



## **BACKGROUND INFORMATION DOCUMENT (BID)** **Atmospheric Emissions Licence Renewal Process**

### ***Klein Karoo International - Tannery***

**November 2017**

#### **Introduction & Background**

**Klein Karoo International (KKI)** Tannery have submitted an application for the renewal of their existing atmospheric emissions licence to the licensing authority, Eden District Municipality.

This application was submitted in terms of chapter 5 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) for the existing activities at the tannery and Waste Water Treatment Works (WWTW)..

#### **Why is this application process necessary?**

Regulations in terms of the National Environmental Management: Air Quality Act have listed a number of activities which result in emissions and which may have a significant detrimental effect on the environment.

Any industry that undertakes any of these "listed activity" must be in possession of a valid atmospheric emissions licence from the licencing authority.

The Animal Matter Processing associated with the Tannery and WWWTW at KKI is listed under category 10 of these regulations.

KKI Tannery is in position of a Valid Atmospheric Emissions Licence in terms of the National Environmental Management: Air Quality Act.

**Cape Environmental Assessment Practitioners (Cape EAPrac)** have been appointed, as independent environmental assessment practitioners (EAP), to facilitate the legally required public participation process for the renewal of this existing licence.

#### **What is the purpose of this document?**

The main purpose of this **Background Information Document (BID)** is to:

- Provide potential "Interested and Affected Parties" (I&APs) with information regarding the existing facility;
- Describe the process being undertaken;
- Provide I&APs with the opportunity to raise issues or concerns regarding the renewal of this licence;
- Provide information on the way-forward for the remainder of the process.

#### **Description of the site & surrounding environment**

The site falls within the **Oudtshoorn** municipal area of the Western Cape Province of South Africa.

The Tannery is situated along Dassie Road in Bongulethu in the South Eastern section of Oudtshoorn.

The surrounding land use is mainly residential with other commercial and industrial activities associated with the Abattoir.



### **What is being proposed?**

This application is merely for the renewal of an existing Atmospheric Emissions Licence for an existing facility. **Changes** to or **expansion** of the facility **do not** form part of this application process.

The specific activity under consideration as part of this renewal process relates to the Tannery and its associated WWTW. (i.e. the process of rendering, cooking and drying of animal matter not intended for human consumption). The following key stages from part of this process

Tanning is the process of treating skins of animals to produce leather. Klein Karoo International Tannery processes mostly ostrich skins, but other game skins such as crocodile, wildebeest, buffalo and springbuck are also tanned at the facility.

The following basic steps are followed for all products:

### **Storage:**

Excess flesh is removed from fresh skins and the skins are trimmed. The skins are washed, salted and stored before the tanning process continues.



**Figure 1:** Showing skin receiving area where excess flesh is removed and skins are trimmed, salted and stored.

### **Tanning Section:**

All skins go through a liming process which entails soaking, liming, washing and de-liming. Skins are then subjected to a pre-tanning process that involves bleaching, degreasing, washing and pickling. The actual tanning involves chroming, washing, neutralising, degreasing, buffing and de-dusting of skins.



**Figure 2:** Showing mechanical enclosed drums where pre-tanning and tanning takes place.

### **Dyeing Section:**

Skins are coloured using a dye and washed to remove excess dye.



**Figure 3:** Showing dyed skins.

### **Finishing section:**

Skins are then finished for final sale by milling, spraying, dry-cleaning, buffing, polishing, trimming and de-dusting.



**Figure 4:** Showing the final buffing of skins prior to their sale.

During this tanning process, a number of waste streams are generated that are treated via an on-site wastewater treatment plant. Solid wastes and dried effluent sludge is removed from site by a specialist waste management company.

### **Emission Sources**

The following emissions were identified and will be considered by the licencing authority when considering the application:

According to the air quality specialist, the major source of odorous emissions, particularly H<sub>2</sub>S,

from the tannery is generated at the wastewater evaporation dams used by the tannery to produce a semi-dry solid waste for disposal by landfill.

A secondary potential source was identified in the on-site temporary waste transfer station, i.e. the area where solid waste from the tanning process is collected prior to removal by a waste management contractor.

### **Air Quality Improvements and monitoring.**

KKI Tannery have implemented and are in the process of implementing a number of technological improvements to the facility, with the purpose of improving emissions and ambient air quality. Emissions monitoring is also done. These technological improvements are being done in compliance with their existing Atmospheric Emissions Licence and include:

- Chlorine gas sampling at Bleaching drums
- Tetrachloro ethylene (C<sub>2</sub>Cl<sub>4</sub>) sampling at the dry-cleaners
- Formaldehyde (H<sub>2</sub>CO) sampling at the toggle units
- VOC sampling at the spray units
- Particulate matter sampling at the cyclone units
- Monitoring and management of the saline waste water stream for improved treatment process planning and design
- Removal of settled solids and solid fats must before entering pond #1
- Monitoring of sulphides entering pond #1
- pH of Pond #1 maintained above 8
- Installation of aeration pump system on the circular outline of Pond #1. (07h00-18h00)
- Operation of Odour masking system at Pond #1 during first 60 minutes of aeration start-up period (07h00-18h00)

when wind is from South Easterly direction

- Monitor and assess the current and planned drying beds and evaluate their effectiveness
- Monitor and manage all solids removed from the dry beds in order to prevent odour.
- Reroute the pickling effluent to a pH treatment tank
- KKI must raise the pH of the pickling effluent by adding caustic soda prior to blending it with the circulation system
- Measurement of the pond levels in order to improve the water balance status
- Three- Monthly monitoring/ sampling of bore holes to determine seepage
- Fence-line passive H<sub>2</sub>S monitoring in the 2 predominant wind directions (South-West and South-East) in order to determine reduction in odour management
- All effluent water in pond 7 drained to dry beds lined.
- Solids in the pond 7 removed and transported to an approved hazardous landfill site
- Lining of Pond 7
- Sampling of Ammonia at Raw material receiving Department:
- Sampling of Ammonia at Dyeing and finishing Departments.
- Spraying of water at ponds.
- Synchronising of working hours at effluent plant.
- Application of agricultural lime to solids of pond #7.

The licensing authority, EDEN District Municipality, may impose additional conditions for improvement of air quality as part of their licence review process.

### **What legislation applies?**

This application process is undertaken in terms of the National Environmental Management Air Quality Act (Act 39 of 2004)

Ito the above Act, the following listed activities are applicable:

### **Category 10, Animal Matter Processing.**

This activity is relevant to processes for the rendering, cooking, drying, dehydrating, digesting, evaporating or protein concentrating of any animal matter not intended for human consumption. All installations handling more than 1 ton of raw materials per day require a license in terms of this category.

### **Why and how should I get involved?**

In the event that you have an **interest** in the project, or feel that you **may be affected** by the issuing of this licence, you are invited to provide comment / objection to the issuing of this licence.

All comments / objections must be submitted in Cape EAPrac in writing by fax, email or post by no later than **11 December 2017**.

### **What does the remainder of the process entail?**

Cape EAPrac will formally respond to all comments received during the comment period. Where necessary, specialist input will be sought to inform responses.

On completion of the public participation process, Cape EAPrac will submit a comment and response report to Eden District Municipality.

Based on all available information, EDEN District Municipality will take a decision on whether or not to grant (renew) the licence.

If EDEN District Municipality do decide to grant the licence, this decision will be communicated to all parties that

provided comment or objection during this public participation process.

An atmospheric emissions licence if issued will contain conditions for emissions monitoring to ensure that the minimum emissions standards are complied with. Any necessary improvements required to address air quality issues will also form part of the licence conditions.

**ONLY THOSE PARTIES THAT FORMALLY REGISTER WITH CAPE EAPrac or SUBMIT COMMENT / OBJECTION WILL BE KEPT INFORMED (RECEIVE PROJECT RELATED INFORMATION) THROUGHOUT THE REMAINDER OF THE PROCESS.**

***Please make sure to send any comments / objections, in writing, to:***

*Cape EAPrac*

**ATT: Dale Holder**

PO Box 2070, George, 6530

**Telephone:** 044 874 0365

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Comments / Objections must reach this office no later than:

**11 December 2017**

