



ROOM 6 • 24 LONG STREET
PO BOX 134 • HERMANUS • 7200
TEL & FAX: 028 313 1351
E-MAIL: ratepayers@hermanus.co.za

27 June 2010
Ms Bongji Shinga
Acer Africa Environmental Management Consultants
P.O. Box 503
MTUNZINI 3867

Email: bongji.shinga@acerafrica.co.za

Dear Ms Shinga

RE: Environmental Impact Assessment for the Proposed Power Station (Nuclear-1): Comments relating to Bantamsklip.

Compiled by: Rodney Anderson on behalf of the HRA Exco.

The following comments are based on a mandate granted unanimously by the members of the Hermanus Ratepayers Association at their Annual General Meeting on the 24 March 2010. Our comments, therefore, will be largely based but not limited to on our concerns with regard to eco-tourism, agricultural production, marine harvesting and environmental conservation.

The Overberg District Municipality, encompasses the L'Agulhas and Overstrand regions, is of major importance to tourism in the Western Cape. It thus forms part and parcel of the wider attractions of the Wine Routes, the Garden Route and South Africa as a tourist destination as a whole. The natural assets of the Overstrand-Agulhas region are its single biggest tourism and eco-tourist draw-card and are responsible for sustaining the economy and for generating and sustaining employment.

In the Tourism speech for the department of economic development and Tourism's budget vote speech 2008/2009, delivered by Ms Lynne Brown, Provincial Minister of Finance and Tourism, Western Cape Legislature, 28 May 2008
<http://www.whalecoast.info/news.php?section=view&id=10>

She said: "I would like to briefly reflect on NEW research commissioned by Cape Town Routes Unlimited (CTRU) which was completed by the Cape Peninsula University of Technology.

- *The research findings show that the tourism sector of the Western Cape contributed 14.08% to the Gross Geographic Product (GPP) to the Province in 2005.*
- *AND in fact that 29 tourists are required to create one direct job in the industry while 20 tourists create one indirect job.*
- *That the Demand generated by tourism in other sectors is valued at:*
- *R2.5-billion for Manufacturing:*
- *R2-billion for Transport, Storage & Communication: and*
- *R1.5-billion for Wholesale/Retail Trade, Hotel & Restaurant.*
- *That the total impact of Travel and Tourism consumption (this means travel and tourism industry supply) on the Western Cape economy in 2005 was R25, 2-billion. It can only be concluded that the true impact of tourism extend far beyond the core of the tourism industry and that the current tourism statistics understate the real contribution of tourism to the Western Cape economy."*

The above informative speech dramatically defines the scope and connectedness of potential areas impacted by the ripple effect of the disruption of tourism attraction and should give pause for thought.

Rapport, announced South Africa's Whale Capital Hermanus as its Town of the Year (2009) in an SMS competition. Routes Unlimited, the tourism destination marketing organisation for Cape Town and the Western Cape supports this competition. A previous winner was Struisbaai in 2007.

"Hermanus is one of the towns which epitomises the Western Cape tourism experience. It has that one defining, unforgettable feature - the best land-based whale watching spot in the world – while at the same time offering the visitor a distinct mix of tourism options such as glorious beaches, its Hemel-en-Aarde wine route, adventure sport, and restaurant and accommodation choices to suit every taste and pocket. Winning this title will definitely assist the town even further in growing into a top-of-mind domestic tourism destination," says Calvyn Giffellan, Chief Executive of Cape Town Routes Unlimited.

Extract from the Executive summary of the Draft Environmental Impact Report

1. *Perceptions regarding a nuclear power station are frequently based on lack of scientific information about perceived impacts*
2. *Public concern is also relatively low at Bantamsklip*
3. *In general the business sector around all three sites see opportunities arising from the establishment of a nuclear power station, quite apart from the importance of stabilising the electricity supply*
4. *The two most sensitive industries in terms of their perceptions about the impacts of Nuclear 1 on their activities are fishing and tourism. However the analysis shows that any negative impacts are likely to be slight and that in fact there would be overall positive impacts on tourism.*

Ignoring, for the moment the blatant bias implicit in the wording of the above remarks, we declare that this statements are only made possible by scoping out the economic powerhouse of Hermanus with a population over 100 000 (speech by Mayor Theo Bylefeld, Overstrand Municipality, IDP meeting, 2010).

Hermanus is the eco-tourism centre of the Overberg District Municipality,). Although, this important resort town lies within the 50km radius designated internationally as an emergency-evacuation zone in the case of a nuclear accident, it is nevertheless presumed in the Draft Environmental Impact Report to lie beyond the biophysical, social, and economic impact zone. This is both illogical and nonsensical in the extreme. This viewpoint holds good for Stanford, Gaansbaai, Stuisbaai, and all the many smaller towns within the 50 km radius.

Such businesses that are included in the artificially truncated 'impact zones', moreover, would tend to count short term improvements during construction and would therefore think more in terms of these short-term gains rather than the overall, and negative, long term regional economic impacts. The specialist studies are silent on this.

If the overall, long-term impacts on eco-tourism and all other terrestrial and marine commerce were properly researched, however, using the whole life-cycle of the proposed nuclear power station at Bantamsklip, a completely different picture would undoubtedly emerge.

Assessment of impacts on tourism

With reference to the Tourism Specialist Study, bed nights are a ludicrously inadequate tool to account for the overall income from tourism, while the sum of R340 per bed-night is grossly understated. This observation also implies that all visitors to the Overberg visit for the sole purpose of sleeping and fasting, which is obviously also nonsense.

The choice of two of the “most sensitive” industries given as “fishing and tourism”, while excluding all other agriculture, viticulture, indigenous plant products, aquaculture and commerce generally in the broader context, ignores their inter-relatedness. Even the real estate and construction industries are glossed over, when we avoid scoping out the heart of the Overberg by limiting the impact zone to 20 km for a huge nuclear-industrial complex with a lifespan stated as lasting 60 years.

To then make the claim – “*that in fact there would be overall positive impacts on tourism*” – beggars belief

In the almost total absence of current well researched, reliable and focused data on value of Tourism in the Overstrand-L'Agulhas region it is impossible to make accurate statements as to the value of this primary economic driver. Here is one example of the differing opinions of the value of shark-cage and whale-watching tourism industries between the specialists of ESKOM and a conservation group:

Tourism Impact Assessment Study: Table 4.4 Approximate Annual Value of Shark-cage and whale-watching tourism industries in the Greater Gansbaai area.

Approximate value of shark and whale tourism industry per annum *R 56,400.000*

Weekend Argus Saturday 1 May 2010 Helen Bamford

Lesley Rochat, director of the AfriOceans Conservation Alliance said that:

Great white shark cage diving in Gansbaai alone generates per annum *R289, 000,000*

Tourism Impact Assessment Study: 4.1 Assessment of Impacts on Tourism

“For all three sites there are no “no-go” areas and no preferred siting of the facility from a tourism point of view”

The insertion of a vast nuclear facility into a pristine ecological terrestrial and marine biodiversity “hot spot” of international importance makes no sense from any logical point of view.

With regard to the socio-economic impact on the Overberg District Municipality, and the Overstrand-L'Agulhas region in particular, the magnitude of impact that such a nuclear industrial complex might impose on the region is downplayed, given that up to three or four reactors might be required to produce the planned 4 000 MW output required from each of the three sites.

The consistent success of tourism/eco-tourism and the overall growth of the whole of the Overstrand economy have remained dependent on, and inseparable from, the broader terrestrial and marine ecology and bio-diversity of the region. This is why logically the concept of any major industrial development which disrupts the natural fabric of the Overstrand-L'Agulhas region is of deep concern to the Hermanus Ratepayers and all persons in the Overstrand economy.

Eco-tourism has been identified in the Integrated Development Plan of the Overstrand Municipal Authority as the mainstay of the economic and social development strategy for the area with growth calculated at over 6 percent per annum over the last 10 years (Long term traffic counts R43). A wide range of tourism-based recreational activities and facilities have been developed over the last decades and these multi-million rand investments have served to drive the economy, which in turn, have in turn led to rapid wealth and job-creation.

Tourism Impact Assessment Study: 4.5 Assessment

The claim that there has been “*rapid growth of the tourism sector in the area near Koeberg...a similar state of affairs should obtain around Bantamsklip*” is not based on any cohesive scientific basis at all.

General

It is our contention that such scientific information that has been made available throughout the specialist reports and in the summary are largely incomplete, often times biased, misleading and generally inaccurate.

Our focus on the tourism sector particularly should not be construed as acceptance of all or any of the information or conclusions drawn in any of the specialist studies in the balance of the draft report.

The type, specification and number of reactors intended have not been made known and have illogically been separated of the impact of the power lines. As each cannot function without the other, sensible, informed consideration of neither can be made.

This fact alone constitutes a fatal flaw and makes the exercise of our constitutional right to informed public participation impossible.

We are also particularly concerned that the most compelling and important issues appear to have been deliberately scoped out of the report.

1. Routine operational releases of radioactive isotopes by gaseous emissions and liquid effluents have not been adequately addressed but rather deferred to an "envelope" of nebulous quantities, the regulation of which has been deferred to the licensing process of the National Nuclear Regulator (NNR).
2. Since the two most vital isotopes – carcinogenic Strontium-90 and Cesium-137 – have which half-lives exceeding 25 years, means they tend to accumulate over many decades, and so add to the burden of disease. These important substances and their potential radiobiological impacts have been equally deferred to the NNR.
3. The routine release of the above-mentioned isotopes also logically leads to the contamination of both of terrestrial and marine food resources, a scientifically testable fact that has also been deferred to the NNR.
<http://www.care2.com/greenliving/radioactive-fish-found-in-vermont.html>
4. The further negative impact on human health through ingestion of contaminated foodstuff and the direct threat to marine harvesting and agriculture is further glossed over in the report.
<http://timeforchange.org/nuclear-power-station-causing-cancer-leukemia>
5. The radio-toxic legacy of the nuclear process from uranium mining through to spent fuel – its storage, containment and the concomitant risks including transportation, security risks – has also been scoped out.
<http://www.greenpeace.org/international/en/news/features/AREVAS-dirty-little-secrets060510/>

From a macro-economic perspective, however, it is our considered opinion that the pursuit of a nuclear energy path would serve to bankrupt the fiscus and would not be in the best interests of the ecology or country as a whole. This has been borne out by cost overruns and opportunity costs in Finland where costs have run on from USD 3 billion to USD 6.66 billion and it's not yet complete.
<http://www.reuters.com/article/idUSLS56745220080828>

We rather perceive the potential for a massive transfer of wealth from the South Africa people to the G8 countries and possibly China and the concomitant opportunities for large-scale corruption and the abuse of Parastatal and State power. If, for example, the construction of football stadiums might be perceived as an opportunity cost with regard to proper expenditure on basic services and combating crime, how much more so would be the enormous cost – in excess of R1.3 trillion to pursue a nuclear power industry in South Africa? Please read following related articles: **How Much Will New Nuclear Power Plants Cost**

<http://scitizen.com/future-energies/how-much-will-new-nuclear-power-plants-cost- a-14-2287.html>

Business Risks and Costs of New Nuclear Power

<http://climateprogress.org/wp-content/uploads/2009/01/nuclear-costs-2009.pdf>

Also see Annexure A appended hereto.

Nuclear 1 Draft EIA Part 3: 9.23.5 Conclusion P9-220

If the real endeavor is, in fact, to balance the paradox quoted: *"This paradox begs for a need to attempt to balance the interests and welfare of neighbouring communities with the national interests of a secure electricity network. To this end, it is important to select a suitable site and to find compromises to maintain the sense of place of the affected area or at least ensure that the potential impacts on the sense of place are effectively mitigated to the lowest possible level"*.

Then it is anathema that renewable energy production systems, which are being rolled out effectively across the planet, here in South Africa are currently restricted to 8.75 MW until 2013. http://ae-africa.com/read_article.php?NID=1885

Cape Times, 25 January 2010, Wind is cheapest by Ingi Salgado. Quote : *"Eddie O'Connor, the chief executive of Mainsream Renewable Energy that is planning to invest R9.1 billion in wind farms in South Africa has taken on Eskom executive and said that Eskom's record in exploiting wind or any other renewable energy source are amongst the worse in the world".*

It cannot be seen as good news that Brain Dames has been installed as head of Eskom, he said in the same Cape Times article: *"renewable are expensive, we all know that."* O'Connor said: *"I suspect the 'we' refer to people at Eskom because those of us not included in the 'we' know the opposite."*

"Doug Kuni, MD of SA independent power producers association said Dames (ESKOM) was not comparing apples with apples, if you look at the life of (nuclear) plant a renewable energy project output over time is cheaper because there are no primary fuel costs and carbon taxes". O'Connor also said: "There is no price risk with wind what you see on day is the cost you see at day 1000... or day 1 million."

South Africa's wind energy potential alone has been estimated at more than 50 000 MW and its solar energy capacity lies at well over 500 000 MW.

The potential of concentrating solar power in SA by Thomas P. Fluri

<http://www.crses.sun.ac.za/UNEP/Additional%20-%20TP%20Fluri%20The%20potential%20of%20concentrating%20solar%20power%20in%20South%20Africa.pdf>

The potential contribution of renewable energy in South Africa: Draft Update Report (includes cost information) prepared by Douglas Banks and Jason Schäffler February 2006

<http://www.earthlife.org.za/wordpress/wp-content/uploads/2009/04/potential-of-re-in-sa-feb06.pdf>

As can be seen we have unequalled opportunity in terms of our natural assets, our access to free sources of natural energy, especially solar and wind energy, in this country. It is also a well-known fact that many Independent Power Producers are beating down the doors to make renewable energy available, but are hamstrung by the lack of enthusiasm on the part of Eskom.

Clearly, the State-Owned Enterprise desires to maintain their hegemony at all costs, including political.

Cape Times 15 January 2010, Cosatu calls for end to nuke power by Melanie Gosling.

Quote: COSATU has said the nuclear option must be taken out of South Africa's future energy mix and instead of building more coal-fired power station there was an urgent need for more renewable energy. They also said that Eskom must scrap the nuclear option because "there were still a lot of question marks around nuclear plant safety, radioactive waste disposal and possible usage of uranium for weapons". COSATU also said "... renewable sources of energy will be relatively expensive at first but cheaper in the long term. Up scaling investment in renewable energy will not only address the challenge of climate change but will create all-important jobs".

At the same time, the Department of Energy and of Eskom continue to pay mere lip service to the value, development and accommodation of renewable energy sources. No account is apparently taken of the obvious benefits of decentralization that could be achieved by producing different types of power as is appropriate where it is needed most thus saving the massive line losses inherent in the National Grid.

Nuclear 1 Draft EIA part 3: P9-220

"The most controversial potential impact relates to the perceived risks associated with nuclear incidents. From a social point of view, risk is a "subjective experience" which is felt by, and is different, for everyone. Perceived risks could lead to a change in attitude which, in turn, could change behaviour. It is therefore important to ensure a reliable flow of relevant and correct information in order for communities to differentiate between perceived and real risks."

How nicely put. Perhaps the "subjective experience" of risk of those in the ivory towers at Eskom would change if they took off their rose-colored nuclear glasses, and took real cognizance of balanced scientific and financial information pertaining to the inherent short and long-term risk/benefit profile of nuclear energy. They should also recognise the fallacy, in particular, of the supposed inability of renewable energy to provide for so called "base-load" energy needs.

South Africans would all be better off.

Executive summary of the Draft Environmental Impact Report: 1.1 Project Background:

"identified renewable forms of energy, for example, solar, cannot supply base load power stations"

The above quote also applies to all the specialists who are not immune to perceptions, they select and wittingly regurgitate information and falsehoods that support what their employer wants to hear, manipulating information in an endeavor to change the attitudes and behavior of the public at large.

We could instead make real progress as a country, using long-term thinking, if we focused on becoming global leaders in the field of renewable power the so called 'base-load' generation and place ourselves at the forefront of these increasingly competitive technologies, thereby creating an export industry, attracting fresh Foreign Direct Investment capital, and creating widespread employment opportunities, for the good of all our people. There is a concomitant advantage of broadcasting infrastructure and thus spreading employment countrywide. <http://www.aph.gov.au/library/pubs/rp/2008-09/09rp09.htm#power>

Nuclear 1 Draft EIA part 3: P9-246 Impact significance for the three alternative sites:

Technical factors (geological and geotechnical suitability and seismological risk);

Water-related factors (fresh water supply, geo-hydrology and surface water hydrology);

Social factors (traffic and transportation, noise, social impacts, economic impact, agriculture, tourism, human health risk, emergency response and site control, and safety and visual impact); and

Biophysical factors (heritage and / archaeology, air quality, freshwater ecology, vertebrate fauna, invertebrate fauna, oceanography, marine biology, botanical and dune geomorphology).

In spite of their numbers, diverse specialties and the obvious differences between the significance of the impacts at the 3 alternative sites, all specialists agreed that there are **no** fatal flaws at any of the sites (provided appropriate mitigation is implemented) and that all three alternative sites are suitable for development of a nuclear power station, given sufficient mitigation of impacts.

Notwithstanding the hugely controversial nature of the nuclear debate Eskom is able to locate and employ a large number of specialists in many diverse fields who are universally *ad idem* on this subject.

Executive summary of the Draft Environmental Impact Report p11

Quote: *"all specialists agreed there are no fatal flaws at any of the sites (provided appropriate mitigation is implemented)"*

We take issue with the above statement, in that, we understand from the text that among the large number of specialist studies fatal flaws were indeed found that required "mitigation", and yet nowhere are these fatal flaws listed or drawn attention to. Mitigation is the panacea of all evils, we are led to believe.

Since all the specialists are paid by Eskom (through the agency of Arcus Gibb), it is not at all surprising that the above statement could be made. **He who pays the piper calls the tune.**

Government and appointed officials in concert with the pro-nuclear lobby, who are out to sell us goods we don't want at prices we cannot afford are attempting to thwart the very real and concerted opposition to the ill-considered and poorly researched concept to impose a nuclear power station at Bantamsklip.

Examples of poor research would be the invisibility on maps or elsewhere of the 300 strong Koi San community at Buffeljags within 4 km of the site or for that matter Tesselaarsdal in the path of the power lines.

These are the same officials who are thwarting the positive roll-out of alternative renewable energy resources, and are instead repeating the fallacy that Concentrated Solar Power, Geothermal, solar, wind wave energy and others can't do it.

Mitigation Measures

Nuclear 1 Draft EIA part 1: 5.1 Introduction

Quote: *"the minority, nevertheless are often vociferous and sometimes militant, which has serious implications for development as they frequently engage in litigation"*

We could say that the majority are distant, uninformed, disinterested, apathetic and or uneducated, and thus "favour" nuclear power in a study by the Nuclear Energy Institute.

We could say that the minority were educated, informed, critical, involved, exercised judgment and were concerned about the health of the future generations, their fellow beings, their environment and their planet to the point of litigation, their refuge of last resort.

Nuclear 1 Draft EIA part 1: 5.2.1 Community Public Information Campaign

Quote: *" the lack of information and overwhelming amount of misinformation regarding nuclear power as a whole, and specifically Nuclear-1 plans, has generated all manner of popular myth, and worse-case scenarios, skepticism, and particularly doubt regarding the intentions and trustworthiness of Eskom."...*

"Specifically the impacts of nuclear power generation on the sea, the immediate environment and the sense of place."

"The above myths will be mitigated by "an aggressive community-orientated and comprehensive public information campaign".

Although the above impacts specifically mentioned are very important even more so is the following list of facts:

It is a fact the NPS is no answer to global warming.

It is a fact that it is not clean.

It is a fact that is not cheaper than renewable energy.

It is a fact that it is negative to human health.

It is a fact that there is no solution to nuclear waste.

It is a fact that it is vulnerable and open to attack.

It is a fact that the industry feeds weapon proliferation.

It is a fact that every aspect requires high levels of security.

It is a fact that radioactive materials are dangerous.

It is a fact that nuclear sites contaminate their surroundings.

It is a fact that uranium mining sites contaminate their surroundings.

It is a fact that in the nuclear fuel processing cycle is costly.

It is a fact that nuclear fuel and nuclear waste requires major transporting.

It is a fact that humans are irradiated in these cycles.

It is a fact that the nuclear industry increases the burden of disease in humans.

Links supporting these points can be found below article attached hereto: Annexure A

The Hermanus Ratepayers Association Exco have read and considered the following submissions and identify fully with their contents. We support the opinions and concerns expressed and include these comments as if they were our own *mutatis mutandis*.

- Submission on Appendix E10: Air Quality Report - Mike Kantey, Watercourse cc
- **Comment on Draft EIA for Nuclear 1: Nuclear reactor planned for Thyspunt, Bantamsklip, or Duynefontein.**
Ingela Richardson
- Environmental Impact Assessment for the Proposed Nuclear Power Station ("Nuclear-1):
A comment on the Economic Impact Assessment Report - Rod Gurzynski
- Eskom- Environmental impact assessment (EIA: 12/12/20/944) for a proposed nuclear Power station and associated infrastructure. - *Strandveld Tourism & Conservation Association*
- Assessment of the potential impacts on human health environmental impact report. – Janda Macdonald

Conclusions and Recommendations

It will take more than promises of mitigation, reduction and compensation to convince the people of the L'Agulhas/Overburg region to surrender the Bantamsklip World Heritage Site for the purpose of the construction of any Nuclear Power Stations.

Threats of *"aggressive"* Propaganda campaigns, will do no better, as it is resolved that we will oppose this concept on behalf of our ratepayers and the population as a whole with all the means at our disposal.

We hope and trust that the broad coalition of justifiably concerned citizens allied with political pressure from alliance partners and the broad church will persuade those in authority to take nuclear off the agenda and out of Africa. The Pebble Bed Modular Reactor (PMBR) program has already been shut down after costing the South African taxpayers almost 10 billion and counting with some 2.7 billion apparently unaccounted for. Perhaps they finally noticed that none of the "smart money" is backing nuclear. This debacle has wasted 10 years that could have been profitably spend on renewable energy initiatives. By now we could be using green power.

<http://www.timeslive.co.za/business/article513806.ece/PBMR-on-the-rocks-retrenches-800>

<http://www.engineeringnews.co.za/article/pbmr-company-could-shed-75-of-its-staff-after-sa-slashes-its-budget-2010-02-18>

Our recommendation would be, put simply, to concentrate and focus our considerable financial, scientific and natural resources as a country on the emerging renewable energy industry. Fast track the selection, licensing and accommodation of independent power producers and connect them to the grid. Treat electricity as the expensive scarce resource that it is and avoid giving it away to our neighbors and to attract the wrong investment. **“Charity begins at home.”** Redefine our efforts and statutes to reduce consumption and the waste of electricity, while educating our population in the conservation and care of all our scarce ecological resources. Continue with the roll-out of solar water heaters and energy saving luminaries. Make energy saving mandatory for all new construction and encourage retro fitting of existing structures. Set up and fund decentralized infrastructure to support and monitor all of the above.

Given 10 years and 10 Billion Rands. We feel sure that we will be able to look back on a success story for a country that has taken bold steps to secure our energy future, our environment and that of generations to follow. We will hold our heads high in the knowledge that we can lead instead of just following the nuclear proponents on the road to ruin.