

**ENVIRONMENTAL IMPACT ASSESSMENT (EIA)**

**EIA: 12/12/20/944**

**FOR THE PROPOSED ESKOM NUCLEAR POWER STATION AND  
ASSOCIATED INFRASTRUCTURE**

**DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT**

**KEY FOCUS GROUP MEETING  
COEGA DEVELOPMENT CORPORATION (CDC) @ CDC OFFICES,  
COEGA INDUSTRIAL DEVELOPMENT ZONE**

**24 MAY 2010**

## TABLE OF CONTENTS

|  |   |
|--|---|
| TABLE OF CONTENTS .....                          | 1 |
| 1. ATTENDANCE.....                               | 2 |
| 2. OPENING, WELCOME AND INTRODUCTIONS.....       | 2 |
| 3. MEETING OBJECTIVES AND FORMAT OF MEETING..... | 2 |
| 4. ISSUES AND COMMENTS RAISED AND DISCUSSED..... | 3 |
| 5. CONCLUDING REMARKS.....                       | 8 |

## 1. ATTENDANCE

| Name                | Position/Portfolio   |
|---------------------|--|
| Mr Peter Inman      | Senior Manager – CEO's Office, CDC   |
| Mr Graham Taylor    | Spatial Development Manager – Infrastructure Development Business Unit, CDC        |
| Ms Andrea von Holdt | Environmental Project Manager – Operations Business Unit, CDC                      |
| Ms Deidre Herbst    | Senior Manager – Environmental Generation Division, Eskom Holdings Limited (Eskom) |
| Mr Mervin Theron    | Manager – Regulatory and Localisation, Nuclear Division, Eskom                     |
| Mr Loyiso Tyabashe  | Chief Engineer, Nuclear Division, Eskom  |
| Mr Andre Nel        | Manager – Nuclear sites programme  |
| Ms Jaana-Maria Ball | Nuclear-1 EIA Manager, Arcus GIBB  |

## 2. OPENING, WELCOME AND INTRODUCTIONS

Ms Deidre Herbst welcomed everyone at the Key Focus Group Meeting and thanked all for their participation. A round of introductions was made.

## 3. MEETING OBJECTIVES AND FORMAT OF MEETING

Ms Herbst stated that the purpose of this meeting was for Eskom and the independent EIA consultants to obtain further information from the Coega Development Corporation (CDC) regarding the possibility of the Coega Industrial Development Zone (IDZ) accommodating a nuclear power station. She stated that the question had been raised again by Interested and Affected Parties (I&APs) in the St. Francis Bay area as to why the Coega IDZ was not being considered as an alternative site for Nuclear-1, the first of Eskom's proposed nuclear fleet. She summarised the Nuclear Site Investigation Programme's (NSIP) assessment of the Eastern Cape Region and confirmed that the sites deemed to be most suitable were Tony's Bay and Thyspunt, which were combined to form the current Thyspunt site alternative in the EIA.

#### 4. ISSUES AND COMMENTS RAISED AND DISCUSSED

This section details all issues, comments and concerns that were raised and discussed at the meeting. Only the key points raised during the meeting were transcribed. Should you wish to make any corrections, please advise ACER within two weeks (i.e. 14 days) of receiving these minutes.

| No | Name                      | Comment   | Response   |
|----|---------------------------|---|--|
| 1  | Dr Peter Inman (PI)       | Is the assumption that a nuclear power station should be located 50 km away from residential area still applicable today? Colchester in the United Kingdom is 10 km away from a nuclear power station.  | The current EUR that Eskom is utilizing as a specification requires the 800m and 3km Emergency Plan and Long Term Protective areas, respectively. Thus, the 50km issue raised is not a requirement. The reason that the 50km was used previously was to establish the Nuclear plant away from large cities.  |
| 2  | Ms Andrea von Holdt (AvH) | She stated that she is all for challenging the assumptions made in the NSIP and determining whether they are still applicable today.  | DH responded that the 10-year NSIP process acted as a 'funnel' for identifying reasonable and feasible site alternatives for the EIA for Nuclear-1. Mervin Theron (MT) added that approximately 8 years were spent investigating seismics of the alternative sites with over R1 billion spent on the technical investigations. JMB confirmed that all five sites assessed in the EIA were considered as reasonable and feasible alternatives by the appointed independent technical specialists in the Scoping Phase of the EIA. |
| 3  | PI                        | <p>Peter Inman stated that no airport is planned for IDZ at present as ACSA is not interested in the site earmarked for this purpose. The PetroSA site is situated East of the airport site</p> <p>As a result of literal oceanic drift sand will pile up in the bay. The ocean bed at the Thyspunt site becomes very deep very quickly thus Eskom would need to go further out with the inlet and outlet structures for deep water at the IDZ as the water is not so deep.</p> | DH commented that flight paths to the PE Airport may be a problem for a nuclear facility if located in the Coega IDZ.  |

| No | Name               | Comment   | Response |
|----|--------------------|---|----------|
| 4  | Graham Taylor (GT) | <p>In terms of the Coega fault geotechnical studies have been undertaken for the site but full seismic studies i.e. micro-seismicity studies have not.</p> <p>Eskom requested these studies to be shared so as to understand their extent and methodology of work completed to date.</p>  |          |
| 5  | Deidre Herbst (DH) | <p>It is not anticipated that this site is a feasible and reasonable alternatives for Nuclear-1 based on our current knowledge of the site, but Eskom are looking at all potential site for future nuclear plants.</p>  |          |
| 6  | Andre Nel          | <p>The NNR cannot make a decision regarding the 2 km zone that is required by Eskom to be owned and controlled by the Utility. The European Standard for Emergency Planning Zones (EPZs) for Generation 3 Pressurised Water Reactors (PWRs) is 800 m. It is a business decision that the 2 km be owner controlled. The Thyspunt site boundary is approximately 2 km from the centre point of the position of the proposed power station.</p>  |          |
| 7  | GT                 | <p>The following information was provided from the Google Earth image of the IDZ:</p> <ul style="list-style-type: none"> <li>• The IDZ boundary is approximately 9.3km from Alexandria Dunefield, which was assessed in the NSIP.</li> <li>• Motherwell township houses approximately 600 000 – 700 000 low income residents and is about 14 km from IDZ. Approximately 60% of these residents are unemployed. No residential leases are anticipated in the IDZ.</li> <li>• PetroSA Link –Single and busy moving ± 9km off</li> </ul> |          |

| No | Name      | Comment  | Response |
|----|-----------|--|----------|
|    |           | <p>shore.</p> <ul style="list-style-type: none"> <li>• Zone 11 is earmarked for bulk storage of fuel and a refinery and pipe supply tank farm as per the IDZ's Master Plan but will only be developed as commercial opportunities arise.</li> <li>• PPC land (zone 9-10) is located on the edge of the IDZ on the side near the Sunday's River Mouth. There is mining right issue and PPC can remove calcrete and is allowed to be ± 3km away from the coast to load and 9 km from Sunday's River Mouth.</li> <li>• There is a mariculture facility - Sea Arc – in Zone 10. It is located approximately 3 km from N3.</li> <li>• There are founding condition problems in Zone 7 (earmarked for Open Cycle Gas Turbine Plant - OCGT) although Zone 7 is more preferable a site as it is approximately 70 m above sea level and has only 15-20 m of sand overburden.</li> </ul> |          |
| 8  | PI and GT | <p>The geotechnical studies for the IDZ will be made available to Eskom.</p> <p>Eskom needs to consider the positive aspects of the IDZ as a nuclear site, including:</p> <ul style="list-style-type: none"> <li>• Housing availability;</li> <li>• Labour availability from nearby Motherwell;</li> <li>• Availability of a harbour;</li> <li>• Ease of integration to grid – Transmission line corridor from the Dedisa sub-station of approximately 450 – 500 m with approval for 400kV lines and approval for 765kV lines to Grass Ridge and Dedisa substation; and</li> <li>• Long-term leasehold and if in national interest the</li> </ul>  |          |

| No | Name      | Comment   | Response  |
|----|-----------|---|---|
|    |           | <p>CDC would consider selling the land to Eskom (it is considered good industrial land SAPOA can be contacted for market-related rates and the parcel of land has 'Special purposes' zoning)</p> <p>One possible constraint is the PetroSA pipeline (2X 12 km) risk. An oil spill would be a concern into the intake and possibly a major licensing risk.</p> <p>Cape Gannets, African Penguins are resident on St. Croix Island.</p> <p>The dune area on Zone 10 is currently Open Space in the Master Plan for the IDZ and could be developable with precautions. It is presently fairly invaded by Rooikrantz.</p> <p>There is a fault line from harbour through Zone 1, Neptune Interchange, Zones 3 and 5.</p> |   |
| 9  | Andre Nel | Approximately 6 to 8 years of seismic studies are needed before SSHAC (Senior Seismic Hazard Assessment Committee) process can resume.  |   |
| 10 | DH        | <p>In terms of Nuclear-2 and Nuclear-3 the Scoping process must check whether proposed sites are still reasonable and feasible alternatives.</p> <p>For Nuclear-4 and Nuclear-5 the NSIP process will be started all over again by Eskom and new sites sought.</p>  |   |
| 11 | JMB       | <p>It was requested that the CDC provide Arcus GIBB and Eskom with the following documents:</p> <ol style="list-style-type: none"> <li>1. Geotechnical studies for IDZ</li> <li>2. Seismic studies for IDZ</li> </ol>   | The CDC agreed to provide the documents as requested as soon as possible. |

| No | Name | Comment  | Response |
|----|------|--|----------|
|    |      | <p>3. Copy of your latest IDZ plan (including off-shore structures) with the zoning and a list of planned activities/ developments for each zone</p> <p>4. Oceanography studies</p> <p>5. Marine studies</p> <p>6. Ecological studies (particularly for dune area in Zones 7 and 10)</p> <p>7. Strategic Environmental Assessment (SEA)</p> <p><b><u>Post-meeting note:</u></b></p> <p><b>In response to Arcus GIBB's query of 31 May 2010 as to whether the site offered to Eskom at the meeting for the purpose of constructing a nuclear power station (or any other site) was available in 2007/2008 the formal response from Peter Inman was:</b></p> <p><b>Given our understanding of what a nuclear power station requires, there were only two areas within the Coega IDZ that could conceivably have been used if an approach had been made to the CDC in 2007/8. Since sea water cooling is a prerequisite, then only land areas adjacent to the coast can be considered. This limits the choice to just two areas, Zone 1 (which already housed tenants and for which there were a number in the pipeline) or Zone 7/10 substantial parts of which were earmarked for various tenants most of which have since abandoned their projects due to their difficulties in securing project funding. Zone 1 would have to have been ruled out because of the proximity of other facilities not least the N2, the CDC's offices, St. George's Strand and the Port of</b></p> |          |

| No | Name | Comment   | Response |
|----|------|---|----------|
|    |      | <b>Ngqura, and the fact that it is probably closer to the so called Coega fault. Zone 7/10 would have been an option if it wasn't for the then active tenants and is an option now because most of the tenants have abandoned their projects.</b> |          |

## 5. CONCLUDING REMARKS

DH and JMB thanked all for their input into the meeting.