

Environmental Impact Assessment and Waste Management License Application for the proposed extension of ash disposal facilities at Camden Power Station

BACKGROUND INFORMATION DOCUMENT

May 2011

This Background Information Document provides Interested and Affected Parties (I&APs) with information on the Environmental Impact Assessment (EIA) and Waste Management License Application (WMLA) that are being done by Zitholele Consulting for the proposed extension of ash disposal facilities at Camden Power Station in Mpumalanga.

This BID also provides I&APs with the opportunity to:

- Register as stakeholders in the public participation process; and
- Comment on the proposed project.

The purpose of an EIA is to identify and evaluate potential impacts, to recommend measures to avoid or reduce negative impacts and to enhance positive impacts. The licensing of waste management activities through a WMLA is the primary means by which these activities are regulated.

The decision-making authority for both the EIA and WMLA is the Department of Environmental Affairs.

You will be included in the stakeholder database and receive further documents for review and comment. Your comments will ensure that all issues of concern are incorporated. To raise your concerns complete the enclosed registration sheet, write a letter, call or email the public participation office.

All documents will be available on the internet at www.eskom.co.za and www.zitholele.co.za.

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BACKGROUND TO THE PROPOSED PROJECT

Eskom is the South African utility that generates, transmits and distributes electricity. Eskom supplies about 95% of the country's electricity and about 60% of the total electricity consumed in Africa.

Eskom plays a major role in accelerating growth in the South African economy by providing a high-quality supply of electricity.

Camden power station is a coal fired power station outside Ermelo in Mpumalanga which is part of Eskom's power generation fleet.

Coal is the fuel burnt to generate electricity, which is fed into the national grid, but produces fine and coarse ash which has to be disposed of in an environmentally responsible manner.

Ash disposal includes a process called 'wet ashing' which involves disposal of ash by pumping the ash as slurry through a pipeline to the ash facility.

Some of the dry ash is also transported to the ash facility with a conveyor belt.

Recent studies have revealed that the current ash disposal facility will not be able to accommodate all the ash to be generated during the remaining operational life of the Camden power station, which is predicted to end in 2033. It was determined that the station would require an additional ash disposal facility by 2014.

The Environmental Impact Assessment process will identify, propose and assess potential sites within a 10 km radius of the power station.

It is anticipated that approximately 28.3 million m³ of ash will be generated by the Camden power station from 2013 until 2033. The proposed ash disposal facilities will have a ground foot print of approximately 120 hectares.



The existing ash disposal facility at the Camden power station.

LEGAL REQUIREMENTS

The proposed new ash facility is subject to the following legal requirements outlined below. The applicable processes will be conducted simultaneously as an integrated process complemented by a combined public participation process.

NATIONAL ENVIRONMENTAL MANAGEMENT ACT

The proposed additional ash disposal facility and associated infrastructure requires an Environmental Impact Assessment (EIA) in terms of the National Environmental Management Act (NEMA), No 107 of 1998 and the new EIA regulations (Government Notice Regulation {GNR} 543 to 546, published in June 2010). The Department of Environmental Affairs (DEA) is the Competent Authority.

As per Government Notice 33306 of June 2010, Chapter 2 the competent authority must consult with every government organ that administers a law relating to a matter affecting the environment relevant to that application for an environmental authorisation when considering an application.

Therefore, the Department of Water Affairs, Mpumalanga Department of Economic Development, Environment and Tourism, Gert Sibande District Municipality and Msukaligwa Local Municipality (Ermelo) are commenting authorities in this process.

This process includes Scoping and Environmental Impact Report (S&EIR) Phases, which are applicable to all projects likely to have significant environmental impacts due to their nature or extent, activities associated with potentially high levels of environmental degradation, or activities for which the impacts cannot be easily predicted.

In terms of GNR 545 of 2010, the following listed activities require that a S&EIR be undertaken and are applicable to this proposed project:

- **Activity 6:** The construction of facilities or infrastructure for the bulk transportation of dangerous goods –
 - (i) in gas form, outside and industrial complex, using pipelines, exceeding 1000 metres in length, with a throughput capacity of more than 700 tons per day;
 - (ii) in liquid form, outside and industrial complex, using pipelines, exceeding 1000 metres in length, with a throughput capacity of more than 50 cubic metres per day;
 - (iii) in solid form, outside and industrial complex, using funiculars or conveyors with a throughput capacity of more than 50 tons per day.
- **Activity 15:** Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, industrial or institutional use where the total area to be transformed is 20 hectares or more.
- **Activity 19:** The construction of a dam where the highest part of the dam wall, as measured from the toe of the wall to the highest part of the wall, is 5

metres or higher, or where the high water mark of the dam covers an area of 10 hectares or more.

In terms of GNR 544 of 2010, the following listed activities require that a Basic Assessment be undertaken for the proposed project (these activities having a lesser impact than those of the activities requiring an S&EIR will result in one EIA being undertaken for the proposed project):

- **Activity 12:** The construction of facilities for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of Activity 19 of GNR 545.
- **Activity 22:** The construction of a road outside urban areas:
 - i) With a reserve wider than 13,5 metres;
 - ii) Where no reserve exists where the road is wider than 8 metres, or
 - iii) For which an EA was obtained for the route determination in terms of Activity 5 of GNR 387 of 2006 or Activity 18 of GNR 545 of 2010.
- **Activity 24:** The transformation of land bigger than square 1000 metres in size, to residential, retail commercial, industrial or institutional use, where at the time of coming into effect of this Schedule such land was zoned as open space, conservation or has an equivalent zoning.
- **Activity 29:** The expansion of facilities for the generation of electricity where:
 - i) The electricity output is increased by 10 MW or more, excluding where such expansion takes place on the original development footprint;
 - ii) Regardless the increased output of the facility, the development footprint will be increased by 1 hectare or more.
- **Activity 47:** The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre:
 - i) With a reserve wider than 13,5 metres;
 - ii) Where no reserve exists where the road is wider than 8 metres;
 - iii) Excluding widening or lengthening inside urban areas.

Therefore, for the proposed extension of ash disposal facilities at the Camden power station, a S&EIR has to be undertaken.

NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT

With the proclamation of the National Environmental Management Waste Act (NEM: WA), No 59 of 2008, all waste related activities previously listed under the National Environmental Management Act (NEMA), No 107 of 1998 have been repealed and are now listed under the NEM:WA GN R718 Section 19 (1) of the NEM:WA highlights the waste management activities that require environmental licensing.

The regulations comprise two Categories:

- **Category A**, which identifies activities that require a Basic Assessment process; and
- **Category B**, which identifies activities that require a full scoping and environmental impact report process to be followed.

In terms of GN R718, Category B the following activities require authorisation:

Activity 1: The storage, including the temporary storage, of hazardous waste in lagoons.

Activity 2: The re-use and recycling of hazardous waste.

Activity 5: The treatment of hazardous waste using any form of treatment regardless of the size or capacity of such a facility to treat such waste.

Activity 9: The disposal of any quantity of hazardous waste to land.

Activity 11: The construction of facilities for activities listed in Category B of this Schedule.

As described in the Regulations *"a person who wishes to commence, undertake or conduct an activity listed under this Category, must conduct an environmental impact assessment process, as stipulated in the environmental impact assessment regulations made under Section 24(5) of the NEMA as part of a waste management license application"*.

Therefore the proposed development requires the submission of a waste management license application as well as a Scoping and Environmental Impact Report (S&EIR) to the Department of Environmental Affairs.

ENVIRONMENTAL IMPACT ASSESSMENT

An Environmental Impact Assessment (EIA) is a planning and decision-making tool undertaken in terms of the National Environmental Management Act (NEMA), Act No 107 of 1998. An EIA is a management tool that helps to identify and mitigate any potential impacts that a new development might have prior to the construction of the development.

TECHNICAL AND PUBLIC PARTICIPATION PROCESSES

An EIA has two parallel and integrated processes namely, a **technical** and a **public participation** process.

The **technical process** investigates "hard" information: facts based on scientific and technical studies, statistics or technical data. It identifies the potential negative and positive consequences of a proposed project or development at an early stage and recommends ways to enhance positive impacts and to avoid, reduce or mitigate negative impacts.

The EIA regulations require that an Environmental Management Programme (EMProg) be developed. The EMProg provides recommendations on how to operate and implement the project. The provisions of the EMProg are legally binding on the developer and its contractors.

Public participation ensures that the EIA process is fair, open and transparent. It also provides stakeholders with sufficient information and gives them opportunity to contribute by reviewing and commenting on the information.

Arrangement with regards to negotiations with landowners, if necessary, for land and servitudes and compensation will be shared with the stakeholders during the public participation process of the EIA.

However these negotiations will take place in a separate process. The findings of the EIA will assist landowners and Eskom to determine the extent of local impacts in support of any negotiations that might be necessary.

The public participation process is designed to provide sufficient and accessible information to Interested and Affected Parties (I&APs) in an objective manner to assist them to:

- Raise issues of concern and make suggestions for alternatives and enhanced benefits;
- Contribute local knowledge;
- Verify that their issues have been captured and considered by the technical investigations;
- Comment on the findings of the EIA.

PHASES IN AN EIA

SCOPING PHASE

The **first phase** of an EIA is the Scoping Phase, which is conducted to gain an understanding of the potential environmental issues that are relevant to the project and to determine where further information is required, in the form of specialist studies/investigations.

The Scoping Report and Plan of Study for the EIA are submitted to the Department of Environmental Affairs (DEA) for review and to approve the proposed approach to the detailed investigation required in the next phase.

Activities involved in the Scoping Phase include:

- Meetings with authorities to agree on process and study requirements;

- Initial public and landowner notification, which includes placing of site notices, the distribution of letters, this Background Information Document and an invitation to contribute to the EIA process to I&APs in the project area and beyond;
- Advertisements in local and regional newspapers to announce opportunities to participate;
- Progress feedback letter to be issued and announcements to be made of the availability of the Draft Scoping Report (DSR) and Issues and Response Report (IRR);
- Distribution of a DSR, including IRR, for comment;

- Convening a stakeholder meeting in the project area to obtain comment on the DSR;
- Submission of a Final Scoping Report (FSR), capturing all issues raised for the impact assessment, to the DEA;
- Submit the Plan of Study for the EIA to the DEA;
- Distribution of the FSR for comments; and
- Distribution of a progress feedback letter to stakeholders.

ENVIRONMENTAL IMPACT REPORT PHASE

The **second phase** is the Environmental Impact Report (EIR) Phase, which entails undertaking various specialist studies and compiling a Draft EIR.

As part of the assessment, an Environmental Management Programme (EMProg) as well as an Operational Plan will also be submitted to the Department of Environmental Affairs (DEA) for their approval. By following the EMProg, Eskom and its contractors will ensure compliance to environmental regulations during the planning, construction, operation and decommissioning (if applicable) phases.

The list of identified specialist studies required for this EIR (to date) is listed below (all seasonal dependent studies will be undertaken in the wet season):

- Ash Classification;
- Facility Design, Operational Plan and Topographical Survey;
- 3D modelling of the final site design (optional)
- Terrestrial Ecology Assessment (Fauna and Flora);
- Avi-fauna Assessment;
- Heritage Impact Assessment;
- Social Impact Assessment;
- Surface Water Assessment and Wetland Delineation;
- Ground Water Assessment;
- Geotechnical Assessment;
- Traffic Assessment;
- Air Quality Opinion;
- Noise Assessment;

- Aquatic Ecology Assessment;
- Soils and Land Capability Assessment;
- Visual Impact Assessment; and
- GIS for mapping purposes.

The names of the specialists who will undertake these studies are available from the public participation office.

Specific activities in this phase will include:

- Specialist studies focused on outcomes of the Scoping Phase and issues raised by stakeholders;
- Progress feedback to stakeholders;
- Compilation of a Draft EIR and EMProg indicating the potential positive and negative impacts and measures to enhance positive impacts and to reduce or avoid negative impacts;
- Environmental Impact Statement, highlighting the preferred alternative and reasons thereof;
- Advertise the availability of the Draft EIR and EMProg in local and regional newspapers;
- Distribution of the Draft EIR and EMProg, including Issues and Responses Report, for comment;
- A stakeholder meeting in the project area to present the findings of the EIR for stakeholder comment; and
- Distribution of the Final EIR and EMProg for comment.

The EIR and EMProg will then be finalised and submitted to the DEA for a decision.

DECISION-MAKING PHASE

The **third phase** involves notifying the registered I&APs about the decision from the Competent Authority, the Department of Environmental Affairs (DEA) in this case. The DEA must accept or reject this report within 105 days. Stakeholders will be advised of the DEA's decision if Environmental Authorisation has been granted or not and of the appeal procedure should they wish to appeal the decision.



The proposed extension of ash disposal facilities is for the Camden power station just outside Ermelo in Mpumalanga. This power station, which generates 1440 megawatt, was re-opened in October 2010 after its decommissioning in 1988.

Your comments are important.

The purpose of an Environmental Impact Assessment is to provide the decision-making authority with sufficient information on which to base their decision to grant or refuse an Environmental Authorisation and if granted, to define conditions for the development. The contributions made by stakeholders from all sectors of society will ensure informed decision-making.

You are invited to participate freely and to submit any comments or information you feel may be useful to the EIA process. Registered interested and affected parties are entitled to comment, in writing, on all written submissions to the competent authority (Department of Environmental Affairs) and to bring to the attention of the competent authority, any issues which the party believes may be of significance to the consideration of the application.