

Our Ref: J27035



21 December 2011

Johannesburg

14 Eglin Road
Sunninghill 2191
PO Box 2700
Sunninghill 2128

Tel: +27 11 519 4600
Fax: +27 11 807 5670
Web: www.gibb.co.za

Attention: St Francis Bay Residents' Association, on behalf of the Thyspunt Alliance

Dear Sir

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. Bongji Shinga of Acer (Africa) entitled "Appendix 7, Response to the Social Impact Assessment" refers.

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

Your Comment (1)

Preliminary comment: Impact assessment criteria

Clause 7.7.1 of the Methodology chapter maintains that these criteria were drawn up in accordance with Government Notice R.385, promulgated in terms of Section 24 of the NEMA and the criteria drawn from the IEM Guidelines Series, Guideline 5: Assessment of Alternatives and Impacts, published by the DEAT (April 1998). Potential impacts were to be spelt out in terms of the criteria listed.

Versions of these appear in various places, including the Final Plan of Study Table 2, p.11; Ch 7, "Methodology", Table 7-10; and the Social Assessment, Table 1.05, p. 34. **All three versions differ, as outlined below.**

We have the following comments on these criteria, which may well apply to other reports:

1. The Final PoS and Social Assessment state that medium-term impact is from 6 – 15 years, whilst Ch 7, Table 7-10 says 6 – 10 years.
2. Ch 7 on "Methodology" (Table 7.10, p. 7-31), spells out a list of criteria for determining "consequence". The same list is used in the Social Assessment, whilst The Final Plan of Study, Table 3, p. 12, uses these same criteria to determine "significance" (Table 1.05, p. 35/6). The criteria for "consequence" are omitted altogether.

Not having access to guideline 5, we are unable to determine which version is correct.



Inconsistencies of this nature reflect on the quality of the DEIR, and can only lead to confusion to specialists, the public and even the responsible authority. The Final PoS must surely be incorrect.

3. "Consequence" is derived from a combination of extent, duration and intensity. Where the extent is local, and duration is medium-term, i.e. less than 16 years, it is impossible to give a consequence rating higher than "medium", irrespective of the intensity. It should be apparent that this could lead to highly inequitable impact decisions. For example, it would be possible to place a bombing range or an airport right next to a town for a period of 14 years, and the maximum consequence would be "medium". This would then rub off into "significance", which is a combination of consequence and probability, which in turn could affect a whole ROD.

It is our contention that this requires further thought.

4. This impacts heavily on this Social Report. The potential social impact of huge volumes of traffic, uncontrolled influx of unemployed job-seekers and accompanying illegal informal settlements, probable industrialisation of the area and total change of sense of place cannot, either jointly or severally be described in terms of medium impact, except in terms of bureaucratic language which bears no relation to the reality on the ground.

Response (1)

The inconsistencies in the impact criteria between reports have been addressed in the revised Draft EIR and its attendant specialist reports.

The Draft EIR, as well as the impact assessment rating criteria have been revised by independent peer reviewers and the criteria have been changed accordingly. Revised criteria have been included in the Revised Draft EIR.

Your comment (2)

A general comment regarding the Social Impact Assessment is that it is purely theoretical, and is based on minimal, if any, factual basis.

The Social Impact of a NPS at Thyspunt is regarded as one of many serious issues raised by this proposal. This applies especially, but is not limited, to the construction phase. Any shortcomings in the Assessment are therefore taken seriously by the community, in that they could lead the responsible authority into an ROD based on inadequate factual information or poor judgment by the specialist.

Response (2)

Response by the Social Impact Assessment (SIA) specialist: The Social Impact Assessment reflects the social realities of the community based on primary and secondary sources. Valuable information was gathered through consultation processes to ensure that a clear understanding is gained on social impacts that effect individuals and communities. The Social Impact Assessment has, furthermore, been reviewed by an independent SIA specialist.

Your comment (3)

Terms of reference

The report is dated January, 2010. The Final Terms of reference were only approved on 19 January, 2010. It is requested that the EAP considers whether the report was written in terms of the original or final ToR.

Response (3)

As with specialist studies in all EIA processes, most of the specialist studies for Nuclear-1 commenced well before the approval of the Revised Plan of Study for EIA. This is common practice in EIAs, particularly in the case of biophysical assessments, which require the collection of sufficient and appropriate seasonal data. It is essential in the case of the social impact assessment and most other specialist studies to conduct fieldwork as early as possible, as the collection of background data is a time-consuming process.

Your comment (4)

Accurate population figures

The revised ToR requires accurate holiday population figures for the Greater St Francis area. The closest we get to an estimate is contained in section 2.4.1.6 (p.113), which is clearly a thumb suck, and states that the figures given must be investigated in more detail for future reference.

No attempt is made to explain why these figures are not given; or why they are only relevant for future reference, and not for the DEIR; or how the specialist can draw conclusions and make recommendations without accurate demographic information.

Response (4)

The Tourism Specialist study indicated as follows: "The tourist season at St Francis is extremely short, being concentrated into a ten-day period in December-January and over the Easter week-end. The normal population of 4,000 rises to 30,000 over Christmas and New Year and perhaps to 8,000 over Easter."

Holiday population figures used in the Social Impact Assessment derive from the Tourism Assessment. The Social Impact Assessment relies on generally accepted sources of population data. Projections and assumptions can be made from these figures.

Your Comment (5)

Job-seekers Section 3.2, p. 144ff

The report ranks the impact of the influx of unskilled and unemployed job-seekers without mitigation as "medium", with a high level of probability.

Mitigation measures proposed are an information campaign; engagement between the contractor and local authority to prevent squatting near the construction village or site; transparent public participation process with I & APs; use of local labour as far as possible; monitoring of situation. In return for these measures, the impact, consequence and significance remain "medium" with probability reducing from "highly probable" to "probable" (Table 3.05, p. 146). As with so much of this report the specialist's conclusions have no factual basis whatsoever.

Unanswered questions are the following:

- Would the specialist agree that the influx of large numbers of unskilled and unemployed persons is potentially a major problem?
- On what numbers is his assessment based?
- Would the same impact apply if there were 100, 1000 or 10000 job-seekers?
- At what point would the specialist consider that the influx had become unmanageable?

- What would be an acceptable level of influx to the St Francis area?
- Can the specialist quantify the impact on infra-structure and services, such as housing, water and sanitation, medical, welfare, education and waste disposal?
- What would be their cost, and who would pay for them?
- What responsibility would Eskom have in addressing these problems?
- Does the specialist seriously consider that the proposed mitigation measures would have any significant impact on the problem?
Why are these scenarios not discussed in the report? Without them, it is not possible to rate the impact.

Response (5)

Influx of large numbers of unemployed and unskilled workers would definitely pose challenges if not managed properly. The focus is not on the prediction of an accurate number of possible job seekers, or at what point it will become unmanageable, but on the management of the realities before the development starts, at the beginning and throughout the construction period. Job seekers will flow into the area. Those who do not find employment will move on or some will stay behind hoping to find work in time. The focus of the proposed mitigation measures is to limit and manage growth in informal settlements and the prevention of any illegal squatting by unemployed job seekers. The social report is clear about the additional pressure placed on social and community services to address growth in population numbers. Clear mitigation measures are recommended to address these inadequate services and facilities. Different role players must take responsibility for the challenges including Eskom as stated in the report. Throwing shadows of doubt over the difference mitigation measures will make, based on the assumption that responsible parties will not live up to expectation to enforce these mitigation measures, is highly speculative.

Your Comment (6)

Local labour

There is an expression of intent to employ 25% local labour. It is even reported that at a meeting in Sea Vista, held on 25 April, 2010, a spokesman for Eskom stated that this was a minimum, and that this could be as high as 80%! How does the specialist propose that "local" labour can be defined and identified?

Response (6)

"Local" can be defined as persons living within the boundaries of the municipality or within a distance from the site e.g. 20 km. In the case of Medupi power station in Lephalale a distance of 70 Km's was used after consultation with local authorities.

Your Comment (7)

Increase in illegal informal dwellings Section 3.3, p.147 ff

Once again, there are no numbers, and the report is entirely speculative. According to Table 3.06, the expected impact of this without mitigation is rated as follows: Duration: medium-term; intensity: medium; consequence: medium; significance: medium.

Mitigation measures proposed are: disposal of discarded construction material, dismantling and disposal of temporary accommodation, cooperation with local authorities to ensure that all legislation preventing illegal settlement is enforced at all times, and ensuring that appropriate housing is available for staff.

In return for these, the rating without mitigation is estimated to be “medium”, but with mitigation, is expected to revert to “Low”

Questions raised

- How does the specialist arrive at any conclusions on this when the numbers are completely speculative?
- Is there any commitment from the local authority that legislation prohibiting illegal squatting will be strictly enforced?
- Would the specialist still consider the impact to be “low” if a thousand new shanties were built at St Francis Bay?

Response (7)

The local authority has the responsibility to enforce legislation and to prevent any illegal informal dwellings irrespective the numbers, one or a thousand. If a 1000 illegal informal dwellings are built at St Francis Bay it would have a very negative impact. Mitigation measures are therefore of utmost importance to prevent any illegal informal dwellings.

Your Comment (8)

Traffic Impact Section 3.9, p.172 ff.

The Social Assessment is based on the Transport and Traffic Assessment, which has to be one of the most inadequate of the specialist reports, partly because the ToR are so deficient. The report restricts itself to traffic from the N2 to Sea Vista. It includes taking all the heavy and commuter traffic down Main Street, Humansdorp and past St Francis Bay, with no discussion of the social impact, such as noise, and the safety of school children crossing the R330 at Sea Vista, etc.

Mitigation measures proposed are upgrading of intersections, street lighting and speed limits at approach to St Francis Bay, and restriction of extra-heavy loads to off-peak dry season, between 00.00 & 09.00 & 15.00 & 00.00. It appears not to have occurred to the transportation specialist that peak traffic in the area is from 07.30 – 08.30 & 16.30 – 17.30.

Since no decision has yet been taken on the siting of the Construction and Staff villages, it is not possible to determine the scale of commuter traffic. Since the specific PWR technology has also not been identified, it is not possible to estimate the volumes of heavy traffic either. Both are completely speculative.

Mitigation measures proposed are almost derisory. They include avoidance of traffic congestion at peak periods, workshops to seek solutions to problems, and implementation of mitigation measures contained in the traffic assessment (which amount to nothing at all). This will have minimal impact on the problems created.

Despite all this, the specialist feels able to judge, based on no facts whatsoever, that, with the mitigation proposed, the traffic significance rating would be “low”!

This conclusion is speculative, is not credible, and should be rejected completely.

Response (8)

Your comments are noted. The Traffic Impact Assessment has been revised and the use of the Humansdorp main road has been reconsidered in view of the potential conflict between large deliver vehicles and the large number of private vehicles and pedestrians that use the main road. An alternative access road has therefore been proposed. This road will be indicated in the amended Traffic Impact Assessment that will be included as an appendix to the Revised Draft EIR.

It has been identified that the staff villages will be located at Jeffreys Bay and Humansdorp. This was stated in all the public participation meetings during the EIA Phase around Thyspunt.

Detailed projections of the construction phase traffic and showing the change in traffic volumes per year of construction are indicated in Section 3.21.3 of the Revised Draft EIR. These volumes are reproduced here for ease of reference.

Estimated traffic figures for the construction phase

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
<i>Vendor staff vehicles per day (buses and sedans)</i>	13	30	34	63109	374	449	236	112	4
<i>Eskom staff vehicles per day (buses and sedans)</i>	28	33	98	209	355	528	628	643	608
<i>Heavy delivery vehicles per day</i>	190	216	338	208	204	201	109	45	45
<i>Total vehicles per day</i>	159	198	342	447	856	1 102	932	783	640
<i>Total vehicles per month</i>	4	6	10	13	26	33	28	23	19
<i>Total vehicles per annum</i>	835	005	409	599	024	513	337	810	461
	58	72	124	163	312	402	340	285	233
	025	061	905	190	286	159	049	725	530

The estimation of these figures is not speculative, as it is possible to estimate the traffic volumes from the envelope of criteria specified in the Consistent Dataset (Appendix C of the Draft and Revised Draft EIRs) with a reasonable degree of accuracy.

Your Comment (9)

Potential industrialisation of area

The construction of an NPS at Thyspunt will almost inevitably lead to the growth of service industries to supply the plant, as happened at Mossel Bay with the arrival of Mosgas. This has changed for ever the whole character of Mossel Bay, which is now a light industrial town, and the same could happen to the Greater St Francis area. Unbelievably, this is not even discussed in the Social Impact Assessment.

Response (9)

The potential change in the sense of place is addressed in Section 3.14 of the Social Impact Assessment and in Section 3.1.2 of the Visual Impact Assessment. The potential change in sense of place is also included in the criteria used to determine the visual impact intensity rating for all sites (see Section 3.1 of the Visual Impact Assessment).

Your Comment (10)

Impact on Sense of Place (Section 3.14 p.193)

This is the most abstract of the issues being raised in this report, but is arguably the most important, since it encapsulates the overall change which will take place to the area in the event of a NPS at Thyspunt. It should involve a detailed assessment of the current sense of place, and of the changes which will occur. It is, in effect, an extension of the summary of the cumulative impacts which are so inadequately dealt with in the Report (see 9 below), but should include all other relevant impacts, including environmental.

“Sense of Place” has been treated as very important in previous EIAs, such as the proposal to mine titanium in the St Lucia area, and is the reason why any proposal to mine coal in the Kruger Park has never got off the ground. Whilst the St Francis area may not be able to claim the same high profile, the principle remains the same. It is simply inappropriate to vandalise areas which enjoy a highly valued sense of place for economic gain.

The Social Assessment treats us to a theoretical discussion on the subjectivity of “sense of place”, quoting Wikipedia. It is virtually dismissed as “perception”, and everything is presented as hypothetical. It reads as follows: “The proposed NPS will possibly result in a change to the local sense of place, which is typically defined as:

A “sense of place” is a social phenomenon that exists independently of any one individual's perceptions or experiences, yet is dependent on human engagement for its existence. Such a feeling may be derived from the natural environment, but is more often made up of a mix of natural and cultural features in the landscape, and generally includes the people who occupy the place” (Wikipedia: http://en.wikipedia.org/wiki/Sense_of_place).

The report continues:

“The sense of place may be affected by real or perceived impacts from the new development, changes in the character of the area due to increased urbanisation, increased settlement densities, noise levels and traffic, and the change to visual character of the surrounds. This concern relates to the possibility that the NPS may contribute negatively to the current characteristics, or feeling / perception held by people. Communities experience that their place have a special and unique character.”

The reality is that this area has a combination of qualities which ought to be regarded as a scarce resource in South Africa, and which the country should be preserving as national heritage. Instead, we are contemplating turning it into a massive industrial development, with immeasurable and immitigable environmental and social consequences. The specialist appears to regard this as a purely theoretical matter.

The report goes on to quote strong comments by local residents on their view of the sense of place. No attempt is made to assess these comments, or to incorporate them into the findings. It then proceeds to assess the impact, without discussion or evaluation.

“Without mitigation measures, it is anticipated that the scale of this impact will be local, the nature negative, and the intensity medium. This impact is highly probable, of medium-term duration, low

reversibility and of medium consequence and significance. The degree of confidence in the assessment is medium”.

Mitigation measures proposed are consultation with affected communities in an effort to identify and address issues relating to the sense of place, and following the mitigation measures suggested in the visual, noise and traffic impact reports. It does have the decency to suggest that these are unlikely to reduce the impact from medium to low

Response (10)

A change in sense of place can be expected and will differ amongst individuals and communities in the area. For some it will be positive and for others negative. For some is good and for others is bad. The combined potential negative or positive impacts in a cumulative way will influence the sense of place. Sense of place is not made up of one or a few impacts, but the perception of the individual or community, regarding the combination thereof. Sense of place will always remain open to interpretation due to its subjective nature.

Your Comment (11)

It would be difficult to conceive of a more complacent, anaemic and inadequate approach to a very serious impact. This encapsulates all the inadequacies of this report from start to finish. It is clear that the “specialist” is a pure theorist, with no practical capacity to assess the real impact on sense of place and raises the question as to whether he is competent to exercise a judgment.

Response (11)

Due to the nature of sense of place and the way individuals and communities derive at their sense of place; this will always be open for debate and speculation.

Your Comments (12)

Cumulative Impacts No discussion

Provision is made for an assessment of cumulative social impacts (Ch 7, Impact Assessment Methodology, 7.7.1 j) p.7-29. This addresses incremental impacts of the activity, and other past, present and future activities, on a common resource.

One would have thought that this would be the climax of the whole process, based on incontrovertible facts, and covering the combined impacts on St Francis Bay of the enormous volume of traffic; the accompanying noise factor; the uncontrolled influx of unskilled job-seekers; accompanying expansion of informal settlements, with its attendant social problems; the likely industrialisation of the area to serve the NPS; and the consequent complete change of sense of place.

In practice, no attempt is made at any such cumulative impact assessment. All that is done is to list in Chapter 3 a number of individual impacts, none of them based on specific numbers, all of which are carefully sanitized in a classification system which disguises the impacts in dry statistical tables, and which bears little resemblance to the situation on the ground.

The nearest we get to a cumulative impact is a summary in the impact rating assessment in Appendix A at the end of the report, which, without discussion or motivation, ranks the cumulative impact of influx of job-seekers and increase in illegal informal dwellings as “Low”; traffic impacts as “medium”; and impact on sense of place as “low”.

The specialist is either biased or negligent. Failure to assess the cumulative impact in any meaningful way should be regarded as a fatal flaw in the Social Impact Assessment.

Response (13)

The Social Report is clear that the different impacts must be read in conjunction with each other and in the broader context of the EIA and other specialist reports.

Your Comment (14)

In such circumstances we demand the following:

The Social Impact Assessment be rejected in its entirety on the grounds that:

- it does not reflect the Revised terms of Reference;
- does not include material required by the Revised ToR, such as accurate holiday population figures for the Greater St Francis area, or any other specific statistics on which such a report must be based;
- is purely theoretical, and draws conclusions based on no factual evidence;
- the assessments of cumulative impacts and impact on sense of place are completely inadequate, and
 - it proposes inadequate mitigation measures.

Response (14)

The Social Impact Assessment is a true reflection of the possible social impacts based on facts and generally accepted statistics and data sources. The report recognizes the challenges that the proposed NPS place on the social environment as well as the potential positive components for communities. The physical and social landscape will change and will impact on people and communities' sense of place. Mitigation measures are considered to be practical and implementable.

Your Comment (15)

Conclusions and Request

The "specialist" is clearly not competent to make the required value judgments, based on the factual evidence.

It is therefore requested that the Social Impact Assessment be re-done in its entirety, by a person with proven practical competence, and based on full factual information, rather than on theory and speculation.

Failing which, we demand written reasons why this should not happen.

Response (15)

The Report is based on full factual information that combines theory and practice against the background of valued inputs through public consultation.

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, reading "JMBall". The signature is written in a cursive style with a large, looped 'J' and 'M'.

Jaana-Maria Ball
Nuclear-1 EIA Manager