

Our Ref: J27035

28 February 2011

Attention: Mr. Louis De Villiers

Johannesburg

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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. Ms Bongi Shinga of ACER (Africa) refers.

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

Responses to your comments / questions are as follows:

Your comment (1)

INTRODUCTION

This EIA has been conducted in the context of current annual electricity production by ESKOM of approximately 40 000MW. ESKOM states that there is a need to ensure a doubling of this production in the next 20 years and is proposing generation of 20 000MW from nuclear. The current contribution to the annual production by nuclear from Koeberg is approximately 1 800MW, if at full capacity. The present EIA was amended in July 2008 to an application for a single nuclear power station of 4 000MW and ESKOM apparently hopes to embark on the process for further facilities following this process.

It is significant that there appears little consideration of the fact that some of the existing generation capacity will reach the end of its life span within the next few years and will require replacement. There is currently development underway of Medupi and Kusile coal-fired power plants both to produce 4 000MW each. This despite the continued concerns about the wide-ranging negative impacts from coal-mining, serious pollution caused by this mode of production and its effect on climate change concerns.

The current drive for development of nuclear is based on the suggestion that nuclear is a favourable technology in view of climate change concerns. This despite the fact that nuclear is not identified in the Kyoto protocol on climate change as a preferred alternative. The motivation in this context of nuclear is accordingly highly suspect.

Response (1)

Consideration has been taken of the fact that some of the existing generation capacity is reaching the end of its life span. The Draft Integrated Resource Plan Process included an evaluation of all

technologies and has gone same way in the proposed balanced plan in addressing the roll out of more renewable technologies in the near future. 10 000 MW of nuclear has also been included into the proposed mix. You are also referred to the EPRI study (available on the DOE website) which carried out a comparison and costing of a variety of technologies.

Section 4.2.2 of the Revised Draft EIR contains a brief comparison of the life cycle greenhouse gas emissions of a number of different generation options, including nuclear, solar, wind and coal-fired generation. A life cycle analysis of the greenhouse gas emissions of these generation options indicates that nuclear power emits less than 11 grams of carbon equivalent per kilowatt-hour (gCeq/kWh) (Dones et al. 2003¹). This is the same order of magnitude as wind and solar power. This is also two orders of magnitude below (i.e. one hundredth of) the average for coal, oil, and natural gas. Apart from the benefit of lower greenhouse gas emissions, nuclear power generation does not emit sulfur dioxides (SOx), nitrous oxides (NOx) and requires much less water than coal-fired power stations. The figure below illustrates the rates at which different generation alternatives emit greenhouse gases.

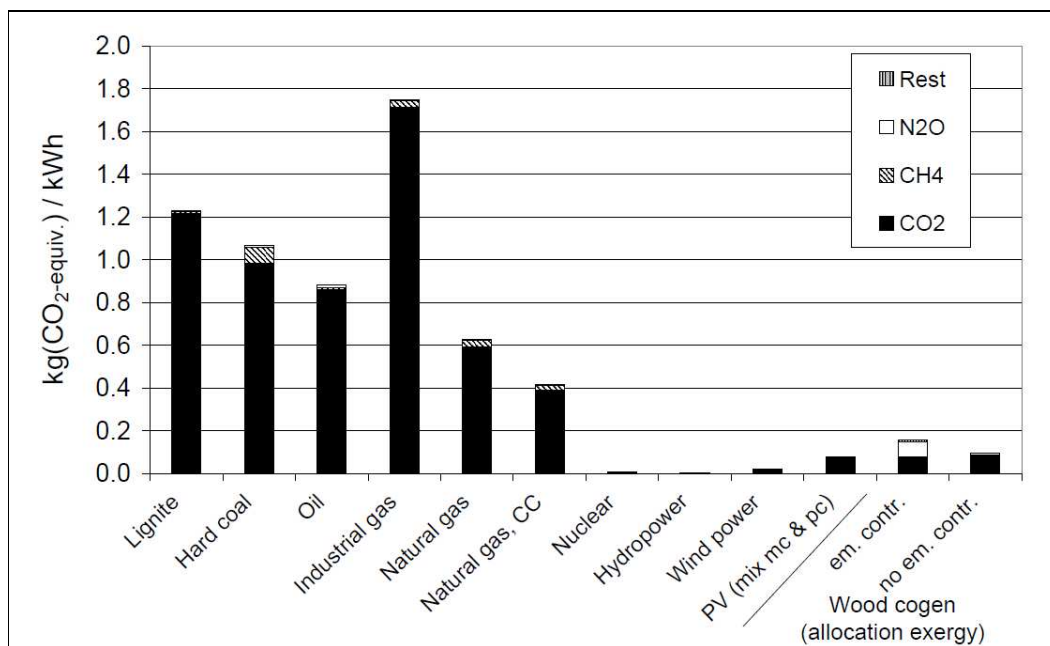


Figure 1: Comparison of life-cycle greenhouse gas emissions of different electricity generation systems (Dones et al. 2003)

Your comment (2)

Nowhere in the world are insurance companies prepared to insure nuclear facilities or even generally against nuclear accidents, clearly because of the expected risk and that, in the event of an accident, the potential cost would be so exorbitant. This is further borne out by the fact that no private companies appear prepared to risk development of nuclear facilities. With the result that only government can afford to embark on such highly expensive development where they apparently assume the risk, meaning the public, without its consent, become the silent partners and insurer. The

¹ Dones, R, Heck, T & Hirschberg, S. *Greenhouse Gas Emissions from Energy Systems: Comparison and Review*. In Paul Scherrer Institut 2003 Annual Report. Paul Scherrer Institut: Villigen, Switzerland

"precautionary principle", a fundamental principle of the National Environmental Management Act (NEMA, 107 of 1998), would suggest that such a risky venture should not be embarked upon.

Response (2)

South Africa has not signed the Vienna Convention [on Civil Liability for Nuclear Damage]. Section 29 of the National Nuclear Regulator Act, 1999 (Act No. 47 of 1999) requires Eskom to make financial provision for insurance purposes. Regulations that are issued by the Minister of Energy stipulate how much financial provision must be made (Regulation promulgated in Government Notice 581 of 2004). Section 29 also allows for the Minister to require additional financial provision beyond what is stipulated by the Regulation. The current figure stipulated in GN 581 of 2004 is R2.4 billion. Eskom makes the financial provision through insurance (that is obtained from the international nuclear insurance pools) and which is in dollar denomination resulting in a financial provision in excess of R3 billion. Every year Eskom has to provide proof that the financial provision (insurance) has been obtained.

It is not the purpose of this EIA to make a pronouncement in principle on the desirability of nuclear power *per se*. Environmental impact assessment is a project-specific environmental management tool and this particular EIA is focused on a nuclear power station at one of three sites. A decision on whether or not nuclear power must form part of the power generation mix in South Africa is a function of the Integrated Resource Plan (IRP). The Draft IRP has been provided for public comments in October 2010. In this regard, please refer to: <http://www.doe-irp.co.za/>

Your comment (3)

PROJECT DESCRIPTION

It is stated in the EIR that ESKOM has chosen the pressurised water reactor (PWR) technology for this application based on its experience over the past 25 years at Koeberg. Until very recently ESKOM was supportive of pursuit of the PBMR project which has eventually been abandoned after enormous time and funds were wasted on this misguided project over many years. It is submitted that Nuclear-1 should similarly be shelved before further huge sums of money is wasted in another fruitless exercise.

International statistics show that there is a reduction internationally in development of nuclear energy facilities. There is general acceptance that development of nuclear faces numerous hurdles: there is the continued concern about the nuclear industry's close connection with the development of nuclear armaments; there is the continued concern about radiation and the dangers of nuclear facilities; there is the fact that no-where on earth has a storage system been developed and implemented for high level nuclear waste which requires management over time periods which the human race has never demonstrated being capable of. Currently all high-level waste continues to be stored on site in nuclear facilities (as is done at Koeberg). The technology has been around and in use for at least 50 years and the promises that a solution to storage will be developed remain promises. With concerns about waste with a half-life of the order of 26 000 years, is any other argument necessary against such a dangerous technology? There simply remains no way that containment of such waste can be guaranteed, even in the most favourable scenario. Never mind in the event of political turmoil or natural disasters against which puny humans can hardly plan. How can a guarantee be provided against such a disaster even for 100 years, never mind for thousands of years?

I may refer to the paper by Dr Hugh B. Haskell, Ph.D., a physics lecturer of many years' experience, currently senior science fellow at the Institute for Energy and Environmental Science, Takoma Park, MD, United States of America who, in his paper of 20 March 2010 titled "Response to the Statement of Senator Lamar Alexander (R-TN) on September 21, 2009, on the Issue of Nuclear Power Generation in the United States" suggests that nuclear power enjoys a mythical appearance of strength. He, *inter alia*, states as follows:

Nuclear power, after more than 60 years of development should be a mature industry, relying on well-tested and incrementally improving technology. Yet it has been nearly moribund in the

US for almost 25 years, and is struggling to hang on world-wide. This state of affairs has often been attributed to the reaction to Three Mile Island and Chernobyl, but undoubtedly the most important reason for the decline of the nuclear power industry has been its cost, which, in contrast to most developing technologies has been steadily increasing over the years. (p 4)

As for the 34 reactors the senator says are in planning for the US, he is right that it is unlikely that any will be operational before 2020, if then, but due only in part to interventions by anti-nuclear activist groups. At least four and possibly more of the fourteen AP1000 reactors currently in process for the US have been cancelled or put on hold due to drastically increased projected costs. (p 6)

problems Areva is having with its plant in Olkiluoto, Finland, which is currently at least three years behind schedule and at least 77% over budget. (p 7)

If required, a copy of this paper and others by Dr Haskell can be provided.

ESKOM acknowledges that building of the proposed facility will take at least 7 years from approval. It is submitted that evidence shows massive overruns in both construction time and cost for nuclear facilities. The optimistic view therefore of being able to complete this facility, if approved, to commence production in 2018 is accordingly highly questionable. In view of the facts represented by the construction in Finland of Olkiluoto and the predicted time frames for proposed development of nuclear power stations in the USA as per Dr Haskell (as referred to above), the predictions for completion of the proposed facility as per the EIR by ESKOM and the consultants appear highly contestable.

Response (3)

It is acknowledged in the Draft EIR that Eskom's proposed time frame for starting the construction of the nuclear power station is optimistic. There are a number of authorisation processes that Eskom needs to complete prior to the commencement of construction, of which GIBB is aware of at least 30. The most significant of these are arguable the environmental authorisation and the issue of a nuclear license by the National Nuclear Regulator.

Eskom agrees that there are cost overruns with regard to nuclear power plants; however it must be borne in mind that the Finland site (Olkiluoto) was the first site that the new EPR unit was constructed. The French site ((Flamenville) was the second and a considerable amount of lessons learned at Finland site was implemented at Flamenville – hence much reduced delay times were experienced. The Chinese plants used these lessons learned and are on time and within cost. Eskom never intended to build a first of a kind plant type which obviously will reduce the risk of massive overruns in both construction time and cost as mentioned above.

With regard to cost, we refer you again to the EPRI report carried out on behalf of the DOE to inform the Draft Integrated Resource Plan. Coal will be subject to carbon taxes and increasing fuel cost in the future which will influence cost comparisons of nuclear, coal and renewable technologies.

Your comment (4)

The EIA acknowledges only an 800 m zone from the facility as a land development restricted area. This fails to take into account the concerns in the event of an accident at the installation. Development of the Cape metropolitan area currently is massively into the area of Blouberg, directly in the path of the prevailing winter wind regime which could carry a radiation cloud not only over this immediately adjacent area, but quite quickly to the centre of Cape Town. There is no consideration in the EIA of this potential impact and measures of mitigating it. It is significant that the City of Cape Town as well

as the provincial government of the Western Cape are, according to reports, opposed to development of nuclear facilities in the Western Cape.

There is anecdotal evidence of radiation contamination of agricultural land in the area of the operating Koeberg nuclear facility. There is no assessment of these concerns or measures for mitigation proposed in the EIA. It is suggested that such studies should be conducted and peer reviewed at a bare minimum so that these allegations may at last be settled based on existing technology before continuing with further unsubstantiated claims as the EIA does.

Response (4)

Koeberg has two uranium fuelled PWRs supplied by Framatome of France (under license from Westinghouse USA). Koeberg has two large turbine generators of over 920 MW with a total capacity to supply 1840 MW to the national grid (after internal consumption). According to the latest NNR Annual Report 2008/2009, the radioactivity in liquid and gaseous discharges from Koeberg during 2007 and 2008 contributed a projected total individual dose of 4.3 μSv to the hypothetically most exposed public group. The projected doses, as a result of gaseous and liquid discharges, were 0.47 μSv and 3.8 μSv respectively for 2008, and 0.94 μSv and 0.3 μSv respectively for 2007, which are well within the NNR limit of 250 μSv per annum, and meets the dose target of 10 μSv , which is applicable to an annual period in which there is one refuelling outage.

Eskom runs an environmental surveillance programme at the Koeberg Environmental Survey Laboratory (ESL). The results of the environmental surveillance programme are contained in annually produced Environmental Survey Laboratory (ESL) reports according to the Eskom Generation Standard: GGS-1309, Rev. 0 "Radiation Protection - Environmental Surveillance". These results have been made available publicly and do not indicate any environmental releases of radioactivity beyond the legal limits. We cannot comment on anecdotal evidence and can only use officially reviewed monitoring results, as indicated above.

Apart from the activity detected in the sewage sludge samples collected at the Melkbosstrand Sewage Works, no radionuclides attributable to Koeberg's power operation have been detected in other terrestrial samples.

The Air Quality Assessment (Appendix E10 of the Draft EIR) further includes a discussion on Design Basis Accident Releases and in terms of radionuclides in section 3.3.2 (c) and (d) of the report.

Your comment (5)

EIA PROCESS, PUBLIC PARTICIPATION and IMPACT ASSESSMENT

ALTERNATIVES

The 1998 White Paper on Energy provides *inter alia* that:

" ... it will ...pursue energy security by encouraging a diversity of both supply sources and primary energy carriers"

and

"Government will ensure that decisions to construct new nuclear power stations are taken within the context of an integrated energy policy planning process with due consideration given to all relevant legislation, and the process subject to structures participation and consultation with all stakeholders."

The pre-emptive decision by ESKOM for development of a nuclear power station is in contravention of the abovementioned provisions of the White Paper. Not only should a decision to develop a nuclear

power station be taken only once the Integrated Energy Policy has been developed, with wide public participation, but this decision also entirely fails to implement the requirement of ensuring a diversity of sources of supply. ESKOM has not demonstrated itself as competent of effectively managing the demands in South Africa for supply of electricity and the appropriate pricing thereof, and neither government nor ESKOM has demonstrated any support for the diversification of sources of supply and energy carriers. This is evidenced by the large number of private concerns currently actively pursuing authority to develop independent power stations, generally wind power, who finds themselves unable to make progress due to obstacles which can only be removed by ESKOM and government, neither of whom seems to be making sufficient attempt to do so.

The EIA correctly states that the assessment of alternatives is a key requirement of the EIA regime. Yet, this process fails to assess the alternatives appropriately insofar as the decision to assess only a PWR nuclear facility is considered. Some minor lip-service is done to suggesting alternatives such as coal-fired generation and renewables like solar and wind. These are simply dismissed stating that coal-fired generation in the coastal regions of the Western and Eastern Cape is not viable, in addition to its contribution to greenhouse gas emission and global climate change, and that renewables are not capable of providing base-load generation.

It must be pointed out that virtually the entire current South African electricity production is based on base-load technology. Accordingly, there is enormous room for development of systems of energy production other than base-load. This besides the fact that the unsubstantiated denial of alternatives being able to provide base load supply is supported by other commentators. Nuclear is a base-load option and should be discontinued in favour of development of other forms of generation to build a more equitable South African energy mix.

ESKOM and the Department of Energy has recently embarked on the IRPII programme to determine the appropriate energy mix for South Africa into the next decade. The pre-determined choice of nuclear as in the proposal pre-empts IRPII and should be placed on hold for this process to be completed first. There is huge general concern over how IRPI was manipulated and rushed through in a most undemocratic way and without the required public process in late 2009 and the determination therein that nuclear should be part of the energy generation mix for South Africa. There is enormous support for the view that renewables should be much more robustly developed in the South African context and that, should this occur, the need for consideration of nuclear may fall away. Furthermore, there are other options to be considered, such as Demand-side Management (DSM) which has been promoted but not nearly sufficiently. There may be various other ways of reducing demand which would reduce the need for new build.

Finally, it should be noted that there is enormous interest in South Africa by private producers to develop renewable energy facilities, mostly wind. These are generally still being obstructed by intransigence from government and ESKOM in various ways. Should issues of distribution and connection of independent producers to the national grid be resolved, there is a potential of much additional energy generation capacity becoming available. Furthermore, this will not come at direct cost to the general public and will be massively decentralised compared to the current situation, leading to various additional benefits.

The no-go alternative is quickly dismissed in the EIA stating that there is urgent requirement on ESKOM to develop additional power generation capacity due to the growing and expected demand on supply. The only alternative mentioned is coal, which it is correctly stated faces opposition in terms of its carbon footprint in the face of global climate change. It has been already been noted that dismissing other base-load options than coal and nuclear is flawed and not justified by the evidence. It must be agreed that nuclear will have a smaller carbon footprint than coal. Nevertheless, the full impact of mining, transport, manufacture of fuel, transport of fuel to the facility and transport of waste from the facility and long term management of waste and decommissioning of the facility is not fully quantified and assessed. It is also highly inappropriate in an EIA of this nature to consider only

impacts under normal operation and not the impacts and mitigation measures required in the event of an accident or abnormal operation. The EIA is seriously flawed and incomplete in this respect.

It is understood that selection of the three sites considered in the EIA goes back to the 1980's. It is submitted that various factors may have changed substantially in the intervening 30 years and that simply proceeding on the basis of enormously outdated assessments is entirely inappropriate.

Response (5)

This application for environmental authorisation relates specifically to the impacts of a Nuclear Power Station on three specific environments: Duynefontein, Bantamsklip and Thyspunt. It does not aim to establish the energy mix to be implemented in South Africa in terms of energy provision as this falls within the ambit of the IRP 2010 process, in which nuclear is part of the energy mix. As such site and layout alternatives were assessed as reasonable and feasible alternatives in terms of the application for environmental authorisation.

The point is made in the Draft EIR, as well as in the public meeting during the EIA phase, that nuclear generated power is only one of a number of generating options being considered for South Africa's power supply. Nuclear generation is not considered as an alternative for other forms of power generation, including renewable options. All such options must form part of an appropriate mix of generation options, including non-base load alternatives. It is important to stress that nuclear generation is not considered as an alternative to renewable technologies. Renewable generation technologies need to be pursued in parallel to nuclear and other baseload alternatives.

We take note of your comment regarding the no-go alternative. However, as indicated in the Draft EIR, given the urgent power demand based on economic growth in South Africa, the No-Go alternative is not considered to be a feasible alternative. Eskom, would in all likelihood, apply to develop more coal-fired power stations if the current application is declined. Even considering the likely power generation contributions of independent power suppliers, there would still be a necessity for additional base load generation. As indicated above, the life-cycle environmental impacts of coal-fired power generation are much greater than nuclear-fuelled power generation. It would become increasingly difficult to develop more coal-fired power stations in the future, due to carbon tax that would be imposed on countries that continue to emit greenhouse gases. It is necessary to balance the interest, needs and perceptions of neighbouring communities with the national interest for a secure electricity network that facilitates long-term sustained development of South Africa's economy.

Your comment (6)

Accommodation

The EIA acknowledges that accommodation for personnel will be required for the construction and operational phases of the facility. But the assessment of the impacts of such requirements is deemed to fall outside of the scope of the current EIA and it is suggested that these should be considered in a separate EIA. This is entirely inappropriate: the full impact, including the cumulative impacts of the development should be considered at one and the same time rather than in separate EIA's where such cumulative impacts are not appropriately considered.

The required labour and provision of accommodation and facilities for such labour and their families is an aspect which has potential social and economic impacts which have similarly not been sufficiently considered.

Response (6)

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. Where possible, employees (especially operational employees) will obtain accommodation in existing settlements. If new urban development has already been approved in the area of the nearby human settlements, it would be Eskom's preference to make use of the opportunities provided by this rather than create a new area for residential development which would then require an EIA.

An employee village will also be established within or as close as possible to existing towns in the vicinity of the power station site to cater for the greater part of the expected 7 000 to 8 000 workers who will be active on site during the peak of construction, a period of approximately 3 years. The 1 400 operational staff will either buy existing properties in these areas, build new accommodation or rent. Exact numbers of construction staff cannot be confirmed at this stage and will be dependent on the appointed vendor. Eskom has, however, followed a conservative approach in the consistent dataset and specified maximum number of construction and operational staff that they expect would need to be accommodated.

Eskom has completed initial investigations into housing around all three sites. Apart from Bantamsklip, the current development around Humansdorp, Jeffrey's Bay and in the greater Cape Town would accommodate housing needs and therefore would be highly unlikely to require an EIA.

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

Your comment (7)

National Nuclear Regulator

It is noted in the EIA that the NNR shall have to give separate authorisation for the siting, construction, operation, decontamination and decommissioning of a nuclear power station. During which process the NNR should consider, in public hearings, health, safety and environmental issues. It is not understood why these two processes are not run concurrently as the same issues are to be considered and commented on by the same public. Again, it appears that the process is flawed in separating these processes, which it is submitted, should run concurrently. Furthermore, it is entirely inappropriate for DEA to simply pass its responsibility for assessing the impacts of the proposed development to another agency, such as the NNR.

Response (7)

As 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 Nuclear Regulator Act,

1999, as well as the DEA / NNR co-operative agreement that governs the consideration of radiological issues in EIA processes.

The agreement between the DEA and the NNR indicates that the DEA would not “make a pronouncement on the acceptability” of radiological safety issues, and that this issue falls firmly within the ambit on the NNR licensing process. However, at the DEA’s request, information relevant to radiological safety issues has been included in the Draft EIR.

Apart from the environmental authorisation, there are more than 30 different other authorisations that need to be obtained before construction of the nuclear power station can be considered. Although it may be ideal for information relevant to all these processes to be considered in parallel, clearly this is not practical. Although one of the stated objects of the National Environmental Management Act, 1998, is co-operative environmental governance, and Regulation 6 of the 2010 EIA regulations provide for “Consultation between competent authority and State departments administering a law relating to a matter affecting the environment”, there are few examples of the practical implementation of a “one stop shop” for a number of parallel authorisations. Thus, for the short-term future, the separation between different authorisations is likely to continue to be a reality. It should also be noted that the NNR cannot consider the application for nuclear licensing until a vendor has been appointed and the vendor has proved the Safety Case of the specific design to the NNR.

The impacts of handling and storage of radioactive waste is a matter that is firmly within the ambit of the NNR and the newly established National Radioactive Waste Disposal Institute. The disposal of low and intermediate level radioactive waste will be undertaken at a facility that is licensed for this purpose (Vaalputs waste disposal site) and the impacts of disposal are therefore adequately managed within legally accepted criteria. This disposal site is audited on a regular basis against legal requirements.

The emergency preparedness report also falls within the ambit of the NNR licensing process and the public will be granted insight into further details about emergency planning through the public hearing process that forms part of this process.

Your comment (8)

PROJECT ALTERNATIVES

The specific design of the proposed nuclear power plant is not even clear yet. And there have in the past already been numerous changes of plan. How can the development and its impact in construction, operation and decommissioning even be properly assessed before this essential information is available?

Nevertheless, the EIA recommends Thyspunt as the preferred of the three alternative sites identified for development of this facility. This despite Thyspunt being clearly least desirable in terms of identified impacts on agriculture, concerns regarding the surface and ground water present on this site, as well as impacts on fauna and flora and heritage. A simple statement that the various impacts can be sufficiently mitigated, is entirely insufficient and detail should be provided. Also, the motivation for the choice of Thyspunt seems entirely gratuitous and not appropriately motivated.

Response (8)

It is correct that the vendor for the power station has not yet been identified. However, the Consistent Dataset (Appendix C of the Draft EIR) identifies the common characteristics of a number of different commercially available Generation III Pressurised Water Reactors (PWRs). PWR have been in use for several decades, and the technology and its potential impacts is therefore well known. In addition, the records of operation and monitoring results of Koeberg Nuclear Power Station (which has been in

operation since the late 1970s) is available as a benchmark for the environmental impacts of nuclear power stations in South Africa. It is important to note that Koeberg Nuclear Power Station is based on PWR technology, and that the design of the Generation III PWR power stations is a more advanced form of this technology.

The impact assessment at Thyspunt as a result of the construction and operation of the Nuclear Power Station did indeed identify significant impacts on the floral, dune, wetland, tourism and marine environments amongst others. The impacts on the Biophysical and Physical environment have been identified and assessed by a number of specialist studies attached to Appendix E of the Draft EIR and incorporated in the Draft EIR in Chapter 9 and Chapter 10. A number of mitigation measures have also been suggested and included in a draft Environmental Management Plan in order to mitigate the impact of the Nuclear Power Station on the Environment.

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

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

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

In terms of the above Thyspunt having a considerably lower seismic risk profile, as well as being more favourably located in terms of Eskom's requirements for integration with the transmission system. The Thyspunt site is therefore recommended for authorisation in the Draft EIR.

Therefore although it is acknowledged that Thyspunt would experience environmental impacts of high significance, the Draft EIR indicated that the conservation of the remainder of the site through access control and responsible long-term conservation management are significant impacts associated with this site..

Your comment (9)

CONCLUSIONS and RECOMMENDATIONS

It is clear in the EIA that Thyspunt is the site with the most obstacles to development of a nuclear power station (or another facility) – agriculture, dune geomorphology, ground and surface water, fauna and flora and heritage. Nevertheless, the EIA concludes that this is the preferred site and all the negative impacts can be sufficiently mitigated. A decision like this begs the question as to what external factors, not disclosed to the public, have influenced such a conclusion and must draw the entire EIA into serious question.

Response (9)

Your comments are noted. Please see our response to your comment 5 and 8. All information the GIBB has access to have been made available in the public domain.

In terms of Regulations 17 of the 2006 EIA Regulations (Government Notice No. R 385 of 2006), the Environmental Assessment Practitioner must:

“disclose to the applicant and the competent authority all material information in the possession of the EAP that reasonably has or may have the potential of influencing –

(i) any decision to be taken with respect to the application by the competent authority in terms of these Regulations; or

(ii) the objectivity of any report, plan or document to be prepared by the EAP in terms of these Regulations for submission to the competent authority.”

GIBB has made all such information available to the public through the EIA process.

Your comment (10)

WAY FORWARD

The EIA notes the legislated role and responsibility of the NNR to licence a nuclear power facility taking into account the protection of persons, property and the environment. It is also stated that the NNR and the DEA have reached agreement for the distribution of their respective roles and responsibilities in assessing the proposal of development of this nuclear power station. However, it is submitted that the necessary process managed by the NNR should be at least conducted simultaneously. This seems to not be the case. The entire EIA is as a result fundamentally flawed and should be abandoned until the necessary complete and simultaneous process can be embarked upon.

Response (10)

With respect to the alignment of the different authorisation processes, please refer to our response to Comment 7 above.

Your comment (11)

1. CONCLUSION

In view of all the above concerns, it is submitted that this EIA is not sufficiently transparent, informed and public and that various decisions appear to have been made in advance. As such the entire process is flawed and should be scrapped and a proper process be started afresh if it the proponent wished to proceed with the proposed development. However, we believe that there is sufficiently abundant evidence that there are numerous alternative ways of attaining the end which construction of this nuclear power station is designed to meet in a much less expensive and safer way. This should be sufficient reason on its own for not approving the proposal.

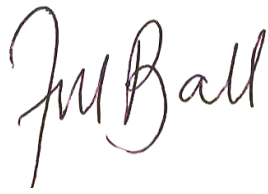
Response (11)

As indicated in the responses above, the nuclear power generation is not being proposed as an alternative to other forms of power generation, including renewable generation. Such forms of power generation need to be undertaken in parallel. Furthermore, as Environmental Assessment Practitioners committed to the requirements of the EIA regulations, we confirm that GIBB has made all relevant information, which is pertinent to the making of a decision for environmental authorisation, available to the public.

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 that reads "JMBall". The letters are cursive and connected.

Jaana-Maria Ball
Nuclear-1 EIA Manager