Duynefontein and Thyspunt Transmission EIA's are progressing and will be submitted to the public and the authorities within weeks of each other.

Lastly, in terms of the Coega IDZ and it being considered as a reasonable and feasible site alternative, GIBB was informed by the Coega Development Corporation that the Coega IDZ did not have available space in 2007. Although space has now become available for a nuclear power station at Coega IDZ, due to other limitations (such as the need for micro-seismic monitoring), Coega cannot in terms of this EIA process for the proposed Nuclear-1 be considered reasonable and feasible alternative as there is currently a lack of information regarding its seismic suitability. It would take another five years to generate the same level of information as is available for Thyspunt, Duynefontein and Bantamsklip site alternatives.

Your comment (2)

It appears that it is against the law to have power lines running near schools/hospitals/old age homes - why should all residents in the 100 km corridor be subjected to this apparent environmental/health problem?

Response (2)

The law that controls the distance to power lines is the Occupational Health & Safety Act dealing with distance to buildings. The Occupational Health & Safety Act indicates that a distance of 5.6 metres to any building must not be encroached. However Eskom acquires 27.5 meter servitude from the centre line and a typical 400kV line has an 8 meter phase-to-phase spacing, therefore from the nearest conductor to the edge of our servitude the distance will be 19.5 meters which comfortably complies with the 5.6 meters from the Occupational Health & Safety.

Therefore power lines can run near schools/hospitals/old age homes, as long as the said buildings are outside the servitude.

Your comment (3)

How can the power lines be investigated separately from the nuclear plant – you cannot have one without the other?

Response (3)

Your comment is noted. Please refer to response 1 of this document.

Your comment (4)

Why were the consultants limited to investigating five sites (subsequently reduced to three) determined solely by Eskom from some report which is 30 years out of date – the demand for electricity in the PE/Coega/EL area did not exist 30 years ago – it appears that the area between PE and EL was not looked at 30 years ago? Why?

Response (4)

Your comment is noted. Please refer to response 1 of this document.

Your comment (5)

2. We are advised that Thyspunt will require major road access from the east being established right through the pristine and tranquil village of St Francis Bay (a major tourist area in the Eastern Cape) for the use of hundreds of trucks during a construction period of 9 years/ 24 hours a day (we are advised that in the peak two hour period in the morning trucks/buses will be passing through St Francis at the rate of one every 15seconds and in the evening one every 20seconds) to be followed with nuclear waste removal when the plant is operational – **the tourist destination of St Francis Bay will be destroyed but the consultant and Eskom showed no concern at all and obviously had discounted this in their efforts to achieve Eskom's predetermined requirement.**

It was indicated that a secondary access will be made on the western side of Thyspunt on the road between Oyster Bay and Humansdorp – **Eskom's consultant had discarded this as a major access as it would be too costly to upgrade. Furthermore an alternative western route avoiding even Humansdorp had not even been considered.**

Response (5)

A Transportation Impact assessment was conducted as part of the EIA process. Both the Western and Eastern access routes were recommended in the Draft EIR. However many comments were received on this issue, these have been taken into account and a revised assessment will be available as part of the Revised Draft EIR which will be made available for public review and comment.

Your comment (6)

Eskom's consultant stated that economics are always taken into consideration in an EIA process - why then is no consideration been given to the economic destruction of the tourist destination of St Francis Bay and all the businesses and labour opportunities that this entails? Yet the consultant makes economics the prime concern when matters concern Eskom's interests –why is it more important to save Eskom money building a road on the west side of the site than it is to prevent the destruction of St Francis Bay?

Response (6)

Your comments are noted. The tourism specialist indicated in his report that there would be slight negative impact on tourism during construction but due to increased job creation and demand for accommodation by the construction activities there will be a positive impact on the economics in the area. The Economic and Tourism Assessments are being revised and will form part of the revised Draft EIR which will be made available for public review and comment.

Your comment (7)

Who will pay for the possible upgrading of the road from St Francis / increasing the size of the bridges /Humansdorp will possibly have to be bypassed with the resultant loss of their business / increase in size of bridges, such as Van Stadens, on the N2 / increase in maintenance costs of all roads? Have the relevant Municipalities undertaken these costs – will they in fact ever be able to afford them?

Response (7)

Eskom will cover the costs of the upgrades to bridges but will enter into negotiations with the local and provincial government in terms of the upgrading of any other infrastructure. It is recommended that such agreements need to be completed prior to construction starting.

Your comment (8)

Have Humansdorp business interests and residents been informed of a possible bypass or that this major road will now go up their main street?

Response (8)

Interested and Affected Parties (I&APs) as well as stakeholders, including all relevant business interests and residents, were identified and notified of the proposed establishment of a nuclear power station as part of the Public Participation Process and in line with Public Participation guideline documents and GN R 385. All registered I&APs have been included in all correspondence related to the availability of both the Scoping and Environmental Impact Reports as well as the Plan of Study for EIA and other relevant documents.

Your comment (9)

Why have these facts been kept in the dark for so long and why have the consultants not ensured that the information is given directly to all interested parties before expecting comments on their draft report, the latter parties being every resident, property owner and business in the St Francis / Humansdorp/Jeffreys Bay area? The consultant would have had a much bigger turnout at their meetings if everyone had been aware of their actions!

Response (9)

Your comments are noted. Please see response 8.

Your comment (10)

3. We were advised that the construction phase of the Thyspunt project would be up to nine years and that 7800 workers would be employed and housed in either Jeffrey's Bay or Humansdorp and then bussed into Thyspunt on the highway to be constructed through the middle of St Francis Bay. There was also the question of the "Yellow Blob" (an area marked in yellow) shown on Eskom's route maps to Thyspunt, being adjacent to the proposed nuclear site and of which the consultants claimed to have no knowledge. This "Yellow Blob" mysteriously disappeared from the maps later in the relevant meeting – information subsequent to the meeting seems to indicate this was an area identified by Eskom for low cost housing for workers, but it appears that this would have seriously affected a wetland area.

The consultant conceded that it was likely that only 25% of the workers needed by Eskom would be from local communities, all others having to be brought in from other areas and that each of the latter was likely to bring along his family.

What arrangements have been made to house the additional workers and their families, which in a best case situation is likely to total 25000 persons – 5000 workers plus average 4 family members?

What arrangements have been made to house and occupy the additional job seekers that will most definitely be arriving hoping to obtain work – the Moss Gas project offered 15000 jobs, 100 000 work seekers arrived and are still in Mossel Bay!!!!?

Response (10)

It has been stated, in the Draft EIR and in public meetings, that the areas where accommodation will be required will be integrated as far as possible with areas dedicated for housing in the existing planning processes of the local authorities within which the power station is proposed to be located. Eskom has engaged with the local authorities and determined that there will be sufficient areas in Humansdorp and Jeffery's bay. Where possible, employees (especially operational employees) will obtain accommodation in existing settlements.

Comment [DH1]: This has not been adequately answered. Lorraine and Sam/Mervin please update. Check the questions to ensure the answer is comprehensive.

GIBB again states that it and its employees had no knowledge of the origin or significance of the "yellow blob" on the figure however this will be investigated and the figure rectified if needed.

Your comment (11)

4. We have been given environmental impact assessments created by "experts" appointed by Eskom's consultant and even had some of these experts attend one of the stakeholder meetings to answer the serious flaws that appear to be contained in most, if not all, of these assessment reports. Some of these issues are set out above and a further far reaching example is the following –

It has now come to light that because the Thyspunt site is on unstable dune fields (which are unique) millions of tons of sand have to be removed in order to build on bedrock. The impact of this is far reaching and extremely serious –

i. The dunes are shifting and the area is permeated with wetlands and as a consequence retaining walls will have to be built to prevent both sand and water invading the site. It is reliably understood that water will continue to be a problem and will always have to be pumped out thereby draining the pristine wetlands of the area where there are species of flora that do not occur anywhere else in the world. Permanent and irreversible damage will result.

ii. The sand to be removed will be pumped 1 or 2 klms out to sea thus covering the entire sea bed with silt which through the action of the currents will also be carried eastward and affect St Francis Bay and Jefferies Bay.

The "expert" conceded that the marine life would be affected for the period of construction (9 years) and a 'limited' recovery period (+- 10 years!!!!) This would then be followed by heated water being pumped into the sea when the nuclear plant becomes operational.

The calamari industry of the area which provides some 5 thousand jobs and brings in billions of rands income to South Africa each year will be practically wiped out for a period of at least 20 years!!

The currents and waves are likely to be affected which will impact on the enormous surfing/tourist industry in the St Francis Bay and Jefferies Bay areas.

The expert had not considered these issues in his assessment and only conceded that marine life in the immediate area of the site could be permanently affected.

Without exception the assessments given by the Eskom appointed “experts” conclude that all environmental impacts can be “mitigated”!!!! (Perhaps a more appropriate word would be manipulated.)

Response (11)

Your comments are noted. The impact of the Nuclear Power Station on the environment was assessed in the Economic, Dune Geomorphology and Marine Assessments amongst others. These assessments are currently being revised and the revised assessments will be available for comment as part of the Revised Draft EIR which will be made available for public review and comment

Your comment (12)

5. Eskom’s consultant has presented a so called ‘draft executive summary’ which has been shown to be littered with flaws and in which a unilateral attempt has been made to **weight the advantages and disadvantages of the three Eskom chosen sites. There is no doubt in our minds that the weighting seems to have been manipulated to ensure that Thyspunt appears to be the most favourable site.** No information is provided as to how the weighting factors have been created nor are stakeholders given the opportunity of participating therein.

Ironically we the stakeholders are supposed to comment on the Eskom consultant’s first draft report and while we will be given an opportunity to comment on a further draft, it would appear that we will not be able to see the final report before its submission to Government.

This being the case all stakeholders will be prevented from ensuring that proper adjustments have been made to the final report to eliminate errors and to incorporate all the objections that have been submitted – how can we be assured that the relevant Government departments will be made aware of the serious flaws in the Eskom application and that they will be given full details of all objections?

Response (12)

As stated a Revised Draft (2nd) EIR will be provided for public comment for a further period of 45 days. Based on legal advice on the interpretation of the current EIA Regulations it is GIBB’s understanding that a Final EIR must only be provided for public comment if it contains information that is substantively different to the information provided in the previous version that was provided for public comment. Should the Final EIR not contain materially different information to that in the Revised Draft (2nd) EIR, the Final EIR will be provided to the public for information purposes only and not for comments. Comments made on all reports released to date are documented and included with the EIR submitted to Government.

Your comment (13)

6. Finally these factors inter alia merely confirm our overriding impression that Eskom had decided to use the Thyspunt site from the outset and that the entire EIA process has been ‘manipulated’ to achieve this end.

It is blatantly evident that in proposing Thyspunt as the location of the nuclear power station, Eskom appear to have given absolutely no consideration to the pristine and sensitive environment of the Thyspunt area.

Eskom have equally not given any consideration to the destructive effect such a nuclear plant will have on the established tourism, calamari and other industries of the area. These activities currently bring in billions of rands per annum to South Africa.

We wish to place on record that we object in the strongest possible terms to Eskom's ill-considered proposal to erect a nuclear power station at Thyspunt.

Response (13)

Eskom regards the environmental impacts, positive and negative, associated with the construction of plant very seriously and will continue to go to great lengths to minimise the negative impacts while contributing to the increasing demand for electricity which supports economic growth and development in South Africa.

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

A handwritten signature in black ink, appearing to read 'JMBall', written in a cursive style.

Jaana-Maria Ball
Nuclear-1 EIA Manager