

APPLICATION FOR A LICENCE TO  
GENERATE ELECTRICITY IN TERMS OF SECTION 6 OF  
THE ELECTRICITY ACT, NO 41  
OF 1987

Please return completed form to:

National Energy Regulator of South Africa  
Kulawula House, 526 Vermeulen Street  
Arcadia  
Pretoria  
Gauteng

**P.O. Box 40343**  
**Arcadia**  
**0007**

Tel (012) 401 - 4600

Fax (012) 401 - 4700

SECTION A PARTICULARS OF APPLICANT

A1 Full name of applicant

Sappi Manufacturing (Pty) Ltd – Saiccor Mill

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A2 Address of applicant, or in the case of a body corporate, the registered head office

Sappi Saiccor, P.O.Box 62, Umkomaas, 4170, Kwa-Zulu Natal

A3 Telephone number of applicant:

(039)-9738001

A4 Fax number of applicant:

(039)-9738865

A5 Contact person of applicant

Name: Mr Shafiek Sheik-Essop (Assistant Engineering Manager - E&I)

Telephone No: (039)-9738338 or 0836149022

Fax No: (039)-9738810

A6 Legal form of applicant

**Directors Names**

**Mr. R.J. Boëttger**

**Mr. H.A. de Jongh**

**Mr. B.M. Dick**

**Mr. V.A.R. Lubbe**

**Mr. J.H. Labuschagne**

**Mr. D.M. Mncube**

**Mr. C. M. Mowatt**

**Mr. A.J.W. Van der Merwe**

**Mr. A. Rossi**

**Mr. M.R. Thompson**

**Mr. A.D. Tubb**

**Mr. G.M. van Aarde**

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Registration number 1951/003180/07

**Note to Section A**

State whether the applicant is a local government body, a juristic person established in terms of an act of parliament, a department of state, a company or other legal body.

If the applicant is a local government body, attach a copy of the proclamation establishing such body. Where the applicant is a company, the full names of the current directors and the companies registered number are required.

**SECTION B COMMENCEMENT DATE OF LICENCE**

B1 Desired date from which the licence (if granted) is to take effect

July 2008

**Please Note.**

Sappi-Saiccor

Turbine Generator Unit No 5

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If the applicant intends operating more than one generating station under the proposed licence, please repeat Section C through J of this form separately for each generating station. Please ensure that the actual or proposed location of each generating station is adequately described.

## SECTION C PARTICULARS OF GENERATING STATION

(To be provided for each generating station separately)

C1 Name of generating station

Sappi-Saiccor, MgO-2 Recovery Boiler Plant, Turbo Alternator T/A 5

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C2 Location of generating station

Sappi-Saiccor, Umkomaas, Durban, Kwa-Zulu Natal

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C3 Address of generating station

Remainder of Sub-division 214 of the farm Umkomanzi Drift, 1357, Umkomaas, Durban

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C4 Contact person at generating station

Name: Mr Greg Taylor (Engineering Manager)

Telephone Number: (039)-9738143 or (039)-9738145

Fax Number: (039)-9738765 or (039)-9738148

C5 Type of generating station (thermal, nuclear, hydro, pumped storage, gas turbine, diesel generator or other)

Back Pressure Steam Turbine / Generator Set

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C6 Date on which the generating station was commissioned for an existing station or the expected commissioning date for a proposed station

Presently in cold commissioning phase – Hot commission in July 2008

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C7 The installed capacity of each unit within the generating station (MVA)

One SIEMENS generator rated at 61,2MVA / 3,212kA / 0,75P.F  
/ 50Hz / 3000RPM with unit generating at 11kV

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C8 Maximum generating capacity (MW) expected to be available from the

Sappi-Saiccor

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generating station and energy to be produced (MWh) over the next / first 5 years of operation. These estimates should be based on modelling of how the power station will fit into the demand profile of its customers, taking into account the least cost energy purchase consideration and demand management options of customers.

| YEAR | Max MW | Max Total MWh | Own use MWh  | Max Export (Sales) MWh |
|------|--------|---------------|--|------------------------|
| 2008 | 45     | 190 000       | It is anticipated to sell all the power through the MTPPP programme. | 190 000                |
| 2009 | 45     | 380 000       | ditto  | 380 000                |
| 2010 | 45     | 380 000       | ditto  | 380 000                |
| 2011 | 45     | 380 000       | ditto  | 380 000                |
| 2012 | 45     | 380 000       | ditto  | 380 000                |

Note that the figures provided above are the gross output possible, assuming no process interruptions. The actual output will be less than the maximum.

C9 Estimate of the energy conversion efficiency of the generating station.

93% for the turbine, generator and plant auxiliaries. This excludes the thermal efficiency of the steam generation which is not accounted for, as the steam is generated as a by-product from a chemical recovery process.

C10 Expected future life of the generating station.

30 years design life.

#### **SECTION D PARTICULARS OF ANY LONG TERM ARRANGEMENTS WITH PRIMARY ENERGY SUPPLIERS**

(To be provided for each generating station separately)

D1 Name of primary energy supplier/s (mining house, colliery or other fuel supplier)

The fuel is spent pulping liquor wood pulping process. This liquor is burnt the Recovery Boiler and the steam is a by-product of the chemical recovery system. ✓

D2 Particulars of the contractual arrangements with primary energy supplier

Not applicable, as the spent liquor is generated on site.

#### **Notes to Section D**

Please provide brief particulars of any long term agreements entered into with fuel suppliers.

**SECTION E MAINTENANCE PROGRAMMES AND DECOMMISSIONING COSTS**  
(To be provided for each generating station separately)

E1 Details of any proposed major maintenance programmes, including the expected cost and duration thereof, covering the next six years. Project proposals to state the expected availability, planned outage rate and forced outage rate of the plant over the first five years of operation.

A 14 day maintenance shuts take place every year on all process plant and equipment including the power generation equipment. As T/A 5 is new, maintenance costs will be minimal in the first 5 years.

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E2 Details of any major decommissioning costs expected during the life of the power station and provided for in the project feasibility study.

Not applicable

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E3 Details of major generating station expansion and modifications planned for in the feasibility study (Dates, cost in current (state year) Rands and description)

Not applicable.

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**SECTION F CUSTOMER PROFILE**

(To be provided for each generating station separately)

F1 Particulars of the person or persons to whom the applicant is providing or intends to provide electricity from the generating station and particulars of the distribution of that electricity.

It is anticipated that the power generated will be sold to Eskom under the Medium Term Power Purchase Programme (MTPPP).

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**Notes to Section F**

For example, supply to ESKOM or supply to local government distribution system. Please include the details of any power purchase agreements entered into and the price structure of the contract.

**SECTION G FINANCIAL INFORMATION**

(To be provided for each generating station separately)

G1 Submit projections of and current statements of the accounts in respect of the undertaking carried on by the applicant, showing the financial state of affairs of the most recent period, together with copies of the latest audited annual accounts where such have been prepared.

Attached please find a copy of Sappi's Financial Report.

G2 Submit annual forecasts for the next five years of costs, sales and revenues generated by the project, stating the assumptions underlying the figures.

The gross revenue of power sales is expected to be R200m p.a., assuming 40MW sustained output, and calculated at the MTPPP price of 65 c/kwh.

It is not possible to determine the direct cost of producing this power, as the accounting system does not assign a cost to the waste liquor from which the steam is produced.

G3 Estimates of net annual cash flows for subsequent periods (5 years; 10 years; 15 years) sufficient to demonstrate the financial security and feasibility of operating the generating station.

See above.

G4 Project financing: Who will finance the project, how is funding split between debt and equity, and what is the terms and conditions of the funding agreements.

All project financing has taken place within Sappi Manufacturing (Pty) Ltd.

Note: The financial projections should be based on a production plan for the power station and the revenue generated by participating in the electricity market and by bilateral contracts (Power Purchase Agreements) with customers. An integrated resource plan (IRP) is required to demonstrate that the proposed power purchase agreement is the least cost solution available to the electricity purchaser.

## **SECTION H HUMAN RESOURCES INFORMATION**

(To be provided for each generating station separately)

H1 Submit details of the number of staff and employees and their categories in the service of the applicant at the generating station and in any support services separate from the generating station. Also provide information regarding relevant qualifications and experience in critical areas e.g. Government Certificate of Competency.

The Services Manager has a government certificate of competency. All staff operating the turbine / generator set will have the relevant Pulp & Paper Diplomas OR Engineering National Certificates OR National Diplomas and be fully conversant in the operation and maintenance of turbine generator sets.

## **SECTION 1 PERMISSION FROM OTHER GOVERNMENT DEPARTMENTS OR REGULATORY AUTHORITIES**

(To be provided for each generating station separately)

11 What progress has been made to obtain the required permits and approvals for the generation project. Please note that copies of permits issued by relevant environmental and safety agencies in respect of the operation of the generating station is required for licensing purposes.

Previous application for an operating license was made on 12 February, 2007. Copies of the application form and correspondence is appended to this application. At that time (February 2007) it was not contemplated to sell the power, and to use it entirely for own use. No license was granted as confirmed by NERSA in their letter of 23 July, 2007.

## SECTION J BROAD-BASED BLACK ECONOMIC EMPOWERMENT

J1 Please provide information in terms of the following categories:

Appended please find Rating Certificate.

Further details on BEE available from the SAPPI website: [www.sappi.com](http://www.sappi.com)

Menu>> sustainability>> BEE in South Africa

| COMPONENTS                 | POINTS  | 0.5         | 0.75       | 1    |
|----------------------------|---|-------------|------------|------|
| Direct Empowerment         | Black Ownership   | 10% to <20% | 20% to 50% | >50% |
|                            | Black Management  | 20% to <35% | 35% to 50% | >50% |
|                            | Black Female Management   | 1% to <5%   | 5% to 10%  | >10% |
| Human Resource Development | Black Skilled Personnel as % of payroll   | 20% to <35% | 35% to 50% | >50% |
|                            | Skills Development Programs as % of payroll   | 1% to <5%   | 5% to 10%  | >10% |
|                            | Employment Equity i.e. Women Representation   | 20% to <35% | 35% to 50% | >50% |
| Indirect Empowerment       | Procurement from Black/BEE Suppliers  | 20% to <35% | 35% to 50% | >50% |
|                            | Enterprise Development i.e. Monetary Investment or quantifiable non-monetary support in SMME with BEE contributions as % of Net Asset Value/ EBITDA/Total Procurement | 10% to <20% | 20% to 25% | >25% |

|  |  | industry specific initiatives to facilitate the inclusion of black people in the sector as % of net profit | 1% to <5% | 5% to 10% | >10% |
|--|--|--|-----------|-----------|------|
|  |  |  |           |           |      |



|                                    |  |              |                 |      |
|------------------------------------|--|--------------|-----------------|------|
| NERSA's<br>Discretionary<br>Points | Based on skills transfer and fulfilment or acceleration of other national objectives e.g. employment of disabled personnel robust implementation of mechanisms to verify the BEE status of suppliers reported under preferential procurement and utilization of DTI approved accreditation agencies and so on. | 1% to<br><5% | 5%<br>to<br>10% | >10% |
|------------------------------------|--|--------------|-----------------|------|

## SECTION K ADDITIONAL INFORMATION

Please provide any other relevant information that the applicant wishes to include with this application

The 61,2MVA SIEMENS generator set No 5, back pressure turbine is steam driven at 86 bar high pressure steam from the MgO-2 Recovery Boiler steam drum. There is also the possibility of it being steam driven at 45 bar medium pressure steam from the coal boilers during start-up conditions of MgO-2 Recovery Boiler or other abnormal Plant conditions.

Turbine No 5 lets-down steam into a 5 bar low pressure steam header for downstream Process requirements. The generator is capable of generating a maximum active power output of 45MW, however is process steam dependant at any given time. All reactive power (MVARs) generated by the machine is used to control the line breaker P.F to below unity.

Generator No 5 is configured to operate with PUC & PGC protection requirements in order to co-generate with Eskom via the Plants internal 11kV reticulation.

The quantity of electricity generated is totally dependant on the Recovery Boiler Liquor Process cycle i.e. availability of fuel in the form of spent liquor & generation of high pressure steam in the Recovery Boiler. The generated electricity from generator 5 offsets the imported electricity from Eskom, however the Saiccor Mill remains a net importer of electricity from Eskom under normal plant operating conditions.

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