

5 August 2015



Our Ref: J27035 / J31314  
Your Ref: Email received 07 August 2011

Thyspunt Alliance  
St Francis Bay Resident's Association  
St Francis Kromme Trust

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Dear Mr Thorpe, Thyspunt Alliance and its members, the St. Francis Bay Resident's Association and the St Francis Kromme Trust

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

**THYSPUNT ALLIANCE**

**NUCLEAR 1 RESPONSE TO REVISED DEIR**

**GENERAL COMMENTS**

Response compiled by H.Thorpe and submitted on behalf of the St. Francis Bay Residents' Association, the St Francis Kromme Trust and the Thyspunt Alliance

**Comment 1:**

**1. No confidence in the EIA process**

The process has shown up weaknesses in the NEMA legislation. Wherever a consultant is selected and paid by the developer, there is inevitably a conflict of interest. NEMA requires strict impartiality on the part of the EAP, who will vehemently protest at any allegation of partiality.

NEMA allows considerable discretion to the EAP on the weighting of the various impacts. Thus, an arbitrary decision as to which impact should be weighted as of high importance, and which low, is left to the EAP, in a totally non-transparent process. Similarly, the impact rating criteria are determined by the EAP. These significantly increase the risk of bias. Decision-making factors are arbitrarily disregarded, with difficult ones, such as social impact, being relegated to insignificance (sic), or eliminated totally.

The DEA is therefore requested to scrutinize the specialist reports, and the comments passed on them by I&APs with great care.



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This EIA has been characterized by extreme bias towards Eskom, with inaccurate, superficial, and misleading information being disseminated. Serious issues which could influence the ROD have been either swept aside, or played down, or quietly forgotten. Errors have been constantly repeated in each successive document. Minutes have frequently not reflected important contributions. Answers given to questions have not appeared in the minutes. Some of the “Specialists” have acted with a serious lack of professionalism, and there is no peer group monitoring to ensure that their reports are factually correct and comprehensive. Proposals for mitigation are frequently so naive as to lack all credibility. Requests for focus meetings to question specialists on the basis of their findings have been refused.

Unless there is evidence that that has changed, there is a prima facie case for a formal request to DEA to remove Arcus Gibb from this EIA, or even for prosecution of the guilty parties.

Furthermore, it is our contention that the Department of the Environment contravened its own NEMA Regulations by approving the Scoping Report in the absence of material information required for a decision. This included specific technology to be used, associated infrastructure, including road access and transmission lines, failure to investigate alternative sites, waste disposal etc. By permitting the EIA to proceed despite this, the DEA tacitly encouraged the consultants to believe that the DEA would take a soft line.

If a favourable ROD is given on the basis of the reports contained in the Revised DEIR, and of manipulative processes, such as the weighting and Impact Rating Criteria, it can only lead to an appeal, and ultimately to court action.

### **Response 1:**

The EIA regulatory regime under (the National Environmental Management Act, 1998 and the EIA regulations thereunder - Government Notice Numbers R 543 to 546 of 2010) NEMA provides for the fair remuneration of environmental assessment practitioners (EAPs) involved in compiling or reviewing an EIA. Payment for work performed is implicit in any EIA work, as it is for any other form of work.

In this regard, Government Notice No. R 543 of 2010 provides the following definition:

“*independent*”, in relation to an EAP or a person compiling a specialist report or undertaking a specialised process or appointed as a member of an appeal panel, means—

- (a) that such EAP or person has no business, financial, personal or other interest in the activity, application or appeal in respect of which that EAP or person is appointed in terms of these Regulations other than fair remuneration for work performed in connection with that activity, application or appeal; or
- (b) that there are no circumstances that may compromise the objectivity of that EAP or person in performing such work”.

Should you have an in-principle objection to the concept of payment for services performed in compiling an environmental impact assessment, it would be advisable to approach the Department of Environmental Affairs, since the prevailing legislation provides for fair compensation of EAPs by the applicant.

The EIA legislation prescribes broadly what criteria should be used in assessing the significance of potential environmental impacts, but does not prescribe how an EAP should reach a decision, as each

application for environmental authorisation has be judged on its own merits. Thus no universal set of criteria can be defined to deal with choices amongst alternatives.

Contrary to your claim of lack of transparency, the choice of criteria and the weighting of the criteria have been made abundantly transparent. Explanations are provided in Section 9.32 of the revised Draft EIR for the weightings, based on which key decision factors have been identified. Decision-making factors were not arbitrarily disregarded. Rationales for the inclusion of certain decision factors and the exclusion of others are provided in the Revised Draft EIR. GIBB employed three experienced external EIA process reviewers to review and comments on the criteria and assessment methodology, namely Messrs. Mark Wood, Sean O'bierne and Neal Carter.

Selection of impact rating criteria by the EAP is common throughout EIA practice and the selection of these criteria by the Nuclear-1 EAP is no different to the practice in any other EIA in South Africa. Your comments regarding inaccuracy of information and misleading information are noted. The EAP and the EIA specialists stand by the information contained in their reports. Where errors have been found, these have been admitted and corrected. Parties are invited to continue to submit comment on the technical reports and process and these will be reviewed and corrections made, if relevant.

Minutes of all public, key focus group and key stakeholder meetings were provided to participants in attendance at the meetings for a period of two weeks (14 days) in order for the participants to review the minutes for accuracy. Meeting minutes have attempted to capture the essence of the discourse at meetings, but minutes are not verbatim minutes. Minutes were compiled from recordings of the meetings. If meeting participants have questioned the content of the minutes, recordings of the meetings have been provided to them on request to verify the accuracy of the minutes.

Should you question the accuracy of any of the contributions of the specialists, you are welcome to comment directly on the findings of the specialist reports. Complete responses to comments on specialist reports have been provided under separate cover.

Requests for focus group meetings with specialists have been granted. A Key Stakeholder Workshop (KSW), requested by the Thyspunt Alliance, was held on 25 May 2010 and was attended by relevant specialists from the EIA Team during the review period for the Draft EIR.

With regards to this KSW it must be pointed out that direct engagement between interested and affected parties and EIA specialists is unusual in South African EIA practice. Much planning went into the arrangement of this Key Stakeholder Workshop, which was attended by specialists from seven different fields of specialisation. The list of specialists that was required to attend this KSW was determined in consultation with the Thyspunt Alliance.

Your comment regarding the DEA's contravention of its own regulations is noted and is best dealt with by the DEA itself. GIBB cannot comment on behalf of the DEA, except to say that the DEA has a decision-making mandate in terms of the NEMA and the EIA regulations thereunder and that it issued an approval of the Nuclear-1 Scoping Report and Plan of Study for EIA in terms of this mandate.

## **Comment 2:**

### **2. Site selection**

We are talking here of placing a huge industrial plant on a piece of coastline which has been identified as a potential World Heritage site. Furthermore this will be a nuclear site, which is in a category of its own in terms of site selection. Such a decision should only be contemplated when all negative impacts have been properly addressed, and all other possibilities have been excluded.

The problem goes right back to the original Site Selection Process. It was clearly stated in the Site Investigation Documents that the site selection was subject to very clear limitations. This included not going within 100 kilometres of Ciskei, for security reasons, (A potentially suitable site was identified within the 100 km zone); and limiting the investigation to seismic, geological and demographic factors only.

Furthermore, one of the recommendations of the Nuclear Siting Investigation Programme at the time was that the "small coastal resorts be left undisturbed". This has been completely ignored by Eskom, with its plan to take the heavy-duty traffic across the bridge over the Kromme River, and right past St Francis Bay.

In the original investigation no attention was paid to associated infra-structure, environmental impacts, emergency planning, economic considerations, etc. These were left for later investigation. The site selection was therefore incomplete on two fronts, and the five selected sites were therefore only provisional. No attempt has been made by Eskom to complete its site investigation in the light of political and other changes in the interim, and only now are the unexplored factors ebbing (sic) considered.

Despite this, Eskom has approached the EIA on the basis that it has the five sites, all of which are to be developed, and that the only question is which should be developed first.

## **Response 2:**

Your comments regarding the site selection process are noted. Planning cycles for nuclear power stations are known world-wide to be long-term processes, due to the long time frames for construction and the long life spans of these power stations. Typically, the life cycle of a nuclear power station from start of planning to decommissioning can take up to 100 years. Early identification of potential sites for a nuclear power station is therefore an essential part of the planning process.

Whilst the political limitations of the Nuclear Site Investigation Programme (NSIP) that was undertaken during the last two decades of the 20<sup>th</sup> century are acknowledged, seismic and geological factors that were used in the identification of the sites have not changed since the publication of the NSIP. Furthermore, the distribution of the main population centres in the Eastern Cape and Western Cape that act as load centres (centres of electricity demand) have also not changed.

Your comment regarding traffic impacts on St. Francis bay are noted. The traffic impact assessment is being substantively revised, such that heavy construction traffic will completely bypass St. Francis and Humansdorp. A new interchange with the N2 is proposed to the west of Humansdorp to direct traffic

along the Oyster Bay Road to the western access road to the Thyspunt site. Details of this traffic proposal will be included in the Draft EIR Version 2.

Project planning for large construction projects typically includes a pre-feasibility and feasibility assessment prior to detail planning and environmental impact assessment. Considering that the NSIP was focused on initial identification of potential nuclear power station sites, it should be regarded as an initial feasibility or even pre-feasibility study. Given this focus of the NSIP, it is reasonable that it would not have addressed associated infrastructure, environmental impacts, emergency planning and economic considerations. As indicated above, the socio-economic realities today have not changed to such an extent that the major load centres in the Eastern and Western Cape (Port Elizabeth and the Cape Metropole) have changed, and the location of power station sites in each of these regions therefore remains as valid today as it was when the NSIP was undertaken.

It is not factually correct to state that Eskom intends to develop all five sites. Eskom does intend to develop more nuclear power stations than Nuclear-1. However, the Integrated Resource Plan 2010 recommends the development of 9,600 MW of nuclear electricity generation over the next 20 years. This would require the development of no more than two to three nuclear power stations.

**Comment 3:**

**3. The No-go option**

It can be argued that South Africa has to go nuclear, and that the “no-go” option in this regard does not apply. However, this does not apply at all to specific sites, especially where they have been selected on the basis of politically determined and partial criteria. If a site is unsuitable, it is unsuitable, no matter how strong the motivation to go ahead.

This EIA has proceeded on the assumption that all five sites are suitable, and that all will be developed. This is based on untested assumptions which are now being challenged. In reality, Eskom has no nuclear sites at all. All it has is five provisional sites. The “No-go” option is clearly a possibility in relation to site selection.

**Response 3:**

As indicated in Response 2, the technical criteria that were applied for the selection of the sites identified in the NSIP remain valid, irrespective of the political agenda at the time that the NSIP was initiated. All of the sites were found suitable from an environmental point of view, provided that the recommended positioning of the power station on the sites and other mitigation measures are implemented.

The scoping phase of the Nuclear-1 EIA process found that only the Eastern and Western Cape sites can be regarded as reasonable and feasible. It is therefore not correct to state that the EIA assumes that all five sites are feasible. As indicated in Response 2, it is furthermore not an assumption that all five sites will be developed. Eskom has indeed embarked upon a process, similar to the NSIP, to identify other sites suitable for a nuclear power station, in future.

**Comment 4:**

**4. Site alternatives**

In terms of the NEMA Regulations, the applicant has to investigate alternative sites. Eskom's argument is that it has five sites; that they are only investigating Nuclear 1, namely the first site to be developed, and that Duynefontein and Bantamsklip are therefore alternative sites.

What Eskom fails to state is that they plan to develop all three sites, so the other two are only alternatives in terms of Nuclear 1, 2 & 3? They are not ultimately alternatives at all, and certainly do not address the limitations of the site selection process in the Eastern Cape. This is a gross technical manipulation of the NEMA requirement. What should have happened as soon as the constitutional changes took place in South Africa was a full site review process, and a proper investigation of alternatives for the most suitable site in the Eastern Cape.

As the EIA has progressed, and the issues left unaddressed in the original site investigation have been investigated, it has become increasingly clear that Thyspunt is far from being a suitable site for such a purpose.

**Response 4:**

As indicated in Response 2, it is not a foregone conclusion that all sites considered in the Nuclear-1 EIA will be developed. Additional sites may be considered in future EIA processes. For instance, Coega may be considered as a site alternative in a future EIA process. As stated in Section 5.2.5 of the Revised Draft EIR, Coega was suggested as an alternative but not investigated, amongst other factors due to information constraints.

Your argument regarding review of the NSIP after the 1994 Constitutional changes is noted. Such an approach would imply that all planning undertaken prior to 1994 would have to be frozen pending review – a situation that is untenable as all planning and delivery processes would necessarily have been in limbo for the time it took to review planning priorities in view of the new political dispensation. In the case of the NSIP, planning would have been delayed by many years, since the NSIP process took in excess of a decade.

The findings of the Nuclear-1 EIA process, to date, indicate that Thyspunt is a suitable site for a nuclear power station, provided that all applicable mitigation measures recommended by the specialists and GIBB are applied.

**Comment 5:**

**5. Viability**

Here is the classic example of the devious manner in which the entire process is being conducted. Eskom has been aware for years that a question mark hung over the viability of the Thyspunt site, on the grounds of emergency planning, and of population levels within the sixteen kilometer emergency planning zones. This is a particularly sensitive issue at Thyspunt in view of the direction of the prevailing wind, the growth of population in the Greater St Francis area, and the single escape road for the entire community in the event of an emergency. This is a matter for the National Nuclear Regulator (NNR).

This being the case, it would have been appropriate to have cleared up this point before any EIA was embarked upon. As it is, Eskom has still not identified the specific PWR technology to be used, or applied for a licence for this technology. **As a result, the NNR has been completely excluded from the process to-date.**

What Eskom has stated is that it “favours” & “plans to use” Generation 111 technology. This is state-of-the art technology, which has a number of safety features built into it. However, it is still in the developmental stage, and government has stated that it is not affordable.

On the strength of the claims made for Generation 111, Eskom states that it will apply for a reduction of emergency planning zones from 16 to 3 kilometres, thus avoiding the demographic problem associated with the 16 kilometre zoning. This would be in terms of the so-called “European Utility Requirements” (EURs) (not to be confused with European Union Regulations, which do not exist). These “requirements” are a product of the European nuclear industry, in support of their own agenda. They have not been recognized by the IAEA or by any national nuclear regulator. If South Africa were to go ahead in terms of these, it would be the first country in the world to do so, and a major change in policy. This is a matter for the National Nuclear Regulator (NNR). Without a licence from the NNR, the Thyspunt site cannot be used.

Eskom and Arcus Gibb have stated publicly on several occasions that if “Generation 111” is not to be used, the entire EIA will be null and void, and will have to start from scratch.

The whole process to-date has been done at risk, on the assumption that Generation 111 will be used, and that the NNR will accept the EU Requirements for regulatory purposes.

Meanwhile Eskom is forging ahead, buying up land around Thyspunt, using public money to do so, before any ROD from either the Department of the Environment or the NNR has been forthcoming. Eskom appears to have the policy that, if it spends enough money, it will be impossible to retract, and the authorities will be compelled to give approval to the site. It would be difficult to imagine a more irresponsible way of dealing with public money.

Our view is that Eskom is acting in bad faith, and that those responsible should be prosecuted for unauthorised, wasteful and fruitless expenditure, and for contravening the requirements of the Promotion of Administrative Justice Act, which requires that administration be just, reasonable and fair.

#### **Response 5:**

It has been indicated repeatedly in public forums and in EIA documentation, the separation between the EIA process and the NNR licensing process is based on the legislative provisions of the relevant Acts, namely the National Environmental Management Act, 1998 and the National Regulatory Act, 1999, as well as the DEA/NNR co-operative agreement that governs the consideration of radiological issues in the EIA process.

As indicated in the Revised Draft EIR, one of the assumptions of the Nuclear-1 EIA process is that the Emergency Planning Zones of the European Utility Requirements (EUR) will apply to the Nuclear-1 power station. These zones are a maximum of 3 km and hence, no restrictions would apply on St. Francis, which is situated more than 10 km from the proposed nuclear power station site at Thyspunt.

However, even if a 16 km Urgent Protective Zone (UPZ) were to be applied to a nuclear power station at Thyspunt, it would not rule out development of a power station at this site. Private development is only restricted within the inner (smaller) Protective Action Zone (PAZ), which in the case of Koeberg Nuclear Power Station (KNPS) is 5km. The 16 km UPZ imposes evacuation planning restrictions but does not prevent private development.

Initial indications provided by the NNR are that it is likely that the EPZ will be reduced, even for the Koeberg Nuclear Power Station. For instance, in a presentation to the Parliamentary Select Committee on Economic Development on 1 June 2010, the Chief Executive Officer of the NNR stated the following: *“One major outcome of these new designs is that the emergency planning zones, specifically the Urgent Planning Zone, which is the zone within which evacuation of the public has to be catered for, would in all likelihood be reduced from 16 km in the case of Koeberg, to a much smaller radius which could fall within the property owned by the holder ...”*.

With regards to the issue of wind direction, it is important to consider the wind speed, atmospheric stability and release height together with the wind direction when qualitatively estimating the area of impact. These concepts are discussed in Section 2.3.2 of the Air Quality Assessment (Appendix E10 of the Revised Draft EIR). Predicted ground level concentration patterns take into account a number of meteorological parameters in addition to wind speed and direction. Wind speed and direction alone do not provide adequate information on the behaviour of atmospheric dispersion.

As indicated in the Revised Draft EIR, the assessment of the impacts of the proposed power station is based on a Consistent Dataset (Appendix C of the Revised Draft EIR), 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 compiled from the commercially available nuclear power station designs currently on the market. Generation III power stations are no longer in the developmental stages. There are approximately 8 Generation III power stations currently under construction worldwide. Please note the EUR is a utility requirements document and not prescribed by nuclear regulators. The EUR aims at ensuring that the design that is adopted has minimal impact on the man and environment. This has been developed by utilities who will, in any case, have their design studied and endorsed by the relevant regulatory body. If the final design does not conform to the assertions made, the design will not be accepted and might have to be modified accordingly until it conforms to these requirements. Thus, the key emphasis of this requirement is to minimise the impact on man and environment. Eskom has chosen the EUR as this specification is sound and robust. It also allows for alignment with the international nuclear community. The Emergency Plan boundary allow for minimal restrictions around the site, while also providing for safer designs.

Eskom is buying land around the Thyspunt site at its own risk, pending the outcome of the EIA process. There is nothing in law that prevents Eskom from acquiring such land. In terms of NEMA, an applicant is prohibited from commencing with construction prior to receiving an authorisation. The development of a nuclear power station is dependent on long-term planning, which is why the potential sites for nuclear power stations were acquired as many as 20 years ago. It would indeed be unwise for Eskom to wait to the proverbial “last minute” before it bought the land.

Eskom’s acquisition of additional land around Thyspunt must be viewed in context of the recommendations of the Freshwater Ecology Assessment (Appendix E12 of the Revised Draft EIR) that wetlands that fall outside the current Eskom owned land must also be secured for inclusion into a de facto nature reserve. The acquisition of these wetlands for conservation is regarded as one of the key “offset” mitigation measures at Thyspunt. Should Eskom not be able to use land at the



Bantamsklip or Thyspunt sites for power generation (e.g. in the event of an authorisation being refused), it would be obliged to sell the land.

**Comment 6:**

**6. Fatal flaws**

This concept is completely subjective, and subject to interpretation by those who have adopted a particular position. The specialists have all accepted that there are no fatal flaws in the Thyspunt site, on the basis of impact Assessment criteria devised by the EAP, in several cases on the basis of incorrect or incomplete information. How this is possible is not clear.

In the view of the Alliance, there are fatal flaws in the EIA process itself, in the viability of the site in terms of emergency planning, in the Heritage impact, in the environmental impact, in the social impact, and in the failure to address waste disposal.

Much depends on steps proposed in mitigation –whether they are realistic and whether they will be applied. In many cases the proposed steps in mitigation are little more than derisory, and will have little or no impact on the problems which have been identified.

**Response 6:**

The identification of fatal flaws was left to the discretion of each of the specialists on the EIA team. A fatal flaw is regarded to be a highly significant issue that cannot be mitigated and that could hence result in a project becoming unviable. None of the negative impacts identified at the Thyspunt site were regarded to be of such significance that they could not be mitigated. Most of the potentially significant negative impacts can be successfully mitigated by prudent placement of the project components such that they do not impact on sensitive features on the site.

The issue of viability in terms of emergency planning is addressed in Response 5. Waste management is addressed in detail in the Nuclear Waste Assessment (Appendix E30 of the Revised Draft EIR) and in Chapter 9 of the Revised Draft EIR. As for flaws in the EIA process itself, we have responded to these claims under separate cover. With regards to heritage issues, additional test excavations at Thyspunt that were approved by the SA Heritage Resource Agency and conducted in 2011 (after the release of the Revised Draft EIR), have confirmed that the heritage sites in the recommended footprint of the power station at Thyspunt are few in number and of low quality. This implies that direct impacts on heritage resources can be mitigated.

Mitigations measures that have been proposed have been identified on the basis of the experience of the EIA specialist team with similar large construction projects or other developments in similar environments. Certain of these mitigation measures at Thyspunt (e.g. the acquisition of additional land for conservation purposes and the excavation of heritage sites prior to development) have been identified as key mitigation measures. Thus it is recommended that the implementation of these mitigation measures must start prior to the commencement of construction to ensure their effective implementation.

## **Comment 7:**

### **7. Cumulative impacts**

Leaving aside the failure to determine the viability of the site, through exclusion of the NNR, no attempt has been made to assess the cumulative effect of these combined flaws. The approach adopted by the EAP is to consider each impact in isolation, and to conclude that there are no fatal flaws. However, the combined impacts which have been identified cumulatively amount to massive criticism of Thyspunt as a site for any kind of industrial plant. This includes the following:

- Effectively unmitigable destruction of a heritage site which has been identified as justifying World Heritage status;
- Major environmental impacts, such as interference with the by-pass headland dune system, which has been described by the dune specialist as follows:  
*The geomorphologic conservation value of the headland-bypass dunefields at Thyspunt is high, as they are the only remaining large dunefields of this type that are still active in South Africa. The headland-bypass dunefields at Cape St Francis are unique on a local, regional and probably global scale. The vegetated dunefield is a classic, almost pristine example of a suite of Holocene and Pleistocene dune ridges with a variety of origins: parabolic dunes, hairpin parabolic dunes, and sidewalls of previously mobile headland-bypass dunefields, including fairly unique examples of such sidewalls. Overall, the dunefields at Thyspunt has high interpretive value for elucidating coastal dune dynamics.*

Numerous other examples can be quoted, identified by experts who are authorities in their fields. Only the less problematic of these receive detailed attention.

- The probable destruction of the chokka industry in the area, which is valued at between R500 & R700 million per annum, and employs 4000 people, as a consequence of depositing over 6 million tons of spoil on the sea bed.
- The social impact on adjacent communities, and the total change of sense of space which this will involve, in direct disregard on recommendation 2 in the NSIP that the coastal resorts should be left unaffected.
- The massive cost of associated infra-structure such as road up-grade and construction, transmission lines, pipelines under the sea bed, amounting to tens of billions of rands. Many of these appear to have been disregarded by the economic specialist in assessing the relative cost of the three sites.

## **Response 7:**

- Impacts on the cultural landscape are indeed difficult to mitigate. Whilst the Heritage Impact Assessment (Appendix E20 of the Revised Draft EIR) indicates that the Thyspunt site could potentially qualify as a World Heritage Site, this is purely speculative and no motivation for World Heritage status has been submitted by the South African Department of Environmental Affairs to the United Nations Educational Scientific and Cultural Organisation, which

administers the World Heritage Convention. Furthermore, as indicated in Response 6, test excavations at Thyspunt have established that the heritage sites in the recommended power station position are low in number and quality. This confirms that the 200 m strip along the coastline that will be kept free of development, will effectively conserve the vast majority of the heritage sites on the Thyspunt site.

- The Headland Bypass Dune System is no longer functioning due to the establishment of Oyster Bay and St Francis Bay which have stopped the movement of sand. The Headland Bypass Dune System at the Thyspunt site has been kept completely free of development, with the exception of one set of electricity pylons between the power station and the High Voltage yard. The value of this system is indeed high, which is why the northern portion of the site where the system occurs is kept free of development.
- The scale of the potential impact on the chokka industry does not support a conclusion that this industry would be destroyed. The Economic Impact Assessment (Appendix E17 of the Revised Draft EIR) has estimated the economic value of the impacts on the squid fishery, based on the findings of the Marine Ecology Assessment (Appendix E15 of the Revised Draft EIR). The Marine Ecology Report bases its assessment of the significance of the impacts on all potential sources of impact, including the marine security exclusion zone, the release of warmed cooling water, the increase in turbidity in seawater and the disposal of spoil on the seafloor. The recommendations of this report are that spoil must be released at a disposal site deeper than the relatively shallow spawning grounds of chokka squid. This report found that the maximum suspended sediment concentration (based on a medium discharge rate of 2.06 m<sup>3</sup>/s) is not expected to reach levels above the critical 80 mg/l (above which definite impacts can be expected) near the water surface at any time during or after spoil disposal and will be confined to less than 1.4km<sup>2</sup> near the seafloor. In addition, these turbidity levels will be temporally limited outside the actual disposal site, occurring for a maximum of two days throughout the entire disposal period. Therefore, the impacts of increased turbidity on chokka squid are predicted to be very limited. Furthermore, the Marine Ecology Report concluded, based on oceanographic modelling, that a nearshore outfall for warmed cooling water would result in an average increase of 3°C near the seabed over an area of roughly 0.2 km<sup>2</sup> (2 ha) around the outlets and an area of 0.7 km<sup>2</sup> will experience a maximum increase of 3°C or more at any time. Given this limited spatial extent of impact, it is reasonable to conclude that the significance of the potential impact on chokka squid would be insignificant.

The claim that 30 % of the total chokka catch is taken within the Thyspunt area appears to have been calculated using only four selected vessels – a gross under-representation of the chokka squid fleet. However, data for the same area provided by the Department of Agriculture Forestry and Fisheries (i.e. the commercial database) showed that 14.7 % of total catches are taken in the wider area (two quarter degree squares of approximately 22 x 27 km each) around the proposed site – itself a much larger area than what may in fact be impacted.

- As indicated in previous responses, the Traffic Impact Assessment has been revised in totality to ensure that no construction traffic passes through St. Francis. This should, in large measure, mitigate the impact on the sense of place of this coastal resort town.
- Road upgrades that would be required for the construction of the proposed power stations have been considered in the Economic Impact Assessment. With respect to upgrades of other infrastructure (e.g. sewerage) due to the influx of people, it is clearly indicated in the Revised

Draft EIR that Eskom needs to agree with local authorities on the apportionment of financial responsibility well before the start of construction. The costs of catching up on existing service backlogs will, however, have to be borne by the authorities themselves, as it is unlikely given Eskom's mandate that it would be held responsible for such backlogs.

**Comment 8:**

**8. CONCLUSION**

The litany of short-comings listed above makes it clear that this EIA is little more than a charade. Eskom is relying on political support from the government on the grounds of "national interest". Nobody denies that we need to increase our power generation capacity and reduce dependence on fossil fuels. It is also accepted that there is a need for a power station in the Eastern Cape. However, this does not justify over-riding every piece of environmental and social justice legislation that has been introduced in terms of our Constitution. We believe that the manner in which the EIA has been conducted is a travesty of the EIA process, and the Revised Report should be treated in the same way as the first report, until such time as the process is conducted comprehensively, impartially, transparently, reasonably and fairly.

**Response 8:**

Your comment is noted. The Nuclear-1 EIA process and its deliverables have been reviewed by independent peer reviewers (Appendix H of the Revised Draft EIR) and the finding of this peer review is that the process substantively complies with constitutional, environmental and administrative justice legislation.

Yours faithfully  
for GIBB (Pty) Ltd

A handwritten signature in black ink, appearing to be a stylized 'S' or similar character.

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The Nuclear-1 EIA Team